



GENERAL CATALOGUE

Middle East Edition 2013/2014

Welcome to a
temperature-controlled
world

**FIRE PROTECTION
AIR DISTRIBUTION
VENTILATION
HEAT RECOVERY VENTILATION**



Aldes Solutions for Your Comfort & Safety

Aldes meets the latest regulatory requirements and expectations of its clients by providing a global response to new buildings or renovations with new solutions aiming for comfort and safety with energy savings.

- **Fire Protection**
- **Air Distribution**
- **Ventilation**
- **Heat Recovery Ventilation**

A Word from the Managing Director...

“The company’s policy has been to work at all levels of sales, from regulatory bodies to consultants and MEP contractors – an approach which has reaped dividends. In an ever changing environment, we have to adapt ourselves and our structures to fulfill the market needs. One of the reasons behind our success is the dynamism and professionalism of our sales forces”.

About Us

Aldes Middle East was established in 2002 in the U.A.E. as a regional base for the G.C.C but was present locally since 1982.

This 100% owned subsidiary from Aldes Middle East has 110 employees and state-of-the-art manufacturing facilities for HVAC and fire protection products in the U.A.E.

A local manufacturer backed by a strong European Industrial Group dedicated to serve our customers and optimize our service with a European level of quality.

Improving the quality of the air we breath inside buildings to improve our quality of life is not only a dream but also a great company project addressed by all Aldes employees since 1925.

And if Aldes is recognized as a leader on many aspects in its field of business, the orientation taken by Aldes has always used the same guidelines: customer satisfaction, employee engagement, innovation and sustainability.

Gaëtan PIERREFEU
Managing Director



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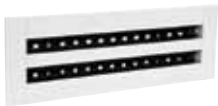
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New products 2013/14

Compartmentation

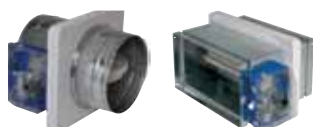
ISONE 1500



- Fire, smoke & heat dampers.
- Suitable for systems with pressure range 500Pa - 1500Pa.
- Sleeve connection or ring connection.

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ISONE / AP



- Fire, smoke & heat dampers.
- Suitable for installation in wall openings with only one side accessible.

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CF1 / CF2



- Fire damper cartridges with 1hr or 2hr fire rating.
- To obtain EI 60 S or EI 120 S fire damper classification, add SR 143 (metallic core grille) in front of the selected cartridge.

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MR MODULO



- Constant airflow regulators.
- Tool free manual adjustment of airflow

p.130

RMA



- Constant airflow regulators.
- Motorised dual airflow.
- Basic airflow and maximum airflow (fully open via motor).

p.131 & 132

SP 651



- Aerofoil blades.
- Suitable for drive & slip duct connection.

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SP 650



- 3V grooves, single skin blade.
- Suitable for drive & slip duct connection.

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RGE - RGEM



- Airtight circular VCD with insulated blade
- Manual or motorised.

p. 138

Air Diffusion

IRIS dampers



- Manually adjustable diaphragm.
- Integrated airflow/pressure plugs for measurement.

p. 139

AR 883 Thermo



- Automatic adjustment of air jet angle for optimum comfort in winter (no stratification) and summer (no discomfort).
- No electrical connections.

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SF 785



- Square swirl diffusers with adjustable air diffusion through deflectors.

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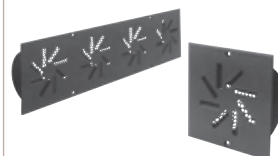
AR 190 Thermo



- Automatic adjustment of air jet angle for optimum comfort in winter (no stratification) and summer (no discomfort).
- No electrical connections.

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Diffuser Mini - AWT



- Diffusers for installation in stair risers or in floor.
- High induction swirl jet.

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CSI



- High rate of air induction
- Ideal for large volume premises with high ceilings.
- Suitable for atmosphere charged with salt, acid etc.

p. 178

TechLined 280/290



- Perfect integration into Armstrong® Tech Zone suspended ceilings.
- Exclusive RAL color finish.

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Bapsi Range



- Grilles for self-balanced CMEV Systems.

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Bahia Curve Range



- Grilles for humidity - controlled CMEV Systems.

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- Air displacement diffusers.
- Suitable for cooling applications for high ceiling spaces.
- Low velocity air supply.

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AR 637



- Fixed blade circular louvres.
- Fresh air intake or polluted air exhaust.

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AG 645



- Movable blades rectangular louvres.
- Fresh air intake or polluted air exhaust.

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DESIGN



- Extra flat, silent, very low consumption.
- Available in presence detection version.

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Ventilation

DECO



- Discrete and attractive design, available in aluminium finish.
- Silent and very low consumption.

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IN LINE



- Silent operation
- ABS construction

p. 270

MINI - VEC



- C4 Fire approval rating (400°C for 1/2h) for residential CMEV systems.

p. 280

inoVEC microwatt



- Aldes patented system
- Low energy consumption fan for CMEV Systems
- Built-in, pre-wired microwatt unit.

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TVEC silence



- Insulated casing for very silent operation.

p. 295

Heat Recovery Ventilation

Heat recovery fan for large volume

The HRV fan unit regulates the airflow according to the demand in each zone of the building independently to the areas.

Double Flow unit
Range DFE / DFR Flex / DFE+



Direct control of the unit



DFR Flex



DFE+ p.372 - 396

Heat pump water heater

Thermodynamic Water Heater.
Energy Saving by heating water.



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aldes
euroregister

Training to
maintain
performance



Aldes training offers:

Specialised trainers

A training **centre** in the UAE

30 training **programmes**

500 trainees being trained each year



A full range:

- General training courses**
- CMEV**
- Smoke exhaust / compartmentation**
- Extract Ventilation / Supply & Extraction Fans**
- Air Flow Control / Sound Attenuation / Air Diffusion**

Something for everyone:

- Installers**
- Maintenance firms**
- Distributors**
- Design offices**
- Project managers**
- Prime contractors**
- Assembly technicians**

Aldes Services.



In addition to its training programmes, Aldes also offers services to support those who are involved in their own specific capacity at each stage of the process, from project diagnosis to maintenance, in order to promote the smooth operation of systems.

For indoor air quality and the comfort and safety of occupants, there are 4 types of services available:

Help with diagnostics.



Measuring equipment

For new construction and retrofit projects, Aldes supplies its know-how in aeraulics to help you to analyse your buildings and recommends the best solution to suit your requirements.

Examples:

- Assistance with the inspection of installations.



Production & Installation support.



Aldes teams are on hand in branches or in the field to support you with the efficient installation of quality systems.

Examples:

- Installation guides.
- Participation, at your request, in a site co-ordination meeting.
- Help with checking the smooth operation of the installation and adjustment following test measures carried out on request.

Design support.

Thanks to its software and with the support of its employees, Aldes supplies its experience to support designers in dimensioning the systems and validating the selected products.

Examples:

- Systematic verification of the coherence of the system and the dimensioning design study.
- Work site notification.
- Air diffusion tests or simulations.

After sale support.

To ensure that the installations maintain their performance over the long term and that their maintenance is as simple as possible, Aldes offers you various services.

Examples:

- Technical information on the products for your installation.
- Spare parts management.
- Offer of an extended warranty period (for certain products and under certain conditions).

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From single and multi-family housing to commercial premises, Aldes excels in the MENA region in 4 business activities:

- Fire Protection
- Ventilation
- Air Distribution
- Energy Recovery Ventilation

Aldes is an international, family-run company. Its business is centred on the design, manufacture and sale of high-performance solutions, which fulfil requirements in terms of air quality, thermal comfort and safety in buildings.

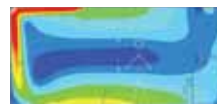
Aldes is close to its markets and aware of their needs, bringing recognised expertise to the fields of ventilation, heating, acoustics and fire protection. Aldes is made up of committed employees, who share strong human values and who are ready to support you as you choose the right solutions to suit your requirements.

Improving air quality and thermal comfort

Studies carried out on air quality inside buildings show the presence of a multitude of pollutants that are dangerous to health. At the same time, the building construction industry is confronted with an equally significant challenge - the reduction of greenhouse gases. Aldes products and global solutions enable the industry to be fully capable of dealing with this important health and environmental issue.



Aldes Test Centre, fully adapted technical resources



For high performance products and customised solutions, the Aldes Test Centre uses human and technical skills to advise and support its customers throughout the testing period until they are fully satisfied. This means that Aldes can offer high quality products in terms of aerodynamics, acoustics and aesthetic design, which also respect energy performance requirements.

Aldes is committed to protecting the environment.



As an active member of the Collective Action Group "Isolons la Terre contre le CO2" (Let's insulate the Earth against CO2), Aldes has committed itself, together with 9 other industrial leaders in the construction sector, to a large-scale plan to reduce greenhouse gas emissions and energy consumption in buildings. This Collective Action Group was responsible for the "Effinergie" low energy consumption label.





Aides without borders.

There is a universal need to breathe air of high quality and the requirement for high energy performance in buildings is equally important. Therefore, Aides uses its vast sales network to export its know-how to more than 100 countries in Europe, the Middle East/Indian Ocean, Asia and America. In total, there are over one thousand employees are part of the Aides success story all over the world.

Some prestigious references:

Aides is involved in most large-scale projects around the world. Our numerous references include the Twin Towers in Kuala Lumpur, Malaysia, the 'Arche de la Défense' and the Louvre in Paris etc. Aides is also involved in over 2,500,000 houses and more than 3,000,000 collective housing apartments equipped with ventilation



Villa des Hauts de Feuilley/MCP, Lyon France.



Tour Zital, Madagascar.



Zénith de Dijon, France.



Nantes hospital, France.



Maple Garden Village Shanghai, China.



The Rhône-Alpes Pavilion, Universal Exhibition 2010 - Shanghai, China.



Arche de la Défense Paris, France.



Madinat Jumeirah, UAE



Le Louvre - Paris, France



Ecole-Tournefeuille, France.



Twin Towers - Kuala Lumpur, Malaysia.

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Compartmentation

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Smoke Extraction

Selection Guide p. 64

- More than 1 million fire dampers manufactured.
- Inventor and precursor:
 - Upgradable dampers mechanism.
 - Low pressure loss fire dampers.

ISONE Motorised Fire, Smoke & Heat Dampers

- Fire resistance, no smoke leakage and no heat transfer.
- Abu Dhabi & Dubai Civil Defence approved.
- EN 1366-2 certified.
- CE 1812 Marking
- NF certified.

FD 125 Motorised Fire & Smoke Dampers

- Abu Dhabi & Dubai Civil Defence approved.
- UL 555 & UL 555S classified.

MD 125 Motorised Fire Dampers

- Abu Dhabi & Dubai Civil Defence approved.
- UL 555 classified.

SD 125 Motorised Smoke Dampers

- Abu Dhabi & Dubai Civil Defence approved.
- UL 555S classified.

FD 150 CH/FD 150 AH Curtain Fire Dampers

- Abu Dhabi & Dubai Civil Defence approved.
- UL 555 classified.
- BS 476 certified.

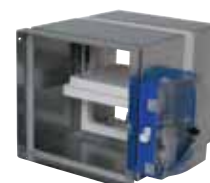


Compartmentation

Motorised Fire, Smoke & Heat Dampers



Low pressure loss
ISONE FdP
p. 31



Minimum space requirement
ISONE EM
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Motorised Fire Dampers



MD 125
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Curtain Fire Dampers



FD 150 CH
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Smoke Extraction

Staircase Pressurisation Fans



Axial fans
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Smoke Exhaust Fans



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Motorised Smoke Dampers



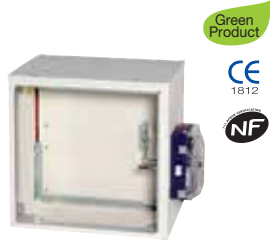
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Wall mounted
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Motorised Fire &
Smoke Dampers



FD 125
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FD 150 AH
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Fire dampers cartridges



Fire damper cartridges
CF1 / CF2
p. 50



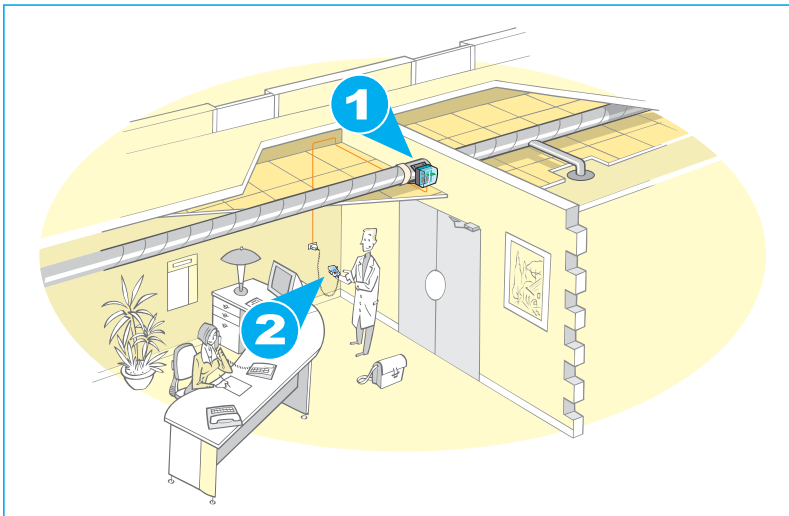
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Systems

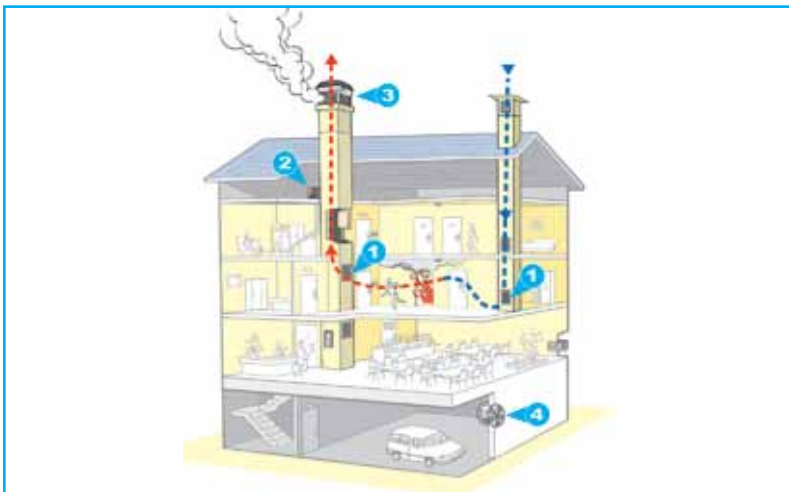
Compartmentation



- 1 ISONE fire, smoke & heat dampers - p. 30
- 2 "Aldes Control" pack - p. 45

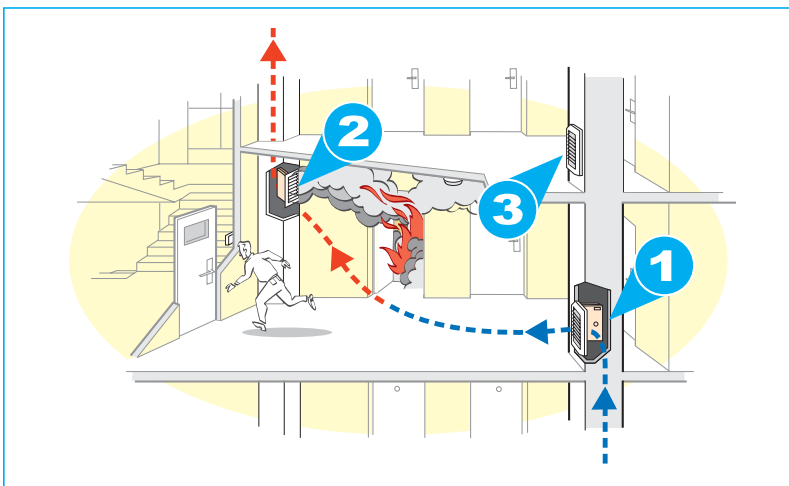
Smoke Extraction

Commercial Premises



- 1 Motorised smoke & heat exhaust dampers
- 2 AXONE micro relaying box - please, consult us.
- 3 Smoke exhaust fans:
 - CYCLONE smoke exhaust fans - p. 72
 - VELONE smoke exhaust fans - p. 90
- 4 HELIONE axial fans - p. 106

Corridor Zoom








Motorised smoke & heat exhaust dampers:





- 1 Fire resistant for air inlet
- 2 Fire resistant for the evacuation of smoke and fumes
- 3 Aesthetic grille

Selection Guide

Compartmentation

Category	Model	Description	Compliance	Integrity fire resistance E	No heat transfer I	No smoke leakage S	Quick & safe operation (motorization)	Easy maintenance	Energy saving
High Performance Fire Dampers	 <p>Rectangular / circular embedded fire damper</p>	<ul style="list-style-type: none"> • Fire, smoke and heat damper • Refractory material blade (asbestos free) • Instant closure (ISONE mechanism) • VDS version : energy saving → ISONE EM - minimum dimensions → ISONE FdP - low pressure loss 	EN 1366-2 & EN 13501-3	2h	✓	✓✓	✓✓	✓	✓
	 <p>Rectangular / circular wall-mounted fire damper</p>	<ul style="list-style-type: none"> • Fire, smoke and heat damper • Refractory material blade (asbestos free) • Instant closure (ISONE mechanism) • VDS version : energy saving → ISONE / AP 	EN 1366-2 & EN 13501-3	2h & 1.5h	✓	✓✓	✓✓	✓	✓
	 <p>Rectangular ISONE with sleeve / ring connection</p>	<ul style="list-style-type: none"> • Fire, smoke and heat damper • Refractory material blade (asbestos free) • Instant closure (ISONE mechanism) • Suitable for systems with pressure range 500-1500 Pa → ISONE 1500 	EN 1366-2 & EN 13501-3	2h & 1.5h	✓	✓✓	✓✓	✓	✓

Category	Model	Description	Fusible link	Actuator	Reset motor	Position switch
Mechanism Equipment	 <p>ISONE mechanism</p>	<ul style="list-style-type: none"> • Electromagnetic coil allowing for remote control by fire alarm panel • Reset motor enabling remote control without any dismantling of suspended ceilings • Indicator contacts for indicating the position of the blade to the fire alarm panel or to any other control system. 	Thermal fusible link integrated	✓	✓	✓
	 <p>ISONE with a BF/BLF mechanism</p>	<ul style="list-style-type: none"> • Spring return actuator (24V or 230V) • Torque : 18Nm/6Nm • Closing time: ~16s/~20s • CE marking • 2 auxiliary switches for position feedback 	BAE 72		✓	

Category	Model	Description	Compliance	Integrity fire resistance	No smoke leakage	Quick & safe operation (motorization)	Easy maintenance	
Fire Dampers	 <p>FD 125</p>	<ul style="list-style-type: none"> • Motorised fire and smoke damper • Single skin 3-V grooves type GI blades • Quick operation: closing time <15s • Manually resettable thermal responsive device (165° F) 	UL 555 & UL 555 S	1.5h	✓	✓	✓	
	 <p>MD 125</p>	<ul style="list-style-type: none"> • Motorised fire damper • Single skin 3-V grooves type GI blades • Quick operation: closing time 15s • Manually resettable thermal responsive device (165° F) 	UL 555	1.5h		✓	✓	
	 <p>FD 150 CH</p>	<ul style="list-style-type: none"> • Curtain fire damper with interlocking type blades • 100% free area 	UL 555 & BS 476	1.5h & 2h				
	 <p>FD 150 AH</p>	<ul style="list-style-type: none"> • Curtain fire damper with interlocking type blades • Two different installations: <ul style="list-style-type: none"> - blades partially inside airstream - blades and frame inside airstream 	UL 555 & BS 476	1.5h & 2h				

Marking CE according to EN 15650

The regulatory environment for fire dampers is changing

For over 10 years, the European Union has been gradually implementing the "Construction Products" directive on a product by product basis. Today, it is the turn of fire dampers to respect CE . marking. This new regulation may disrupt the habits of stakeholders in the fire protection industry. In particular these changes concern:

- New fire resistance testing and classification methods
- New European vocabulary concerning fire resistance
- New CE certificate, in addition to existing documents (fire test report, report as per standard NF-S-61937-5 and NF certification)

FROM A TECHNICAL STANDPOINT, WHAT CHANGES AFFECT FIRE DAMPERS?

The answer is illustrated below with the most widely sold fire damper in France:

Before CE



ISONE EM

After CE



ISONE EM

The damper is identical but the vocabulary concerning its fire classification has changed, to become pan-European:

CF 2h - under 500 Pa ⇒ EI 120 S - i ↔ O - Ho / Ve - under 500 Pa

EXPLANATION OF THE NEW "EUROCLASS" FIRE PROTECTION VOCABULARY:

- **E** = Integrity against fire (corresponds approximately to the former Fire Retardant)
- **I** = Insulation (EI corresponds approximately to our former Fire Damper),
- **120** = duration in minutes,
- **S** = the leakage rate is no higher than 200 m³/h maximum per m², under test pressure, generally 500 or 1500 Pa. The S criteria is obligatory in France.
- **i ↔ o** = the damper is tested for fire in both directions,
- **Ho** = the damper is tested when mounted horizontally
- **Ve** = the damper is tested when mounted vertically
- **500 Pa:** the negative pressure applied to the damper during the fire resistance test.

HOW TO SELECT A FIRE DAMPER WITH CE MARKING?

- 1 Ensure the presence of the certificate of CE compliance as per EN 15650.
- 2 Ensure the presence of the NF-S-61937-5 report and the NF 264 certificate.
- 3 Check that the service pressure of the damper does not exceed the test pressure - recorded on the classification report (in accordance with the decision of 22 March 2004, article 3.2 of appendix 5).
- 4 Ensure that the classification of the damper "EI 120 S..." corresponds to the intended use. Particular attention should be paid to the size ranges. For example, large-dimension dampers will be replaced by smaller ones that will need to be assembled in batteries.

DID YOU KNOW?

IN REGULATORY TERMS, A FIRE DAMPER IS SELECTED ACCORDING TO THE SERVICE PRESSURE: ≤ 500 PA OR ≤ 1 500 PA

Motorised Fire, Smoke & Heat Dampers

ISONE Mechanism[®]: fully upgradable in just a few minutes!



Mechanism for ISONE EM

Advantages

- Upgradable mechanism: all equipments can be added/removed at any time; the operation being carried out by one hand only, without any tools.
- 24 or 48 V? : no order mistakes thanks to the dual-voltage trip device.
- Easy wiring: all of the ISONE terminal boxes are detachable without any tools and have a polarizing slot.
- VDS version: operation under power emission allowing no energy consumption.

DESCRIPTION

- The ISONE mechanism can include all tripping, indicating and resetting equipment, either in the factory or completing it on-site later.
- All these types of equipment are clipped into a blue IP42 box, designed to provide a multitude of useful features during both installation and testing.
- The clip-fixed transparent cover can be removed using a large screwdriver - its purpose is to show the position of the damper.

- ① The three cable glands can slide into the box.
- ② Ergonomic and simple manual trip controls.
- ③ 24/48 V electromagnetic tripping device.
- ④ Unpluggable terminals for easier electrical connections.
- ⑤ Signalling contacts.
- ⑥ Reset lever accessible without removing the cover: a quarter turn with a screwdriver is sufficient to open the blade.
- ⑦ Reset motor EHOP 30s.

- For even higher protection the IP42 transparent cover is used to cover all of the equipment.

Note : For outdoor installation, additional protection against heat, dust & rain must be provided by installers.

TRIPPING OPTIONS

FTE 70°C thermal fuse

- It is compulsory for all shutters in accordance with NF-S 61.937.
- A stainless steel thermal fuse is screw fixed into the mechanism's box.
- Rapid access to changing the fuse.
- 70°C fuse - in accordance with French Standard NF-S 61.937.

Green Product

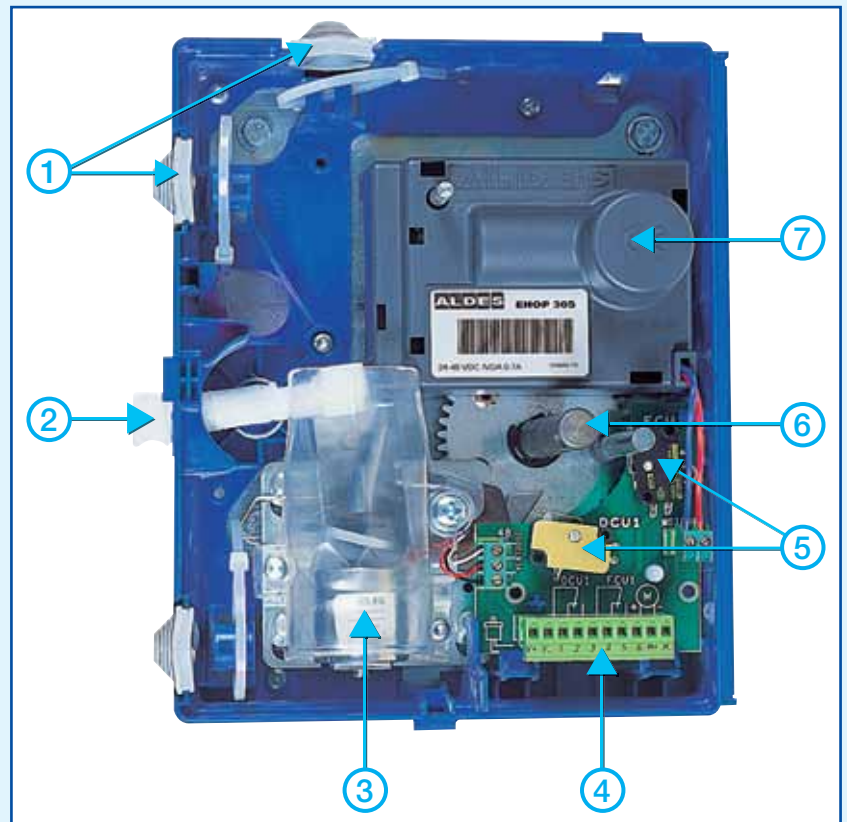
VDS or VM electromagnetic coil device

- It operates on reception of an external electrical command (CMSI for example) by power emission (VDS) or power cut off (VM).
- An exclusive development of this tripping device enables it to function under both 24 and 48 VDC. A manual control switch is used to select the voltage.
- The trip device assembly is removable with one hand only, without using tools.

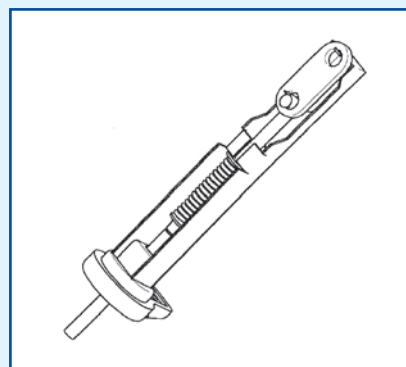
Manual control

- It is compulsory for all shutters in accordance with NF-S 61.937.
- White tripping handle integrated into the box and can be used without removing the cover.

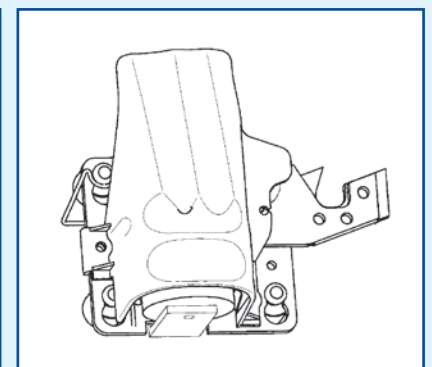
ISONE MECHANISM



OPTIONS



Thermal fuse



Electromagnetic coil device

Motorised Fire, Smoke & Heat Dampers

ISONE Mechanism®: fully upgradable in just a few minutes!

SIGNALLING OPTIONS

Signalling contacts are mounted on card-type printed circuit boards. All these cards clip into the mechanism housing and are easily removable without the use of tools. They are fitted with removable connection terminals with a polarizing slot.

Electronic PCB n°1 - FCU1 - DCU1

- Reserved for dampers equipped with a thermal fuse (FTE) only.
- Comprises the choice of:
 - an FCU1 closed position switch (indicates that the damper is closed),
 - an DCU1 opened position switch (indicates that the damper is open),
 - the 2 contacts FCU1 + DCU1.

Electronic PCB n°2 - Electromagnetic device

- Suitable for dampers fitted with a VDS or VM electromagnetic tripping device.
- In full compliance with French standard NF-S 61.937, it should be systematically fitted with a closed position switch (FCU1). It can also be fitted with an opened position switch (DCU1).

Electronic PCB n°3 - FCU2 - DCU2

- Clips on to cards n°1 and n°2.
- Systematically fitted with Open and Closed position switches FCU2 + DCU2.

RESETTING OPTIONS

Manual reset

- Manual resetting is possible without removing the cover.
- Using a large screwdriver, turn the operating rod by a ¼ turn.

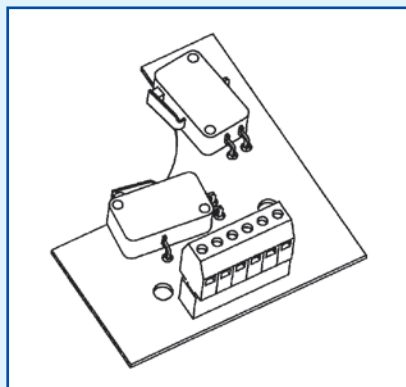
Reset motor EHOP 30s

- Repositions the blade in standby position without having to touch the damper itself.
- Easily plugged into the mechanism box with just one hand, no tools required.
- Can be removed with one hand, without tools.
- Reset takes less than 10 seconds.
- Max. current consumption during reset = 0.7 A.
- Max. current other than reset = 0.
- Voltage either 24 or 48 VDC/VAC.

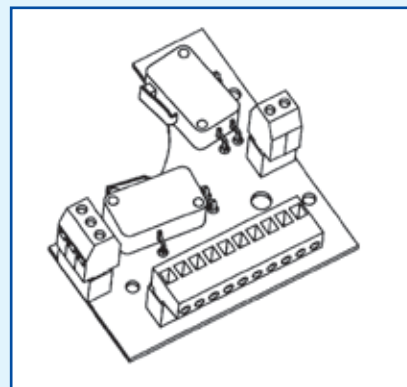
REPLACEMENT KIT R17

Description	Code
FTE 70°C ISONE Kit	11043400
Packet of 10 fuses - 70°C ISONE	11043401
Manual tripping kit	11043411
VDS 24/48 ISONE kit	11043407
VM 24/48 ISONE kit	11043408
FCU1 for FTE kit	11043402
DCU1 for FTE kit	11043403
Kit FCU1 + DCU1 for FTE	11043404
Kit FCU1 for electromagnet	11043405
FCU1 + DCU1 for electromagnet	11043406
FCU2 + DCU2 kit	11043409
EHOP - 30 s - 24/48 VDC/VDA kit	11043410

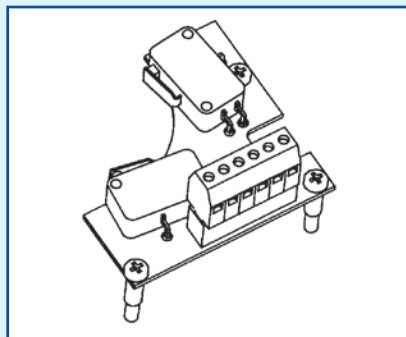
OPTIONS



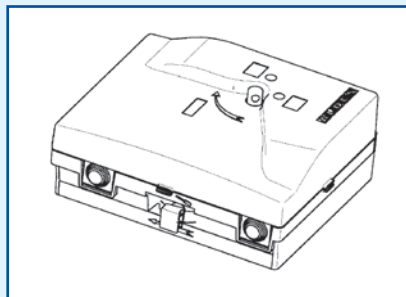
Electronic card n°1 - FCU1 - DCU1



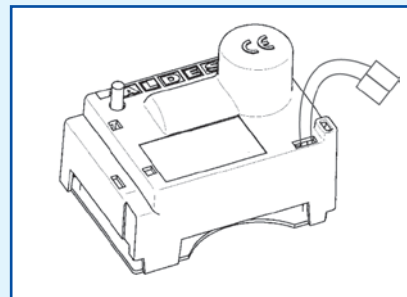
Electronic card n°2 - FCU1 - DCU1



Electronic card n°3 - FCU2 + DCU2



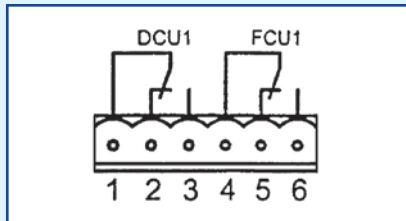
Mechanism box



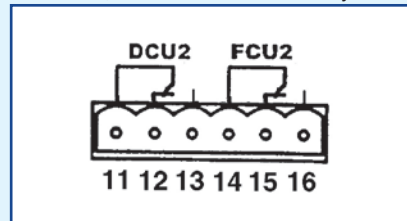
EHOP 30S motor

ELECTRICAL CONNECTION

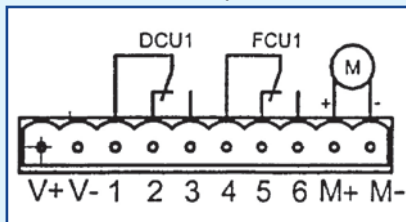
The ISONE terminals can be removed without the use of tools, electrical cables are fixed by screws.



Card 1 FCU1-DCU1: 2 contacts for an ISONE with an FTE only = 6 terminals.



Card 3 FCU2-DCU2: 2 auxiliary contacts = 6 terminals.



Card 2 electromagnet/motor: electromagnet + 2 contacts + motor = 10 terminals.

Motorised Fire, Smoke & Heat Dampers

ISONE Mechanism[®]: fully upgradable in just a few minutes!



Since 1984, all Aldes fire dampers are fully adaptable. This means that, once installed, the fire damper mechanisms, can be completed by an electromagnetic coil device, or one or several signalling contacts and a resetting motor.

The fire dampers thereby adapt to changes in regulatory and standard requirements and operating needs. With the ISONE mechanism, adaptability is made as simple as possible! Thanks to equipment that can be clipped on using one hand and with no tools, the ISONE can upgrade to its most complete version in just 3 minutes.

The resetting motor is obviously the most interesting piece of equipment for the operator because it allows for carrying out the compulsory annual controls by remote control and thus avoid having to dismantle false ceilings.

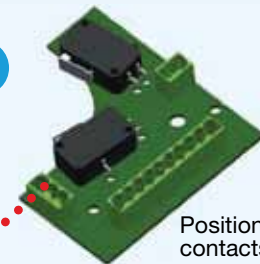
In the event of the absence of electrical supply, the use of the portable Aldes Control pack is sufficient.

1



The 24/48 V trip device

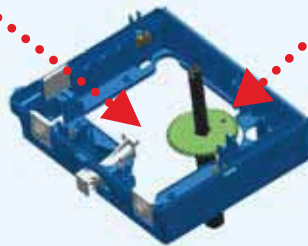
2



Position signalling contacts

60 SECONDS

60 SECONDS

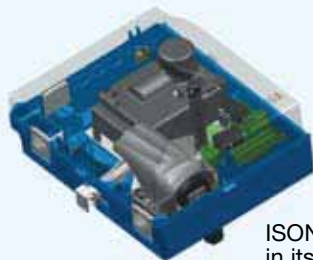


3



The resetting motor

30 SECONDS



ISONE mechanism in its complete version

Example of how easy it is to fit the EHOP motor:

1



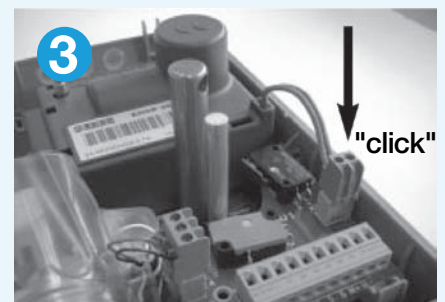
Fitting the motor

2



The pin descends into its housing

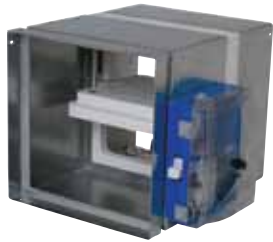
3



Electrical connections

Motorised Fire, Smoke & Heat Dampers

ISONE embedded rectangular fire damper



ISONE EM



ISONE FdP

Green Product

CIVIL DEFENCE APPROVED

Advantages

- Authorised for installation in walls and floors.
- Offset wall mounted mechanism for traditional grouting with mortar.
- Double range:
 - FdP = low pressure loss,
 - EM = minimum space requirement.
- Green Product VDS version: operation under power emission allowing no energy consumption.

APPLICATION

- Compartmentation of residential, commercial and industrial buildings.

DESCRIPTION

- Composed of 2 metal sleeves on both sides of an assembly of refractory material.
- The upgradable mechanism box is positioned on a sleeve. This box is set back from the blade itself to avoid it being sealed into the partition during installation of the damper.

FIRE PROTECTION RATING

- EI 120 S - 500 Pa on 150mm concrete slab and 150mm cellular concrete
- EI 90 S on 70 mm plaster blocks.
- EI 120 S on 100 mm plaster blocks.

INSTALLATION

- Embedded in a 110 mm concrete wall.
- Embedded through a concrete slab - no specific fixings or hangings required for installation.
- Traditional grouting with mortar.
- The mechanism box is fitted flush against the wall or the slab.
- The aeraulic connection must not apply stress on the damper.

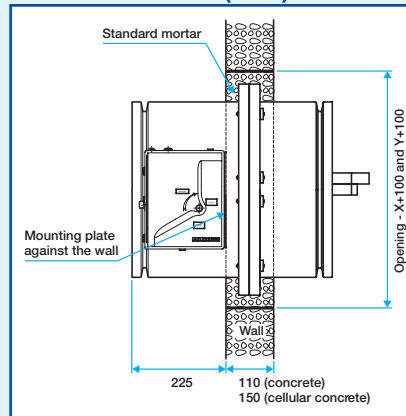
RANGE

- Embedded, rectangular ISONE comprising 2 ranges:
 - ISONE FdP: designed to minimise the pressure losses created by the airflow passing through.
 - ISONE EM: a minimum overall dimension

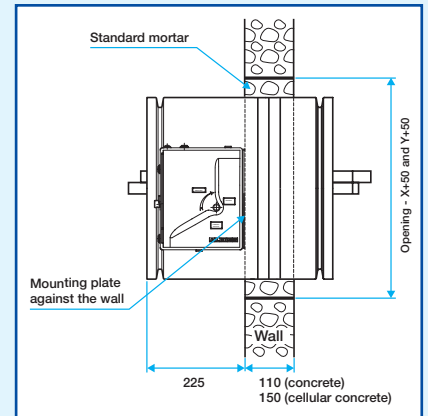
AVAILABLE OPTIONS

- Mechanism equipment. Description: see page 27.
- Customisable labelling: name of the worksite, of customer, installation area, etc.

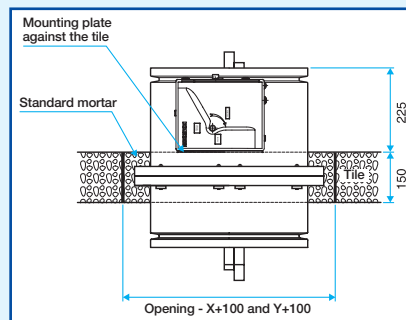
INSTALLATION (mm)



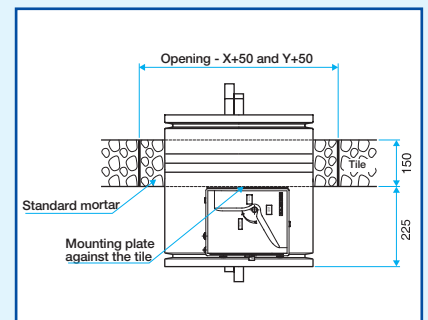
ISONE FdP in a concrete wall



ISONE EM in a concrete wall

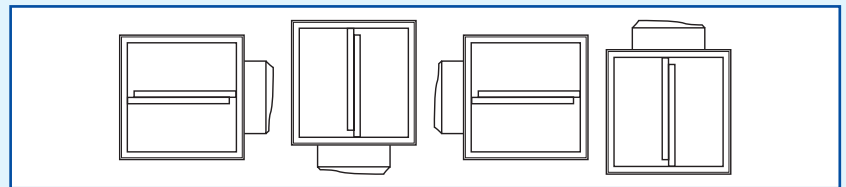


ISONE FdP in through-the-wall position in concrete tile



ISONE EM in through-the-wall position in concrete tile

MECHANISM POSITIONING UNIMPORTANT



Motorised Fire, Smoke & Heat Dampers

ISONE rectangular embedded - FdP: low pressure loss



CIVIL DEFENCE APPROVED

Advantages

- Fire resistance: 2h.
- No smoke leakage, no heat transfer.
- Quick operation.
- Horizontal or vertical blades.
- Low pressure drop.
- VDS version: operation under power emission allowing no energy consumption.



FIRE PROTECTION RATING

- EI 120 S - 500 Pa on 150mm concrete slabs and 150mm cellular concrete
- EI 90 S on 70mm plaster blocks, EI 120 S on 100 mm plaster blocks.

INSTALLATION

- Embedded in a 100mm vertical concrete wall
- Embedded through a concrete slab - no fixings or hangings.
- Traditional grouting with mortar.
- Offset mechanism on the wall or slab.
- Dimensions of openings required: (X + 100) x (Y + 100) mm

WEIGHT (kg) AND RANGE with choice of options

70°C thermal fuse included.

Code	11043102 (FdP - PM)						
	Width X						
Y	200	250	300	350	400	450	500
200	10	11	12	13	14	15	16
250	11	12	13	14	15	16	-
300	12	13	14	15	17	-	-
350	13	14	15	17	-	-	-
400	14	15	17	-	-	-	-
450	-	16	-	-	-	-	-

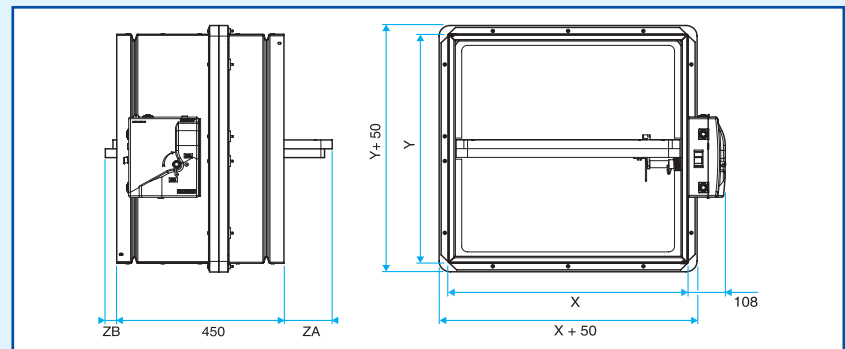
Code	11043103 (FdP - MM)											
	Width X											
Y	250	300	350	400	450	500	550	600	650	700	750	800
200	-	-	-	-	-	-	17	18	-	-	-	-
250	-	-	-	-	-	17	18	19	20	21	22	-
300	-	-	-	-	18	19	20	21	22	23	24	25
350	-	-	-	18	19	20	21	23	24	25	26	27
400	-	-	18	19	20	22	23	24	25	27	28	29
450	-	18	19	20	22	23	24	26	27	28	30	31
500	17	19	20	22	23	24	26	27	29	30	31	33
550	-	20	21	23	24	26	27	29	30	32	33	35
600	-	21	23	24	26	27	29	30	32	34	35	37

AVAILABLE OPTIONS

Choose mechanism equipment from the table below.

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Designation	Code		
FCU2 + DCU2 open/closed position contacts		OPT43320	

DIMENSIONS (mm)



ZA, ZB: Angular displacement of the blade.

Y	< or = 350	400	450	500	550	600	650	700	750
ZA	0	16	42	66	92	116	142	166	192
ZB	0	0	0	0	0	16	42	66	92

Motorised Fire, Smoke & Heat Dampers

ISONE rectangular embedded - EM: minimum space requirement



CIVIL DEFENCE APPROVED

- Advantages**
- Fire resistance: 2h.
 - No smoke leakage, no heat transfer.
 - Quick operation.
 - Horizontal or vertical blades axis. (except 11043104 and 11043099)
 - Minimum space requirement and opening.
 - VDS version: operation under power emission allowing no energy consumption.

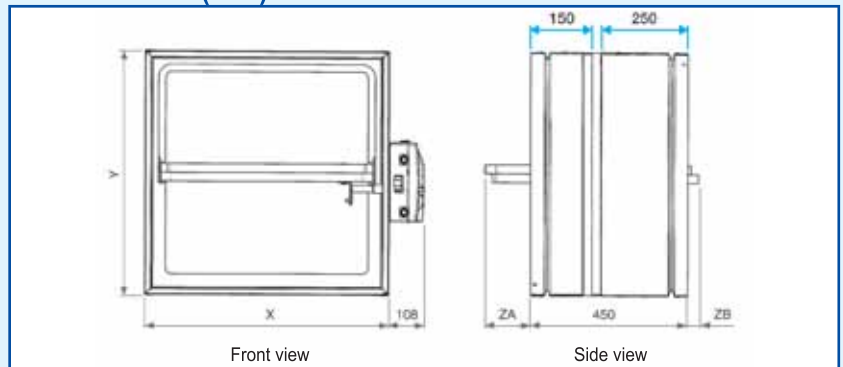
FIRE PROTECTION RATING

- EI 120 S - 500 Pa on 150mm concrete slabs and 150mm cellular concrete
- EI 90 S on 70 mm plaster blocks.
- EI 120 S on 100 mm plaster blocks.

INSTALLATION (see previous pages)

- Embedded in a 100mm vertical concrete wall
- Embedded through a concrete slab - no fixings or hangings.
- Traditional grouting with mortar.
- Offset mechanism on the wall or slab.
- Dimensions of openings required: (X + 50) x (Y + 50) mm.

DIMENSIONS (mm)



ZA: angular displacement of the blade

Y	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
ZA	0	0	0	0	0	20	45	68	93	116	141	164	195	220	245	270	295	320
ZB	0	0	0	0	0	0	0	0	0	13	41	64	95	120	145	170	195	220

Height Y	Width X																													
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500			
200																														
250			11043100 (EM - PM)																											
300			EI 120 S																											
350																														
400																														
450																														
500						11043101 (EM - MM)																								
550						EI 120 S																								
600																														
650																														
700																														
750																														
800																														
850																														
900																														
950																														
1000																														
1050																														

PM = small version MM = medium version GM = large version TGM = very large version

Motorised Fire, Smoke & Heat Dampers

ISONE rectangular embedded- EM: minimum space requirement



CIVIL DEFENCE APPROVED

Advantages

- Fire resistance: 2h.
- No smoke leakage, no heat transfer.
- Quick operation.
- Horizontal or vertical blades axis. (except 11043104 and 11043099)
- Minimum space requirement and opening.
- VDS version: operation under power emission allowing no energy consumption.

WEIGHT (kg) AND RANGE with choice of options

70°C thermal fuse included.

Code Height Y	11043100 (EM - PM)						
	Width X						
	200	250	300	350	400	450	500
200	10	10	11	12	13	14	15
250	10	11	12	13	14	15	-
300	11	12	13	14	15	-	-
350	12	13	14	15	-	-	-
400	13	14	15	-	-	-	-
450	-	15	-	-	-	-	-

Code Height Y	11043101 (EM - MM) EI 120 S											
	Width X											
	250	300	350	400	450	500	550	600	650	700	750	800
200	-	-	-	-	-	-	16	17	-	-	-	-
250	-	-	-	-	-	16	17	18	19	20	21	-
300	-	-	-	-	16	17	18	19	20	21	23	24
350	-	-	-	17	18	19	20	21	22	23	24	25
400	-	-	17	18	19	20	21	22	24	25	26	27
450	-	16	18	19	20	21	23	24	25	26	28	29
500	16	17	19	20	21	23	24	25	27	28	29	31
550	-	18	20	21	23	24	26	27	28	30	31	33
600	-	19	21	22	24	25	27	28	30	31	33	34

Code Height Y	11043104 (EM - GM) EI 90 S																								
	Width X																								
	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
300	-	-	-	-	-	-	-	-	-	-	-	25	26	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	26	28	29	30	33	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	28	30	31	32	35	36	37	38	-	-	-	-	-	-
450	-	-	-	-	-	-	-	-	-	-	-	30	31	33	36	37	38	40	41	42	43	44	-	-	-
500	-	-	-	-	-	-	-	-	-	-	-	32	33	37	38	39	41	42	43	44	45	46	47	48	49
550	-	-	-	-	-	-	-	-	-	-	-	34	37	39	40	42	43	44	46	47	47	48	49	50	51
600	-	-	-	-	-	-	-	-	-	-	-	38	39	41	42	44	45	47	48	50	50	51	52	53	54
650	-	22	24	25	27	28	30	32	33	35	38	40	41	43	44	46	48	49	50	52	52	53	54	55	-
700	-	23	25	26	28	30	31	33	35	38	40	42	43	45	47	48	50	52	53	55	54	55	56	-	-
750	-	-	26	28	29	31	33	35	38	40	42	43	45	47	49	51	53	55	56	56	56	57	-	-	-
800	-	-	29	31	33	34	36	38	40	42	44	45	47	49	51	53	55	57	58	58	58	-	-	-	-
850	-	-	-	32	34	36	38	40	42	43	45	47	49	51	53	55	57	59	60	62	-	-	-	-	-

For non-quoted dimensions, provide for an ISONE 1500 bank assembly using standard dimension dampers.

Code Height Y	11043099 (EM - TGM) - EI 90 S															
	Width X															
	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
900	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55
950	-	28	30	32	34	36	38	40	42	44	46	48	50	52	54	-
1000	-	29	31	33	35	37	39	41	43	45	47	49	51	53	-	-
1050	-	-	32	34	36	38	40	42	44	46	48	50	52	-	-	-

Motorised Fire, Smoke & Heat Dampers

ISONE rectangular embedded

PRESSURE LOSSES

• The below values are the pressure losses in Pa for a duct velocity of 4 m/s inside the damper.

Height Y	Width X																
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	44	39	36	34	32	31	30	32	31								
250	34	29	26	25	23	22	22	22	21	21	21	20					
300	28	24	21	20	19	22	22	22	22	22	22	23	24	24	25		
350	24	20	18	17	20	19	19	19	19	19	19	20	20	20	21	21	21
400	23	19	17	19	18	17	17	17	17	17	17	17	17	17	17	18	18
450		18	20	18	17	16	16	15	15	15	15	15	15	15	15	15	15
500		23	19	17	16	15	15	14	14	14	14	14	14	14	14	14	14
550			18	16	15	14	14	13	13	13	13	13	13	13			
600			18	16	15	14	14	13	13	12	12	12	12				
650				15	14	13	13	12	12	12	12	12					
700				15	14	13	13	12	12	12	11						

ISONE FdP

Height Y	Width X																											
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	
200	328	218	170	145	129	118	110	104	108																			
250	149	109	86	73	64	59	55	52	54	52	50	48																
300	98	69	58	52	50	49	48	48	53	54	55	56	58	60	61													
350	82	55	44	39	36	35	34	33	36	36	36	36	36	37	38	38	39	48										
400	77	49	38	33	30	28	27	27	27	27	27	27	27	27	28	28	33	33	37	38								
450		46	35	30	27	25	23	23	23	22	22	22	22	22	22	25	25	28	28	28	29	29	29					
500		45	33	28	24	22	21	20	20	19	19	19	19	18	18	21	21	23	23	23	23	23	23	23	23	24	24	24
550			32	26	23	21	20	19	18	17	17	17	17	16	18	18	20	20	20	20	20	20	20	20	20	20	20	20
600			32	26	22	20	18	17	17	16	16	15	15	16	16	18	17	17	17	17	17	17	17	17	17	17	17	18
650				25	22	19	18	17	16	15	15	14	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16
700				25	21	19	17	16	15	15	14	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14	14	
750					21	19	17	16	15	14	15	14	15	14	14	14	14	14	13	13	13	13	13	13	13			
800					24	20	18	17	16	15	14	15	14	14	13	13	13	13	13	13	13	13	12	12				
850						20	18	17	15	15	15	14	14	13	13	13	12	12	12	12	12	12	12					
900							20	18	16	15	15	14	14	13	13	12	12	12	12	12	11	11						
950								18	16	15	14	14	13	13	12	12	12	12	11	11	11							
1000									18	16	15	14	13	13	12	12	11	11	11	11								
1050										16	15	14	13	13	12	12	11	11	11									

ISONE EM

Motorised Fire, Smoke & Heat Dampers

ISONE embedded circular fire damper



ISONE EM



ISONE FdP

Green Product

CIVIL DEFENCE APPROVED

Advantages

- Ø160 mm body
- Authorised for installation in walls and floors.
- Traditional grouting with mortar.
- Double range up to Ø 315 mm:
 - FdP = low pressure loss,
 - EM = minimum size.
- VDS version: operation under power emission allowing no energy consumption.

APPLICATION

- Compartmentation of residential, commercial and industrial buildings.

DESCRIPTION

- Consists of 2 metal sleeves on both sides of an assembly of refractory material.
- The upgradable mechanism box is positioned on a sleeve. This box is set back from the blade itself to avoid it being sealed into the partition during installation of the damper.
- ISONE circular embedded features 2 ranges:
 - ISONE FdP: designed to minimise the pressure losses created by the airflow passing through,
 - ISONE EM: presents a minimum overall dimension.

INSTALLATION

- Embedded into a concrete wall of 110 mm.
- Embedded across the slab: the installation requires no particular type of fixing or suspension.
- Traditional grouting with mortar.
- The mechanism box is fitted flush against the wall or the slab.
- The aeraulic connection must not apply stress on the damper.

STANDARD RANGE

Designation	Ø	Code
ISONE FdP + FTE 70°	160	11043162
ISONE FdP + FTE 70°	200	11043163
ISONE FdP + FTE 70°	250	11043164
ISONE FdP + FTE 70°	315	11043165
ISONE EM + FTE 70°	355	11043016
ISONE EM + FTE 70°	400	11043017
ISONE EM + FTE 70°	450	11043018
ISONE EM + FTE 70°	500	11043019

To obtain a 125 mm diameter fire damper, order 2 reducers (11143575) as a complement to a 160 mm fire damper.

To obtain a 100 mm diameter fire damper, order 2 reducers (11143574) as a complement to a 160 mm fire damper.

RANGE WITH CHOICE OF OPTIONS

- ISONE FdP up to Ø 315 mm.
 - ISONE EM up to Ø 1000 mm.
- See following pages.

AVAILABLE OPTIONS

- Mechanism equipment (see page 27).
- Aeraulic connection

Airtight seal:

- Enables limitation of power losses and ensures simple and rapid assembly,
- Single lip seal up to Ø 400 mm, double beyond that.

- Customisable labelling

Name of the work site, customer, installation area, etc.

PRESSURE LOSS (PA)

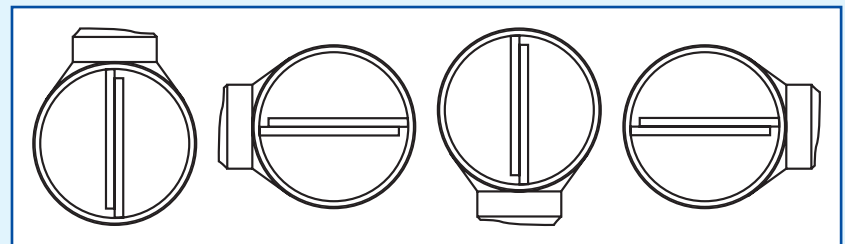
Ductwork characteristics			ISONE data	
Ø duct (mm)	Airflow (m³/h)	Speed in duct (m/s)	ISONE recommended	Pressure loss (Pa)
100	110	4	FdP / EM	8 / 48
125	175	4	FdP	21
160	290	4	FdP	58
200	450	4	FdP	30
250	710	4	FdP	17
315	1120	4	FdP / EM	12 / 39
355	1450	4	EM	44
400	1800	4	EM	30
450	2300	4	EM	31
500	2850	4	EM	24

Warning: the EM version is suited to speeds < 4 m/s

Ø duct (mm)	dP ISONE FdP	dP ISONE EM
100	$(Q/38)^2$	$(Q/15,8)^2$
125	$(Q/38)^2$	$(Q/15,8)^2$
160	$(Q/38)^2$	$(Q/15,8)^2$
200	$(Q/82)^2$	$(Q/33)^2$
250	$(Q/171)^2$	$(Q/94)^2$
315	$(Q/325)^2$	$(Q/180)^2$
355	-	$(Q/217)^2$
400	-	$(Q/326,5)^2$
450	-	$(Q/409,3)^2$
500	-	$(Q/573,5)^2$

Note: the above formulae give pressure losses in Pa for airflow in m³/h

MECHANISM POSITIONING UNIMPORTANT



Motorised Fire, Smoke & Heat Dampers

ISONE Circular embedded - FdP: low pressure loss



CIVIL DEFENCE APPROVED

- Advantages**
- Fire resistance : 2h
 - Ø160 mm body
 - Reduced pressure losses.
 - Embedded into slab - no fixings or hangings
 - Horizontal or vertical blade axis.
 - Green Product VDS version: operation under power emission allowing no energy consumption.



ISONE - FdP

DESCRIPTION

- Two male metal sleeves on both sides of an assembly of refractory material.
- Designed to minimise pressure losses created by the airflow passing through.
- Upgradable mechanism offset from the blade

FIRE PROTECTION

- EI 120 S - 500 Pa on 150mm concrete slab and 150mm cellular concrete
- EI 90 S on 70mm plaster blocks.
- EI 120 S on 100 mm plaster blocks.

INSTALLATION

- Embedded in a 100mm vertical concrete wall
- Embedded through a concrete slab - no fixings or hangings.
- Traditional grouting with mortar.
- Offset mechanism on the wall or slab.

RANGE with choice of options

Thermal fuse 70°C included

Designation	Code
ISONE FdP Ø 100 mm*	11043170
ISONE FdP Ø 125 mm*	11043171
ISONE FdP Ø 160 mm	11043172
ISONE FdP Ø 200 mm	11043173
ISONE FdP Ø 250 mm	11043174
ISONE FdP Ø 315 mm	11043175

* Starting from Ø 160 mm body + 2 reducers

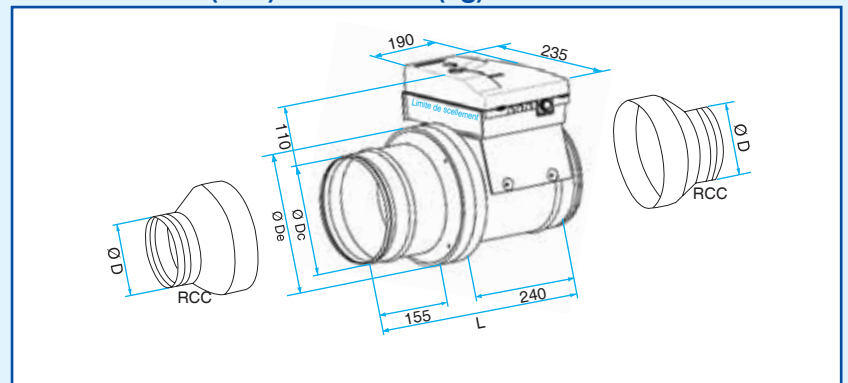
AVAILABLE OPTIONS

Choose mechanism equipment from the table below.

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319

Designation	Code
FCU2 + DCU2 open/closed position contacts	OPT43320

DIMENSIONS (mm) - WEIGHT (kg)



Ø D	Ø opening	W	Ø Dc	Ø Overall	Weight
100	210	537*	160	200	7
125	210	532*	160	200	7
160	210	427	160	200	7
200	260	427	200	250	8
250	310	427	250	300	9
315	375	427	315	365	10

* Total length including the 2 adapted reducers.

Motorised Fire, Smoke & Heat Dampers

ISONE Circular embedded - EM: minimum dimensions



CIVIL DEFENCE APPROVED

Advantages

- Fire resistance : 2h
- Ø160 mm body.
- Minimum dimensions.
- Embedded into slab - no fixings or hangings.
- Horizontal or vertical blade axis.
- VDS version: operation under power emission allowing no energy consumption.

DESCRIPTION

- Two male metal sleeves on both sides of an assembly of refractory material.
- Minimum overall dimensions = diameter of duct.
- Upgradable mechanism offset from the blade

FIRE PROTECTION RATING

- EI 120 S - 500 Pa in 150mm concrete slab and 150mm cellular concrete
- EI 90 S on 70mm plaster blocks, EI 120 S on 100 mm plaster blocks.

INSTALLATION

- Embedded in a 100mm vertical concrete wall
- Embedded through a concrete slab - no fixings or hangings.
- Traditional grouting with mortar.
- Offset mechanism on the wall or slab.

RANGE WITH CHOICE OF OPTIONS

Thermal fuse 70°C included.

Designation	Code
ISONE EM Ø 100 + FTE 70 + RCC	11043150
ISONE EM Ø 125 + FTE 70 + RCC	11043151
ISONE EM Ø 160 + FTE 70 *	11043152
ISONE EM Ø 200 + FTE 70 *	11043153
ISONE EM Ø 250 + FTE 70	11043154
ISONE EM Ø 315 + FTE 70	11043155
ISONE EM Ø 355 + FTE 70	11043006
ISONE EM Ø 400 + FTE 70	11043007
ISONE EM Ø 450 + FTE 70	11043008
ISONE EM Ø 500 + FTE 70	11043009
ISONE EM Ø 560 + FTE 70	11043190
ISONE EM Ø 630 + FTE 70	11043191
ISONE EM Ø 710 + FTE 70	11043192
ISONE EM Ø 800 + FTE 70	11043193
ISONE EM Ø 900 + FTE 70	11043194
ISONE EM Ø 1000 + FTE 70	11043195

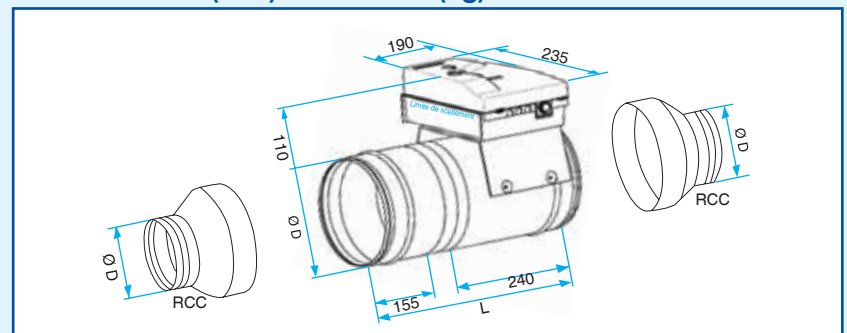
* Beware of high pressure losses at 4 m/s

AVAILABLE OPTIONS

Choose mechanism equipment from the table below.

Equipment selection (specify trip voltage in order for factory adjustment and testing).	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Designation	Code		
FCU2 + DCU2 open/closed position contacts	OPT43320		

DIMENSIONS (mm) – WEIGHT (kg)



Ø D	Ø opening	W	Ø D	ZA	ZB	Weight
100	180	537*	160	-	-	6,5
125	180	532*	160	-	-	6,5
160	180	427	160	-	-	6,5
200	220	427	200	-	-	7,5
250	270	427	250	-	-	8
315	335	427	315	-	-	9
355	375	445	355	-	-	11,5
400	450	445	400	-	-	15
450	500	445	450	16	-	16,5
500	550	445	500	40	-	19
560	650x650**	550	600x600	43	-	33
630	720x720**	550	670x670	76	-	38
710	800x800**	550	750x750	114	14	45
800	890x890**	550	840x840	165	65	55
900	990x990**	550	940x940	215	115	66
1000	1090x1090**	550	1040x1040	265	165	79

* Total length including the 2 adapted reducers.

** EM rectangular body fitted with rings for connection to a circular ventilation network.

Notes

Motorised Fire, Smoke & Heat Dampers

ISONE circular fire damper with a BF/BLF Mechanism



**CIVIL
DEFENCE
APPROVED**

DESCRIPTION

- All ISONE fire dampers can work with the BF/BLF mechanism equipped with its 72°C fuse (BAE 72), close (FC) and open (DC) contacts.

FIRE PROTECTION RATING - EN 1366-2

- EIS 120 - 500 Pa in concrete wall 110mm and cellular concrete wall 150mm,
- EIS 120 - 500 Pa in concrete tile 150mm and cellular concrete tile 150mm.

INSTALLATION

- Identical to ISONE with an Aldes mechanism.

RANGE with a choice of options

- ISONE Ø FdP: low pressure loss

Description	Code
ISONEUROP-EIS-D100-FdP-M	11043460
ISONEUROP-EIS-D125-FdP-M	11043461
ISONEUROP-EIS-D160-FdP-M	11043462
ISONEUROP-EIS-D200-FdP-M	11043463
ISONEUROP-EIS-D250-FdP-M	11043464
ISONEUROP-EIS-D315-FdP-M	11043465

- ISONE Ø EM: minimum space requirement

Description	Code
ISONEUROP-EIS-D100-EM-M	11043470
ISONEUROP-EIS-D125-EM-M	11043471
ISONEUROP-EIS-D160-EM-M	11043472
ISONEUROP-EIS-D200-EM-M	11043473
ISONEUROP-EIS-D250-EM-M	11043474
ISONEUROP-EIS-D315-EM-M	11043475
ISONEUROP-D355 EM-M	11043476
ISONEUROP-D400 EM-M	11043477
ISONEUROP-D450 EM-M	11043478
ISONEUROP-D500 EM-M	11043479
ISONEUROP-RECT-D560 EM-M	11043480
ISONEUROP-RECT-D630 EM-M	11043481
ISONEUROP-RECT-D710 EM-M	11043482

AVAILABLE OPTIONS

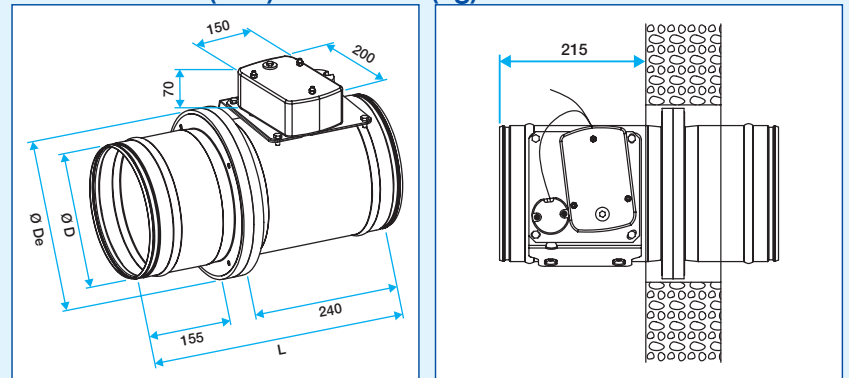
Description	Code
MECHANISM BLF24V-BAE72-FC-DC	OPT43326
MECHANISM BLF 230V-BAE72-FC-DC	OPT43327
MECHANISM BF 24V-BAE72-FC-DC	OPT43328
MECHANISM BF 230V-BAE72-FC-DC	OPT43329

- All mechanisms are equipped with:
 - FC/DC position contacts (open/closed position),
 - A 72°C fuse.

The BLF mechanisms can be provided with ISONE Ø and Ø PM and MM dampers, the BF mechanisms can be provided with ISONE

Ø GM and TGM dampers.

DIMENSIONS (mm) - WEIGHT (kg)



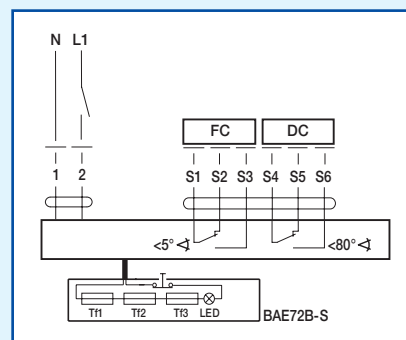
Dimensions Ø D, Ø De, L identical to Isones with an Aldes mechanism.

TECHNICAL DETAILS

4 mechanism models	BLF		BF	
	24 V	230 V	24 V	230 V
Rated Voltage	AC 24 V 50 / 60 Hz - DC 24 V	AC 230 V 50 / 60 Hz	AC 24 V 50 / 60 Hz - DC 24 V	AC 230 V 50 / 60 Hz
Consumption (resetting)	5 W	6 W	7 W	8 W
Permanent consumption (excl. resetting)	2.5 W	3 W	2 W	3 W
Resetting time	40 to 75 s	40 to 75 s	140 s	140 s
Cable	1 m	1 m	1 m	1 m
- motor	2 x 0.75 mm ²	2 x 0.75 mm ²	2 x 0.75 mm ²	2 x 0.75 mm ²
- FC/DC contacts	6 x 0.75 mm ²	6 x 0.75 mm ²	6 x 0.75 mm ²	6 x 0.75 mm ²
Weight	1.6 kg	1.7 kg	2.8 kg	3.1 kg

- Degree of protection: IP 54.
- Temperature in use: -40° to +50° C

ELECTRICAL CONNECTIONS



Motorised Fire, Smoke & Heat Dampers

ISONE rectangular with a BF/BLF mechanism



CIVIL DEFENCE APPROVED

DESCRIPTION

- All ISONE fire dampers can work with the BF/BLF mechanism equipped with its 72°C fuse (BAE 72), and a closed (FC) contact and open (DC) contact.

FIRE PROTECTION RATING: EN 1366-2

- EIS 120 - 500 Pa in concrete wall 110 mm and cellular concrete wall 150 mm,
- EIS 120 - 500 Pa in concrete tile 150 mm and cellular concrete tile 150 mm.

INSTALLATION

- Identical to ISONE with an Aldes mechanism.

RANGE with a choice of options

Description	Code
ISONE EM - PM	11043450
ISONE EM - MM	11043451
ISONE FdP - PM	11043452
ISONE FdP - MM	11043453
ISONE EM - GM	11043454
ISONE EM - TGM	11043455

AVAILABLE OPTIONS

Description	Code
MECHANISM BLF 24V-BAE72-FC-DC	OPT43326
MECHANISM BLF 230V-BAE72-FC-DC	OPT43327
MECHANISM BF 24V-BAE72-FC-DC	OPT43328
MECHANISM BF 230V-BAE72-FC-DC	OPT43329

- All mechanisms are equipped with:
 - FC/DC signalling contacts (open/closed position).
 - A 72°C fuse.
- The BLF mechanisms are provided with ISONE PM and MM dampers, the BF mechanisms are provided with ISONE GM and TGM dampers.

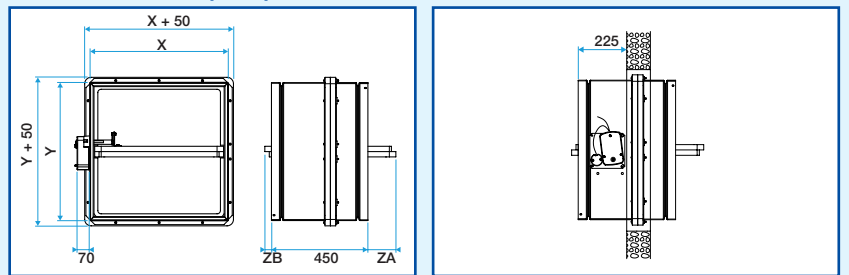
RANGE with a choice of options

Height Y	Width X																												
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500		
200	11043450 ISONE EM - PM																												
250	11043452 ISONE FdP - PM																												
300																													
350																													
400																													
450																													
500							11043451 ISONE EM - MM 11043453 ISONE FdP - MM																						
550																													
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700																													
750																													
800																													
850																													
900																													
950																													
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1050																													

Use a bank assembly with ISONE 1500

Use a bank assembly with ISONE 1500

DIMENSIONS (mm)



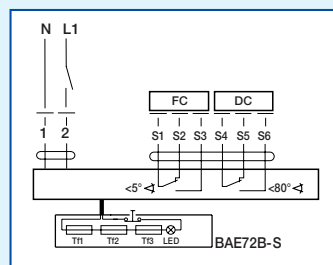
Dimensions identical to ISONE dampers with an Aldes mechanism

TECHNICAL DETAILS

4 mechanism models	BLF		BF	
	24 V	230 V	24 V	230 V
Rated Voltage	AC 24 V 50 / 60 Hz - DC 24 V	AC 230 V 50 / 60 Hz	AC 24 V 50 / 60 Hz - DC 24 V	AC 230 V 50 / 60 Hz
Consumption (resetting)	5 W	6 W	7 W	8 W
Permanent consumption (excluded resetting)	2.5 W	3 W	2 W	3 W
Resetting time	40 to 75 s	40 to 75 s	140 s	140 s
Cable length:	1 m	1 m	1 m	1 m
- motor	2 x 0.75 mm ²	2 x 0.75 mm ²	2 x 0.75 mm ²	2 x 0.75 mm ²
- FC/DC contacts	6 x 0.75 mm ²	6 x 0.75 mm ²	6 x 0.75 mm ²	6 x 0.75 mm ²
Weight	1.6 kg	1.7 kg	2.8 kg	3.1 kg

- Degree of protection: IP 54.
- Temperature in use: -40° to +50° C.

ELECTRICAL CONNECTIONS



PM = small version MM = medium version GM = large version TGM = very large version

Motorised Fire, Smoke & Heat Dampers

ISONE 1500 with ring connection: EI 120 S - 1500 Pa

New



Green Product

Compliances

- CE 1812 - CPD - 1016
- NF-S-61937-5

Advantages

- Grouting with traditional mortar, without fixing accessories.
- Upgradable mechanism: all the equipment can be plugged in by hand.
- Dual-voltage trip device (24/ 48V): control errors are impossible
- Wiring is made easy with the detachable terminal block.

APPLICATION

- Compartmentation of residential, commercial and industrial buildings
- Adapted to ventilation systems with a pressure of greater than 500 Pa and lower than 1500 Pa.

DESCRIPTION

- Consists of 2 metal sleeves on both sides of an assembly of refractory material.
- The upgradable mechanism box is positioned on a sleeve. This box is set back from the blade itself to avoid it being sealed into the partition during installation of the damper.

INSTALLATION

- Embedded in a 150 mm concrete wall or 100 mm cellular concrete.
- Embedded into a 150 mm concrete slab up to 600 x 600 mm in size.
- Traditional grouting with mortar.
- The blade axis must be horizontal.

RANGE with choice of options

70°C thermal fuse included

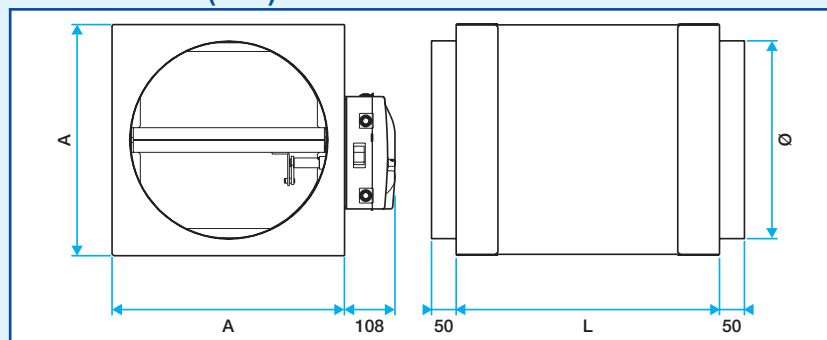
Designation	Code
ISONE 1500 Ø 160 mm	11043062
ISONE 1500 Ø 200 mm	11043063
ISONE 1500 Ø 250 mm	11043064
ISONE 1500 Ø 315 mm	11043065
ISONE 1500 Ø 355 mm	11043066
ISONE 1500 Ø 400 mm	11043067
ISONE 1500 Ø 450 mm	11043068
ISONE 1500 Ø 500 mm	11043069
ISONE 1500 Ø 560 mm	11043070
ISONE 1500 Ø 630 mm	11043071
ISONE 1500 Ø 710 mm	11043072
ISONE 1500 Ø 800 mm	11043073
ISONE 1500 Ø 900 mm	11043074
ISONE 1500 Ø 1000 mm	11043075

To obtain a 125 mm diameter fire damper, order 2 reducers (11143575) as a complement to a 160 mm fire damper.
To obtain a 100 mm diameter fire damper, order 2 reducers (11143574) as a complement to a 160 mm fire damper.

AVAILABLE OPTIONS

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Designation	Code		
FCU2 + DCU2 open/closed position contacts	OPT43320		

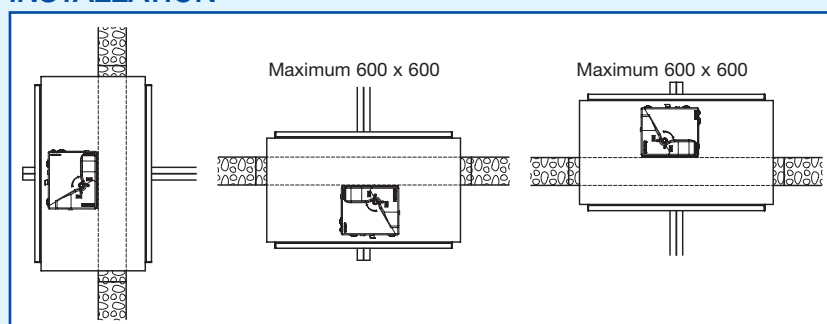
DIMENSIONS (mm)



Ø	160	200	250	315	355	400	450
A	265	315	315	365	415	465	515
W	415	415	415	415	480	530	580

Ø	500	560	630	710	800	900	1000
A	565	615	715	765	865	965	1065
W	630	565	600	680	770	870	970

INSTALLATION



• Reservation dimensions (mm) = (A+50) x (A+50).

Motorised Fire, Smoke & Heat Dampers

ISONE 1500 with sleeve connection: EI 120 S - 1500 Pa

New



Green Product

Compliances

- CE 1812 - CPD - 1016
- NF-S-61937-5
- Bank assembly
 - EI 120S - 500 Pa
 - EI 90S - 1500 Pa

Advantages

- Grouting with traditional mortar, without fixing accessories.
- Upgradable mechanism: all the equipment can be plugged in by hand.
- Dual-voltage trip device (24/48V): control errors are impossible
- Wiring is made easy with the detachable terminal block.
- Mounting in banks using standard fire dampers.

APPLICATION

- Compartmentation of commercial and industrial-premises (Public assembly buildings, High rise buildings, etc.).
- Adapted to installations where the pressure is greater than 500 Pa and lower than 1500 Pa.

DESCRIPTION

- Rectangular duct element in refractory material, sleeves are fixed to the extremities for connection to a rectangular ventilation system.
- Mobile blade, in refractory material closing on the stops.
- ISONE upgradable mechanism.

INSTALLATION

- Embedded in a 150 mm concrete wall or 100 mm cellular concrete.
- Embedded in a 150 mm concrete slab up to 600 x 600 mm in size.
- Grouting with traditional mortar, without any fixing accessory.
- Reservation dimensions (mm) = (X+100) x (Y+100).
- The blade axis must be horizontal.
- For non-quoted dimensions, provide for a bank assembly using standard dimension dampers.

• Bank assembly:

Validated:

- EI 90S - 1500 Pa
- EI 120S - 500 Pa

For a vertical assembly of a maximum of 4 dampers with the same dimensions of 1200 x 800 mm, i.e. a maximum duct size of 2470 x 1670 mm.

Select the dimensions of the dampers by removing 70 mm corresponding to the thickness of the 2 faces in contact.

Example: for a bank of 1800 x 1200 mm, it is possible to use 4 X Y fire dampers:

$$X = (1800 - 70) / 2 = 865 \text{ mm}$$

$$Y = (1200 - 70) / 2 = 565 \text{ mm}$$

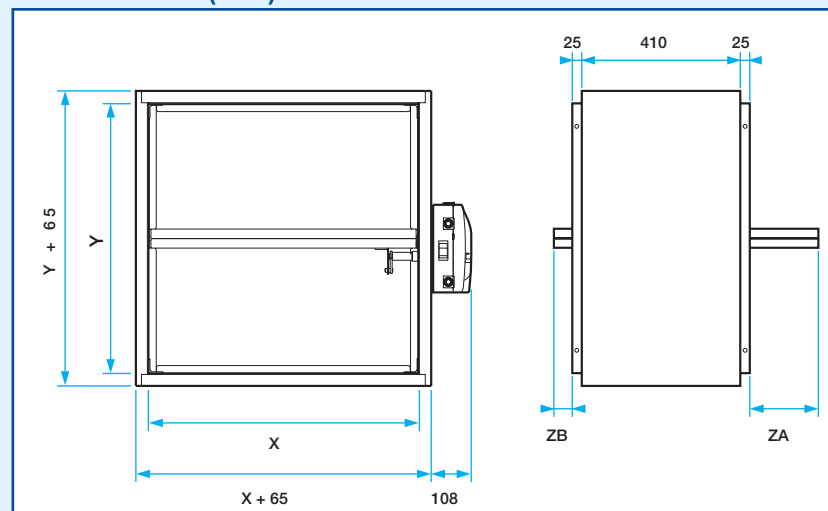
The assembly of the ISONE 1500 in banks is very simple:

- 1- Glue the faces of the dampers that will be in contact using a suitable adhesive (code 11043056).
- 2- Fix the faces in contact using VBA 5x40 mm screws, spaced out every 150 mm approx.
- 3- For a connection using flanges, it may be necessary to notch the sleeves over a few mm.

ACCESSORIES

Designation	Code
Adhesive for ISONE 1500 banks	11043056

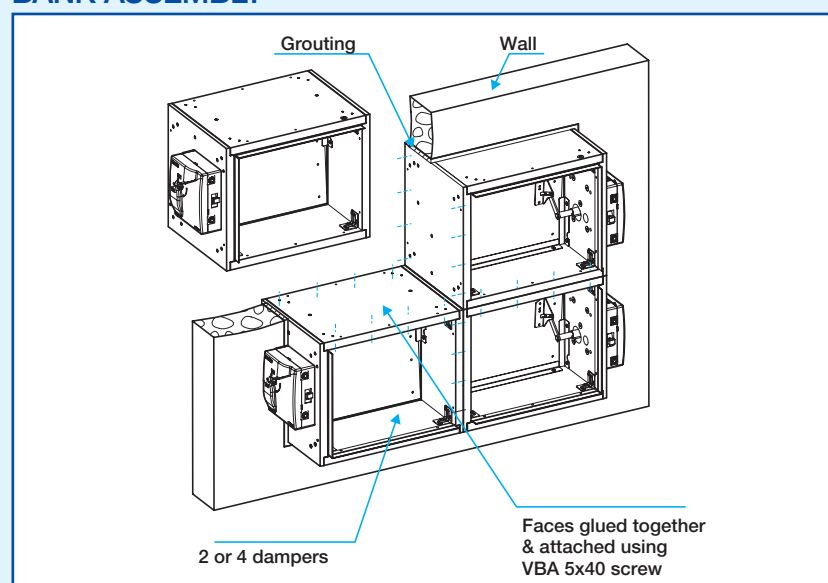
DIMENSIONS (mm)



Y	up to 300	350	400	450	500	550	600
ZA	0	10	35	60	85	110	135
ZB	0	0	0	0	0	0	5

Y	650	700	750	800	850	900	950	1000
ZA	160	185	210	235	260	285	310	335
ZB	30	55	80	105	130	155	180	205

BANK ASSEMBLY



Motorised Fire, Smoke & Heat Dampers

ISONE 1500 with sleeve connection: EI 120 S - 1500 Pa



Compliances

- CE 1812 - CPD - 1016
- NF-S-61937-5
- Bank assembly
 - EI 120S - 500 Pa
 - EI 90S - 1500 Pa

Advantages

- Grouting with traditional mortar, without fixing accessories.
- Upgradable mechanism: all the equipment can be plugged in by hand.
- Dual-voltage trip device (24/48 V): control errors are impossible
- Wiring is made easy with the detachable terminal block.
- Mounting in banks using standard fire dampers.

WEIGHT (KG) AND RANGE with choice of options

- The 70°C fusible thermal link is included.
- Bank assembly: use the specific adhesive to assemble standard ISONE 1500 fire dampers (code 11043056)

Y	11043057															
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
200	17	18	20	21	23	24	25	27	28	-	-	-	-	-	-	-
250	18	20	21	23	24	26	27	29	30	33	35	36	-	-	-	-
300	20	21	23	24	26	28	29	31	32	35	37	38	40	41	43	-
350	21	23	24	26	28	29	31	33	34	37	39	41	42	44	45	47
400	23	24	26	28	29	31	33	35	36	39	41	43	44	46	48	50
450	-	26	28	29	31	33	35	36	38	42	43	45	47	49	50	52
500	-	27	29	31	33	35	37	38	40	44	45	47	49	51	53	55
550	-	-	31	33	35	36	38	40	42	46	48	50	52	53	55	57
600	-	-	32	34	36	38	40	42	44	48	50	52	54	56	58	60
650	-	-	-	37	39	42	44	46	48	51	53	56	58	60	62	64
700	-	-	-	39	41	43	45	48	50	53	56	58	60	62	64	67
750	-	-	-	-	43	45	47	50	52	56	58	60	62	65	67	69
800	-	-	-	-	44	47	49	52	54	58	60	62	65	67	69	72
850	-	-	-	-	-	49	51	53	56	60	62	65	67	69	72	74
900	-	-	-	-	-	50	53	55	58	62	64	67	69	72	74	77
950	-	-	-	-	-	-	55	57	60	64	67	69	72	74	77	79
1000	-	-	-	-	-	-	57	59	62	66	69	71	74	77	79	82

Y	11043057										
	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
350	49	50	-	-	-	-	-	-	-	-	-
400	51	53	55	56	58	-	-	-	-	-	-
450	54	56	57	59	61	63	65	66	-	-	-
500	57	58	60	62	64	66	68	70	71	73	75
550	59	61	63	65	67	69	71	73	75	77	-
600	62	64	66	68	70	72	74	76	78	-	-
650	66	68	70	72	74	77	79	81	-	-	-
700	69	71	73	75	77	80	82	-	-	-	-
750	71	74	76	78	80	83	-	-	-	-	-
800	74	76	79	81	83	-	-	-	-	-	-
850	77	79	82	84	-	-	-	-	-	-	-
900	79	82	84	-	-	-	-	-	-	-	-
950	82	85	-	-	-	-	-	-	-	-	-
1000	85	-	-	-	-	-	-	-	-	-	-

AVAILABLE OPTIONS

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Description	Code		
FCU2 + DCU2 open/closed position contacts	OPT43320		

Motorised Fire, Smoke & Heat Dampers

“ALDES CONTROL” pack



Advantages

- Automatic functions controller - portable and autonomous.
- Ideal for controlling a fire damper independently from the CMSI.
- Easy to use.
- Automatic voltage selection.

APPLICATION

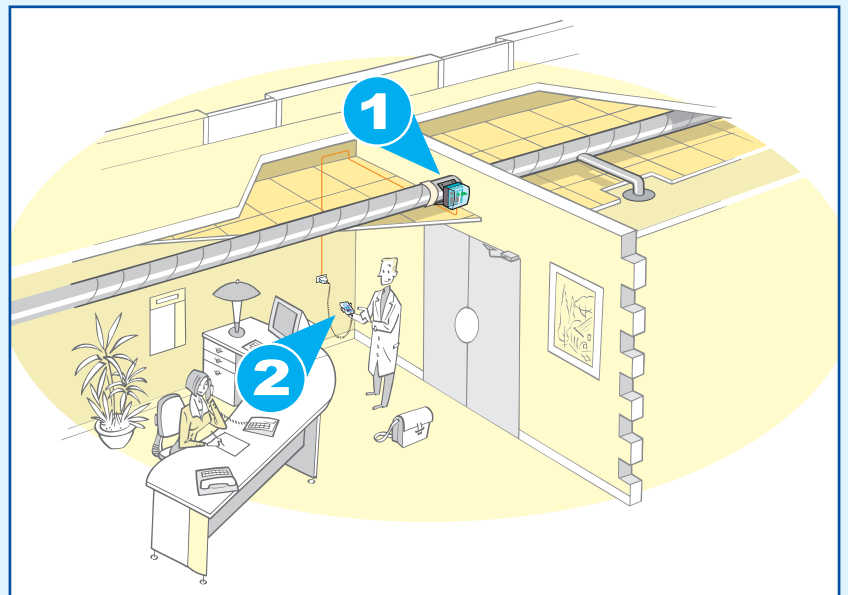
To perfect and facilitate the various inspections, verifications and adjustments that precede any start-up of an installation, ALDES has designed and now markets a portable **automatic** function controller called "ALDES CONTROL", which is autonomous and can be recharged from the mains supply. Its ergonomics and simplicity of use make it an indispensable tool for safety professionals.

Once connected to the electrical terminal of an ALDES fire damper or smoke exhaust damper using a quick-fit multi-pin connector, it can simulate the various centralised control system sequences and **test the operation** of all of the components, such as:

- the **electromagnetic power emission** trip device using a series of time-delayed impulses,
- the **position indicator contacts**, using green and red LEDs to show the standby or safety position status,
- the **reset servo-motor** with a power-on indicator throughout the duration of the cycle,
- the **priority management of the safety position** on the fire damper or smoke exhaust damper (D.A.S.),
- the **correct electrical connection** for all the components on the single or plug-in terminal.

In addition, it automatically selects the voltage (24 or 48 VDC) required for correct equipment operation and can perform around a hundred successive tests without recharge in the case of a full configuration.

EXAMPLE OF USE



- ① : ISONE fire damper
 ② : Aldes Control Pack

RANGE

Abbreviation	Designation	Code
ALDES CONTROL Pack* For ISONE	NF S 61-937-compliant function controller for FIRE DAMPER or SMOKE EXHAUST DAMPER	11041695
CONTROL PACK protective bag kit	Protection and travel bag	11041697
16-pin connector Kit	Detachable adapter for Weidmuller 16-pin terminals.	11041770
VRFI - VANTONE lead kit	WAGO cord kit + 12 pin connector - VRFI -VANTONE (before Sept. 2005)	11041699
ISONE 10-pin cord kit - VANTONE	10-pin cord kit for ISONE - VANTONE (after Sept. 2005)	11041696
CONTROL PACK charger kit		11041698

* Comprises: 1 controller, 1 protective bag, 1 charger, 1 ISONE 10-pin connector cord.

The ISONE Range

Summary table of fire resistance properties of ISONE fire dampers

To assist you in respecting these new regulatory requirements, we present a summary table of the European fire resistance classifications of our ISONE fire dampers. You can see that at the time of production of this catalogue, there are still some tests to carry out. You can obtain an updated version of this table on www.aldes.fr/pro.

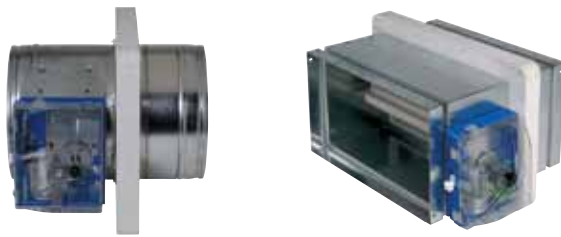
Type of Fire damper	110 mm concrete		
	French vocabulary	European vocabulary	
 <p>ISONE rectangular EM - FdP PM and MM</p>	2 hour fire damper 500 Pa Horizontal surface Vertical wall Front-back Dimensional area: $1/3 < X/Y < 2$	EI 120 S 500 Pa Ve Ho i ↔ o Dimensional area: $< X - < Y$	Page 31
 <p>ISONE rectangular EM GM and TGM</p>	2 hour fire damper 500 Pa Horizontal surface Vertical wall Front-back Blade axis: horizontal Dimensional area: $1/3 < X/Y < 2$	EI 90 S 500 Pa Ve Ho i ↔ o Blade axis: horizontal Dimensional area: $< X - < Y$	Page 33
 <p>ISONE 1500</p>	2 hour fire damper 1500 Pa Vertical wall Slab up to 600 x 600 Front-back Blade axis: horizontal	EI 120 S 1500 Pa Ve Ho up to 600 x 600 i ↔ o Blade axis: horizontal	Page 42
 <p>ISONE circular EM - FdP</p>	2 hour fire damper 500 Pa Vertical wall Horizontal surface Front-back	EI 120 S 500 Pa Ve Ho i ↔ o	Page 37
 <p>Circular ISONE/Ap</p>	1 hour 30 Fire damper 500 Pa Vertical wall Front-back	In progress	Page 37
 <p>Rectangular ISONE/Ap</p>	1 hour 30 Fire damper 500 Pa Vertical wall Front-back	In progress	Page 37
Type of Fire damper	Thin plasterboard partition wall		
	French vocabulary	European vocabulary	
 <p>Circular ISONE/Ap</p>	1 hour 30 Fire damper 500 Pa 1 hour or 2 hour wall Front-back	EI 90 S 500 Pa 1 hour or 2 hour wall i ↔ o	Page 48
 <p>Rectangular ISONE/Ap</p>	1 hour 30 Fire damper 500 Pa 1 hour or 2 hour wall Front-back	EI 90 S 500 Pa 2 hour wall i ↔ o	Pages 49

Motorised Fire, Smoke & Heat Dampers

ISONE wall mounted circular and rectangular dampers

New

CE 1812 NF



Green Product

Advantages

- Simple, economic installation, no grouting or hanging.
- 70 mm thick plaster blocks
- On thin plasterboard partition wall
- On PROMAT duct
- On GEOSTAFF offset duct.

APPLICATION

- Compartmentation of residential, commercial and industrial buildings.

DESCRIPTION

- EI 90 S - 500 Pa on rail & plasterboard wall.
- EI 120 S - 2h on Promatect and Supalux ducts.
- Consists of 2 metal sleeves on both sides of an assembly of refractory material.
- The refractory complex is doted with holes enabling attachment to concrete walls in the 4 corners and other holes enabling attachment to the metal rails behind the plasterboard wall.
- The upgradable mechanism box is positioned on a sleeve.

RANGE

- Circular Istone/Ap up to Ø 560 mm.
- Rectangular Istone/Ap up to 800 x 600 mm. See following pages

AVAILABLE OPTIONS

- **Mechanism equipment (see page 27)**
 - Open and closed position switch. (FCU1, DCU1, FCU2, DCU2).
 - Electromagnetic 24/48V trip device - power emission (VDS 24/48V) or power cut-off (VM 24/48V).
 - Electrical reset motor (EHOP 30s).

• Aeraulic connection

Leaktight seal for circular dampers:

- minimises energy losses and provides quick and easy connection to the ducts.
- Single lip seal up to Ø 400 mm, double beyond that.
- Operating range (0-1500 Pa).

• Customisable labelling

Name of the work site, customer, installation area, etc.

PRESSURE LOSS (Pa)

- ISONE rectangular wall-mounted.
- ISONE circular wall-mounted: table below

Ø duct (mm)	ØP ISONE / Ap
100-125, -160-200	(Q/67.3) ²
250	(Q/128.5) ²
315	(Q/264) ²
355	(Q/217) ²
400	(Q/326.5) ²
450	(Q/409.3) ²
500	(Q/573.5) ²

Note: The above formulae give pressure losses in Pa for airflow in m³/h.

ISONE Ap PRESSURE LOSS

The values given below are pressure losses in Pa, for air velocity at 4 m/s.

Height Y	Width X												
	200	250	300	350	400	450	500	550	600	650	700	750	800
200	44	39	36	34	32	31	30	98	94				
250	33	29	26	24	23	22	46	43	42	21	21	20	
300	27	23	21	19	18	31	30	28	27	22	22	23	24
350	23	20	18	17	26	24	22	21	21	19	19	20	20
400	21	18	16	24	22	20	19	18	17	17	17	17	17
450		17	25	21	19	17	16	16	15	15	15	15	15
500		28	22	19	17	16	15	14	13	14	14	14	14
550			21	18	16	15	14	13	12	13	13	13	13
600			20	17	15	14	13	12	12	12	12	12	12

Note: to determine pressure losses at a speed V: $\Delta P = \Delta P(4 \text{ m/s}) \times V^2 / 16$

INSTALLATION PRINCIPLE

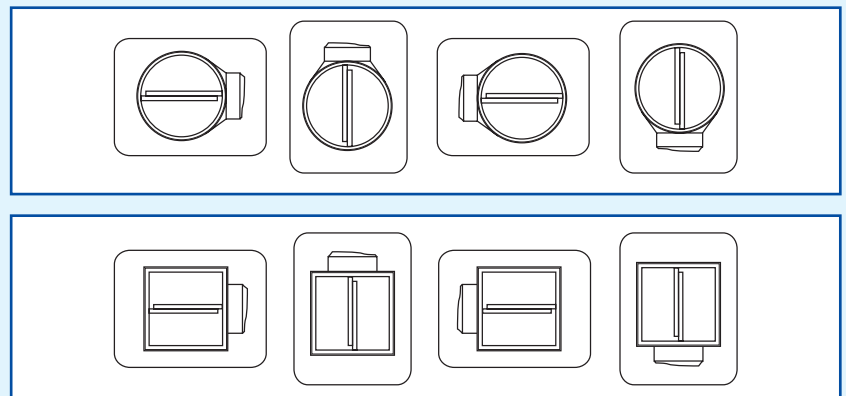
- Installation on plasterboard walls + metal rail.
- Installation on plaster blocks.
- Installation on an offset duct.
- Aeraulic connection

The 2 Istone metal sleeves are male type.

The sleeves should be mounted without applying any mechanical stress on the components. The damper and duct must be perfectly aligned.

- With the Istone/Ap wall-mounted installation there is no need for grouting, hanging nor thermal protection.
- Very simple and quick installation, validated on plasterboard walls.

MECHANISM POSITIONING UNIMPORTANT



Motorised Fire, Smoke & Heat Dampers

Circular ISONE/Ap

New



Compliances

- CE 1812 - CPD - 1021
- NF-S-61937-5

Advantages

- Ideal on a wall opening (only one side accessible).
- Simple and economic to install, approved for "lightweight partition walls", PROMAT vertical duct and GEOSTAFF horizontal duct.
- No grouting, no hanging.
- Horizontal or vertical blade axis.

DESCRIPTION

- 2 metal sleeves on both sides of a complex made of refractory material provided with holes fixing the fire damper to the partition wall:
- An Ø 8 mm hole in each corner of the refractory for attachment to concrete walls.
- Ø 5.5 mm holes around metal sleeves for attachment to plasterboard walls.
- On plaster block partition wall
- On PROMAT vertical duct
- On GEOSTAFF horizontal duct.

INSTALLATION

- See previous pages.

RANGE with choice of options

70°C thermal fuse included
For Ø < 200 mm, 2 reducers are supplied

Designation	Code
ISONE/Ap Ø 100 mm	11043040
ISONE/Ap Ø 125 mm	11043041
ISONE/Ap Ø 160 mm	11043042
ISONE/Ap Ø 200 mm	11043043
ISONE/Ap Ø 250 mm	11043044
ISONE/Ap Ø 315 mm	11043045
ISONE/Ap Ø 355 mm	11043046
ISONE/Ap Ø 400 mm	11043047
ISONE/Ap Ø 450 mm	11043048
ISONE/Ap Ø 500 mm	11043049
ISONE/Ap Ø 560 mm*	11043050

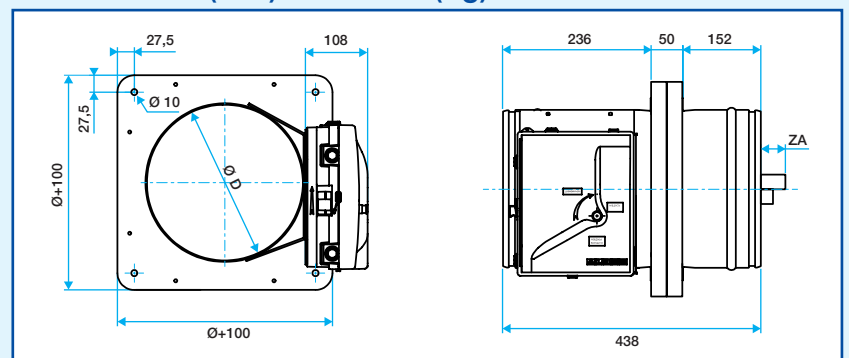
* From a square body

AVAILABLE OPTIONS

Choose mechanism equipment from the table below.

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Designation	Code		
FCU2 + DCU2 open/closed position contacts	OPT43320		

DIMENSIONS (mm) - WEIGHT (kg)



Ø D	Overall L x H	Exceeding ZA blade	Weight
200	300 x 300	-	10.5
250	350 x 350	-	12
315	415 x 415	3	13.5
355	455 x 455	23	15
400	500 x 500	42.5	19
450	550 x 550	67.5	21
500	600 x 600	92.5	24
560*	660 x 660	117.5	29

Motorised Fire, Smoke & Heat Dampers

Rectangular ISONE/Ap



New



Compliances

- CE 1812 - CPD - 1022
- NF-S-61937-5

Advantages

- Ideal on a wall opening (only one side accessible).
- Simple and economic to install, approved for "lightweight partition walls", PROMAT vertical duct and GEOSTAFF horizontal duct.
- No grouting, no hanging.
- Horizontal or vertical blade axis.

DESCRIPTION

- EI 60 S or EI 90 S fire damper on plasterboard partition wall.
- EI 120 S on PROMAT vertical duct.
- EI 120 S on GEOSTAFF horizontal duct.

INSTALLATION

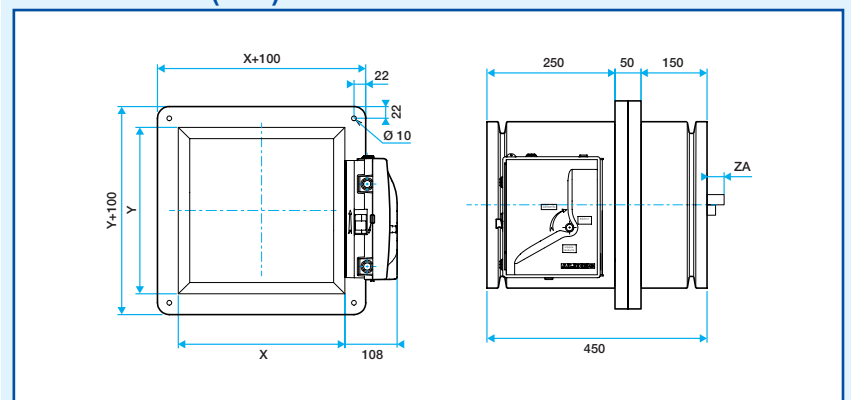
- See previous pages.

WEIGHT (KG) AND RANGE with choice of options

70°C thermal fuse included

Code Height Y	11043105 Width X						
	200	250	300	350	400	450	500
200	12	13	14	15	16	17	18
250	13	14	16	17	18	19	-
300	13	14	16	17	18	-	-
350	14	16	17	18	-	-	-
400	15	17	18	-	-	-	-
450	-	18	-	-	-	-	-

DIMENSIONS (mm)



ZA: Angular displacement of the blade.

Y	200	250	300	350	400	450	500	550	600	650	700	750	800
ZA	0	0	0	0	17	42	47	72	97	122	147	172	197

Code Height Y	11043106 - EI 60 S - EI 90 S*												
	250	300	350	400	450	500	550	600	650	700	750	800	
200	-	-	-	-	-	-	20	21	-	-	-	-	
250	-	-	-	-	-	20	22	23	24	25	27	-	
300	-	-	-	-	20	21	22	23	25	27	28	29	
350	-	-	-	20	21	22	24	25	27	28	29	31	
400	-	-	20	21	23	24	25	27	28	29	31	32	
450	-	20	21	23	24	25	27	28	29	31	32	33	
500	19	21	22	24	25	27	28	29	31	32	33	35	
550	-	22	24	25	27	28	29	31	32	33	35	37	
600	-	23	25	27	28	29	31	32	33	35	37	38	

* Installed inside framework.

AVAILABLE OPTIONS

Choose mechanism equipment from the table below.

Select equipment (indicate trip voltage in order for factory adjustment and testing)	FTE Option Code	24V Option Code	48V Option Code
FCU1 open position contact for FTE	OPT43301		
DCU1 closed position contact for FTE	OPT43302		
FCU1 + DCU1 open/closed position contacts for FTE	OPT43303		
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 contact		OPT43304	OPT43306
VDS "Power emission" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43305	OPT43307
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 contact		OPT43308	OPT43310
VM "Power cut-off" electromagnetic trip device 24/48V + FCU1 + DCU1 contacts		OPT43309	OPT43311
VDS trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43312	OPT43314
VDS trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43313	OPT43315
VM trip device 24/48V + FCU1 contact + EHOP30s reset motor		OPT43316	OPT43318
VM trip device 24/48V + FCU1 + DCU1 contacts + EHOP30s reset motor		OPT43317	OPT43319
Description	Code		
FCU2 + DCU2 open/closed position contacts	OPT43320		

Fire Damper Cartridges & Grilles

CF1 / CF2



New

CE
1812

Compliances

• CE 1396 - CPD - 0050

CF1: fire damper cartridges
EI 60 S - (ve ho i ↔ o)

RANGE

Ø (mm)	Designation	Code
100	CF1-D100-(EI60S)	11040430
125	CF1-D125-(EI60S)	11040431
150	CF1-D150-(EI60S)	11040432
160	CF1-D160-(EI60S)	11040433
200	CF1-D200-(EI60S)	11040434

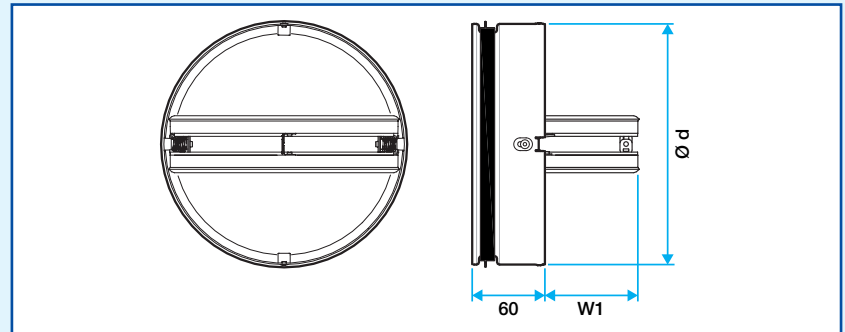
CF2: fire damper cartridges
EI 120 S - (ve ho i ↔ o)

RANGE

Ø (mm)	Designation	Code
100	CF2-D100-(EI120S)	11040435
125	CF2-D125-(EI120S)	11040436
150	CF2-D150-(EI120S)	11040437
160	CF2-D160-(EI120S)	11040438
200	CF2-D200-(EI120S)	11040439

DIMENSIONS (mm) - WEIGHT (kg)

(mm)	D (mm)	EI 120 S W1 (mm)	EI 60 S	EI 120 S
			Weight (kg)	
100	1.5	27	0.3	0.3
125		39.5	0.4	0.4
150		52	0.4	0.6
160		57	0.5	0.6
200		77	0.7	0.9



Fire Damper Grilles

To obtain a 1h EI 60S fire damper grille or a 2h EI 120 S fire damper, add an **SR 143 metal core grille** in front of the selected cartridge.

DESCRIPTION SR 143

- Adjustable core.
- White epoxy painted steel RAL 9010.
- Fitted by clipping into the duct.
- Connection sleeve supplied.

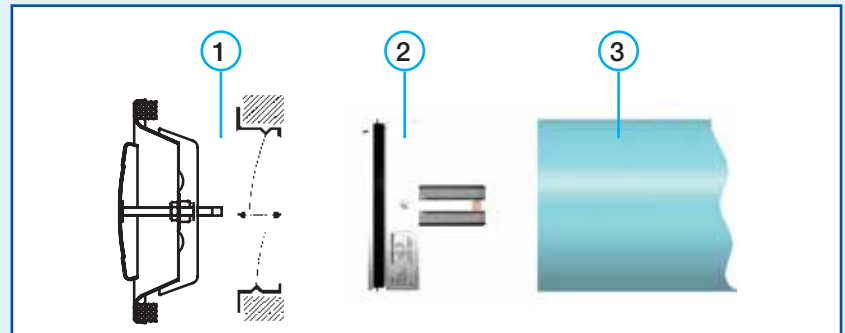
RANGE

Dimensions SR 143 (mm)	Code
Ø 100	11052226
Ø 125	11052227
Ø 160	11052228
Ø 200	11052229

- Also see p. 211 for more details.

INSTALLATION

- 1 = SR 143 type metal core grille and sleeve
- 2 = CF1 or CF2 cartridge
- 3 = duct



Motorised Fire & Smoke Dampers

With thermal responsive device (manually resettable) & spring return actuator



FD 125

CIVIL DEFENCE APPROVED

Compliance

- UL 555 / UL 555S classified.
- Constructed and tested as per latest versions of UL 555 and UL 555S standards.

Advantages

- Fire resistance: 1.5h.
- Leakage: Class II - 250°F
- Dynamic rating: 2000 fpm at 4" w.g.
- Installation: Upstream or downstream; Vertical or Horizontal.
- Suitable for static & dynamic systems.
- Easy maintenance due to motorization.

APPLICATION

- MFSD are designed to be installed in HVAC ductwork at locations that are designated as fire barrier or fire & smoke barrier. It should not be installed in a smoke extraction ductwork for smoke extraction applications.
- It is suitable for vertical installation in walls/partitions and horizontal installation in floor having a fire resistance rating of less than 3 hours (as per NFPA 90A).
- It prevents the spread of fire/smoke inside residential, commercial and industrial buildings.

DESCRIPTION

- Normally open but can be closed through remote signal from Fire Alarm Control Panel / BMS or closed automatically upon detection of heat.
- Protects the integrity of a fire/smoke barrier wherever it is penetrated by HVAC ductwork by preventing the spread of fire/smoke

CONSTRUCTION

- Casing: 140mm deep, hat-shaped casing manufactured from 16 ga. (1.5mm) galvanised steel.
- Blade: 3V-groove shaped, single skin blades manufactured from 16 ga. (1.5mm) galvanised steel. Parallel blade operation.
- External linkages concealed in hat-shape frame.
- TRD: Manually resettable Thermal Responsive Device that operates at 165° F (74° C).
- Blade tip seal: Silicon rubber seals permanently bonded to blade edge through self-forming silicon sealant.
- Jamb seal: Stainless steel, spring action type.
- Actuator: UL listed, Spring return, Electric 24VAC/ 230VAC, quick opening & closing.
- Jackshaft: 12mm x 12mm square jackshaft to ensure tight grip at the actuator.
- Brass bush: round for spindles and square for jackshaft.
- Sleeve: 400mm long factory installed sleeve (standard supply) manufactured from 16ga (1.5mm) galvanised steel.
- Minimum size: 203mm x 203mm (for **150mm x 150mm, see note under Available Sizes table).
- Maximum size: 914mm x 914mm (single section).
- * Larger sizes manufactured in multiple sections.

INSTALLATION

- Jackshaft upstream or jackshaft downstream.
- Vertical in wall/partitions or horizontal in floors.

RANGE

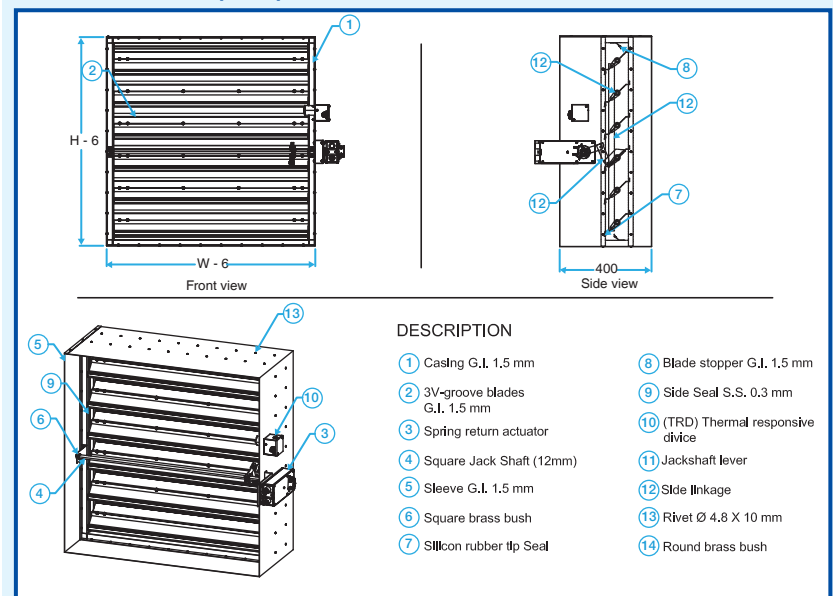
Description	Code
FD 125 MFSD with G.I. casing & blades	
*FD 125-1 MFSD with G.I. casing & SS (grade 304) blades	
*FD 125-2 MFSD with SS (grade 304) casing & blades	

ACCESSORIES

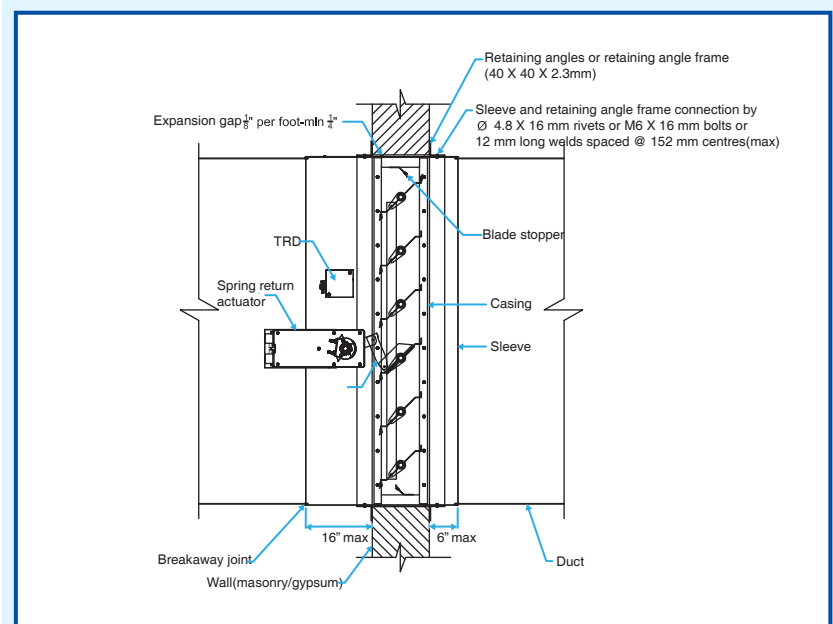
Description	Code
Retaining angles frame – 40 x 40 x 2.3 mm	
Retaining angles lose – 40 x 40 x 2.3 mm	
Duct transitions: rectangular, circular or oval	
Access Doors (see page 62)	

*, ** Not available for UL classified dampers

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
H	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900

** 200W or 200H damper with factory installed sleeve will have rectangular/round oval duct transition on both sides of sleeve.

- Any combination of W x H. For non-standard sizes, please consult us.

Motorised Fire Dampers

With thermal responsive device (manually resettable) & spring return actuator



MD 125

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- Constructed and tested as per latest version of UL 555 standard.

Advantages

- Fire resistance: 1.5h.
- Dynamic rating: 2000 fpm at 4" w.g.
- Installation: Upstream or downstream; Vertical or Horizontal.
- Suitable for static & dynamic systems.
- Easy maintenance due to motorization.

APPLICATION

- Motorised fire dampers are designed to be installed in HVAC ductwork at locations that are designed as fire barrier.
- Suitable for vertical installation in walls/partitions and horizontal installation in floors having a fire resistance rating of less than 3 hours (as per NFPA 90A).
- It prevents the spread of fire inside residential, commercial and industrial buildings.

DESCRIPTION

- Normally open but can be closed through remote signal from Fire Alarm Control Panel / BMS or closed automatically upon detection of heat.
- Protects the integrity of a fire barrier wherever it is penetrated by HVAC ductwork by preventing the spread of fire

CONSTRUCTION

- Casing: 140mm deep, hat-shaped casing manufactured from 16 ga. (1.5mm) galvanized steel.
- Blade: 3V-groove shaped, single skin blades manufactured from 16 ga. (1.5mm) galvanized steel. Parallel blade operation.
- External linkages concealed in hat-shape frame.
- TRD: Manually resettable Thermal Responsive Device that operates at 165° F (74° C).
- Blade tip seal: No tip seal installed.
- Jamb seal: Stainless steel, spring action type.
- Actuator: UL listed, Spring return, Electric 24VAC/230VAC, quick opening & closing.
- Jackshaft: 12mm x 12mm square jackshaft to ensure tight grip at the actuator.
- Brass bush: round for spindles and square for jackshaft.
- Linkage: Zinc plated steel external linkage, concealed in frame.
- Sleeve: 400mm long factory installed sleeve (standard supply) manufactured from 16ga (1.5mm) galvanized steel.
- Minimum size: 203mm x 203mm (for ** 150mm x 150mm, see note under Available Sizes table).
- Maximum size: 914mm x 914mm (single section).
- * Larger sizes manufactured in multiple sections.

INSTALLATION

- Jackshaft upstream or jackshaft downstream.
- Vertical in wall/partitions or horizontal in floors.

RANGE

Description	Code
MD 125 MFSD with G.I. casing & blades	
*MD 125-1 MFSD with G.I. casing & SS (grade 304) blades	
*MD 125-2 MFSD with SS (grade 304) casing & blades	

ACCESSORIES

Description	Code
Retaining angles frame – 40 x 40 x 2.3 mm	
Retaining angles lose – 40 x 40 x 2.3 mm	
Duct transitions: rectangular, circular or oval	
Access doors (see page 62)	

**, ** Not available for UL classified dampers

DIMENSIONS (mm)

DESCRIPTION

① Casing G.I. 1.5 mm	⑦ Blade stopper G.I. 1.5 mm
② 3V-groove blades G.I. 1.5 mm	⑧ Slide Seal S.S. 0.3 mm
③ Spring return actuator	⑨ Jackshaft lever
④ Square Jack Shaft (12mm)	⑩ Side linkage
⑤ Sleeve G.I. 1.5 mm	⑪ Rivet Ø 4,8 X 10 mm
⑥ Square brass bush	⑫ Round brass bush
	⑬ (TRD) Thermal responsive device

INSTALLATION DETAILS

Retaining angles or retaining angle frame (40 X 40 X 2.3mm)

Sleeve and retaining angle frame connection by Ø 4.8 X 16 mm rivets or M6 X 16 mm bolts or 12 mm long welds spaced @ 152 mm centres(max)

Expansion gap $\frac{1}{8}$ " per foot-min $\frac{1}{4}$ "

Blade stopper

Casing

Sleeve

TRD

Spring return actuator

Breakaway joint

Wall(masonry/gypsum)

Duct

16" max

6" max

AVAILABLE SIZES (mm)

W	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
H	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900

** 200W or 200H damper with factory installed sleeve will have rectangular/round/oval duct transition on both sides of sleeve.

- Any combination of W x H. For non-standard sizes, please consult us.

Curtain Fire Dampers

Blades outside airstream with 100% free area



FD 150 CH

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- BS 476 certified.
- Constructed and tested as per UL 555 and BS 476: Part 20: 1987.

Advantages

- Fire resistance: 1.5h (UL 555).
- Fire resistance: 2h (BS 476).
- Suitable for static systems.
- 100% free area with no pressure loss.
- Maintenance: easy removal of the fusible link.

APPLICATION

- For vertical installation in walls or partitions with fire resistance rating of less than 3 hours.
- Suitable for use in static systems, no pressure loss.

DESCRIPTION

- Normally open and close automatically upon detection of heat.
- Protects integrity of a fire barrier & limits spread of fire.
- Maintains the fire resistance rating where penetrated by HVAC ductwork.

CONSTRUCTION

Single section

- Casing made from 18 ga. (1.2 mm) galvanized steel.
- Interlocking type blades made from 22 ga. (0.8 mm) galvanized steel.
- UL listed fusible link which operates at 74°C (165°F).
- Stainless steel closure springs.
- Sleeve made from 16 ga. (1.5 mm) galvanized steel can be factory installed (recommended) or field supplied (as per installation instructions).
- Minimum size: 100 x 100 mm ; opening dimensions.
- Maximum size: 914 x 914 mm ; overall dimensions.

CONSTRUCTION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150 CH – Single – G.I. casing & blades	
*FD 151 CH – Single – G.I. casing & SS (grade 304) blades	
*FD 152 CH – Single – G.I. SS (grade 304) casing & blades	

AVAILABLE OPTIONS

Description	Code
G.I. sleeve (300 mm long)	S
HEVAC installation frame	**V

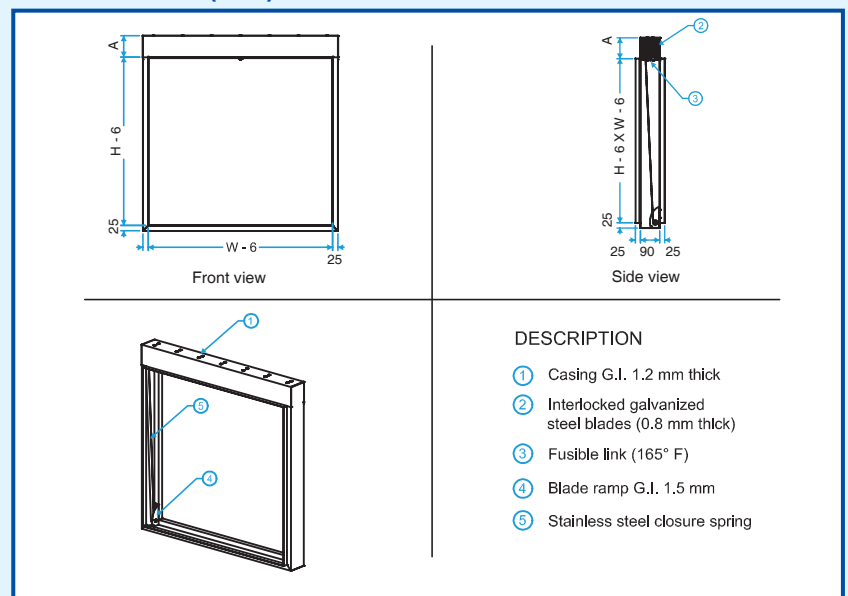
ACCESSORIES

Description	Code
Retaining angles frame – 40 x 40 x 3 mm	F
Retaining angles lose – 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

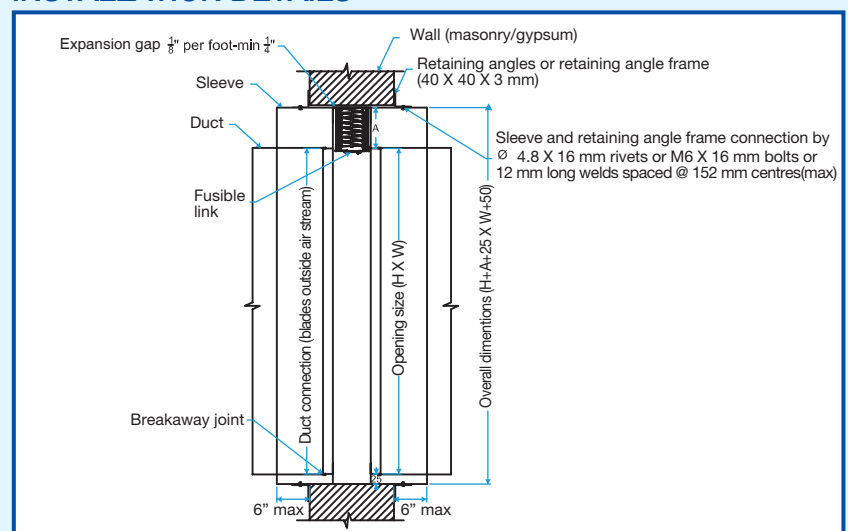
* Not available for UL classified dampers.

**Not available for UL classified / BS certified dampers.

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
H	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
A	30	35	40	45	50	55	60	65	70	70	75	80	85	90	95	95
n ^o Blade	4	5	5	6	7	8	9	10	11	11	12	13	14	15	16	16

- Any combination of W x H. For other sizes, please consult us.
- A and n^o blades are associated with height H of damper.

Curtain Fire Dampers

Blades outside airstream with 100% free area



FD 150CH

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- BS 476 certified.
- Constructed and tested as per UL 555 and BS 476: Part 20: 1987.

Advantages

- Fire resistance: 1.5h (UL 555).
- Fire resistance: 2h (BS 476).
- Suitable for static systems.
- 100% free area with no pressure loss.
- Maintenance: easy removal of the fusible link.

CONSTRUCTION

Multiple section

- For dampers exceeding the limitation of single section dimensions, they will be manufactured in multiple sections for assembly in factory.
- Multiple sections will be created by joining 2 or 4 single sections together by welding. The joints shall then be covered by 18 ga. (1.2 mm) metal strips running horizontally and vertically.
- Maximum size: 1828 x 1828 mm ; overall dimensions

Possible arrangements

- 2 single sections (in width) x 1 single section (in height).
- 1 single section (in width) x 2 single sections (in height).
- 2 single sections (in width) x 2 single sections (in height).

INSTALLATION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150CH – Multi – G.I. casing & blades	
*FD 151CH – Multi – G.I. casing & SS (grade 304) blades	
*FD 152CH – Multi – G.I. SS (grade 304) casing & blades	

AVAILABLE OPTIONS

Description	Code
G.I. sleeve (300 mm long)	S
HEVAC installation frame	**V

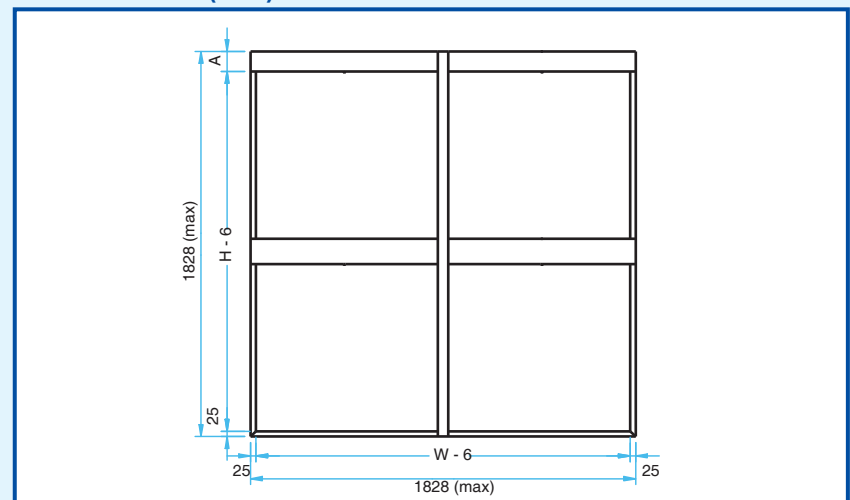
ACCESSORIES

Description	Code
Retaining angles frame – 40 x 40 x 3 mm	F
Retaining angles lose – 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

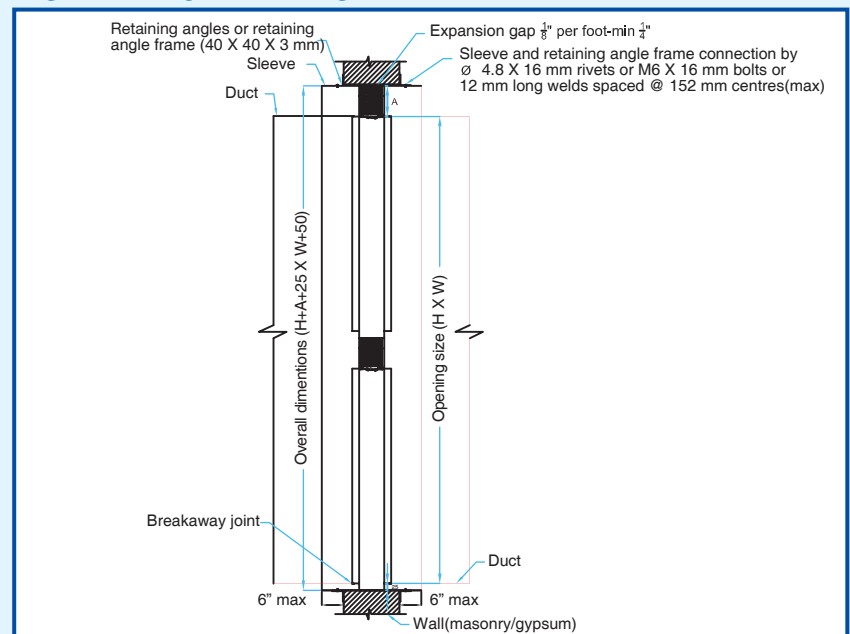
* Not available for UL classified dampers.

**Not available for UL classified / BS certified dampers.

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	H	A	n° Blade
900	850	60	9
900	900	60	9
950	950	65	10
1000	1000	65	10
1050	1050	70	11
1100	1100	70	11
1150	1150	75	12
1200	1200	75	12
1250	1250	75	12
1300	1300	80	13
1350	1350	80	13
1400	1400	85	14
1450	1450	85	14
1500	1500	85	14
1550	1550	90	15
1600	1600	90	15
1650	1650	95	16
1700	1700	95	16
1750	1750	95	16

- Any combination of W x H. For other sizes, please consult us.
- A and n° blades are associated with height H of single section damper.

Curtain Fire Dampers

Blades outside airstream with 100% free area



FD150CH-D

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- Constructed and tested as per latest edition of UL555 standard.

Advantages

- Fire resistance: 1.5h.
- Suitable for static & dynamic systems.
- 100% free area with no pressure loss.
- Maintenance: easy removal of the fusible link.
- Dynamic rating : 2000 fpm at 4" w.g. pressure.

APPLICATION

- For vertical installation in walls or partitions with fire resistance rating of less than 3 hours.
- Suitable for use in static & dynamic systems, no pressure loss.

DESCRIPTION

- Normally open and close automatically upon detection of heat.
- Protects integrity of a fire barrier & limits spread of fire.
- Maintains the fire resistance rating where penetrated by HVAC ductwork.

CONSTRUCTION

- Casing made from 18 ga. (1.2 mm) galvanized steel.
- Interlocking type blades made from 22 ga. (0.8 mm) galvanized steel.
- UL listed fusible link which operates at 74°C (165°F)
- Stainless steel closure springs.
- Sleeve made from 16 ga. (1.5 mm) galvanized steel can be factory installed (recommended) or field supplied (as per installation instructions).
- Minimum size: 100 x 100 mm ; opening dimensions.
- Maximum size: 914 x 914 mm ; overall dimensions.

INSTALLATION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150 CH-D - Single - G.I. casing & blades	
*FD 151 CH-D - Single - G.I. casing & SS (grade 304) blades	
*FD 152 CH-D - Single - G.I. casing & blades and SS (grade 304)	

AVAILABLE OPTIONS

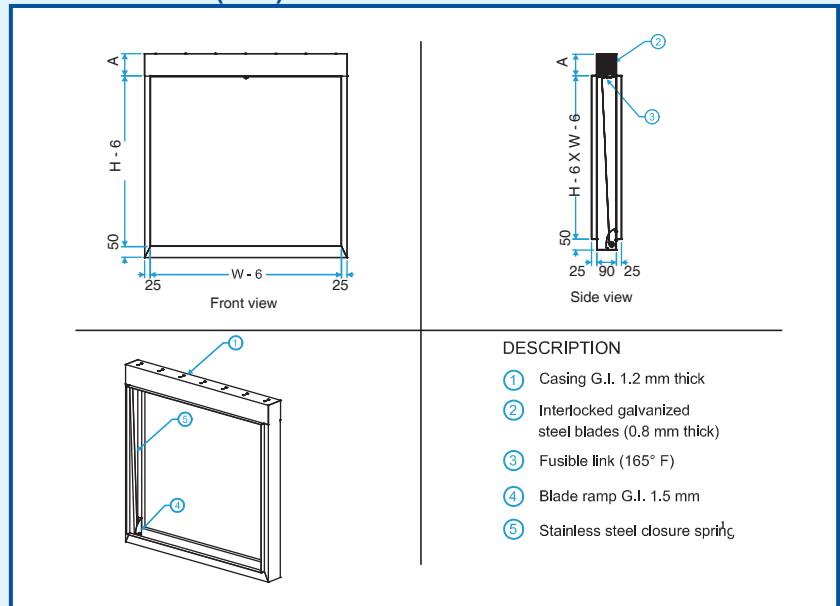
Description	Code
G.I. sleeve (300 mm long)	S
HEVAC installation frame	*V

ACCESSORIES

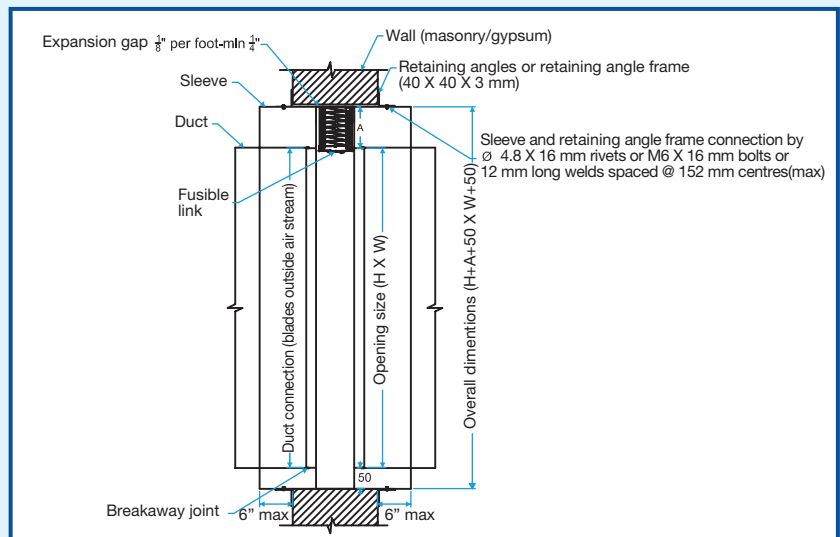
Description	Code
Retaining angles frame - 40 x 40 x 3 mm	F
Retaining angles lose - 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

* Not available for UL Classified dampers

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
H	100	150	200	250	300	350	400	450	500	550	600	650	700	750	750	750
A	30	35	45	50	55	60	60	65	70	75	80	85	90	95	95	95
n° blades	4	5	6	7	8	9	9	10	11	12	13	14	15	16	16	16

- Any combination of W x H. For other sizes, please consult us.
- A and n° blades are associated with height H of damper.

Curtain Fire Dampers



Blades partially inside airstream



FD 150 AH

CIVIL DEFENCE APPROVED

- Compliance**
- UL 555 classified.
 - BS 476 certified.
 - Constructed and tested as per UL 555 and BS 476: Part 20: 1987.

- Advantages**
- Fire resistance: 1.5h (UL 555).
 - Fire resistance: 2h (BS 476).
 - Suitable for static systems.
 - 100% free area with no pressure loss.
 - Maintenance: easy removal of the fusible link.

APPLICATION

- For vertical installation in walls or partitions with fire resistance rating of less than 3 hours.
- Suitable for use in static systems, no pressure loss.

DESCRIPTION

- Normally open and close automatically upon detection of heat.
- Protects the integrity of a fire barrier & limits spread of fire.
- Maintains its fire resistance rating where penetrated by HVAC ductwork.

CONSTRUCTION

Single section

- Casing made from 18 ga. (1.2 mm) galvanized steel.
 - Interlocking type blades made from 22 ga. (0.8 mm) galvanized steel.
 - UL listed fusible link which operates at 74°C (165°F)
 - Stainless steel closure springs.
 - Sleeve made from 16 ga. (1.5 mm) galvanized steel can be factory installed (recommended) or field supplied (as per installation instructions).
- NOTE: for insert type installation, damper must be supplied with 140 mm long factory installed sleeve.
- Minimum size: 100 x 100 mm ; opening dimensions.
 - Maximum size: 914 x 914 mm ; overall dimensions.

INSTALLATION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150 AH – Single – G.I. casing & blades	
*FD 151 AH – Single – G.I. casing & SS (grade 304) blades	
*FD 152 AH – Single – G.I. SS (grade 304) casing & blades	

AVAILABLE OPTIONS

Description	Code
G.I. sleeve (300 mm long)	S
HEVAC installation frame	**V

ACCESSORIES

Description	Code
Retaining angles frame – 40 x 40 x 3 mm	F
Retaining angles lose – 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

* Not available for UL classified dampers.
 **Not available for UL classified / BS certified dampers.

DIMENSIONS (mm)

DESCRIPTION

- ① Casing G.I. 1.2 mm thick
- ② Interlocked galvanized steel blades (0.8 mm thick)
- ③ Fusible link (165° F)
- ④ Blade ramp G.I. 1.5 mm
- ⑤ Stainless steel closure spring

INSTALLATION DETAILS

Expansion gap $\frac{1}{8}$ " per foot-min $\frac{1}{4}$ "

Wall (masonry/gypsum)

Retaining angles or retaining angle frame (40 X 40 X 3 mm)

Sleeve and retaining angle frame connection by \varnothing 4.8 X 16 mm rivets or M6 X 16 mm bolts or 12 mm long welds spaced @ 152 mm centres (max)

Breakaway joint

6" max

AVAILABLE SIZES (mm)

W	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
H	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
A	30	35	35	40	45	50	55	55	60	65	70	70	75	80	85	90
n ^o Blade	4	5	5	6	7	8	9	9	10	11	12	12	13	14	15	16

- Any combination of W x H. For other sizes, please consult us.
- X and n^o blades are associated with height H of damper.

Curtain Fire Dampers



Blades partially inside airstream



FD 150 AH

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- BS 476 certified.
- Constructed and tested as per UL 555 and BS 476: Part 20: 1987.

Advantages

- Fire resistance: 1.5h (UL 555).
- Fire resistance: 2h (BS 476).
- Suitable for static systems.
- 100% free area with no pressure loss.
- Maintenance: easy removal of the fusible link.

CONSTRUCTION

Multiple section

- For dampers exceeding the limitation of single section dimensions, they will be manufactured in multiple sections for assembly in factory.
- Multiple sections will be created by joining 2 or 4 single sections together by welding. The joints shall then be covered by 18 ga. (1.2 mm) metal strips running horizontally and vertically.
- Maximum size: 1828 x 1828 mm ; overall dimensions.

Possible arrangements

- 2 single sections (in width) x 1 single section (in height).
- 1 single section (in width) x 2 single sections (in height).
- 2 single sections (in width) x 2 single sections (in height).

INSTALLATION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150 AH – Multi – G.I. casing & blades	
*FD 151 AH – Multi – G.I. casing & SS (grade 304) blades	
*FD 152 AH – Multi – G.I. SS (grade 304) casing & blades	

AVAILABLE OPTIONS

Description	Code
G.I. sleeve (300mm long)	S
HEVAC installation frame	**V

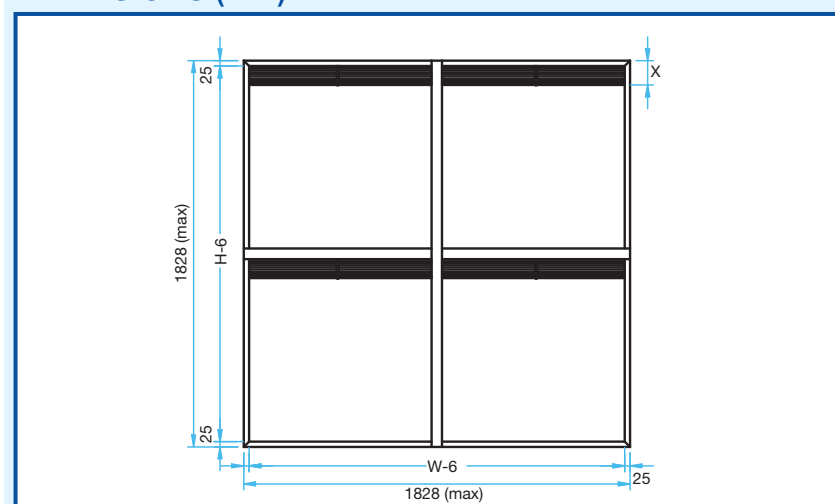
ACCESSORIES

Description	Code
Retaining angles frame – 40 x 40 x 3 mm	F
Retaining angles lose – 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

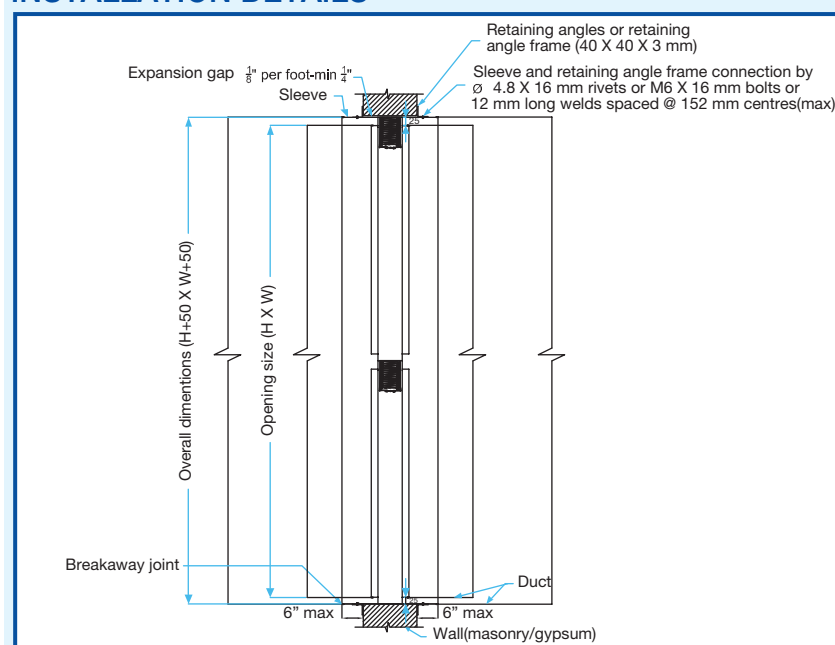
* Not available for UL classified dampers.

**Not available for UL classified / BS certified dampers.

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750
H	850	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750
A	60	55	60	60	65	65	70	70	70	75	75	75	80	80	85	85	90	90
n° Blade	9	9	10	10	11	11	12	12	12	13	13	13	14	14	15	15	16	16

- Any combination of W x H. For other sizes, please consult us.
- X and n° blades are associated with height H of single section damper.

Curtain Fire Dampers

Blades partially inside airstream



FD 150 AH-D

CIVIL DEFENCE APPROVED

Compliance

- UL 555 classified.
- Constructed and tested as per latest edition of UL555 standard.

Advantages

- Fire resistance: 1.5h.
- Suitable for static & dynamic systems.
- Low pressure loss for installation on neck of damper.
- Maintenance: easy removal of the fusible link.
- Dynamic rating : 2000 fpm at 4" w.g. pressure.



APPLICATION

- For vertical installation in walls or partitions with fire resistance rating of less than 3 hours.
- Suitable for use in static & dynamic systems, low pressure loss.

DESCRIPTION

- Normally open and close automatically upon detection of heat.
- Protects the integrity of a fire barrier & limits spread of fire.
- Maintains its fire resistance rating where penetrated by HVAC ductwork.

CONSTRUCTION

- Casing made from 18 ga. (1.2 mm) galvanized steel.
 - Interlocking type blades made from 22 ga. (0.8 mm) galvanized steel.
 - UL listed fusible link which operates at 74°C (165°F).
 - Stainless steel closure springs.
 - Sleeve made from 16 ga. (1.5 mm) galvanized steel can be factory installed (recommended) or field supplied (as per installation instructions).
- NOTE: for insert type installation, damper must be supplied with 140mm long factory installed sleeve.
- Minimum size: 100 x 100 mm ; opening dimensions.
 - Maximum size: 914 x 914 mm ; overall dimensions.

INSTALLATION

- Vertical installation.
- In walls or partitions.

RANGE

Description	Code
FD 150 AH-D - Single - G.I. casing & blades	
*FD 151 AH-D - Single - G.I. casing & SS (grade 304) blades	
*FD 152AH-D - Single - G.I. SS (grade 304) casing & blades	

AVAILABLE OPTIONS

Description	Code
G.I. sleeve (300 mm long)	S
HEVAC installation frame	*V

ACCESSORIES

Description	Code
Retaining angles frame - 40 x 40 x 3 mm	F
Retaining angles lose - 40 x 40 x 3 mm	R
Micro-switch (see page 61)	M
Duct extensions, 50 mm longer than sleeve on each side (see page 61)	D
Access doors (see page 62)	

* Not available for UL Classified dampers

DIMENSIONS (mm)

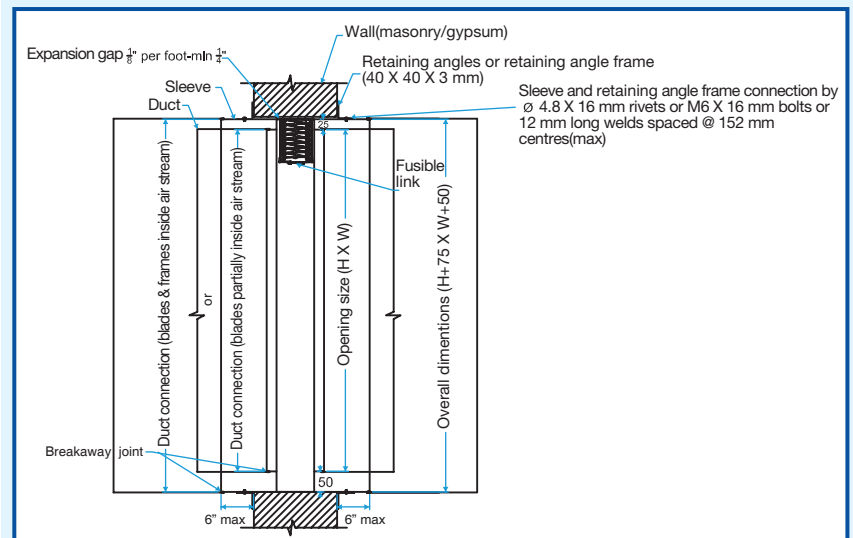
Front view

Side view

DESCRIPTION

- ① Casing G.I. 1.2 mm thick
- ② Interlocked galvanized steel blades (0.8 mm thick)
- ③ Fusible link (165° F)
- ④ Blade ramp G.I. 1.5 mm
- ⑤ Stainless steel closure spring

INSTALLATION DETAILS



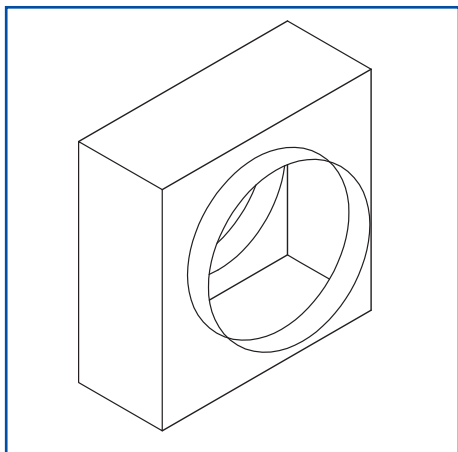
AVAILABLE SIZES (mm)

W	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
H	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850
X	30	35	40	45	45	50	55	60	65	65	70	75	80	85	90	
n° blades	4	5	6	7	7	8	9	10	11	11	12	12	13	14	15	16

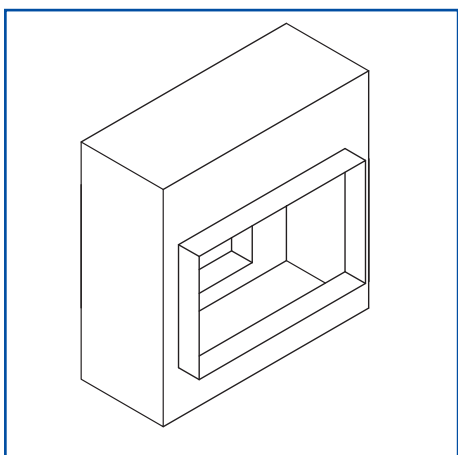
- Any combination of W x H. For other sizes, please consult us.
- X and n° blades are associated with height H of damper.

Curtain Fire Dampers

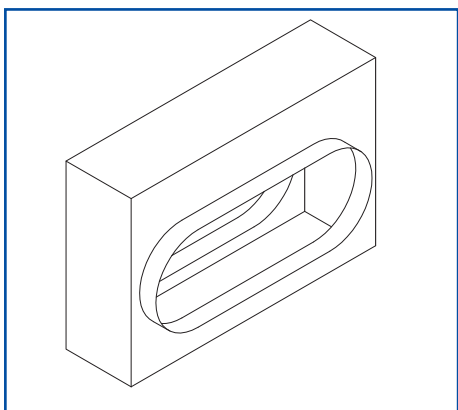
Mounting options



Circular spigot



Square or rectangular spigot



Oval spigot

- Not available for UL Classified Dampers
- For proper selection of mounting option, please consult us.

Accessories

Mild steel retaining angles (Lose or frame)

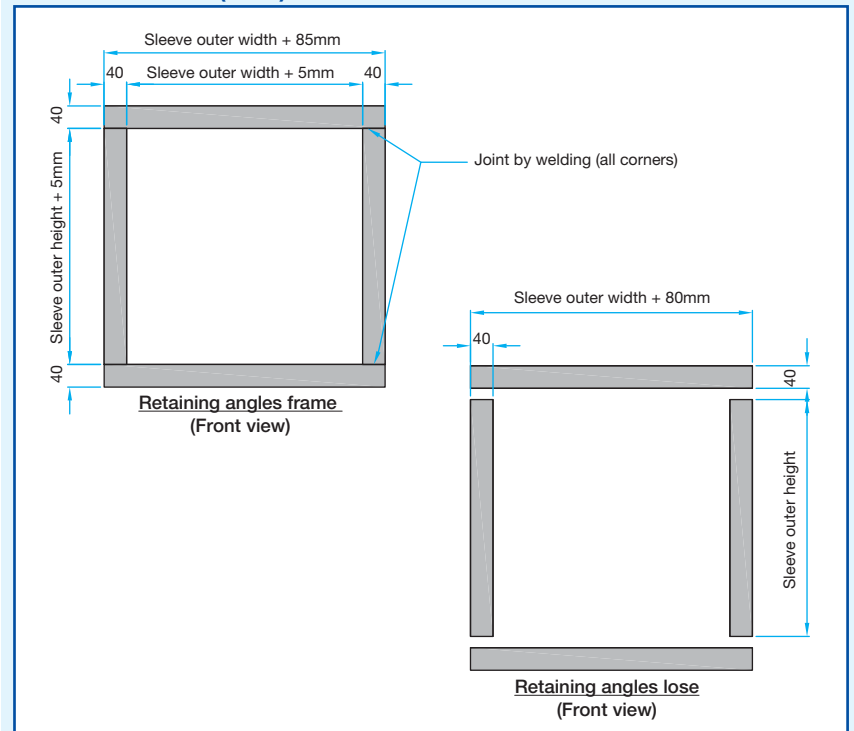
DESCRIPTION

- Retaining angles are used for the installation of different types of fire dampers (e.g. CFD, MFD, MFSD) within a fire barrier (wall/partition/floor).
- Retaining angles are attached on sleeve of the fire damper on both sides of the wall to avoid the sideways movement of the fire damper to retain the fire damper within the fire barrier.

CONSTRUCTION

- Retaining angles are 40 x 40mm mild steel. Please consult us for the required thickness of retaining angles for different types of fire dampers.
- Retaining Angles Lose (Code R): 4 retaining angles are used on each side of the wall i.e. total 8 retaining angles for the installation of the fire dampers. Retaining angles on top & bottom sides of sleeve are 40mm longer than the overall width of the damper with sleeve while retaining angles on left & right sides of sleeve are exactly equal to the overall height of damper with sleeve. Lose retaining angles are not joint together by welding.
- Retaining Angles Frame (Code F): 2 retaining angles are used on each side of the wall for the installation of the fire dampers. Each frame is made of 4 retaining angles joined together by welding at the corners and generally has a 5mm clearance with sleeve dimensions.
- Retaining angle (lose or frame) are joined with sleeve by using rivets or bolts & nuts or welding as per the details mentioned in installation instructions.

DIMENSIONS (mm)



Notes:

- Retaining angle (either lose or frame) should not be fixed with wall /partition/floor.
- For lose retaining angles, installation at site is much easier as compared to retaining angle frame.

HEVAC installation frame



HEVAC

DESCRIPTION

- The FD 150 CH damper designed to be used with the special HEVAC installation frame as illustrated.
- The installation frame assembled with its respective curtain fire damper and delivered to site as one complete unit.

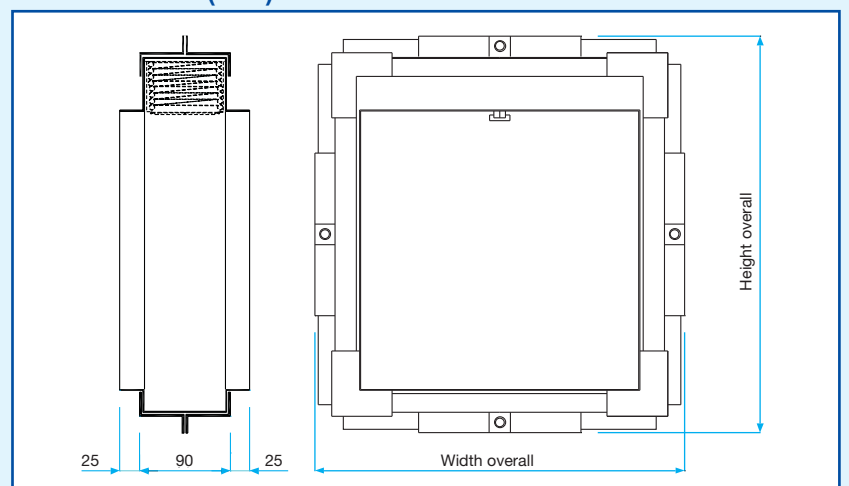
CONSTRUCTION

- HEVAC installation frame made from 18 ga. (1.2 mm) galvanized steel.

INSTALLATION

- Installed centrally within the thickness of the surrounding wall or floor such that the center line of the frame is at a minimum distance of 50 mm from the nearest face of the wall or floor.
- After completing the ductwork installation of the damper, the wall opening should be backfilled over the damper sub-frame building ties, which should be grouted into the surrounding wall or floor using cement mortar to fill all joints completely.

DIMENSIONS (mm)



Accessories

Factory installed duct extensions



FD 150 CHSD

DESCRIPTION

- During the installation of the damper, sometime it is difficult to reach the neck of the damper for connecting the duct. Therefore, duct extensions are installed on the neck of the damper and the duct is connected to these duct extensions without the need of reaching the neck of the damper.
- Aldes has successfully passed UL requirements and is now authorized to provide factory installed duct extensions on whole range of curtain fire dampers for an easier and safer installation at site.

CONSTRUCTION

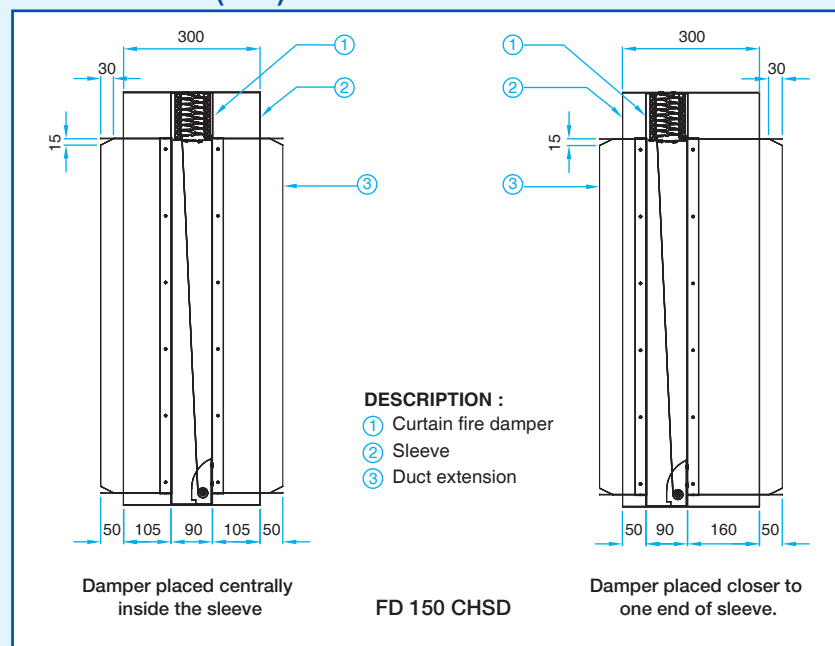
- Factory installed duct extensions are manufactured from 20 ga (0.9mm) galvanised steel sheet.
- It is attached with the neck of the damper by tack welds or 4.8 x 10mm steel rivets in a way that this joint is stronger than the breakaway joint between the duct extension and the duct connecting to it.
- Duct extensions can be installed on one or both sides of the damper and are 50mm (max.) larger than the sleeve on either side of the damper.
- Two configurations available : damper placed centrally inside the sleeve; damper placed closer to one end of sleeve.
- Total length of duct extension is dependent on sleeve length as well as position of damper inside sleeve.



Advantages

- UL approved factory installed duct extensions.
- Ready to install dampers for an easier & safer installation at site.

DIMENSIONS (mm)



Factory installed micro switch

DESCRIPTION

- Micro switch installed on a curtain fire damper is generally connected to a fire alarm control panel in order to give the position feedback of the damper i.e. Open or Close.
- Micro switch is activated when the interlocking type blades of a curtain fire damper are closed completely (in case of fire or maintenance).
- Single section of a curtain fire damper is installed with one micro switch.
- For a multiple section curtain fire damper, each single section is installed with one micro switch.
- Aldes has successfully passed UL requirements and is now authorized to provide factory installed micro switch (UL Recognized) on whole range of curtain fire dampers.

CONSTRUCTION

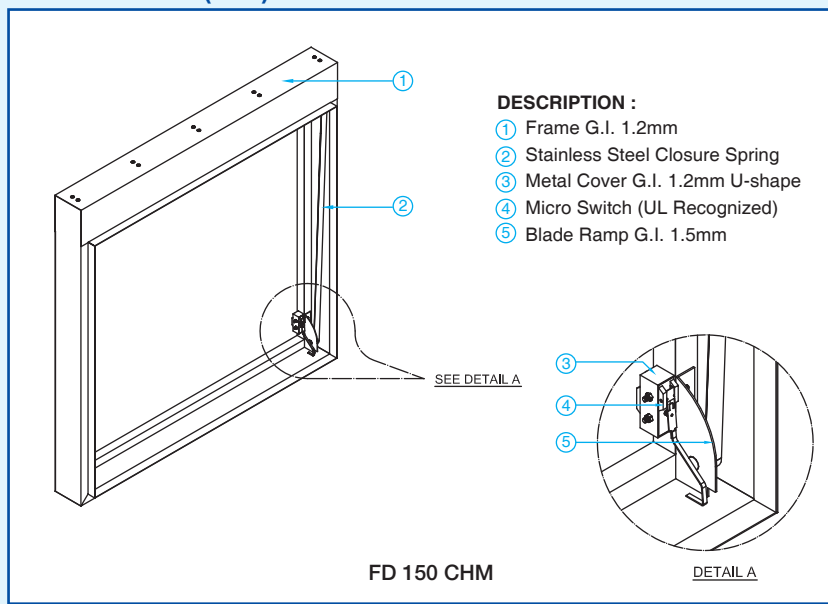
- UL recognized micro switch attached by bolts & nuts to the neck of the damper.
- Protected by U-shape metal strip.



Advantages

- UL approved factory installed micro-switch.
- Fire damper position feedback to FACP.

DIMENSIONS (mm)



Accessories

Access Doors



SC 675 C
With cam lock



SC 675 H
With hinge & cam lock

Advantages

- Knock over edges for easy installation.

DESCRIPTION

- Access doors provide reliable and inexpensive access to the components inside the ductwork. They are generally installed near fire dampers for inspection & maintenance purpose but can also be installed on other locations where access is required.

CONSTRUCTION

- Frame: 24 ga (0.7mm) G.I. for sizes 150 x 150mm – 350 x 350mm; 20 ga (0.9mm) G.I. for sizes 400 x 400mm – 600 x 600mm. For other gauges door panel please consult us.
- Door Panel: Double skin door panel 24 ga (0.7mm) G.I. with 25mm thick insulation enclosed. For other gauges door panel please consult us.
- Insulation: 25mm thick mineral wool insulation of 24kg/m3 density 50mm thick insulation available upon request.
- SC 675 C: Access door with self tightening, plated steel camlocks on both sides. 2 camlocks per unit up to 350mm size and 4 camlocks per unit up to 600mm.
- SC 675 H: Access door with continuous piano hinge on one side and plated steel camlock on opposite side. 1 camlock per unit up to 350mm size and 2 camlocks per unit up to 600mm.

RANGE

Type	Description	Code
SC 675 C	Access door with camlocks (25mm Insulation)	
SC 675 C	Access door with camlocks (50mm Insulation)	
SC 675 H	Access door with hinge & camlocks (25mm Insulation)	
SC 675 H	Access door with hinge & camlocks (50mm Insulation)	

AVAILABLE OPTIONS

Description	Code
SS Handle	
Handle with lock	
Holding chain	

DIMENSIONS (mm)

Access Door - SC 675C

DESCRIPTION:

- ① Door Panel
- ② Frame
- ③ Self tightening cam lock
- ④ 25mm wide gasket
- ⑤ Handle
- ⑥ Knock-over edges (20 x 20mm)

Access Door - SC 675H

DESCRIPTION:

- ① Door Panel
- ② Frame
- ③ Self tightening cam lock
- ④ Piano hinge
- ⑤ 25mm wide gasket
- ⑥ Handle
- ⑦ Knock-over edges (20 x 20mm)

AVAILABLE SIZES (mm)




W x H	Hole sizes*
150 x 150	150 x 150
200 x 200	200 x 200
250 x 250	250 x 250
300 x 300	300 x 300
350 x 350	350 x 350
400 x 400	400 x 400
450 x 450	450 x 450
500 x 500	500 x 500
550 x 550	550 x 550
600 x 600	600 x 600


* Holes in ductwork must be cut in accordance with sizes given above.
• Other sizes available on request.

Notes

Selection Guide

Smoke Extraction

Category	Model	Description	High Temperature	Cabinet fan	Roof fan	Axial fan	Staircase pressurisation fan	Number of speeds	Max Airflow (m ³ /h)
Smoke Exhaust Fans	HELIONE 	<ul style="list-style-type: none"> • Staircase pressurisation • Smoke extraction • Car park ventilation • Civil Defence approved 	200°C - 2h 400°C - 2h		✓	✓	✓	1 or 2	72000
	CYCLONE 	<ul style="list-style-type: none"> • Smoke extraction • Civil Defence approved • Easy access 	400°C - 2h	✓	✓			1 or 2	32000
	VELONE 	<ul style="list-style-type: none"> • Smoke extraction • Civil Defence approved • Horizontal or vertical air discharge (kit optional) 	400°C - 2h		✓			1 or 2	27000

Category	Model	Description	Compliance	Integrity fire resistance	No smoke leakage	Quick operation (motorisation)	Easy maintenance
Motorised Smoke Dampers	SD 125 	<ul style="list-style-type: none"> • Easy installation on vertical and horizontal ductwork, wall or floor • Single skin 3V-grooves type blades • 1.5h fire rating • Leakage Class II - 250°F 	UL 555S	1.5h	✓	✓	✓

Staircase Pressurisation Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Helione Short Shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- With its F200°C/2h and F400°C/2h fire resistance classifications, the new HELIONE range meets the needs for ventilation and smoke exhaust in multi-family housing (car parks, stairwells), commercial premises (car parks, shops) and in industry, just anywhere that high airflows with low pressures are required.
- HELIONE operates just as well for air exhaust as for fresh air supply in premises where acoustic requirements are not predominant or for occasional smoke exhaust.

DESCRIPTION

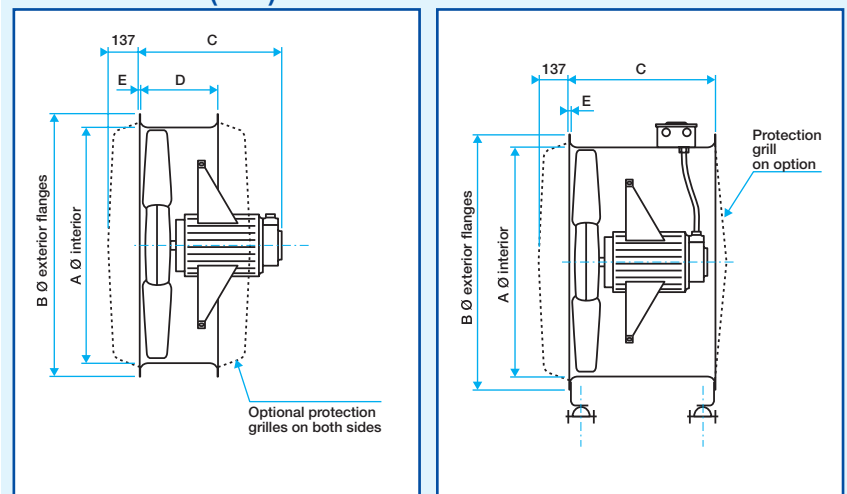
- The standard Helione range varies from Ø 500 to Ø 1,000 mm for standard airflows of 5000 to 72,000 m³/h for pressures of 100 to 500 Pa.
- The new Helione range can meet the requirements for numerous other cases, like different airflows and pressure levels for example: Please feel free to contact us.
- Propellers comprised of several blades in aluminium, mounted on an aluminium hub. The angle adjustment is determined depending on the operating point.
- Each blade is radiographically X-rayed before assembly in order to check the high quality of the material.
- The shells are formed from tubular metal plate, with integrated folded edges drilled for connections, continuous welded and hot galvanised following fabrication for a longer service life. Standard = short shell, long shell on option.
- The motor's fixing arms are hot galvanised for better corrosion resistance.
- 4 pole or 4/8 pole boss type motor, IP 55 tropicalised, class F as standard. Operating temperature range -20/ 50°C.

60 Hz motor: please consult us. All motors are calculated to bear the input power throughout the length of the curve.

AVAILABLE OPTIONS

- Long shell: comprises a pre-wired external terminal box.

DIMENSIONS (mm)



Short shell

Long shell

Your ALDES agency also is available for you, the detailed technical data sheets for each model.

Short shell				
A	B	C	D	E
560	654	348	225	2,5
630	724	348	225	3
710	804	348	225	3
800	894	459	225	3
900	1006	445	300	5
		575	300	5
		459	225	3
1000	1106	445	300	5
		575	300	5
		375	368	2,5
Long shell				
560	654	375	368	2,5
630	724	375	403	3
710	804	375	443	3
800	894	520	488	3
900	1006	520	538	3
		520	575	5
		625	575	5
1000	1106	520	588	3
		520	625	5
		625	625	5

Staircase Pressurisation Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

ACCESSORIES

- Protective mesh comes in both motor side and propeller side.
- Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
- Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
- Square plate in galvanised steel to fix Helione in a wall mounting configuration.
- Feet supports (x2) in galvanised steel to fix Helione to the floor.
- Anti-vibration mountings (x4) are fixed under the feet supports.
- Backdraft damper: circular, with 2 galvanised steel blades.
- Passive circular noise trap/silencer.
- Electrical Accessories:
 - Proximity switch,
 - Pressure switch,
 - Relay box ☒ see AXONE micro II.
 - Emergency stop button.

INSTALLATION

A (MH) OR B (HM) MOUNTING:

Horizontal on the ground and wall mounted against a wall:

- Indispensable options: economic square plate, feet and anti-vibration mountings, mating flange and flexible sleeves or grille if not connected up.

Horizontal on the ground between two ducts:

- Indispensable options: feet and anti-vibration mountings, mating flanges and flexible sleeves on both sides, long shell for motor access through the inspection hatch.

Horizontal fixed by wall mounting against a wall:

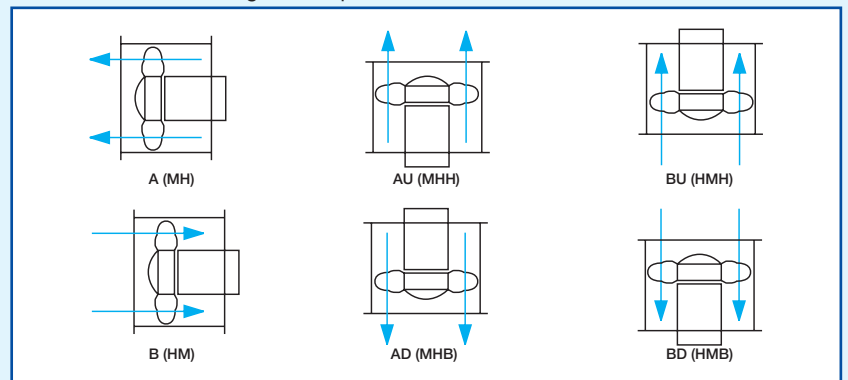
- Indispensable options: reinforced square plate for wall mounting, mating flange and flexible sleeve or grille if not connected up.

AU (MHH), BU (HMH), AD (MHB), BD (HMB) MOUNTING

Vertical, suspended under a ceiling tile or duct

The tubular casing must be bolted using all of the holes in its flange.

- Indispensable options: protective grille if access remains possible or if there are any risks of waste being sucked in, if connected from both sides: long shell tubular casing for motor access through the inspection hatch.



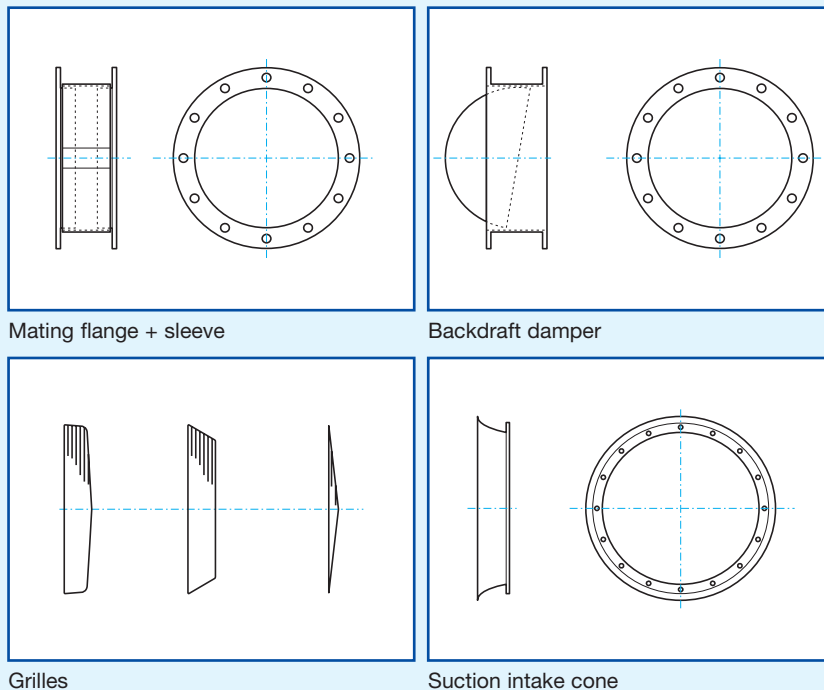
Staircase Pressurisation Fans

HELIONE Accessories

DESCRIPTION

- Protective mesh comes in both motor side and propeller side.
 - Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
 - Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
 - Square plate in galvanised steel to fix Helione in a wall mounting configuration.
 - Feet supports (x2) in galvanised steel to fix Helione to the floor.
 - Anti-vibration mountings (x4) are fixed under the feet supports.
 - Backdraft damper: circular, with 2 galvanised steel blades.
 - Passive circular noise trap/ silencer: please consult us.
- Electrical accessories not connected:
- Proximity disconnecting switch, pressure switch, emergency stop button ☒ see ELECTRICAL ACCESSORIES .
 - Relay box => see AXONE micro II.

PRINCIPLE DIAGRAMS



ACCESSORIES R8

Description	560 Code	630 Code	710 Code	800 Code
"Economic" square plate	11090456	11090457	11090458	11090459
"Reinforced" square plate	11090464	11090465	11090466	11090467
Flexible sleeve	11090400	11090401	11090402	11090403
Horizontal backdraft damper	11090448	11090449	11090450	11090451
Mating flange	11090408	11090409	11090410	11090411
Motor grille for long Shells	11090424	11090425	11090426	11090427
Motor grille for short Shells	11090472	11090473	11090474	11090475
Propeller mesh	11090416	11090417	11090418	11090419
set of 2 feet	11090480	11090481	11090482	11090483
Suction intake cone	11090432	11090433	11090434	11090435
Vertical backdraft damper	11090440	11090441	11090442	11090443

Description	0900 Code	1000 Code	1120 Code	1250 Code
"Economic" square plate	11090460	11090461	11090462	11090463
"Reinforced" square plate	11090468	11090469	11090470	11090471
Flexible sleeve	11090404	11090405	11090406	11090407
Horizontal backdraft damper	11090452	11090453	11090454	11090455
Mating flange	11090412	11090413	11090414	11090415
Motor grille for long Shells	11090428	11090429	11090430	11090431
Motor grille for short Shells	11090476	11090477	11090478	11090479
Propeller mesh	11090420	11090421	11090422	11090423
set of 2 feet	11090484	11090485	11090486	11090487
Suction intake cone	11090436	11090437	11090438	11090439
Vertical backdraft damper	11090444	11090445		

Description	Code
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F200	
Set of 4 HELIONE F200-560-630-710 mountings	11090490
Set of 4 HELIONE F200-800-900 mountings	11090492
Set of 4 HELIONE F200-1000-1120-1250 mountings	11090495
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F400	
Set of 4 HELIONE F400-560-630-710 mountings	11090496
Set of 4 HELIONE F400-800-900-1000 mountings	11090497
Set of 4 HELIONE F400-1120-1250 mountings	11090498

Staircase Pressurisation Fans

HELIONE Unclassified F200 - 1 SPEED



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 1 SPEED ^{R8}

Description	Code
HELIONE F200-560/20/4/6 - 0,66 kW	11090299
HELIONE F200-560/20/4/6 - 1,15 kW	11090300
HELIONE F200-710/20/4/3 - 1,4 kW	11090302
HELIONE F200-710/20/4/3 - 1,6 kW	11090303
HELIONE F200-710/25/4/92,7 kW	11090304
HELIONE F200-710/20/4/6 - 3,2 kW	11090306
HELIONE F200-900/25/4/3 - 3,2 kW	11090307
HELIONE F200-900/25/4/6 - 3,2 kW	11090308
HELIONE F200-900/25/4/6 - 4,4 kW	11090309
HELIONE F200-900/25/4/6 - 6,6 kW	11090310
HELIONE F200-900/25/4/9 - 6,6 kW	11090311
HELIONE F200-1000/25/4/3 - 4,4 kW	11090312
HELIONE F200-1000/25/4/3 - 6,6 kW	11090313
HELIONE F200-1000/25/4/6 - 4,4 kW	11090314
HELIONE F200-1000/25/4/6 - 9 kW	11090315
HELIONE F200-1000/25/4/6 - 13,2 kW	11090316
HELIONE F200-1000/25/4/9 - 9 kW	11090295
HELIONE F200-1000/25/4/9 - 13,2 kW	11090296
HELIONE F200-1000/25/4/9 - 18 kW	11090317
HELIONE F200-1000/31/4/9 - 22,2 kW	11090318
HELIONE F200-1000/31/4/9 - 27 kW	11090319

AVAILABLE OPTIONS ^{R8}

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE Unclassified/ F200 (120) - 1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	299	299						
7200	299	300						
9000	300	300						
10800	302	302						
11400	302	302	306	306	304	308	308	
12000	302	302	306	306	304	308	309	
12600	302	303	306	306	304	308	309	314
13200	302	303	306	306	304	308	309	314
13800	302	303	306	306	308	308	309	314
14400	303	306	306	306	308	308	309	314
15000	303	306	306	306	308	309	309	314
15600	303	306	306	306	308	309	309	311
16200	306	306	306	306	308	309	309	311
16800	306	306	306	306	308	309	314	311
17400	306	306	306	306	309	309	314	311
18000	306	306	306	308	309	309	311	311
21000	306	307	307	309	309	309	311	311
24000	307	307	309	309	309	310	311	311
27000	307	312	312	310	310	310	311	295
30000	312	312	312	310	310	315	315	296
33000	312	312	313	310	315	315	315	296
36000	312	312	313	315	315	315	315	316
39000	312	313	315	315	315	315	316	296
42000	313	313	315	315	315	316	316	296
45000	313	315	315	316	316	316	296	317
48000	315	315	316	316	316	317	317	317
54000	316	316	316	316	317	317	317	318
60000	316	317	317	317	318	318	318	319
66000	317	318	318	319	319			
72000	319	319						

ELECTRICAL DETAILS F400

F200 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,9	6,4
1,15	3,2	11
1,4	3,8	13,5
1,6	3,9	19
2,7	5,8	30
3,2	6,8	35
4,4	9,3	55
6,6	12,6	84
9	17	114
13,2	25,4	127
18	34,8	171
22,2	41	242
27	49,8	284

Staircase Pressurisation Fans

HELIONE F200 and Unclassified - 2 SPEEDS



Short shell

Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 2 SPEEDS ^{R8}

Description	Code
HELIONE F200-560/20/4-8/6 -0,92/0,23 kW	11090320
HELIONE F200-630/20/4-8/3 -1,84/0,46 kW	11090321
HELIONE F200-710/20/4-8/3 -1,84/0,46 kW	11090322
HELIONE F200-800/20/4-8/3 -3,22/0,8 kW	11090323
HELIONE F200-710/20/4-8/6 -3,22/0,8 kW	11090324
HELIONE F200-900/25/4-8/3 -3,22/0,8 kW	11090325
HELIONE F200-900/25/4-8/6 -3,22/0,8 kW	11090326
HELIONE F200-900/25/4-8/6 -4,37/1,15 kW	11090327
HELIONE F200-900/25/4-8/6 -5,75/1,5 kW	11090328
HELIONE F200-1000/25/4-8/3 -4,37/1,15 kW	11090329
HELIONE F200-1000/25/4-8/3 -5,75/1,5 kW	11090330
HELIONE F200-1000/25/4-8/6 -4,37/1,15 kW	11090331
HELIONE F200-1000/25/4-8/6 -5,75/1,5 kW	11090332
HELIONE F200-1000/25/4-8/6 -7,2/1,8 kW	11090333
HELIONE F200-1000/25/4-8/6 -12,7/3,45 kW	11090334
HELIONE F200-1000/25/4-8/9 -16,1/4,03 kW	11090335
HELIONE F200-1000/31/4-8/9 -19,6/4,95 kW	11090336
HELIONE F200-1000/31/4-8/9 -23/5,75 kW	11090337

AVAILABLE OPTIONS ^{R8}

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 65.

SELECTION HELIONE Unclassified/ F200 (120) - 2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

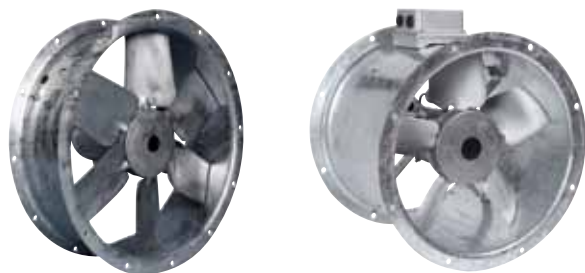
Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	20	20						
7200	20	20						
9000	20	22						
10800	21	22						
11400	21	22	24	24				
12000	21	22	24	24	26	26	27	31
12600	21	22	24	24	26	26	27	31
13200	22	22	24	24	26	26	27	31
13800	22	22	24	24	26	26	27	31
14400	22	22	24	24	26	26	27	31
15000	22	22	24	24	26	27	27	31
15600	22	23	24	24	26	27	27	32
16200	22	23	24	24	26	27	31	32
16800	22	23	24	24	26	27	31	32
17400	23	23	24	24	27	27	31	32
18000	23	23	24	24	27	27	31	32
21000	23	23	25	27	27	27	32	32
24000	23	25	27	27	27	28	32	33
27000	25	27	27	28	28	32	33	35
30000	27	27	29	28	32	33	33	35
33000	29	29	32	33	33	33	33	35
36000	29	29	30	33	33	33	34	34
39000	29	30	33	34	34	34	34	35
42000	30	33	34	34	34	34	35	35
45000	33	34	34	34	34	34	35	35
48000	34	34	34	34	34	35	35	35
54000	34	34	34	35	35	35	36	36
60000	35	35	36	36	36	36	37	37
66000	36	36	37	37	37			
72000	37	37						

ELECTRICAL DETAILS F200

F200 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	55,4/10,8
5,75/1,5	11,8/3,78	88,5/21,5
7,2/1,8	13,8/4,24	89,7/22
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23/5,75	43,4/15,1	339/72,5

Staircase Pressurisation Fans

HELIONE F400 - 1 SPEED



Short shell

Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Smoke exhaust in public assembly and high rise buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) - 1 SPEED R8

Description	Code
HELIONE F400-560/16/4/5 - 0,9 kW	11090340
HELIONE F400-630/20/4/6 - 0,9 kW	11090341
HELIONE F400-630/20/4/6 - 1,27 kW	11090342
HELIONE F400-630/20/4/6 - 1,8 kW	11090343
HELIONE F400-710/25/4/6 - 1,8 kW	11090345
HELIONE F400-800/25/4/3 - 1,8 kW	11090346
HELIONE F400-800/25/4/3 - 2,64 kW	11090347
HELIONE F400-800/25/4/6 - 2,64 kW	11090348
HELIONE F400-800/25/4/6 - 3,6 kW	11090349
HELIONE F400-900/25/4/3 - 3,6 kW	11090350
HELIONE F400-900/25/4/6 - 3,6 kW	11090351
HELIONE F400-900/25/4/6 - 4,8 kW	11090352
HELIONE F400-900/25/4/6 - 6,6 kW	11090353
HELIONE F400-900/25/4/9 - 4,8 kW	11090355
HELIONE F400-900/25/4/9 - 6,6 kW	11090356
HELIONE F400-900/25/4/9 - 9 kW	11090357
HELIONE F400-900/25/4/9 - 11 kW	11090358
HELIONE F400-1000/31/4/6 - 6,6 kW	11090359
HELIONE F400-1000/31/4/6 - 9 kW	11090360
HELIONE F400-1000/31/4/6 - 11 kW	11090361
HELIONE F400-1000/31/4/6 - 13,2 kW	11090362
HELIONE F400-1000/31/4/9 - 11 kW	11090363
HELIONE F400-1000/31/4/9 - 13,2 kW	11090364
HELIONE F400-1000/31/4/9 - 18 kW	11090365
HELIONE F400-1000/31/4/9 - 20,4 kW	11090366
HELIONE F400-1000/31/4/9 - 27 kW	11090367

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE F400 (120) - 1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	40	41	45	45				
7200	40	42	45	48				
9000	42	42	45	48				
10800	42	43	45	48				
11400	43	43	48	48	51			
12000	43	43	48	48	51	51	55	55
12600	43	45	48	48	51	52	55	55
13200	43	46	48	51	51	52	55	55
13800	45	46	48	51	51	52	55	56
14400	46	47	48	48	51	55	55	56
15000	46	47	48	51	51	55	55	56
15600	46	48	48	51	51	55	55	56
16200	46	48	48	51	51	55	55	56
16800	46	48	48	51	52	55	56	56
17400	47	48	49	51	52	55	56	56
18000	47	48	49	51	52	55	56	59
21000	47	49	49	52	56	56	63	63
24000	49	50	52	52	56	56	63	63
27000	50	52	52	53	53	57	57	63
30000	52	52	53	53	57	57	63	
33000	53	53	53	57	57	57	63	63
36000	53	53	59	57	57	58	63	64
39000	59	57	57	58	58	61	64	64
42000	57	58	58	58	51	64	64	65
45000	58	58	61	61	62	64	65	65
48000	60	61	61	62	62	65	65	65
54000	61	62	62	65	65	65	66	67
60000	62	65	65	66	67	67		
66000	66	67	67	67				
72000	67							

ELECTRICAL DETAILS F400

F400 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,56	8,2
0,9	2	9,4
1,27	3,08	14,2
1,8	3,75	19,8
2,64	5,42	30,9
3,6	7,03	38,6
4,8	9,23	57,2
6,6	12,6	84
9	17,1	114
11	21,4	107
13,2	24,3	165,3
18	34,7	170
20,4	41,4	242
27	49,8	284

Staircase Pressurisation Fans

HELIONE F400 - 2 SPEEDS



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Smoke exhaust in Public Assembly and High Rise Buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) -2 SPEEDS ^{R8}

Description	Code
HELIONE F400-560/16/4-8/5 - 0,92/2,3 KW	11090370
HELIONE F400-630/20/4-8/6 - 0,92/2,3 KW	11090371
HELIONE F400-630/20/4-8/6 - 1,84/0,46 KW	11090372
HELIONE F400-710/25/4-8/6 - 1,84/0,46 KW	11090373
HELIONE F400-800/25/4-8/3 - 1,84/0,46 KW	11090374
HELIONE F400-800/25/4-8/6 - 2,53/0,63 KW	11090376
HELIONE F400-800/25/4-8/6 - 3,22/0,8 KW	11090377
HELIONE F400-900/25/4-8/3 - 3,22/0,8 KW	11090378
HELIONE F400-900/25/4-8/6 - 4,37/1,15 KW	11090379
HELIONE F400-900/25/4-8/6 - 5,75/1,5 KW	11090380
HELIONE F400-900/25/4-8/6 - 7,92/1,98 KW	11090381
HELIONE F400-900/25/4-8/9 - 4,37/1,15 KW	11090382
HELIONE F400-900/25/4-8/9 - 5,75/1,5 KW	11090383
HELIONE F400-900/25/4-8/9 - 7,92/1,98 KW	11090384
HELIONE F400-900/25/4-8/9 - 12,7/3,47 KW	11090385
HELIONE F400-1000/31/4-8/6 - 7,92/1,98 KW	11090387
HELIONE F400-1000/31/4-8/6 - 12,7/3,45 KW	11090388
HELIONE F400-1000/31/4-8/9 - 7,92/1,98 KW	11090297
HELIONE F400-1000/31/4-8/9 - 12,7/3,45 KW	11090298
HELIONE F400-1000/31/4-8/9 - 16,1/4,03 KW	11090389
HELIONE F400-1000/31/4-8/9 - 19,6/4,95 KW	11090390
HELIONE F400-1000/31/4-8/9 - 23/5,75 KW	11090391

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 65.

SELECTION HELIONE F400 (120) -2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	70	71	73	73				
7200	70	71	73	76				
9000	72	72	73	76				
10800	72	72	73	76				
11400	72	72	73	76				
12000	72	72	76	76	79	79	82	83
12600	72	73	76	76	79	79	82	83
13200	72	74	76	79	79	79	82	83
13800	73	74	76	79	79	82	83	83
14400	73	74	76	79	79	82	83	83
15000	74	74	76	79	79	82	83	83
15600	74	76	77	79	79	83	83	83
16200	74	76	77	79	79	83	83	83
16800	74	76	77	79	79	83	83	83
17400	74	77	77	79	79	83	83	83
18000	74	77	77	79	79	83	83	83
21000	77	77	79	79	83	83	83	297
24000	78	79	79	79	83	84	83	298
27000	78	79	80	80	84	84	84	298
30000	79	80	80	81	84	85	85	
33000	80	81	81	81	85	85	298	
36000	81	81	81	87	87	85	298	298
39000	81	87	87	87	85	85	298	89
42000	87	87	85	85	85	88	89	89
45000	87	85	85	85	88	89	89	89
48000	88	88	88	88	89	89	89	89
54000	88	88	89	89	90	90	90	91
60000	89	90	90	90	91	91		
66000	90	91	91	91				
72000	91							

ELECTRICAL DETAILS F400

F400 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
2,53/0,63	5,46/2,07	33,4/7
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	57,8/11
5,75/1,5	11,8/3,78	88,5/21,5
7,92/1,98	16,3/4,83	117/28,5
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23/5,75	43,4/15,1	339/72,5

Smoke Exhaust Fans

Presentation of the CYCLONE F400°C range



CIVIL DEFENCE APPROVED

Compliances

- CE smoke exhaust casing - in accordance with EN 12101-3.
- Classified F400°C (120).
- Extension of the "thermally insulated" classification: complies with § 4.1 of Standard EN 12101-3.

Advantages

- Thermal insulation option: to avoid the CMEV system in attics.
- Variable pulley option for on-site airflow adjustment.
- Choice of access panel side possible depending on the various worksite configurations.
- Easier to access thanks to the handles on the motor cover and access panel.

APPLICATION

- Smoke exhaust from commercial and industrial premises (public assembly, high-rise, commercial or industrial buildings, and multi-family housing (mainly 3rd family B and 4th family).
- Cyclone F400°C is a purely smoke exhaust fan in casing. Avoid using it for any professional kitchen type of application.

DESCRIPTION

- 8 sizes of casing: for airflows between 1000 and 35,000 m³/h.
- Casing in galvanised steel
- Forward curve impeller with aluminium hub.
- Pulley-belt type drive
- IP 55 Class F motor, fitted on a mounting designed for simple belt tension adjustment.
- Single speed or 2-speed motor (independent 4/6 pole windings and Dahlander coupling 4/8 poles).

AVAILABLE OPTIONS

- Thermal casing insulation. This option, with CE validation, allows for avoiding the CMEV system of the room receiving the smoke exhaust fan in casing (attics for example).
- Choice of the position of the exhaust (horizontal or vertical).
- Choice of the position of the transmission access panel.
- Rainproof cover (supplied with the casing but not fitted).
- Adjustable drive pulley (exc. model 500).
- Fitted and cabled proximity switch.
- Adjustable pressure switch, aerally connected (2 pressure switches for two smoke extraction speeds).

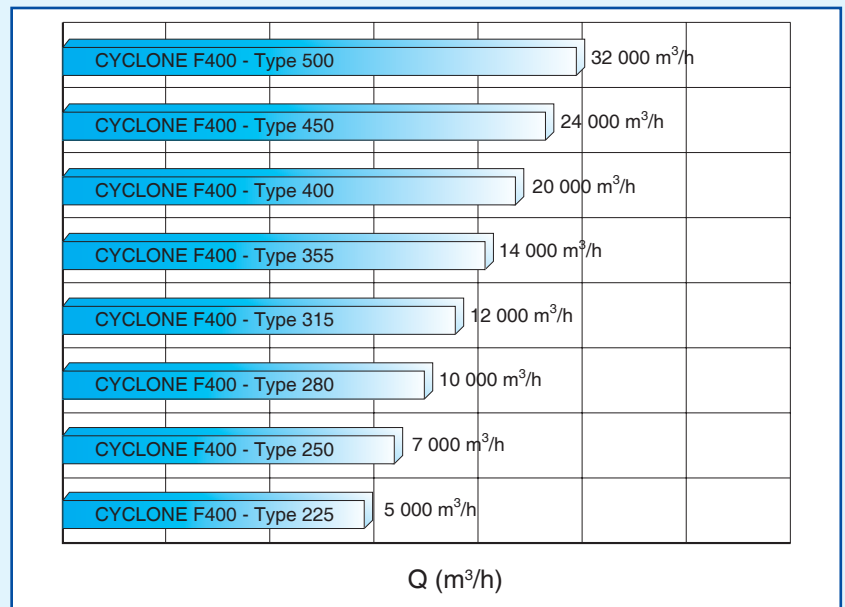
ACCESSORIES

- Flexible, circular suction sleeve.
- Flexible, rectangular, discharge sleeve.
- Flexible rectangular/ circular adapter component - exhaust.
- Anti-vibration mounting.

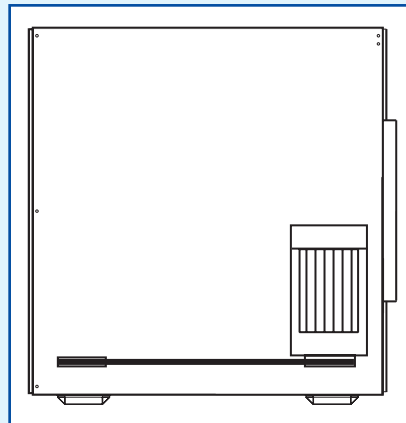
INSTALLATION

- Can be installed either indoors or outdoors:
 - If used inside, the thermal insulation option should be chosen.
 - If used outdoors, a rain hood should be fitted.
- It is recommended that the system be installed on an anti-vibration mounting base.

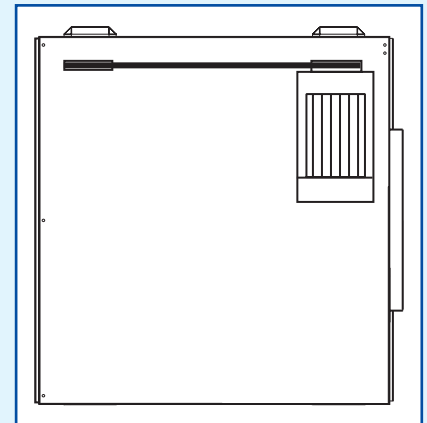
PRE-SELECTION CYCLONE F400



SELECTION OF ACCESS PANEL AND TRANSMISSION POSITIONS



Standard access panel face:
Door and transmission to the left of the suction outlet.



Optional access panel face:
Door and transmission to the right of the suction outlet.

Smoke Exhaust Fans

Presentation of the CYCLONE F400°C range



Cyclone F400°C with proximity switch option.

CIVIL DEFENCE APPROVED

Compliances

- Thermal insulation option with CE certificate approval of Cyclone F400°C, with extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION OF OPTIONS

Electrical accessories options

- Proximity switch fitted and cabled, fixed on to a galvanised steel mounting.
- Adjustable pressure switch, aerally connected (2 pressure switches for two smoke exhaust speeds). Positioned on the top of the casing, beside the motor cover.
- The "All-in-One" option has been validated during fire resistance tests:
The wiring of the relay box is carried out at the factory.

The proximity switch is integrated.

The aerally connected pressure switch(es) is/are positioned on the top of the casing, beside the motor cover.

The box is attached to the casing, under a protective cover (rain and UV rays), made of galvanised steel.

The front panel of the casing pivots to give easy access to the Axone Micro II relay box.

Casing configuration options

- Designed to be hand-fitted, the rain-hoods are supplied inside the casing. To install, fix them to the screws around the casing exhaust.
- Adjustable drive pulley (exc. model 500).
Adjustable in ¼ turn steps over 3 turns.
Factory setting: Max. rotational speed.
- Thermal insulation option:

The casing is insulated with a layer of rockwool on the inner surface of all four single-skin faces (the double-skin compartment access faces will not propagate heat).

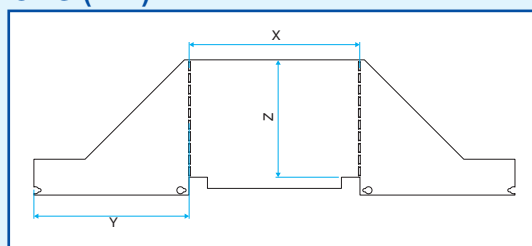
Adapted for indoor installations, this casing limits radiant heat from the casing caused by the high temperatures created by smoke.

- Your Aldes contact can help you to avoid the ventilation system in the room receiving the casing (attics for example).

DESCRIPTION OF ACCESSORIES

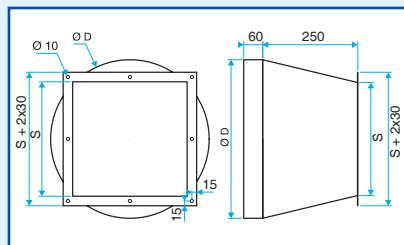
- Flexible, circular M0 suction sleeve: composed of a flexible sleeve and two fixing collars.
- Flexible, rectangular, exhaust sleeve: composed of a flexible sleeve, four fixing plates and one fixing collar.
- Flexible rectangular/circular adapter component - exhaust. composed of a flexible sleeve, four fixing plates and one fixing collar.
- Anti-vibration mounting in resilient material - size: L x W x Th = 100 x 100 x 10 (mm).
4 or 6 mountings are supplied - depending on the size of the casing.

RAIN HOOD DIMENSIONS (mm)

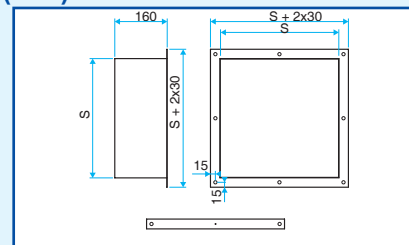


Type	225	250	280	315	355	400	450	500
X	388	422	461	504	553	607	699	738
Y	348	382	421	464	513	567	629	698
Z	247	276	320	356	405	459	521	590

ACCESSORIES DIMENSIONS (mm)



Transformation part



Flexible sleeve

Type	225	250	280	315	355	400	450	500
Ø D	400	450	500	560	630	710	800	800
S	288	322	361	404	453	507	569	638

Smoke Exhaust Fans

CYCLONE F400°C: type 225



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 1000 and 5000 m³/h.
- Variable pulley as standard.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 225 A 1.1 kW	11039000
Cyclone 225 A 1.5 kW	11039001
Cyclone 225 A 2.2 kW	11039002
Cyclone 225 B 1.1 kW	11039003
Cyclone 225 B 1.5 kW	11039004
Cyclone F400 2 speeds - Dahlander	
Cyclone 225 A - 2 speeds Dahlander 1.1 kW / 0.26 kW	11039100
Cyclone 225 A - 2 speeds Dahlander 1.7 kW / 0.36 kW	11039101
Cyclone 225 A - 2 speeds Dahlander 2.3 kW / 0.5 kW	11039102
Cyclone 225 B - 2 speeds Dahlander 1.1 kW / 0.26 kW	11039103
Cyclone 225 B - 2 speeds Dahlander 1.7 kW / 0.36 kW	11039104
Cyclone F400 2 speeds Independent Windings (BI)	
Cyclone 225 A - 2 Speeds BI - 1 kW / 0.3 kW	11039200
Cyclone 225 A - 2 Speeds BI - 1.5 kW / 0.45 kW	11039201
Cyclone 225 A - 2 Speeds BI - 2.5 kW / 0.8 kW	11039202
Cyclone 225 B - 2 Speeds BI - 1 kW / 0.3 kW	11039203
Cyclone 225 B - 2 Speeds BI - 1.5 kW / 0.45 kW	11039204

AVAILABLE OPTIONS **R8**

Options included

- Vertical or horizontal discharge.
- Choice of the position of the access door to the transmission.

Options supplied mounted and wired-up

- For 2 speed smoke exhaust use provide for 2 pressure switches.

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 870 x 1024 x 841mm.
- Ø Suction = 400.
- Exhaust cross section:
 - Vertical discharge R x R = 300 x 300,
 - Horizontal discharge R x R1 = 300 x 210.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
225 A	4	1,1	230/400	2,6	3,0	5,6	116
225 A	4	1,5	230/400	3,3	3,9	5,5	120
225 A	4	2,2	230/400	4,8	5,4	5,6	124
225 B	4	1,1	230/400	2,6	3,0	5,6	116
225 B	4	1,5	230/400	3,3	3,9	5,5	120
Cyclone F400 2 speeds - Dahlander							
225 A2 Dahl	4/8	1,2/0,3	400	2,9/1,3	3,1/1,4	5,5/3,1	119
225 A2 Dahl	4/8	1,6/0,4	400	3,8/2,3	4,4/2,5	5,5/3,2	122
225 A2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,7	5,6/3,2	126
225 B2 Dahl	4/8	1,2/0,3	400	2,9/1,3	3,1/1,4	5,5/3,1	119
225 B2 Dahl	4/8	1,6/0,4	400	3,8/2,3	4,4/2,5	5,5/3,2	122
Cyclone F400 2 Speeds - Independent Windings (BI)							
225 A2 BI	4/6	1,1/0,30	400	3/1,04	3,3/1,2	5,4/4	119
225 A2 BI	4/6	1,5/0,37	400	3,7/1,6	3,9/1,8	5,5/4,5	122
225 A2 BI	4/6	2,2/0,70	400	4,9/2,5	6,1/2,8	6/5,5	126
225 B2 BI	4/6	1,1/0,30	400	3/1,4	3,3/1,3	5,4/4	119
225 B2 BI	4/6	1,5/0,37	400	3,7/1,6	3,9/1,8	5,5/4,5	122

Smoke Exhaust Fans

CYCLONE F400°C: type 225

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

- For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.
Example:

Q = 3,600 m³/h

Read on the graph the straight line Pd = 40 Pa and in the table C = 200 Pa.

System upstream pressure loss = 500 Pa

System downstream pressure loss = 150 Pa

=> System pressure loss (upstream + downstream) = 650 Pa.

Then calculate the corresponding Ps to select the appropriate casing unit:

Sp = System PL + Dp - C = 650 + 40 - 200 = 490 Pa

☒ CYCLONE F400 225 A 1.5 kW.

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

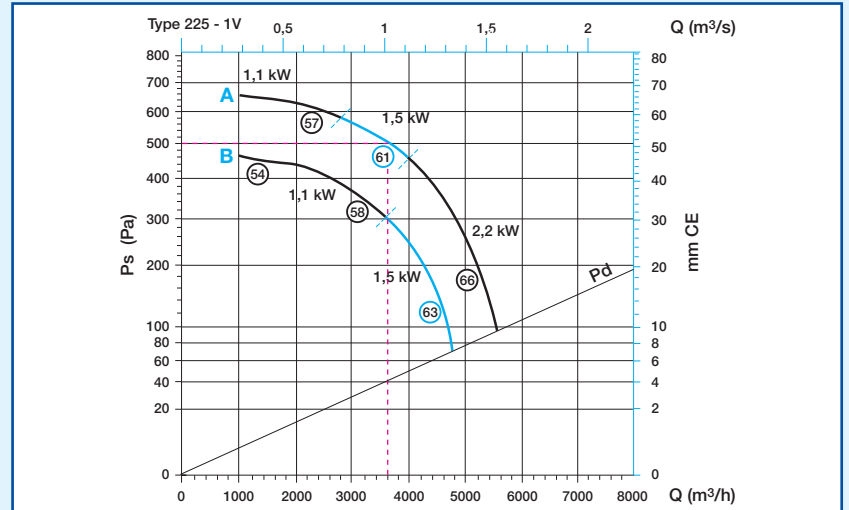
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
225 rain hood	OPT39323
Thermal insulation - 225	OPT39355
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 2 Speeds max 6.5 kW	OPT39318
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

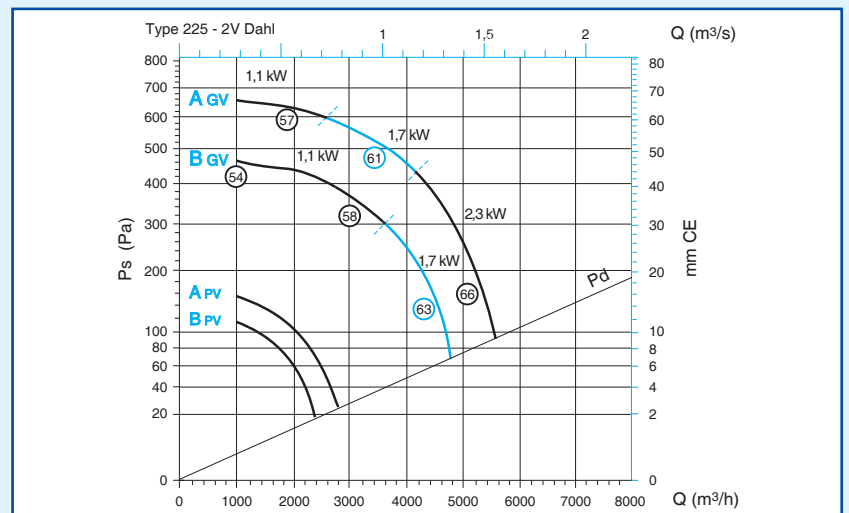
Description	Code
Flexible sleeve kit M0 Ø400	11096938
Type 225 flexible exhaust sleeve	11039331
Type 225 flexible exhaust adapter	11039339
4-piece anti-vibration support base	11039347

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

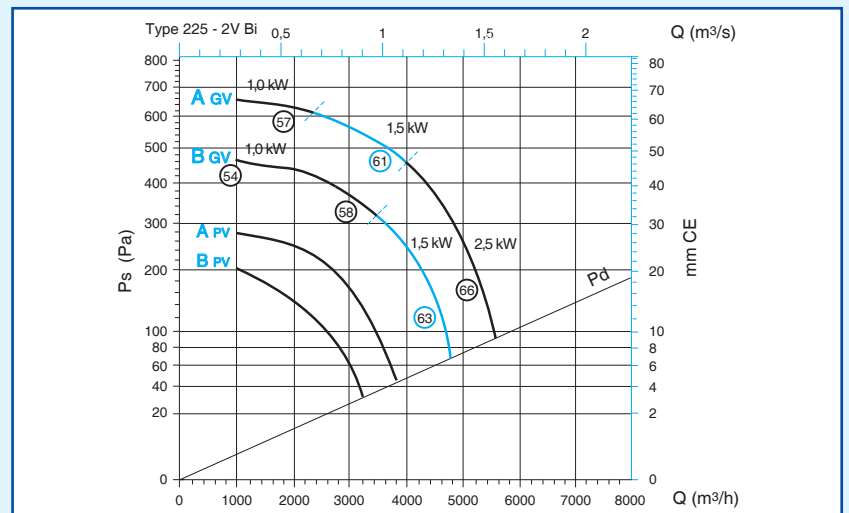
Q (m ³ /h)	2000	3000	3600	4000	5000
C (Pa)	59	132	200	235	367



Cyclone F 400 - 225 - 1 Speed



Cyclone F 400 - 225 - 2 Speed - Dahlander



Cyclone F 400 - 225 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 250



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 1000 and 7,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 250 A 3.0 kW	11039005
Cyclone 250 A 4.0 kW	11039006
Cyclone 250 A 5.5 kW	11039007
Cyclone 250 B 2.2 kW	11039009
Cyclone 250 B 3.0 kW	11039010
Cyclone 250 C 1.5 kW	11039011
Cyclone 250 C 2.2 kW	11039012
Cyclone 250 C 3.0 kW	11039013
Cyclone F400 2 speeds - Dahlander	
Cyclone 250 A - 2 Speeds Dahlander 3.0 kW/ 0.65 kW	11039105
Cyclone 250 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039107
Cyclone 250 B - 2 Speeds Dahlander 2.3 kW/ 0.5 kW	11039109
Cyclone 250 B - 2 Speeds Dahlander 3.0 kW/ 0.65 kW	11039110
Cyclone 250 C - 2 Speed Dahlander 1.7 kW/ 0.36 kW	11039111
Cyclone 250 C - 2 Speed Dahlander 2.3 kW/ 0.5 kW	11039112
Cyclone 250 C - 2 Speed Dahlander 3.0 kW/ 0.65 kW	11039113
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 250 A - 2 Speeds BI 3 kW/ 1 kW	11039205
Cyclone 250 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039206
Cyclone 250 A - 2 Speeds BI 6 kW/ 2 kW	11039207
Cyclone 250 B - 2 Speeds BI 2.5 kW/ 0.8 kW	11039209
Cyclone 250 B - 2 Speeds BI 3 kW/ 1 kW	11039210
Cyclone 250 C - 2 Speeds BI 1.5 kW/ 0.45 kW	11039211
Cyclone 250 C - 2 Speeds BI 2.5 kW/ 0.8 kW	11039212
Cyclone 250 C - 2 Speeds BI 3 kW/ 1 kW	11039213

DIMENSIONS (mm)

Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 915 x 1165 x 944.

- Ø Suction = 450.
- Exhaust cross section:
 - Vertical discharge R x R = 321 x 321,
 - Horizontal discharge R x R1 = 321 x 233.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
250 A	4	3,0	230/400	6,5	7,3	6	154
250 A	4	4,0	230/400	8,2	9,2	6,2	157
250 A	4	5,5	230/400	11	12,7	6,5	170
250 B	4	2,2	230/400	4,8	5,4	5,6	150
250 B	4	3,0	230/400	6,5	7,3	6	154
250 C	4	1,5	230/400	3,4	3,9	5,5	157
250 C	4	2,2	230/400	4,8	5,4	5,6	150
250 C	4	3,0	230/400	6,5	7,3	6	154
Cyclone F400 2 speeds - Dahlander							
250 A2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
250 A2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11/3,8	8,5/6,2	182
250 B2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,8	5,6/3,2	152
250 B2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
250 C2 Dahl	4/8	1,6/0,4	400	3,8/2,2	4,4/2,4	5,5/3,2	148
250 C2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,8	5,6/3,2	152
250 C2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
Cyclone F400 2 Speeds - Independent Windings (BI)							
250 A2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158
250 A2 BI	4/6	4,5/1,50	400	10,2/5,4	11,1/5,8	7,5/7	182
250 A2 BI	4/6	6,0/2,2	400	13,7/7	14/7,7	7,8/7,4	193
250 B2 BI	4/6	2,2/0,70	400	4,9/2,5	5,4/2,8	6/5,5	152
250 B2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158
250 C2 BI	4/6	1,5/0,37	400	3,7/1,6	4/1,8	5,5/4,5	148
250 C2 BI	4/6	2,2/0,70	400	4,9/2,5	5,4/2,8	6/5,5	152
250 C2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158

Smoke Exhaust Fans

CYCLONE F400°C: type 250

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.
Example: see page CYCLONE type 225 (p. 74).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS **R8**

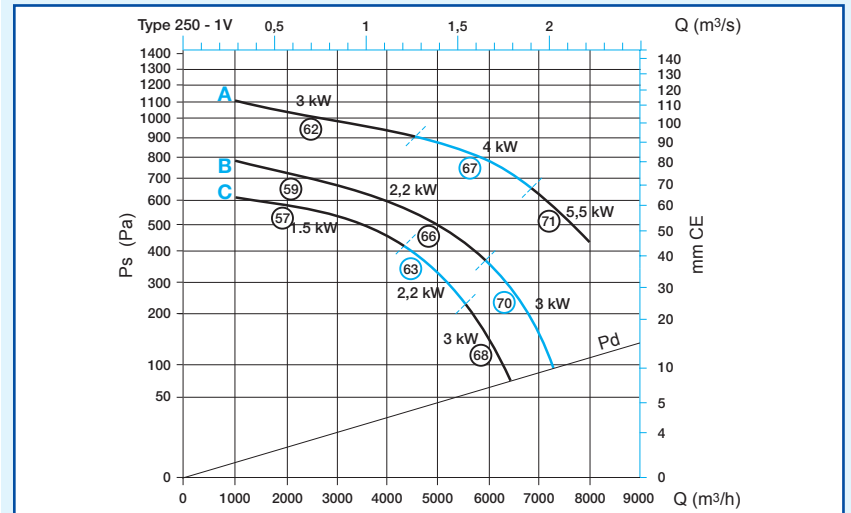
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
250 rain hood	OPT39324
Adjustable pulley 250-280	OPT39350
Thermal insulation - 250	OPT39356
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 2 Speeds max 6.5 kW	OPT39318
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch	OPT39322
100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES **R8**

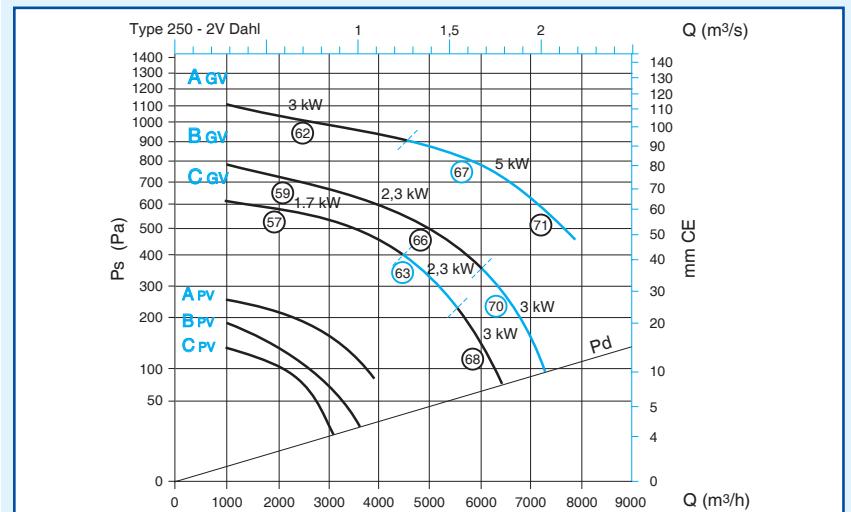
Description	Code
Flexible sleeve kit M0 Ø 450	11096939
Type 250 flexible exhaust sleeve	11039332
Type 250 flexible exhaust adapter	11039340
4-piece anti-vibration support base	11039347

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

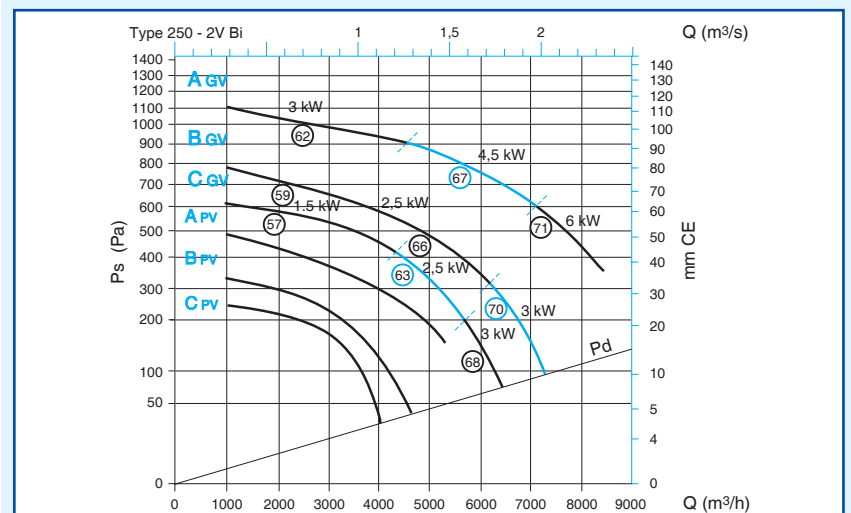
Q (m³/h)	2000	3000	4000	5000	6000	7000	8000
C (Pa)	39	89	157	246	354	482	630



Cyclone F 400 - 250 - 1 Speed



Cyclone F 400 - 250 - 2 Speed - Dahlander



Cyclone F 400 - 250 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 280



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 10,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 280 A 4.0 kW	11039014
Cyclone 280 A 5.5 kW	11039015
Cyclone 280 A 7.5 kW	11039016
Cyclone 280 B 3.0 kW	11039017
Cyclone 280 B 4.0 kW	11039018
Cyclone F400 2 speeds - Dahlander	
Cyclone 280 A - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039114
Cyclone 280 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039115
Cyclone 280 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039116
Cyclone 280 B - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039118
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 280 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039214
Cyclone 280 A - 2 Speeds BI 6 kW/ 2 kW	11039215
Cyclone 280 B - 2 Speeds BI 3 kW/ 1 kW	11039217
Cyclone 280 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039218

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 968 x 1225 x 1014.
- Ø Suction = 500.
- Exhaust cross section:
 - Vertical discharge R x R = 364 x 364,
 - Horizontal discharge R x R1 = 364 x 262.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
280 A	4	4,0	230/400	8,4	9,2	7	181
280 A	4	5,5	230/400	11,5	12,7	7,3	194
280 A	4	7,5	230/400	15,3	16,8	7,9	202
280 B	4	3,0	230/400	6,6	7,3	5,5	178
280 B	4	4,0	230/400	8,4	9,2	7	181
Cyclone F400 2 speeds - Dahlander							
280 A2 Dahl	4/8	3,5/0,7	400	7,0/2,5	7,7/2,8	6,8/4,4	164
280 A2 Dahl	4/8	5,0/1,0	400	9,9/3,3	10,9/3,6	6,4/3,6	182
280 A2 Dahl	4/8	6,8/1,4	400	13,7/5,1	15,1/5,6	7,6/3,6	193
280 B2 Dahl	4/8	3,5/0,7	400	7,0/2,5	7,7/2,8	6,8/4,4	164
Cyclone F400 2 Speeds - Independent Windings (BI)							
280 A2 BI	4/6	4,5/1,5	400	9,2/5,1	10,1/5,6	6,5/4,2	182
280 A2 BI	4/6	6,0/2,0	400	12,0/5,6	13,2/6,2	7,1/4,5	193
280 B2 BI	4/6	3,0/1,0	400	6,3/3,1	6,9/3,4	6/4	158
280 B2 BI	4/6	4,5/1,5	400	9,2/5,1	10,1/5,6	6,5/4,2	182

Smoke Exhaust Fans

CYCLONE F400°C: type 280

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) =
Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS **R8**

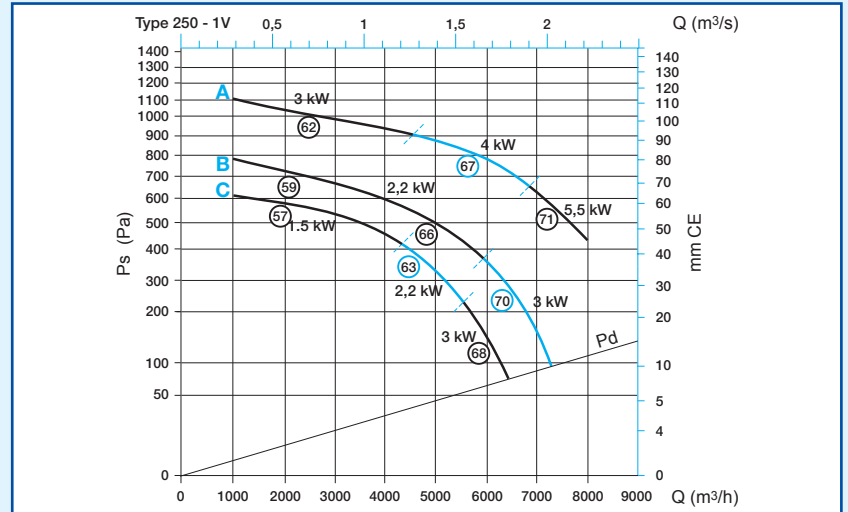
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
280 rain hood	OPT39325
Adjustable pulley 250-280	OPT39350
Thermal insulation - 280	OPT39357
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 - 1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES **R8**

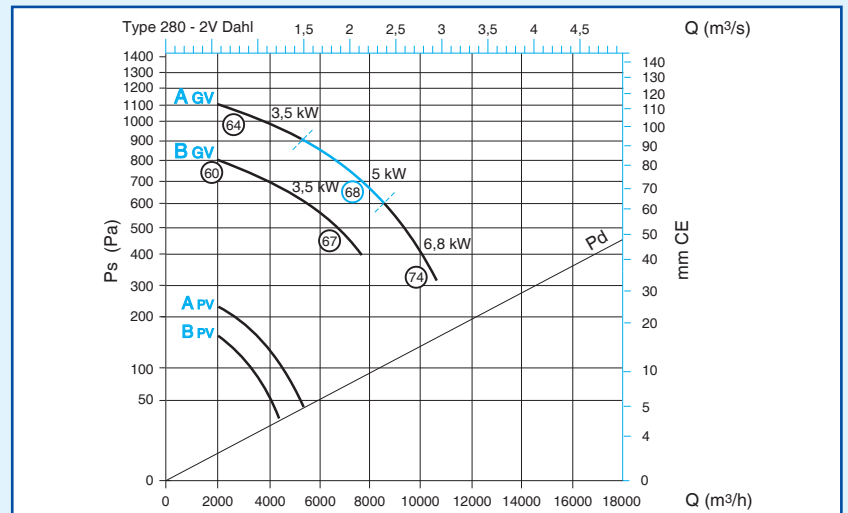
Description	Code
D 500 flexible sleeve	11096940
Type 280 flexible exhaust sleeve	11039333
Type 280 flexible exhaust adapter - D500 mm	11039341
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

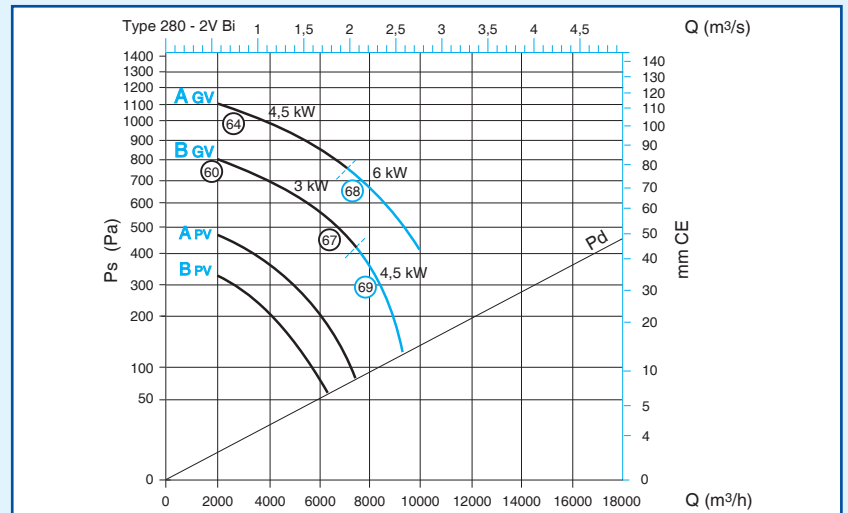
Q (m³/h)	4000	5000	6000	7000	8000	9000	10000	11000
C (Pa)	95	148	213	290	379	479	592	716



Cyclone F 400 - 280 - 1 Speed



Cyclone F 400 - 280 - 2 Speed - Dahlander



Cyclone F 400 - 280 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 315



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 12,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
CYCLONE F 400 1 speed	
Cyclone 315 A 5.5 kW	11039019
Cyclone 315 A 7.5 kW	11039020
Cyclone 315 A 11 kW	11039021
Cyclone 315 B 4.0 kW	11039022
Cyclone 315 B 5.5 kW	11039023
Cyclone 315 B 7.5 kW	11039024
Cyclone F400 2 speeds - Dahlander	
Cyclone 315 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039119
Cyclone 315 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039120
Cyclone 315 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039121
Cyclone 315 B - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039122
Cyclone 315 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039123
Cyclone 315 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039124
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 315 A - 2 Speeds BI 6 kW/ 2 kW	11039219
Cyclone 315 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039221
Cyclone 315 B - 2 Speeds BI 4.5 kW/ 1.5 kW	11039222
Cyclone 315 B - 2 Speeds BI 6 kW/ 2 kW	11039223

DIMENSIONS (mm)

Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1070 x 1390 x 1162.

- Ø Suction = 560.
- Exhaust cross section:
 - Vertical discharge R x R = 407 x 407,
 - Horizontal discharge R x R1 = 407 x 288.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
315 A	4	5,5	230/400	11	12,7	6,5	232
315 A	4	7,5	230/400	14,8	16,8	6,7	240
315 A	4	11,0	230/400	22,1	23,7	6	367
315 B	4	4,0	230/400	8,2	9,2	6,2	219
315 B	4	5,5	230/400	11	12,7	6,5	232
315 B	4	7,5	230/400	14,8	16,8	6,7	240
Cyclone F400 2 speeds - Dahlander							
315 A2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	244
315 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	255
315 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	292
315 B2 Dahl	4/8	3,8/1	400	8,5/4	9,3/4,4	7,5/4,8	226
315 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	244
315 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	255
Cyclone F400 2 Speeds - Independent Windings (BI)							
315 A2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	255
315 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	292
315 B2 BI	4/6	4,5/1,5	400	10,2/5,4	11,1/5,9	7,5/7	244
315 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	255

Smoke Exhaust Fans

CYCLONE F400°C: type 315

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

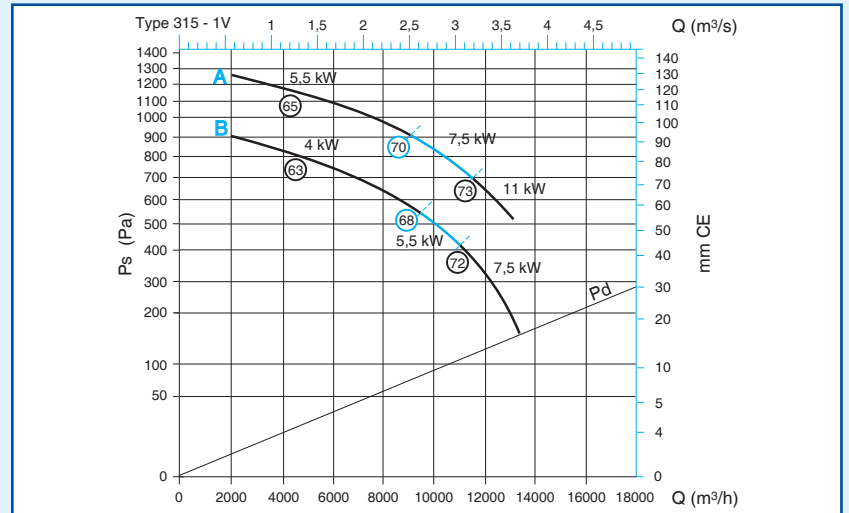
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
315 rain hood	OPT39326
Adjustable pulley 315-355	OPT39351
Thermal insulation - 315	OPT39358
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

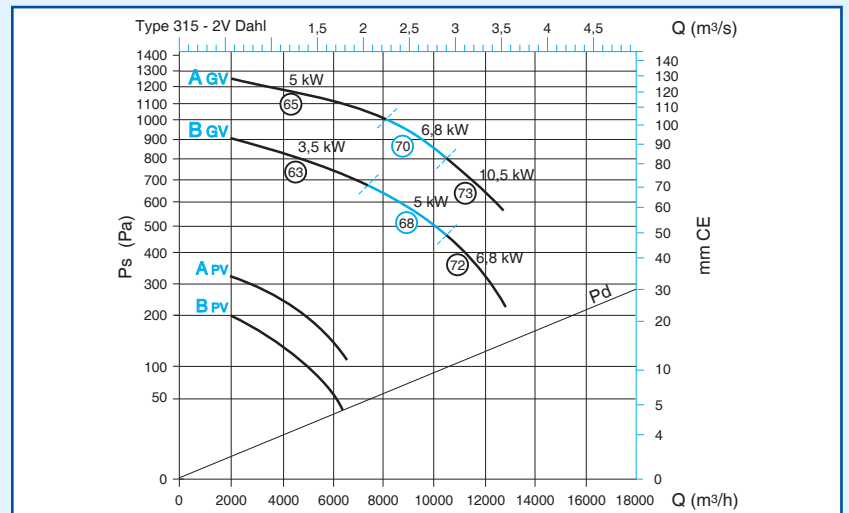
Description	Code
Flexible sleeve kit M0 Ø560	11096941
Type 315 flexible exhaust sleeve	11039334
Type 315 flexible exhaust adapter	11039342
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

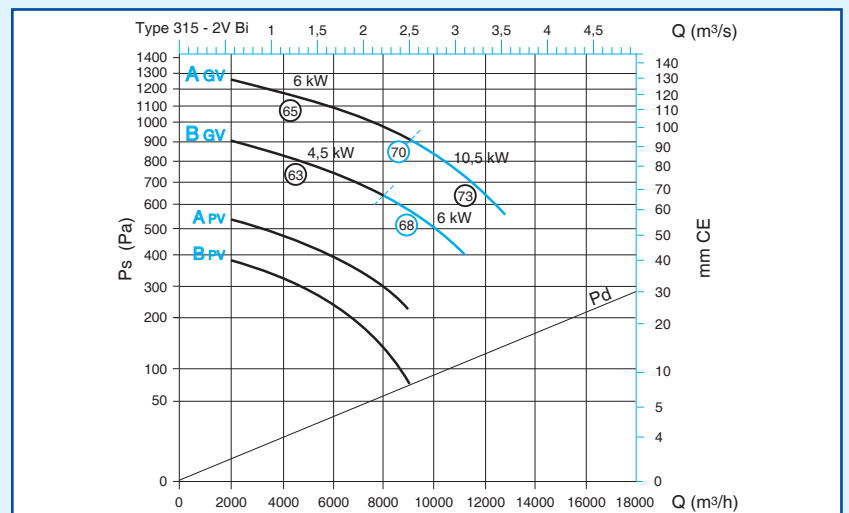
Q (m³/h)	4000	6000	8000	10000	12000
C (Pa)	61	137	244	381	548



Cyclone F 400 - 315 - 1 Speed



Cyclone F 400 - 315 - 2 Speed - Dahlander



Cyclone F 400 - 315 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 355



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 14,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 355 A 7.5 kW	11039025
Cyclone 355 A 11 kW	11039026
Cyclone 355 B 5.5 kW	11039027
Cyclone 355 B 7.5 kW	11039028
Cyclone 355 C 4.0 kW	11039029
Cyclone 355 C 5.5 kW	11039030
Cyclone 355 C 7.5 kW	11039031
Cyclone F400 2 speeds - Dahlander	
Cyclone 355 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039125
Cyclone 355 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039126
Cyclone 355 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039127
Cyclone 355 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039128
Cyclone 355 C - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039129
Cyclone 355 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039130
Cyclone 355 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039131
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 355 A - 2 speeds - BI 10.5 kW/ 3.5 kW	11039226
Cyclone 355 B - 2 speeds - BI 6 kW/ 2 kW	11039227
Cyclone 355 C - 2 speeds - BI 4.5 kW/ 1.5 kW	11039229
Cyclone 355 C - 2 speeds - BI 6 kW/ 2 kW	11039230

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1105 x 1480 x 1256.
- Ø Suction = 630.
- Exhaust cross section:
 - Vertical discharge R x R = 453 x 453,
 - Horizontal discharge R x R1 = 453 x 330.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
355 A	4	7,5	230/400	14,8	16,8	6,7	273
355 A	4	11,0	230/400	22,1	23,7	6	300
355 B	4	5,5	230/400	11	12,7	6,5	265
355 B	4	7,5	230/400	14,8	16,8	6,7	273
355 C	4	4,0	230/400	8,2	9,2	6,2	252
355 C	4	5,5	230/400	11	12,7	6,5	265
355 C	4	7,5	230/400	14,8	16,8	6,7	273
Cyclone F400 2 speeds - Dahlander							
355 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
355 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	325
355 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,4/3,9	8,5/6,2	277
355 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
355 C2 Dahl	4/8	3,8/1	400	8,5/4	9,3/4,4	7,5/4,8	259
355 C2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,4/3,9	8,5/6,2	277
355 C2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
Cyclone F400 2 Speeds - Independent Windings (BI)							
355 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	325
355 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	288
355 C2 BI	4/6	4,5/1,5	400	10,2/5,4	11,2/5,9	7,5/7	277
355 C2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	288

Smoke Exhaust Fans

CYCLONE F400°C: type 355

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) =
Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

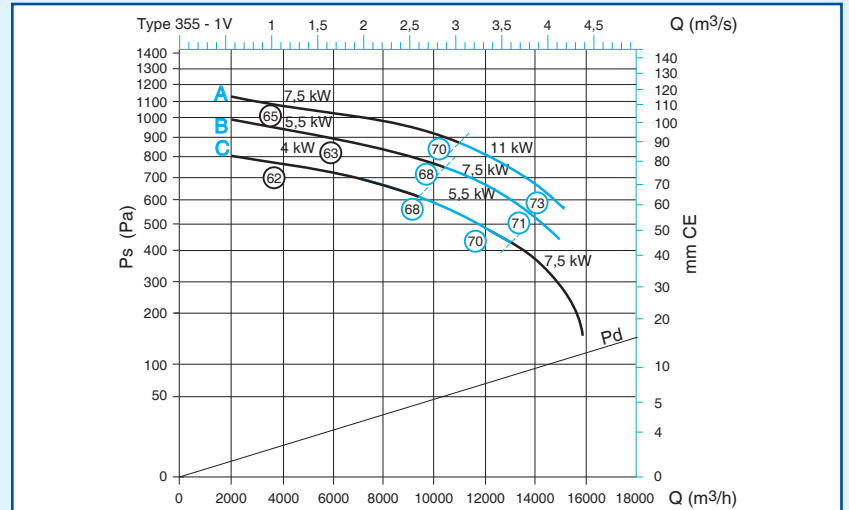
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
355 rain hood	OPT39327
Adjustable pulley 315-355	OPT39351
Thermal insulation - 355	OPT39359
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

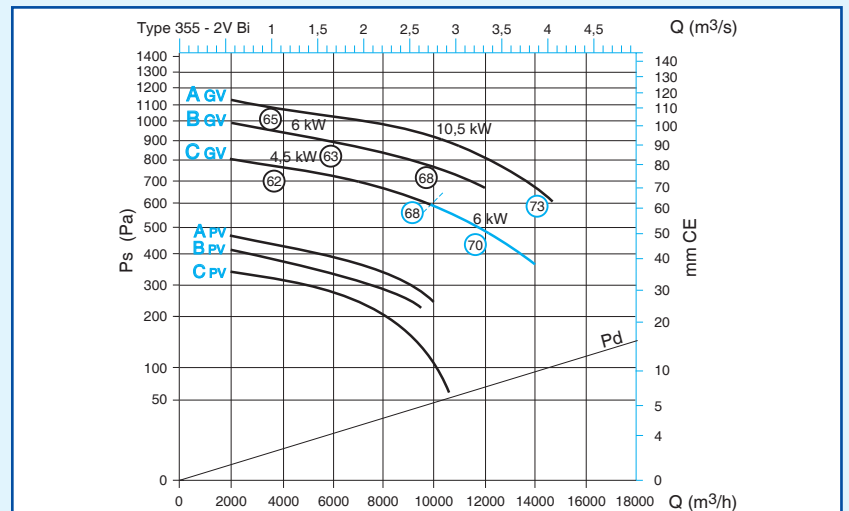
Description	Code
Flexible sleeve kit M0 Ø630	11096942
Flexible sleeve Exhaust - Type 355	11039335
Type 355 flexible exhaust adapter - D630 mm	11039343
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

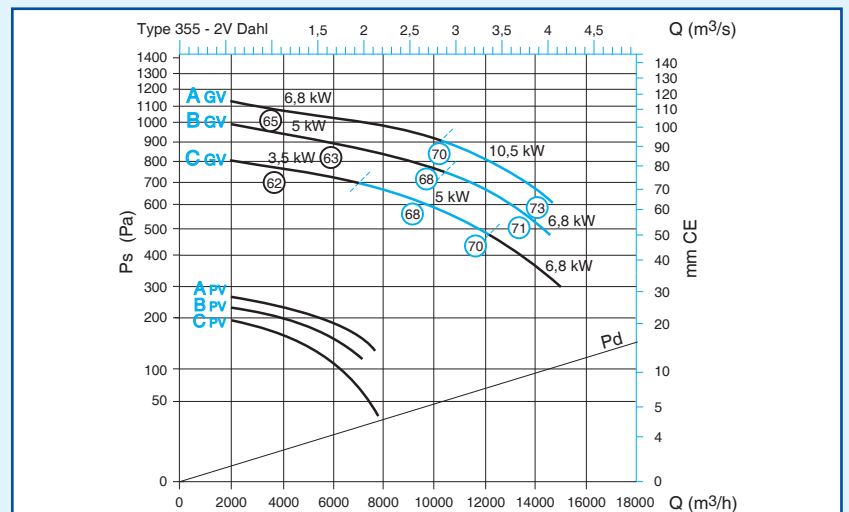
Q (m ³ /h)	4000	6000	8000	10000	12000	14000
C (Pa)	37	83	147	230	332	451



Cyclone F 400 - 355 - 1 Speed



Cyclone F 400 - 355 - 2 Speed - Dahlander



Cyclone F 400 - 355 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 400



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 20,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 400 A - 7.5 kW	11039032
Cyclone 400 A - 11 kW	11039033
Cyclone 400 A - 15 kW	11039034
Cyclone 400 B - 5.5 kW	11039035
Cyclone 400 B - 7.5 kW	11039036
Cyclone 400 B - 11 kW	11039037
Cyclone 400 C - 4.0 kW	11039038
Cyclone 400 C - 5.5 kW	11039039
Cyclone 400 C - 7.5 kW	11039040
Cyclone F400 2 speeds - Dahlander	
Cyclone 400 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039132
Cyclone 400 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039133
Cyclone 400 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039134
Cyclone 400 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039135
Cyclone 400 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039136
Cyclone 400 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039137
Cyclone 400 C - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039138
Cyclone 400 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039139
Cyclone 400 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039140
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 400 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039233
Cyclone 400 A - 2 Speeds BI 16 kW/ 5 kW	11039234
Cyclone 400 B - 2 Speeds BI 6 kW/ 2 kW	11039235
Cyclone 400 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039237
Cyclone 400 C - 2 Speeds BI 4.5 kW/ 1.5 kW	11039238
Cyclone 400 C - 2 Speeds BI 6 kW/ 2 kW	11039239

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1205 x 1600 x 1370.
- Ø Suction = 710.
- Exhaust cross section:
 - Vertical discharge R x R = 507 x 507,
 - Horizontal discharge R x R1 = 507 x 346.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
400 A	4	7.5	230/400	14,8	16.8	6,7	352
400 A	4	11.0	230/400	22,1	23.7	6	379
400 A	4	15.0	230/400	29,1	33.0	5,8	398
400 B	4	5.5	230/400	11	12.7	6,5	344
400 B	4	7.5	230/400	14,8	16.8	6,7	352
400 B	4	11.0	230/400	22,1	23.7	6	379
400 C	4	4.0	230/400	8,2	9.2	6,2	331
400 C	4	5.5	230/400	11	12.7	6,5	344
400 C	4	7.5	230/400	14,8	16.8	6,7	352
Cyclone F400 2 speeds - Dahlander							
400 A2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
400 A2 Dahl	4/8	11/3	400	21.0/7	23.1/7.7	7/4.3	404
400 A2 Dahl	4/8	14/3.5	400	26.5/8.5	30/9.4	7,2/4,2	427
400 B2 Dahl	4/8	5.0/1.3	400	10.4/3.5	11.4/3.8	8,5/6,2	356
400 B2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
400 B2 Dahl	4/8	11/3	400	21.0/7	23.1/7.7	7/4.3	404
400 C2 Dahl	4/8	3.8/1	400	8.5/4	9.3/4.4	7,5/4,8	338
400 C2 Dahl	4/8	5.0/1.3	400	10.4/3.5	11.4/3.8	8,5/6,2	356
400 C2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
Cyclone F400 2 Speeds - Independent Windings (BI)							
400 A2 BI	4/6	10/3.3	400	22/8.7	24/9.5	7/4	404
400 A2 BI	4/6	16.0/6.5	400	28.4/12.5	31/13.8	8,5/7,6	427
400 B2 BI	4/6	6.0/2.2	400	13.7/7	15/7.7	7,8/7,4	367
400 B2 BI	4/6	10/3.3	400	22/8.7	24/9.5	7/4	404
400 C2 BI	4/6	4.5/1.5	400	10.2/5.4	11.1/5.9	7,5/7	356
400 C2 BI	4/6	6.0/2.2	400	13.7/7	15/7.7	7,8/7,4	367

Smoke Exhaust Fans

CYCLONE F400°C: type 400

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

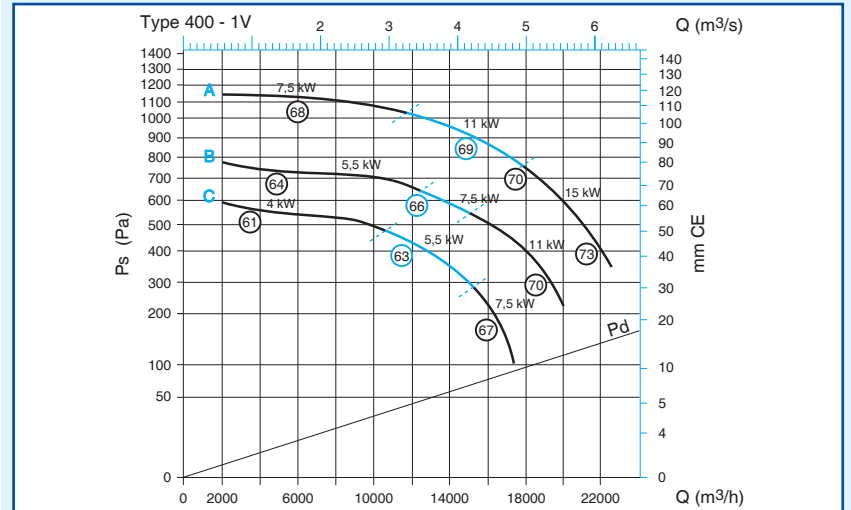
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
400 rain hood	OPT39328
Adjustable pulley - 400	OPT39352
Thermal insulation - 400	OPT39360
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

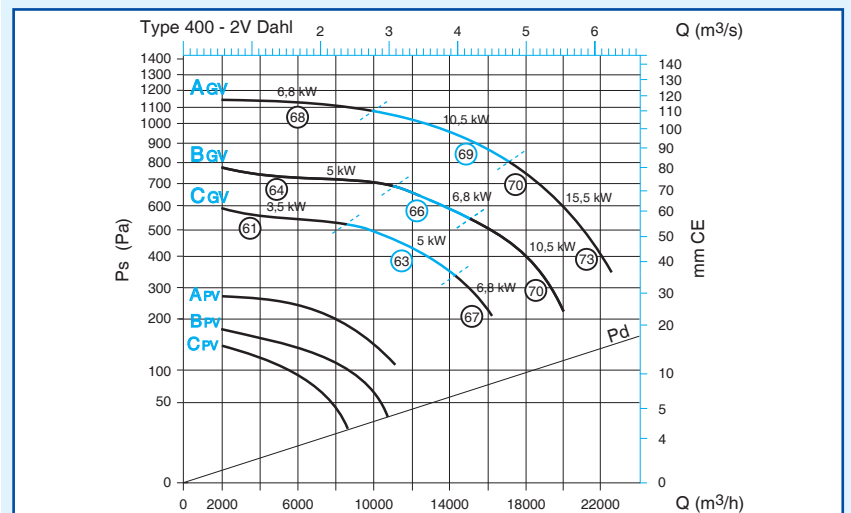
Description	Code
D 710 flexible sleeve	11096930
Type 400 flexible exhaust sleeve	11039336
Type 400 flexible exhaust adapter	11039344
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

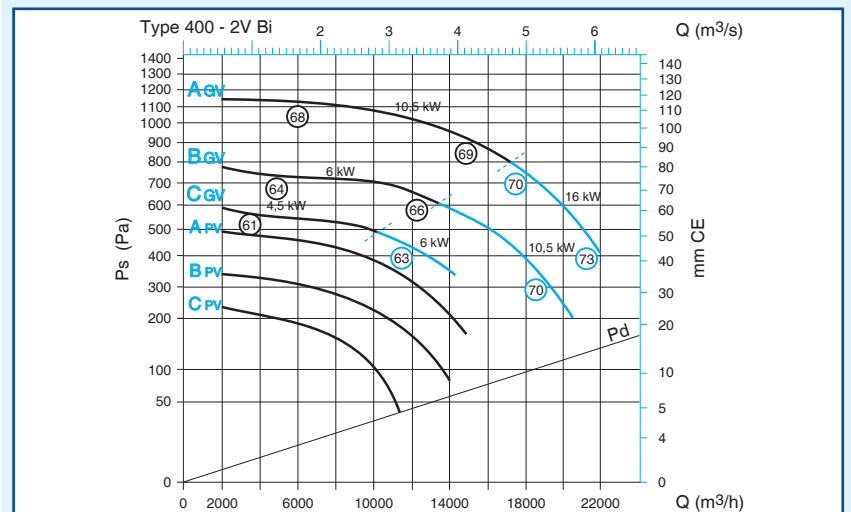
Q (m ³ /h)	6000	8000	10000	12000	14000	16000	18000	20000	22000
C (Pa)	53	94	147	212	288	376	476	588	712



Cyclone F 400 - 400 - 1 Speed



Cyclone F 400 - 400 - 2 Speed - Dahlander



Cyclone F 400 - 400 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 450



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 4000 and 24,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 450 A 7.5 kW	11039041
Cyclone 450 A 11 kW	11039042
Cyclone 450 A 15 kW	11039043
Cyclone 450 B 5.5 kW	11039044
Cyclone 450 B 7.5 kW	11039045
Cyclone 450 B 11 kW	11039046
Cyclone F400 2 speeds - Dahlander	
Cyclone 450 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039141
Cyclone 450 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039142
Cyclone 450 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039143
Cyclone 450 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039144
Cyclone 450 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039145
Cyclone 450 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039146
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 450 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039242
Cyclone 450 A - 2 Speeds BI 16 kW/ 5 kW	11039243
Cyclone 450 B - 2 Speeds BI 6 kW/ 2 kW	11039244
Cyclone 450 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039246

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1357 x 1844 x 1492.
- Ø Suction = 800.
- Exhaust cross section:
 - Vertical discharge R x R = 569 x 569,
 - Horizontal discharge R x R1 = 569 x 392.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
450 A	4	7,5	230/400	14,8	16,8	6,7	458
450 A	4	11,0	230/400	22,1	23,7	6	485
450 A	4	15,0	230/400	29,1	33,0	5,8	504
450 B	4	5,5	230/400	11	12,7	6,5	450
450 B	4	7,5	230/400	14,8	16,8	6,7	458
450 B	4	11,0	230/400	22,1	23,7	6	485
Cyclone F400 2 speeds - Dahlander							
450 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	473
450 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	510
450 A2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	533
450 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	462
450 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	473
450 B2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	510
Cyclone F400 2 Speeds - Independent Windings (BI)							
450 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	510
450 A2 BI	4/6	16,0/6,5	400	28,4/12,5	31/13,8	8,5/7,6	533
450 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	473
450 B2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	510

Smoke Exhaust Fans

CYCLONE F400°C: type 450

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

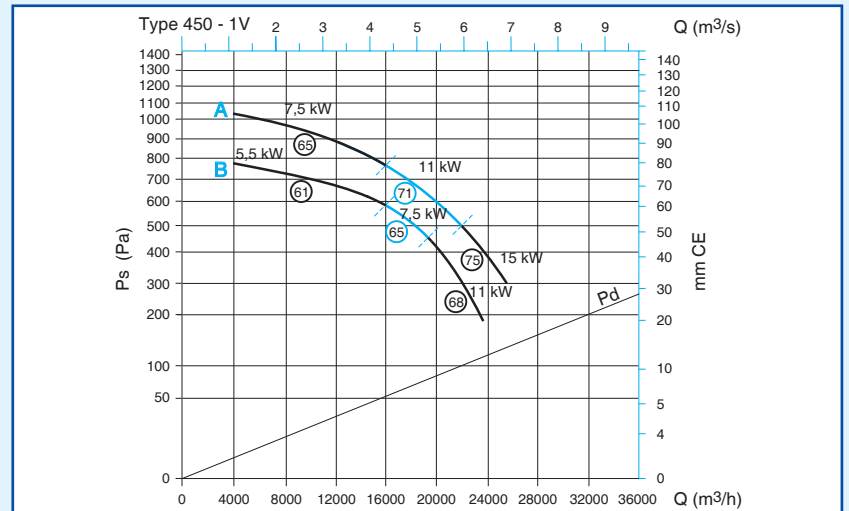
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
450 rain hood	OPT39329
Adjustable pulley - 450	OPT39353
Thermal insulation - 450	OPT39361
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
Proximity switch 2 Speeds max 22 kW	OPT39320
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

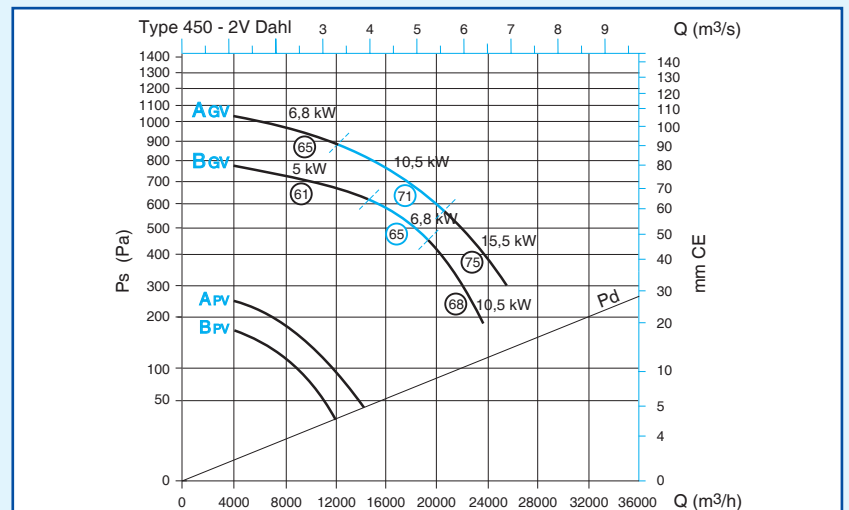
Description	Code
D 800 flexible sleeve	11096931
Flexible sleeve Exhaust - Type 450	11039337
Flexible adapter Exhaust - Type 450	11039345
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

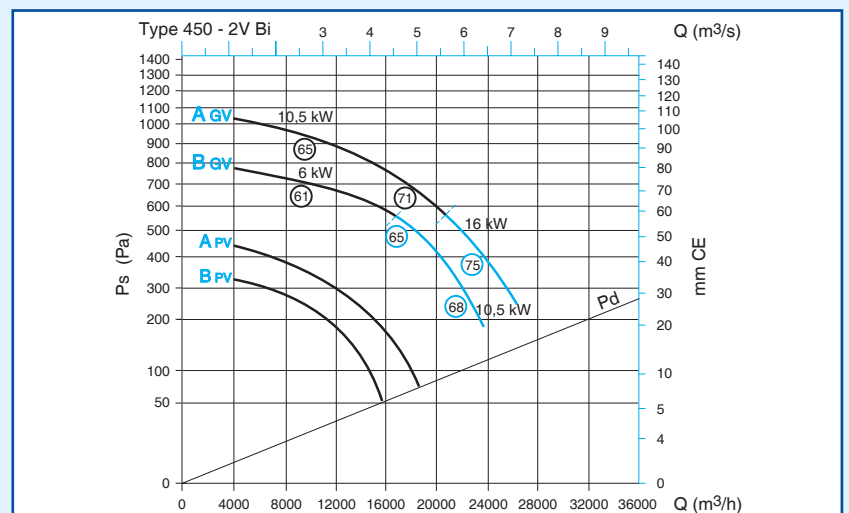
Q (m³/h)	8000	12000	16000	20000	24000
C (Pa)	61	137	244	382	550



Cyclone F 400 - 450 - 1 Speed



Cyclone F 400 - 450 - 2 Speed - Dahlander



Cyclone F 400 - 450 - 2 Speed - Independent windings

Smoke Exhaust Fans

CYCLONE F400°C: type 500



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 4000 and 32,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 500 A 11 kW	11039047
Cyclone 500 A 15 kW	11039048
Cyclone 500 A 22 kW	11039049
Cyclone 500 B 7.5 kW	11039050
Cyclone 500 B 11 kW	11039051
Cyclone 500 B 15 kW	11039052
Cyclone 500 C 5.5 kW	11039053
Cyclone 500 C 7.5 kW	11039054
Cyclone 500 C 11 kW	11039055
Cyclone F400 2 speeds - Dahlander	
Cyclone 500 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039147
Cyclone 500 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039148
Cyclone 500 A - 2 Speeds Dahlander 22.5 kW/ 4.4 kW	11039149
Cyclone 500 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039150
Cyclone 500 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039151
Cyclone 500 B - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039152
Cyclone 500 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039153
Cyclone 500 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039154
Cyclone 500 C - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039155
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 500 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039247
Cyclone 500 A - 2 Speeds BI 16 kW/ 5 kW	11039248
Cyclone 500 A - 2 Speeds BI 23 kW/ 7.2 kW	11039249
Cyclone 500 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039251
Cyclone 500 B - 2 Speeds BI 16 kW/ 5 kW	11039252
Cyclone 500 C - 2 Speeds BI 6 kW/ 2 kW	11039253
Cyclone 500 C - 2 Speeds BI 10.5 kW/ 3.5 kW	11039255

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1495 x 1964 x 1621.
- Ø Suction = 800.
- Exhaust cross section:
 - Vertical discharge R x R = 638 x 638,
 - Horizontal discharge R x R1 = 638 x 460.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	Imax (A)	Id/IN	Weight (kg)
500 A	4	11,0	230/400	22,1	23,7	6	549
500 A	4	15,0	230/400	29,1	33,0	5,8	568
500 A	4	22,0	230/400	41	45,1	7	615
500 B	4	7,5	230/400	14,8	16,8	6,7	522
500 B	4	11,0	230/400	22,1	23,7	6	549
500 B	4	15,0	230/400	29,1	33,0	5,8	568
500 C	4	5,5	230/400	11	12,7	6,5	514
500 C	4	7,5	230/400	14,8	16,8	6,7	522
500 C	4	11,0	230/400	22,1	23,7	6	549
Cyclone F400 2 speeds - Dahlander							
500 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
500 A2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	597
500 A2 Dahl	4/8	20/5	400	38,6/14,1	42/15,5	8,8/5,1	641
500 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	537
500 B2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
500 B2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	597
500 C2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	526
500 C2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	537
500 C2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
Cyclone F400 2 Speeds - Independent Windings (BI)							
500 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574
500 A2 BI	4/6	16/6,5	400	28,4/12,5	31/13,8	8,5/7,6	597
500 A2 BI	4/6	20/8,5	400	39,4/16,3	43/18	9/8,7	641
500 B2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574
500 B2 BI	4/6	16/6,5	400	28,4/12,5	31/13,8	8,5/7,6	597
500 C2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	537
500 C2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574

Smoke Exhaust Fans

CYCLONE F400°C: type 500

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 74).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
500 rain hood	OPT39330
Thermal insulation - 500	OPT39362
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 1 Speed max 30 kW	OPT39317
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
Proximity switch 2 Speeds max 22 kW	OPT39320
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

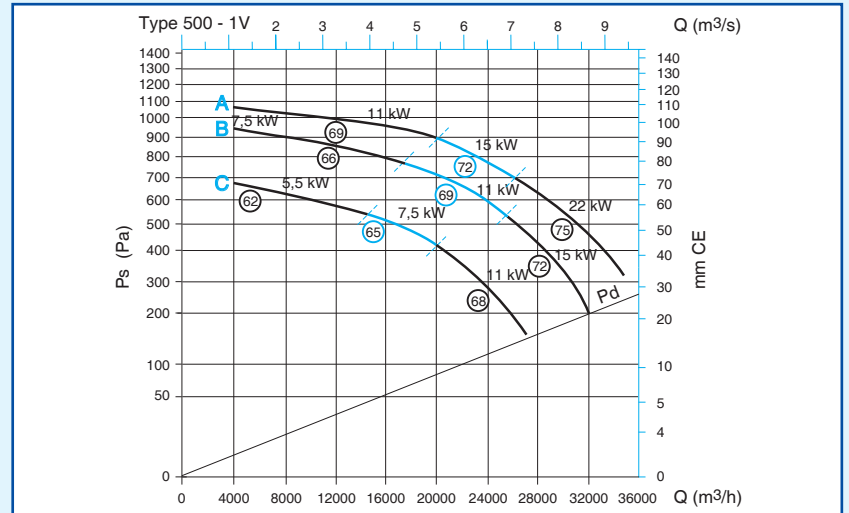
Note: The integrated "All-in-One" option includes the IP+DP.

CONNECTION ACCESSORIES R8

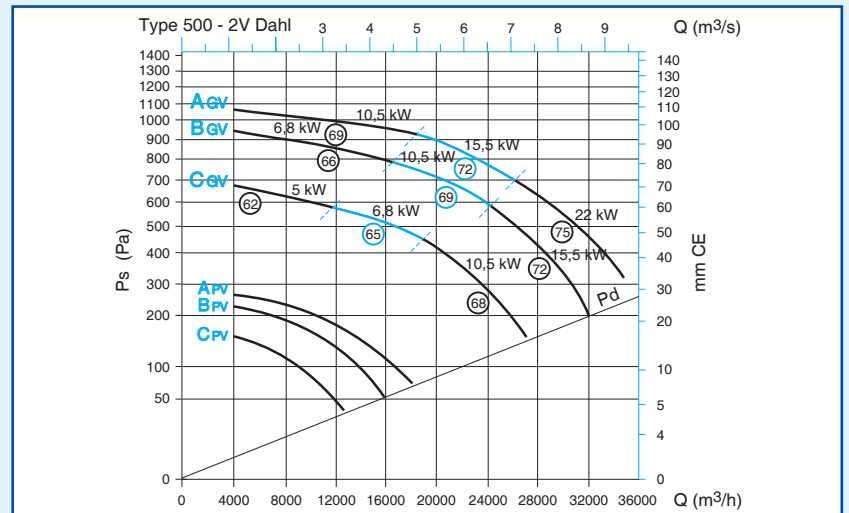
Description	Code
D 800 flexible sleeve	11096931
Flexible sleeve Exhaust - Type 500	11039338
Flexible adapter Exhaust - Type 500	11039346
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

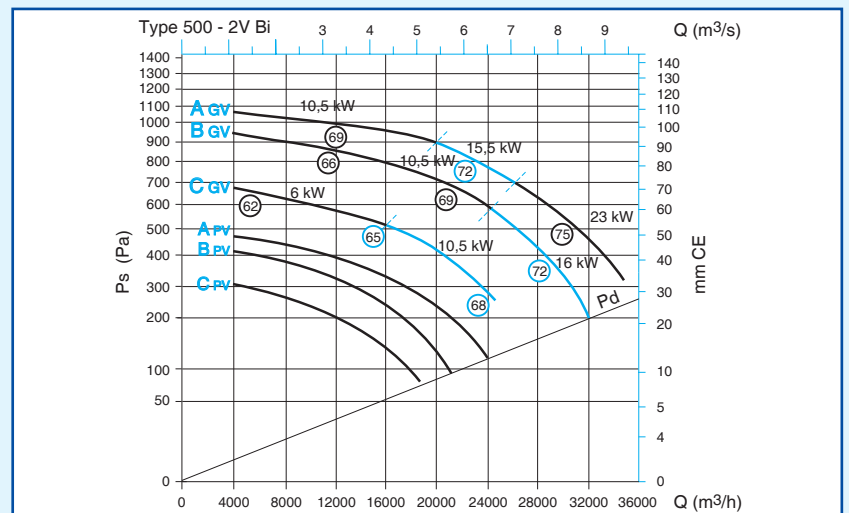
Q (m³/h)	8000	12000	16000	20000	24000	28000	32000
C (Pa)	45	102	182	284	409	557	728



Cyclone F 400 - 500 - 1 Speed



Cyclone F 400 - 500 - 2 Speed - Dahlander



Cyclone F 400 - 500 - 2 Speed - Independent windings

Smoke Exhaust Fans

Presentation of the VELONE F400°C range - 2h



VELONE without option.



With the "All-in-One" option

CIVIL DEFENCE APPROVED

- Compliances**
- Conforms with the CE marking.
 - F400°C-(2h) min classification in accordance with Standard EN 12101-3.
 - All-in-One option, backdraft damper and rain hood kit accessories in compliance with EN 12101-3.

- Advantages**
- Up to 27000 m³/h.
 - Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
 - Aeraulics connection of the pressure switch made at the factory.
 - IP x4 validated rain hood kit.
 - Pivot pin = Easy cleaning.

APPLICATION

- Smoke exhaust of commercial premises (public assembly, high-rise, commercial or industrial buildings), and multi-family housing (mainly 3rd family B and 4th family).
- Ventilation of commercial premises with a need for fire protection classification (professional kitchens, sports halls, workshops etc.).

FIRE PROTECTION RATING

- VELONE was awarded the classification F400°C-(2h). The All-in-One option (integrated relay box), backdraft damper and the rain hood kit have all been validated by fire resistance tests.
- CE in accordance with Standard EN 12101-3.

DESCRIPTION

- 10 sizes of roof fans: for airflow rates of between 500 and 27,000 m³/h.
- Base and motor mountings in galvanised steel, cover in ABS fixed by 4 quick-motion screws.
- Backward curve impeller in galvanised steel.
- IP 55, Class F electrical motor.
- Protection grille in galvanised steel.

INSTALLATION

- Outdoors on a flat roof stack (accessory) or directly connected to the duct.

AVAILABLE OPTIONS

- Adjustable pressure switch fixed inside to protect it from impacts and bad weather. EXCLUSIVE: The pressure switch is connected/fitted (Note: for use at 2 smoke exhaust speeds, fit 2 pressure switches).
- Proximity switch wired up and fixed inside to protect it from impacts and bad weather.
- ALL-IN-ONE Option.
- Ideal solution when the relay box is installed less than 2 m from the VELONE roof fan.
- Saves time when wiring up, simplified installation and a guarantee that the product will work on-site.
- The wiring of the relay box is carried out at the factory, in compliance with NF-S-61932
- Always comprises the relay box, pressure switch and proximity switch.
- 1 speed model: The AXONE relay box is fixed inside to protect it from impacts and bad weather.
- 2-speed model. The AXONE relay box is fixed outside of the roof fan. Possibility of using the flat roof support.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow.

ACCESSORIES

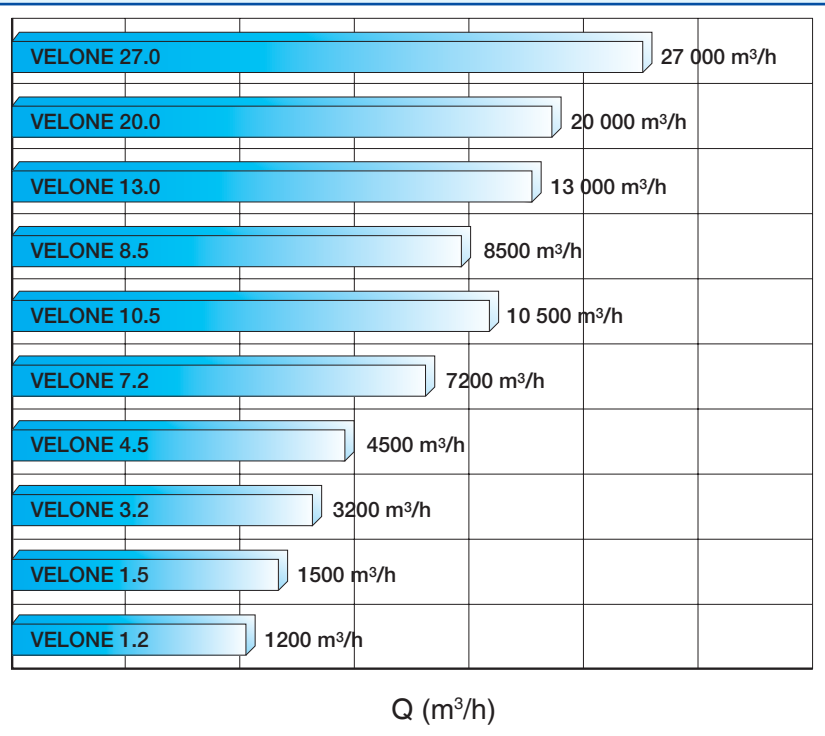
- Rain hood kit, laboratory tested for IP x 4 = sprayed from all directions
- Backdraft damper fire resistance tested.
- Vertical exhaust kit: prohibits with All-in-One solution.
- Grouting frame or duct frame.
- Pivot pin.
- Flat roof stack or sloped roof stack.
- AXONE flat roof support.

Electrical Accessories

- Frequency controller.

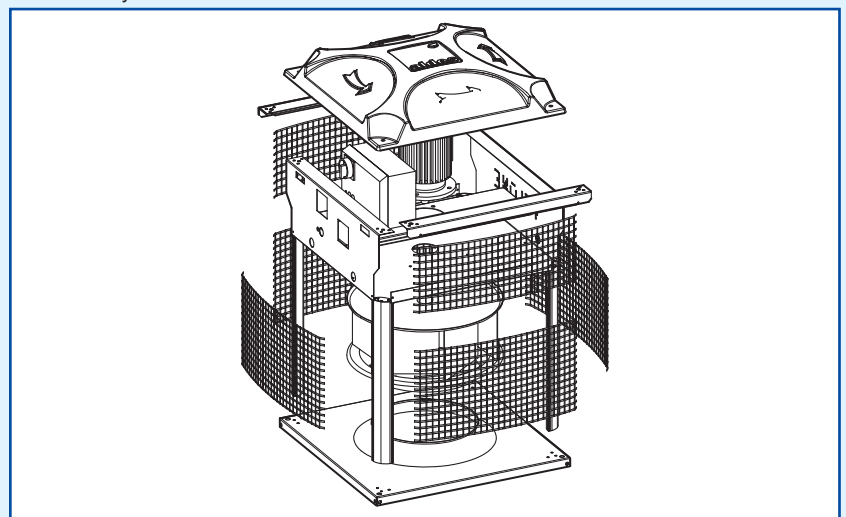
PRE-SELECTION OF VELONE MODEL

The airflows correspond to a pressure loss of 200 Pa.



DESIGN

It is possible to integrate the proximity switch, pressure switch(es) and the 1-speed AXONE relay box under the cover.



Smoke Exhaust Fans

Presentation of the VELONE F400°C advantages



VELONE without option



With the "All-in-One" option

AIRFLOW UP TO 27000 m³/h

- Aldes has taken particular care in the design of the VELONE in order to offer you a range of smoke exhaust roof fans that comply with the CE marking up to 27000 m³/h, without increasing the dimensions of the base.

COMPACT SO AS TO PROTECT IT FROM IMPACTS AND BAD WEATHER

- We have preferred to improve the motor mounting by using galvanised steel, rather than plastic, because we believe that for a lengthy service life the electrical accessories such as relay boxes, pressure switches and proximity switches, should be fully protected from impacts and bad weather.
- On the 2-speed model, the AXONE relay box is supplied with a 2m long cable for fixing outside the roof fan. Possibility of using the flat roof support.

AIR DUCT CONNECTION OF THE PRESSURE SWITCH

- Being the inventor of the All-in-One solution (relay box wired up at the factory), we are now offering an exclusive feature on this new range - the air duct connection of the pressure switch.
- This option minimises man-hour time on-site: drilling holes in the ductwork on-site is a thing of the past!

RAIN HOOD KIT IPx4 - AN ALDES EXCLUSIVE FEATURE

- A smoke exhaust roof fan, used only for smoke extraction is permanently at rest, ready to start up in case of fire or for testing. A smoke exhaust roof fan at rest, presents a risk of penetration by rain during thunderstorms and violent winds.
- The new VELONE design now allows us to offer you a new accessory called the "rain hood kit". Comprised of 4 parts to be mounted on-site, the rain hood kit passed fire resistance tests and has an IP x4 safety index validated by the CETIAT laboratory.
- This classification corresponds to the usual safety protection index used for electrical equipment: switch, pressure switch, relay box. The first figure concerns dust protection (X because it does not concern a roof fan), the second figure is equivalent to water protection: The 4 guarantees its leaktightness faced with water sprayed at it from all directions with a flow rate of 600 l/h!

CONFORMING BACKDRAFT DAMPER

- The backdraft damper which avoids heat losses succeeded in passing the regulatory fire resistance tests.

EASY REPLACEMENT

- This range of roof fans can replace any VELONE roof fan delivered between 1998 and 2006. In fact, we designed this new range without having to change the dimensions of the base. Moreover, with an equivalent base dimension, the new range can only give better performances in terms of aeraulics.

Smoke Exhaust Fans

VELONE F400°C -1.2 - 3-phase/ Single phase



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

CIVIL DEFENCE APPROVED

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed inside for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 1,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 1.2M 0.24KW	11021390
VELONE 1.2 - 4T 0.37KW	11021340

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281

ACCESSORIES R8

Description on the following pages (p. 102 - 105)

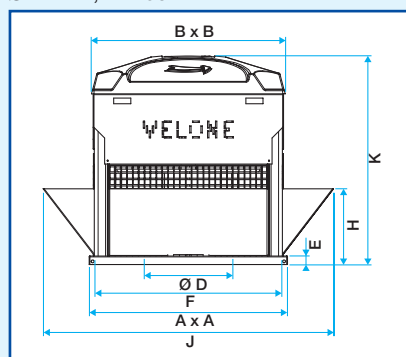
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.

DIMENSIONS (mm) WEIGHT (kg)

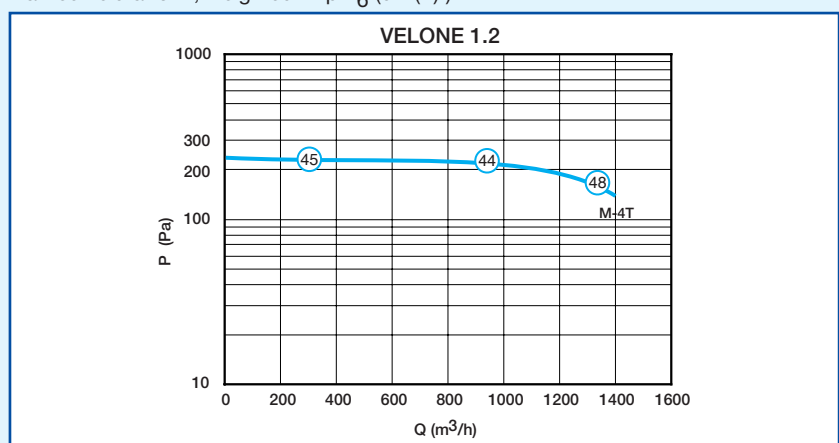
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
1.2	533	519	185	493	580	36	707	190	41

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 250 mm)
- The pressures shown on the graphs are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
1.2 M	4	230	0,25	50	2,2	6,2
1.2 T	4	230/400	0,37	50/60	1,03	4,4

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 1.5 - 3-phase/ Single phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 1,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 1.5M 0.24KW	11021391
VELONE 1.5 - 4T 0.37KW	11021341
VELONE 1.5 - 6T 0.18KW	11021342
VELONE 2-speeds	
VELONE 1.5 - 4/8T 0.6/0.15KW	11021371
NEW: VELONE STOCK 1-speed	
VELONE 1.5M 0.24KW+IP (stock)	11021395
VELONE 1.5-6T 0.18KW+IP (stock)	11021256

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the accessories: see p. 102 - 105

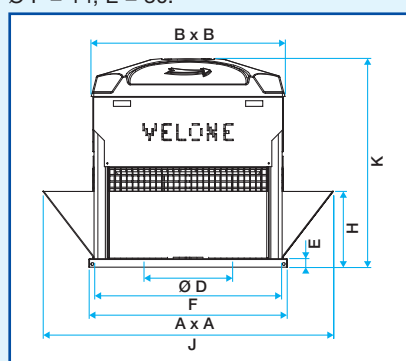
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

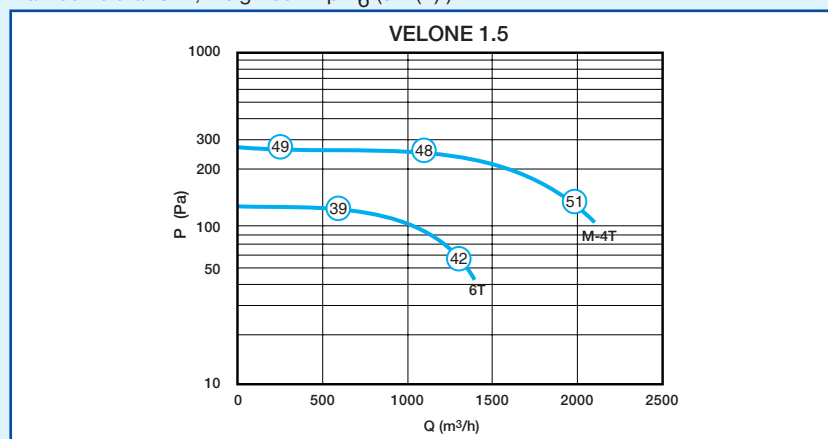
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
1.5	533	519	209	493	607	38	707	190	43

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 250mm)
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted AL_{pm6} (dB (A)).



ELECTRICAL DETAILS

Type	Number of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
1.5 M	4	230	0,25	50	2,2	6,2
1.54T	4	230/400	0,37	50/60	1,03	5
1.56T	6	230/400	0,18	50/60	0,71	3,5
1.5-4/8T	4/8	400	0,6/0,15	50	1,87/0,9	5,2/2,8

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor.
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 3.2 - 3-phase/ Single phase



With the "All-in-One" option

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

CIVIL DEFENCE APPROVED

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 3,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 3.2M 0.37KW	11021392
VELONE 3.2 - 4T 0.55KW	11021344
VELONE 3.2 - 6T 0.18KW	11021345
VELONE 2-speeds	
VELONE 3.2 - 4/8T 0.6/0.15KW	11021373
NEW: VELONE STOCK 1-speed	
VELONE 3.2M 0.37KW + IP (stock)	11021396
VELONE 3.2 - 4T 0.55KW + IP (stock)	11021386
VELONE 3.2 - 6T 0.18KW + IP (stock)	11021257

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

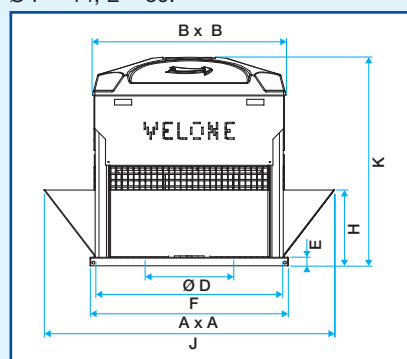
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

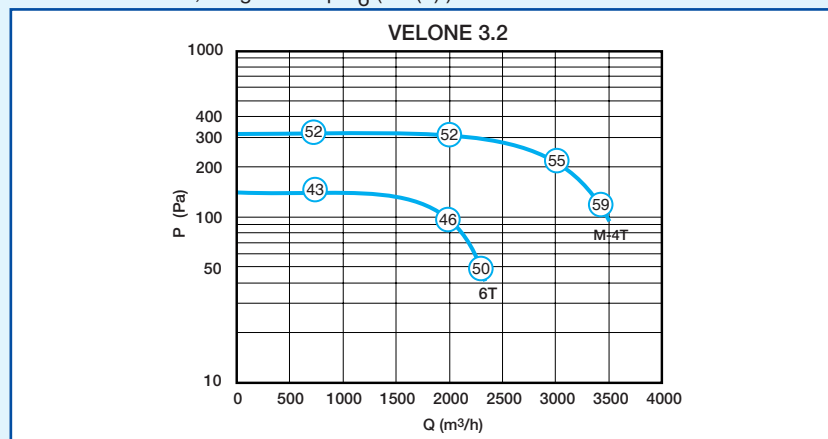
Ø F = 14, E = 30.



Type	Horizontal air exhaust					With vertical kit			
	A	B	Ø D	F	K	Weight	J	H	Weight
3.2	533	519	235	493	629	39	707	190	44

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 315 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
3.2 M	4	230	0,37	50	3	6
3.2-4T	4	230/400	0,55	50/60	1,3	6
3.2-6T	6	230/400	0,18	50/60	0,71	3,5
3.2-4/8	4/8	400	0,6/0,15	50	1,87/0,9	5,2/2,8

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor.
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 4.5 - 3-phase/ Single phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 300 and 4,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 4.5M 0.75 kW	11021393
VELONE 4.5 - 4T 0.37 kW	11021347
VELONE 4.5 - 6T 0.37kW	11021348
VELONE 2-speeds	
VELONE 4.5 - 4/6T 0.75 /0.25 kW	11021374
VELONE 4.5 - 4/8T 0.8/0.15 kW	11021375
NEW: VELONE STOCK 1-speed	
VELONE 4.5 - 4T 0.75kW + IP (stock)	11021397
VELONE 4.5 - 4T 0.75kW + IP (stock)	11021387
VELONE 4.5 - 6T 0.37kW + IP (stock)	11021258

AVAILABLE OPTIONS R8

- For description see previous page.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

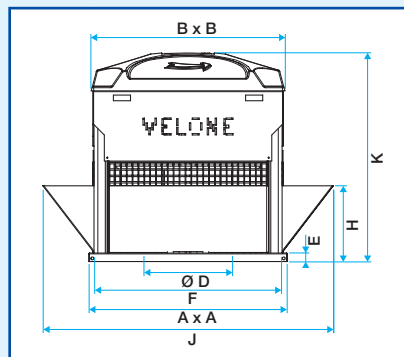
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 4.5/ 7.2/ 10.5	11021070
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

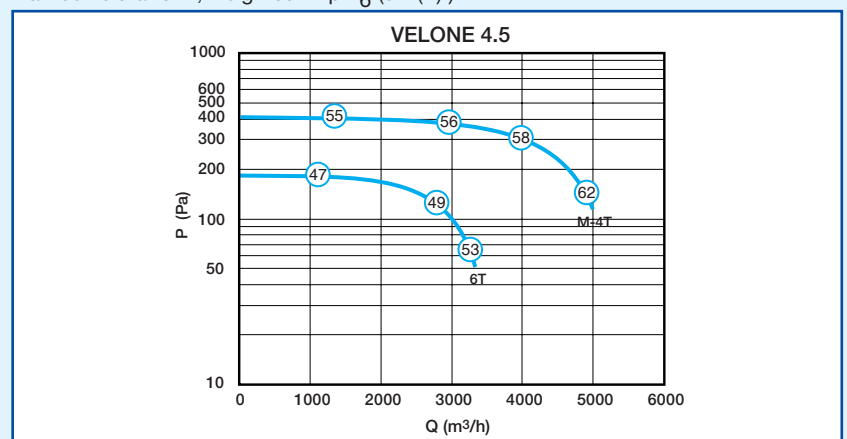
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
4.5	698	684	265	658	658	50	991	265	60

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 355 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
4.5 M	4	230	0,75	50	5,5	5,5
4.5- 4T	4	230/400	0,75	50/60	1,65	6
4.5- 6T	6	230/400	0,37	50/60	1,09	4,7
4.5 -4/6T	4/6	400	0,75/0,25	50	1,98/1,2	4,7/3,9
4.5 -4/8T	4/8	400	0,8/0,2	50	1,99/0,88	4,7/2,7

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/6 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 7.2 - 3-phase/ Single phase



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

CIVIL DEFENCE APPROVED

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 500 and 7,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 7.2M 1.1KW	11021394
VELONE 7.2 - 4T 1.1KW	11021350
VELONE 7.2 - 6T 0.37KW	11021351
VELONE 2-speeds	
VELONE 7.2 - 4/6T 1.1/0.3KW	11021376
VELONE 7.2 - 4/8T 1.2/0.3 kW	11021377
NEW: VELONE STOCK 1-speed	
VELONE 7.2M 1.1KW + IP (stock)	11021398
VELONE 7.2 - 4T 1.1KW + IP (stock)	11021388

AVAILABLE OPTIONS R8

- For description see previous pages.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages (p. 102 - 105)

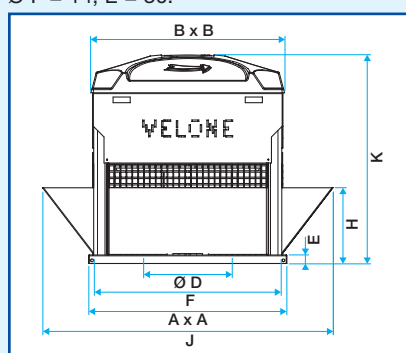
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 4.5/ 7.2/ 10.5	11021070
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

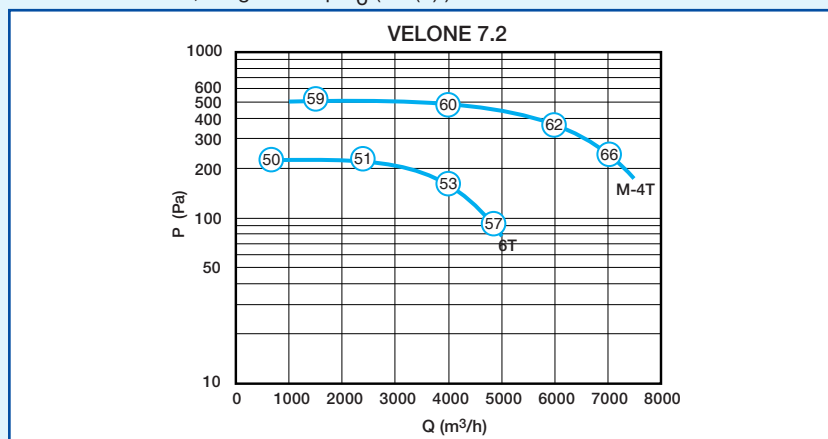
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
7.2	698	684	299	658	688	60	991	265	70

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 400 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_M (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
7.2 M	4	230	1,1	50	7,6	7
7.2 -4 T	4	230/400	1,1	50/60	2,37	7
7.2 -6 T	6	230/400	0,37	50/60	1,09	4,7
7.2 -4/6T	4/6	400	1,1/0,3	50	3,02/1,43	5,4/4
7.2 -4/8T	4/8	400	1,2/0,3	50	2,92/1,29	5,5/3,1

- The rated currents are given for a voltage of 400 V for three-phase roof fans.
- 4/8 and 6/12 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 8.5 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 500 and 8,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 8.5 - 6T 1.1KW	11021357
VELONE 8.5 - 8T 0.55KW	11021358
VELONE 2-speeds	
VELONE 8.5 - 6/8T 1.1/0.55KW	11021380
VELONE 8.5 - 6/12T 1.1/0.22KW	11021381

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Pressure switch and proximity switch supplied and wired up.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

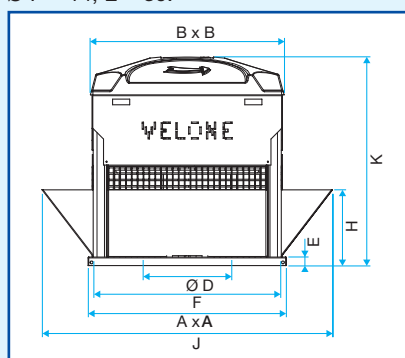
Description	Code
IP x4 rain hood kit - 8.5/ 13	11021287
Vertical Kit 8.5/13	11021368
8.5/13 frame to be embedded	11021292
Pivot pin 4.5/ 7.2/ 10.5	11021070
8.5/13 backdraft damper	11021262
8.5/13 frame on duct	11021297
Miniduct plug	11021082
8.5/13 roof stack	11021087

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

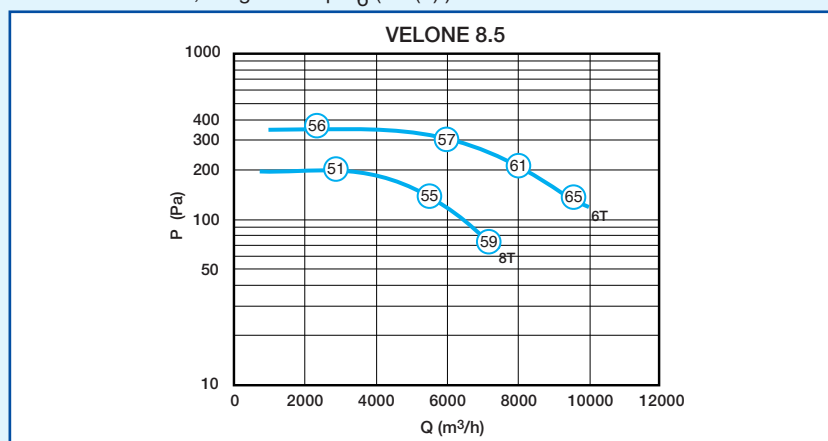
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
8.5	834	820	373	794	793	100	1270	355	116

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 500 mm)
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
8.5-6 T	6	230/400	1,1	50/60	2,9	5
8.5-8 T	8	230/400	0,55	50/60	2	4
8.5-6/8	6/8	400	1,1/0,55	50	3,59/2,52	5,1/4
8.5-6/12	6/12	400	1,1/0,22	50	4,39/1,5	5,5/2,6

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 10.5 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 500 and 10,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 10.5 - 4T 1.5KW	11021353
VELONE 10.5 - 6T 0.55KW	11021354
VELONE 10.5 - 8T 0.37KW	11021355
VELONE 2-speeds	
VELONE 10.5 - 4/6T 1.5/0.37KW	11021378
VELONE 10.5 - 4/8T 1.6/0.4KW	11021379
NEW: VELONE STOCK 1-speed	
VELONE 10.5 - 4T 1.5KW + IP (stock)	11021389
VELONE 10.5 - 8T 0.37KW + IP (stock)	11021259

AVAILABLE OPTIONS R8

- Description on the following page.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

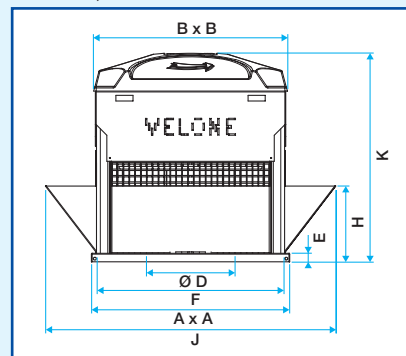
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

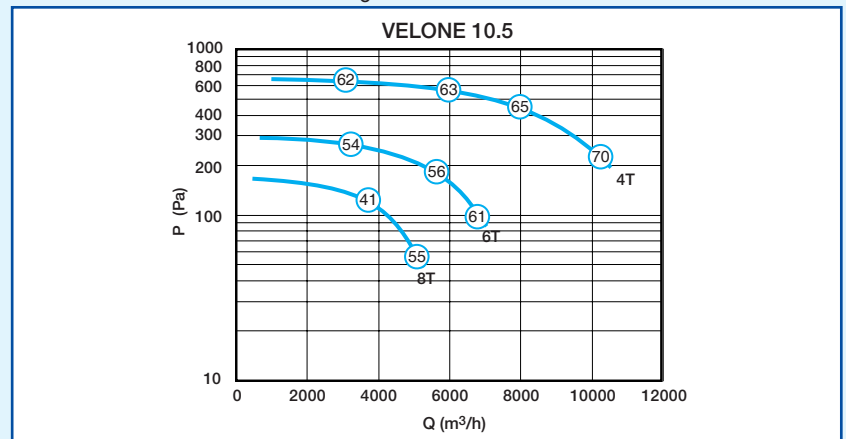
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
10.5	698	684	332	658	721	72	991	265	82

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 450 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted AL_{pm6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
10.5-4 T	4	230/400	1,5	50/60	3,30	7,5
10.5-6 T	6	230/400	0,55	50/60	1,57	4,8
10.5-8 T	8	230/400	0,37	50/60	1,40	4
10.5-4/6T	4/6	400	1,5/0,37	50	3,71/1,73	5,6/3,8
10.5-4/8T	4/8	400	1,6/0,4	50	4,05/1,78	5,7/4,1

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 13.0 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 13,000 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 13 - 6T 2.2 kW	11021359
VELONE 13 - 8T 1.1 kW	11021360
VELONE 2-speeds	
VELONE 13 - 6/8T 2.2/1.3 kW	11021382
VELONE 13 - 6/12T 2.2/0.55 kW	11021383

AVAILABLE OPTIONS R8

- Pressure switch fitted to air duct, fixed and protected. If 2 smoke exhaust speeds used provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages (p. 102 - 105)

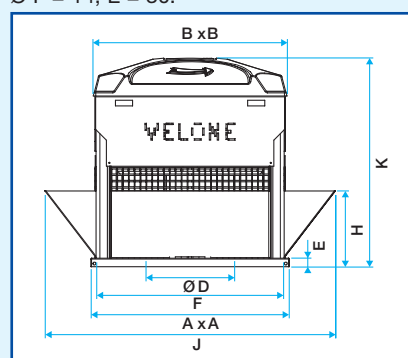
Description	Code
IP x4 rain hood kit - 8.5/ 13	11021287
Vertical Kit 8.5/13	11021368
8.5/13 frame to be embedded	11021292
8.5/13 pivot pin	11021071
8.5/13 backdraft damper	11021262
8.5/13 frame on duct	11021297
Miniduct plug	11021082
8.5/13 roof stack	11021087

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

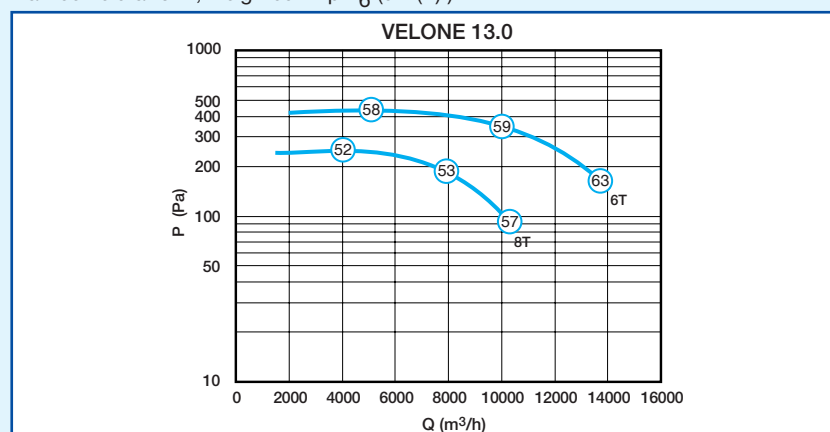
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
13.0	834	820	419	794	833	115	1270	355	131

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 560 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
13.0 -6T	6	230/400	2,2	50/60	5,26	6,2
13.0 -8T	8	230/400	1,1	50/60	3,3	4,2
13.0 -6/8T	6/8	400	2,2/1,3	50/60	5,96/4,36	5,6/3,9
13.0-6/12T	6/12	400	2,2/0,55	50/60	6,4/2,6	7/3

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 6/12 = Dahlander motor - 6/8 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 20.0 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 20,000 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 20 - 6T 3 kW	11021361
VELONE 20 - 8T 1.5 kW	11021362
VELONE 2-speeds	
VELONE 20 - 6/8T 4/1.1 kW	11021384
VELONE 20 - 6/12T 3/0.55 kW	11021385

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 smoke exhaust speeds used, provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

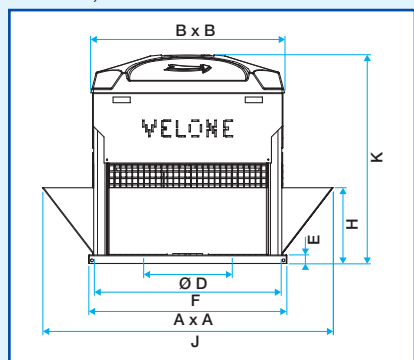
Description	Code
IP x4 rain hood kit - 20/ 27	11021288
Vertical Kit 20/27	11021369
20/27 frame to be embedded	11021293
20/27 pivot pin	11021072
20/27 backdraft damper	11021263
20/27 frame on duct	11021298
20/27 flat roof stack	11021083
20/27 roof stack	11021088

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

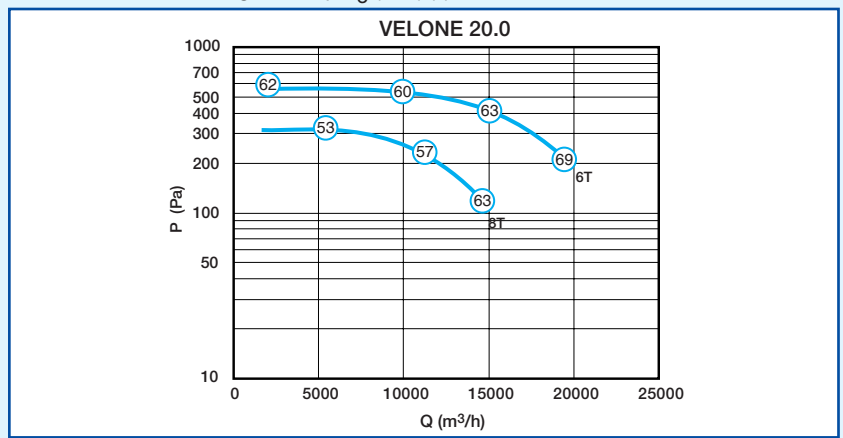
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
20.0	984	970	474	944	983	165	1555	440	189

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 630 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
20.0 -6T	6	230/400	3	50/60	6,8	6
20.0 -8T	8	230/400	1,5	50/60	4	5,4
20.0 -6/8T	6/8	400	4/1,1	50/60	11,3/4,84	6,6/4,6
20.0-6/12T	6/12	400	3/0,55	50/60	6,77/2,3	8,5/4,3

- Rated current (I_n) is given for a voltage of 400 V for three-phase roof fans.
- 6/12 = Dahlander motor - 6/8 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Smoke Exhaust Fans

VELONE F400°C - 27.0 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 27,000 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 27 - 6T 5.5KW	11021363
VELONE 27 - 8T 3KW	11021364

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281

ACCESSORIES R8

Description on the following pages. (p. 102 - 105)

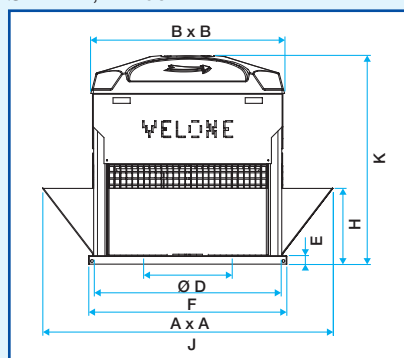
Description	Code
IP x4 rain hood kit - 20/ 27	11021288
Vertical Kit 20/27	11021369
20/27 frame to be embedded	11021293
20/27 pivot pin	11021072
20/27 backdraft damper	11021263
20/27 frame on duct	11021298
20/27 flat roof stack	11021083
20/27 roof stack	11021088

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.

DIMENSIONS (mm) WEIGHT (kg)

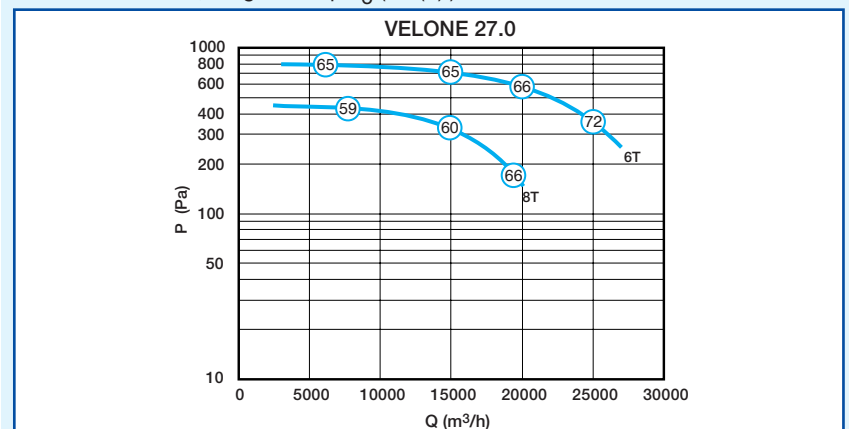
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
27.0	984	970	535	944	1034	175	1555	440	207

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 630 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_m (dB (A)).



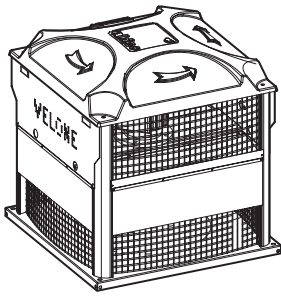
ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
27.0 -6T	6	230/400	5,5	50/60	12,4	6,8
27.0 -8T	8	230/400	3	50/60	6,8	6

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.

Smoke Exhaust Fans

VELONE IP x4 rain hood kit.



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).
- IP x4 classification: tested by an independent Laboratory.

Advantages

- A solution to prevent water penetration into the ducts in case of very bad weather.

APPLICATION

- The rain hood kit protects against the penetration of rain into the duct due to heavy rainfall when the roof fan is on stand by. A smoke exhaust roof fan, in the majority of cases, is on stand by, the rain hood kit is more efficient than a vertical kit.

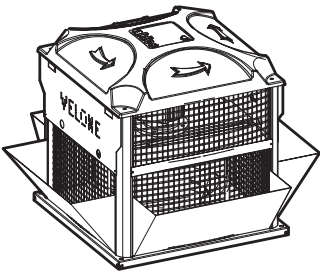
DESCRIPTION

- Tested by an independent test laboratory, the VELONE roof fan equipped with the Rain Hood Kit was awarded an IP x4 classification validated by the CETIAT test laboratory (Test Report supplied on request).
- This classification corresponds to the usual safety protection index used for electrical equipment: switch, pressure switch, relay box. The first figure concerns dust protection ("x" here, because it does not concern a roof fan), the second figure is equivalent to water protection: the "4" guarantees its leaktightness faced with water sprayed at it from all directions with a flow rate of 600 l/h!
- 4 parts of fabric in M0 reinforced on one side by a metal strip.
- In the running position, the 4 parts lift up, without generating any significant pressure loss.
- To be installed on-site.

RANGE R8

Velone model	Code
IP x4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
IP x4 rain hood kit - 8.5/ 13	11021287
IP x4 rain hood kit - 20/ 27	11021288

VELONE vertical exhaust kit



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

APPLICATION

- The vertical exhaust kit is a deflector which orientates the waste air discharge vertically.
- Caution, it is incompatible with the rain hood kit.
- Attention, the use of the vertical exhaust and the All-in-One solution imposes moving the relay box outside of the airflow.

DESCRIPTION

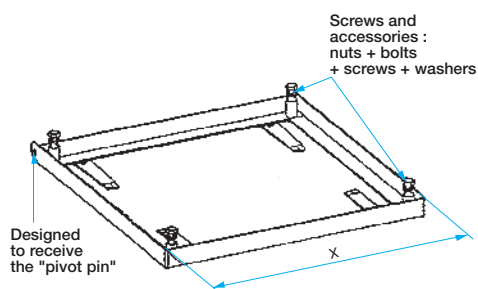
- Composed of 4 parts in galvanised steel.
- Supplied with fully adapted fixings.

RANGE R8

Velone model	Code
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Vertical Kit 8.5/13	11021368
Vertical Kit 20/27	11021369

Smoke Exhaust Fans

VELONE grouting frame



APPLICATION

- The grouting frame allows the roof fan to be fitted on a brick stack.

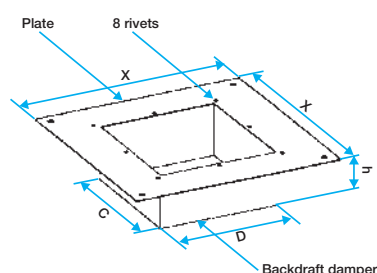
DESCRIPTION

- Includes 4 fold-back lugs to be grouted on to the flat roof stack.
- Anti-corrosion paint.
- Delivered with fixing nuts and bolts.
- Can receive the pivot pin.

RANGE R8

Velone model	Code	X x X (mm)
Grouting frame 1.2 / 1.5 / 3.2	11021290	519
Grouting frame 4.5 / 7.2 / 10.5	11021291	684
8.5/13 frame to be embedded	11021292	820
20/27 frame to be embedded	11021293	970

VELONE backdraft damper



APPLICATION

- The backdraft damper avoids natural ventilation when the roof fan is stopped in order to save on heating and/or air-conditioning costs.
- The backdraft damper can be fitted with the grouting frame, pivot pin and the flat roof stack.
- It is incompatible with the frame on a duct.

DESCRIPTION

- The backdraft damper has passed the fire resistance tests.
- The backdraft damper is designed to be installed in just a few seconds thanks to its stacking plate.
- Removable, it can be easily added later.
- Take into account an additional pressure loss of 50 Pa.

RANGE R8

Velone model	Code
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Backdraft damper 4.5 / 7.2 / 10.5	11021261
8.5/13 backdraft damper	11021262
20/27 backdraft damper	11021263

Compliances

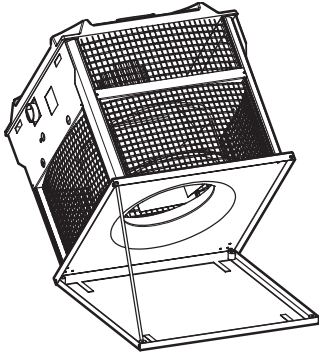
- Conforms with the CE marking in accordance with Standard EN 12101-3.
- Fire rating: F400°C (2h).

DIMENSIONS (mm)

Code	C	D	X	h
11021260	380	380	515	120
11021261	480	480	680	120
11021262	580	580	816	120
11021263	780	780	966	120

Smoke Exhaust Fans

VELONE pivot pin



APPLICATION

- Pin allowing for access to the duct and the roof fan's impeller in order to facilitate maintenance.

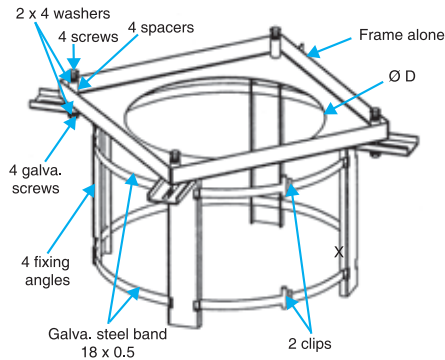
DESCRIPTION

- Pivot pin in stainless steel that slides through the roof fan base and the grouting frame.
- Requires the grouting frame.
- 2 locking washers and a hold open chain.
- **IMPORTANT:** Secure the roof fan when this is in the open position in order to avoid any accidents.

RANGE R8

Velone model	Code
Pivot Pin 1.2 / 1.5 / 3.2	11021069
Pivot Pin 4.5 / 7.2 / 10.5	11021070
8.5/13 Pivot Pin	11021071
20/27 Pivot Pin	11021072

VELONE Duct Frame



APPLICATION

- The duct frame is used to install a VELONE roof fan on a cylindrical duct which is strong enough to support it.

DESCRIPTION

- It consists of four angle brackets, a frame, four spacers and the necessary threaded fasteners.

DIMENSIONS (mm)

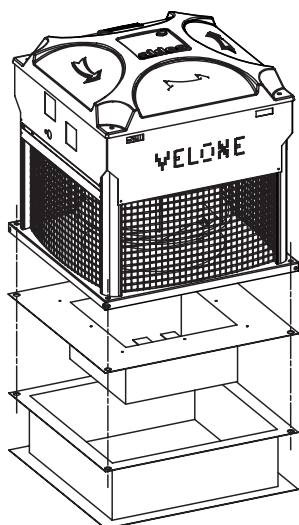
Code	X	Ø D	DUCT	
			Ø min.	Ø max.
11021063	490	420	250	400
11021064	655	520	315	500
11021065	790	650	400	630
11021066	940	820	500	800

RANGE R8

Velone model	Code
Frame on duct 1.2 / 1.5 / 3.2	11021295
Frame on duct 4.5/ 7.2/ 10.	11021296
8.5/13 frame on duct	11021297
20/27 frame on duct	11021298

Smoke Exhaust Fans

VELONE Flat Roof Stack - Roof Stack



Flat Roof Stack

APPLICATION

- The flat roof stack is used to fit a roof fan on a horizontal roof which does not have a brick stack.
- The roof stack is used to fit a roof fan on a sloping roof without a brick stack.

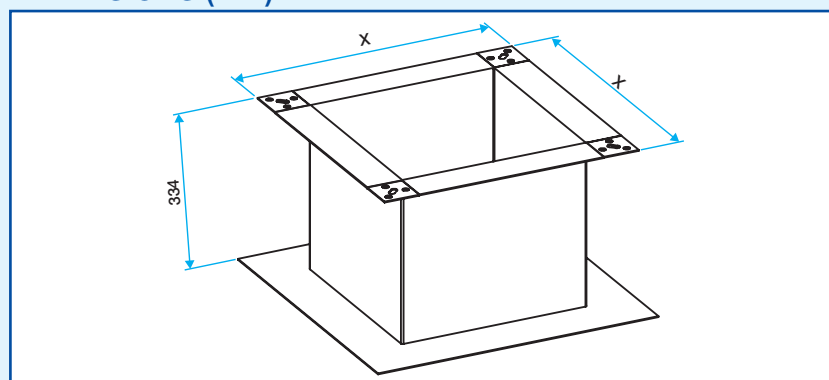
DESCRIPTION

- Galvanised steel
- Being drilled at 4 angles it can house the backdraft damper.
- State the angle of the roof as a percentage (%) or in degrees (°) when ordering.

RANGE R8

Velone model	Code
Flat Roof Stack	
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
8.5/13 flat roof stack	11021082
20/27 flat roof stack	11021083
Roof Stack: state the inclination of the roof	
Roof stack 1.2 / 1.5 / 3.2	11021085
Roof stack 4.5 / 7.2 / 10.5	11021086
8.5/13 roof stack	11021087
20/27 roof stack	11021088

DIMENSIONS (mm)



Roof Stack model	X
Roof stack 1.2/ 1.5/ 3.2	526
Roof stack 4.5/ 7.2/ 10.5	691
Roof stack 8.5/13	827
Roof stack 20/27	977

Smoke Exhaust Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Helione Short Shell

CIVIL DEFENCE APPROVED

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- With its F200°C/2h and F400°C/2h fire resistance classifications, the new HELIONE range meets the needs for ventilation and smoke exhaust in multi-family housing (car parks, stairwells), commercial premises (car parks, shops) and in industry, just anywhere that high airflows with low pressures are required.
- HELIONE operates just as well for air exhaust as for fresh air supply in premises where acoustic requirements are not predominant or for occasional smoke exhaust.

DESCRIPTION

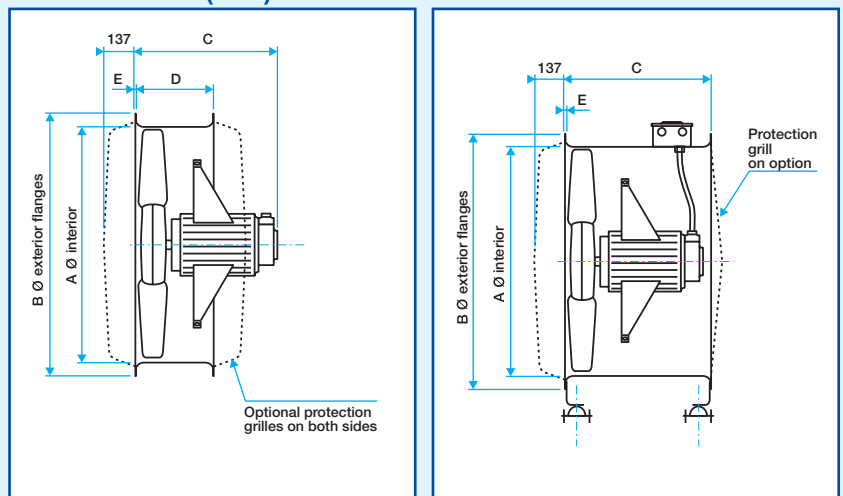
- The standard Helione range varies from Ø 500 to Ø 1,000 mm for standard airflows of 5000 to 72,000 m³/h for pressures of 100 to 500 Pa.
- The new Helione range can meet the requirements for numerous other cases, like different airflows and pressure levels for example: Please feel free to contact us.
- Propellers comprised of several blades in aluminium, mounted on an aluminium hub. The angle adjustment is determined depending on the operating point.
- Each blade is radiographically X-rayed before assembly in order to check the high quality of the material.
- The shells are formed from tubular metal plate, with integrated folded edges drilled for connections, continuous welded and hot galvanised following fabrication for a longer service life. Standard = short shell, long shell on option.
- The motor's fixing arms are hot galvanised for better corrosion resistance.
- 4 pole or 4/8 pole boss type motor, IP 55 tropicalised, class F as standard. Operating temperature range - 20/ 50°C.

60 Hz motor: please consult us. All motors are calculated to bear the input power throughout the length of the curve.

AVAILABLE OPTIONS

- Long shell: comprises a pre-wired external terminal box.

DIMENSIONS (mm)



Short shell

Long shell

Your ALDES agency also is available for you, the detailed technical data sheets for each model.

Short shell				
A	B	C	D	E
560	654	348	225	2,5
630	724	348	225	3
710	804	348	225	3
800	894	459	225	3
900	1006	459	225	3
		445	300	5
		575	300	5
1000	1106	459	225	3
		445	300	5
		575	300	5
Long shell				
A	B	C	D	E
560	654	375	368	2,5
630	724	375	403	3
710	804	375	443	3
800	894	520	488	3
900	1006	520	538	3
		520	575	5
		625	575	5
1000	1106	520	588	3
		520	625	5
		625	625	5

Smoke Exhaust Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Long shell

**CIVIL
DEFENCE
APPROVED**

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

ACCESSORIES

- Protective mesh comes in both motor side and propeller side.
- Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
- Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
- Square plate in galvanised steel to fix Helione in a wall mounting configuration.
- Feet supports (x2) in galvanised steel to fix Helione to the floor.
- Anti-vibration mountings (x4) are fixed under the feet supports.
- Backdraft damper: circular, with 2 galvanised steel blades.
- Passive circular noise trap/silencer.
- Electrical Accessories:
 - Proximity switch,
 - Pressure switch,
 - Relay box ☒ see AXONE micro II.
 - Emergency stop button.

INSTALLATION

A (MH) OR B (HM) MOUNTING:

Horizontal on the ground and wall mounted against a wall:

- Indispensable options: economic square plate, feet and anti-vibration mountings, mating flange and flexible sleeves or grille if not connected up.

Horizontal on the ground between two ducts:

- Indispensable options: feet and anti-vibration mountings, mating flanges and flexible sleeves on both sides, long shell for motor access through the inspection hatch.

Horizontal fixed by wall mounting against a wall:

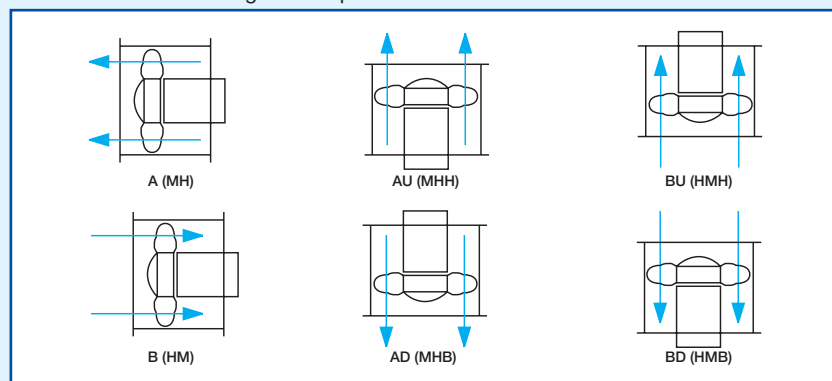
- Indispensable options: reinforced square plate for wall mounting, mating flange and flexible sleeve or grille if not connected up.

AU (MHH), BU (HMH), AD (MHB), BD (HMB) MOUNTING

Vertical, suspended under a ceiling tile or duct

The tubular casing must be bolted using all of the holes in its flange.

- Indispensable options: protective grille if access remains possible or if there are any risks of waste being sucked in, if connected from both sides: long shell tubular casing for motor access through the inspection hatch.



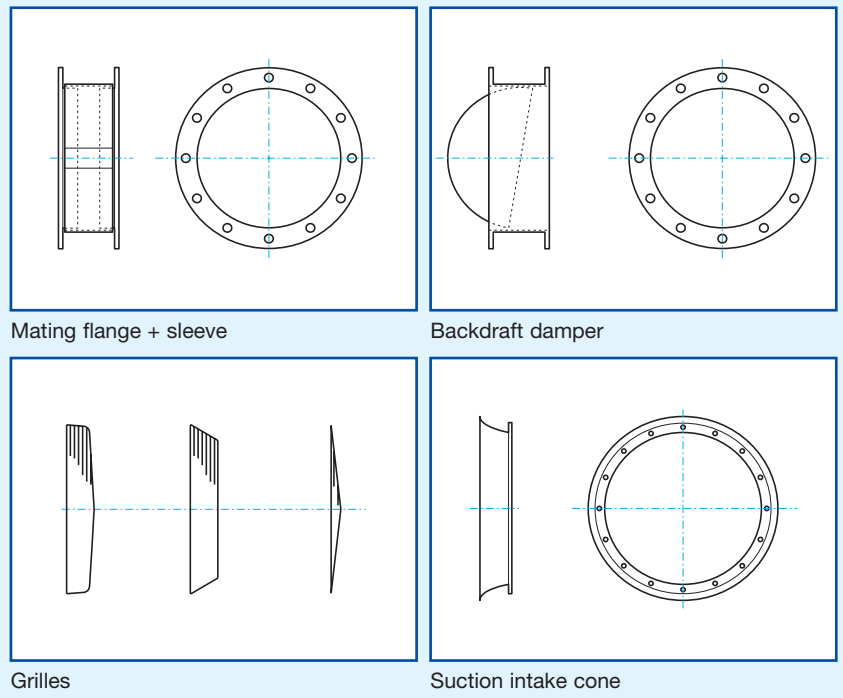
Smoke Exhaust Fans

HELIONE Accessories

DESCRIPTION

- Protective mesh comes in both motor side and propeller side.
 - Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
 - Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
 - Square plate in galvanised steel to fix Helione in a wall mounting configuration.
 - Feet supports (x2) in galvanised steel to fix Helione to the floor.
 - Anti-vibration mountings (x4) are fixed under the feet supports.
 - Backdraft damper: circular, with 2 galvanised steel blades.
 - Passive circular noise trap/ silencer: please consult us.
- Electrical accessories not connected:
- Proximity disconnecting switch, pressure switch, emergency stop button ☒ see ELECTRICAL ACCESSORIES .
 - Relay box => see AXONE micro II.

PRINCIPLE DIAGRAMS



ACCESSORIES R8

Description	560 Code	630 Code	710 Code	800 Code
"Economic" square plate	11090456	11090457	11090458	11090459
"Reinforced" square plate	11090464	11090465	11090466	11090467
Flexible sleeve	11090400	11090401	11090402	11090403
Horizontal backdraft damper	11090448	11090449	11090450	11090451
Mating flange	11090408	11090409	11090410	11090411
Motor grille for long Shells	11090424	11090425	11090426	11090427
Motor grille for short Shells	11090472	11090473	11090474	11090475
Propeller mesh	11090416	11090417	11090418	11090419
set of 2 feet	11090480	11090481	11090482	11090483
Suction intake cone	11090432	11090433	11090434	11090435
Vertical backdraft damper	11090440	11090441	11090442	11090443

Description	0900 Code	1000 Code	1120 Code	1250 Code
"Economic" square plate	11090460	11090461	11090462	11090463
"Reinforced" square plate	11090468	11090469	11090470	11090471
Flexible sleeve	11090404	11090405	11090406	11090407
Horizontal backdraft damper	11090452	11090453	11090454	11090455
Mating flange	11090412	11090413	11090414	11090415
Motor grille for long Shells	11090428	11090429	11090430	11090431
Motor grille for short Shells	11090476	11090477	11090478	11090479
Propeller mesh	11090420	11090421	11090422	11090423
set of 2 feet	11090484	11090485	11090486	11090487
Suction intake cone	11090436	11090437	11090438	11090439
Vertical backdraft damper	11090444	11090445		

Description	Code
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F200	
Set of 4 HELIONE F200-560-630-710 mountings	11090490
Set of 4 HELIONE F200-800-900 mountings	11090492
Set of 4 HELIONE F200-1000-1120-1250 mountings	11090495
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F400	
Set of 4 HELIONE F400-560-630-710 mountings	11090496
Set of 4 HELIONE F400-800-900-1000 mountings	11090497
Set of 4 HELIONE F400-1120-1250 mountings	11090498

Smoke Exhaust Fans

HELIONE Unclassified F200 - 1 SPEED



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

**CIVIL
DEFENCE
APPROVED**

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 1 SPEED R8

Description	Code
HELIONE F200-560/20/4/6 - 0,66 kW	11090299
HELIONE F200-560/20/4/6 - 1,15 kW	11090300
HELIONE F200-710/20/4/3 - 1,4 kW	11090302
HELIONE F200-710/20/4/3 - 1,6 kW	11090303
HELIONE F200-710/25/4/92,7 kW	11090304
HELIONE F200-710/20/4/6 - 3,2 kW	11090306
HELIONE F200-900/25/4/3 - 3,2 kW	11090307
HELIONE F200-900/25/4/6 - 3,2 kW	11090308
HELIONE F200-900/25/4/6 - 4,4 kW	11090309
HELIONE F200-900/25/4/6 - 6,6 kW	11090310
HELIONE F200-900/25/4/9 - 6,6 kW	11090311
HELIONE F200-1000/25/4/3 - 4,4 kW	11090312
HELIONE F200-1000/25/4/3 - 6,6 kW	11090313
HELIONE F200-1000/25/4/6 - 4,4 kW	11090314
HELIONE F200-1000/25/4/6 - 9 kW	11090315
HELIONE F200-1000/25/4/6 - 13,2 kW	11090316
HELIONE F200-1000/25/4/9 - 9 kW	11090295
HELIONE F200-1000/25/4/9 - 13,2 kW	11090296
HELIONE F200-1000/25/4/9 - 18 kW	11090317
HELIONE F200-1000/31/4/9 - 22,2 kW	11090318
HELIONE F200-1000/31/4/9 - 27 kW	11090319

AVAILABLE OPTIONS R8

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE Unclassified/ F200 (120) -1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	299	299						
7200	299	300						
9000	300	300						
10800	302	302						
11400	302	302	306	306	304	308	308	
12000	302	302	306	306	304	308	309	
12600	302	303	306	306	304	308	309	314
13200	302	303	306	306	304	308	309	314
13800	302	303	306	306	308	308	309	314
14400	303	306	306	306	308	308	309	314
15000	303	306	306	306	308	309	309	314
15600	303	306	306	306	308	309	309	311
16200	306	306	306	306	308	309	309	311
16800	306	306	306	306	308	309	314	311
17400	306	306	306	306	309	309	314	311
18000	306	306	306	308	309	309	311	311
21000	306	307	307	309	309	309	311	311
24000	307	307	309	309	309	310	311	311
27000	307	312	312	310	310	310	311	295
30000	312	312	312	310	310	315	315	296
33000	312	312	313	310	315	315	315	296
36000	312	312	313	315	315	315	315	316
39000	312	313	315	315	315	315	316	296
42000	313	313	315	315	315	316	316	296
45000	313	315	315	316	316	316	296	317
48000	315	315	316	316	316	317	317	317
54000	316	316	316	316	317	317	317	318
60000	316	317	317	317	318	318	318	319
66000	317	318	318	319	319			
72000	319	319						

ELECTRICAL DETAILS F400

F200 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,9	6,4
1,15	3,2	11
1,4	3,8	13,5
1,6	3,9	19
2,7	5,8	30
3,2	6,8	35
4,4	9,3	55
6,6	12,6	84
9	17	114
13,2	25,4	127
18	34,8	171
22,2	41	242
27	49,8	284

Smoke Exhaust Fans

HELIONE F200 and Unclassified - 2 SPEEDS



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

CIVIL DEFENCE APPROVED

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 2 SPEEDS R8

Description	Code
HELIONE F200-560/20/4-8/6 -0,92/0,23 kW	11090320
HELIONE F200-630/20/4-8/3 -1,84/0,46 kW	11090321
HELIONE F200-710/20/4-8/3 -1,84/0,46 kW	11090322
HELIONE F200-800/20/4-8/3 -3,22/0,8 kW	11090323
HELIONE F200-710/20/4-8/6 -3,22/0,8 kW	11090324
HELIONE F200-900/25/4-8/3 -3,22/0,8 kW	11090325
HELIONE F200-900/25/4-8/6 -3,22/0,8 kW	11090326
HELIONE F200-900/25/4-8/6 -4,37/1,15 kW	11090327
HELIONE F200-900/25/4-8/6 -5,75/1,5 kW	11090328
HELIONE F200-1000/25/4-8/3 -4,37/1,15 kW	11090329
HELIONE F200-1000/25/4-8/3 -5,75/1,5 kW	11090330
HELIONE F200-1000/25/4-8/6 -4,37/1,15 kW	11090331
HELIONE F200-1000/25/4-8/6 -5,75/1,5 kW	11090332
HELIONE F200-1000/25/4-8/6 -7,2/1,8 kW	11090333
HELIONE F200-1000/25/4-8/6 -12,7/3,45 kW	11090334
HELIONE F200-1000/25/4-8/9 -16,1/4,03 kW	11090335
HELIONE F200-1000/31/4-8/9 -19,6/4,95 kW	11090336
HELIONE F200-1000/31/4-8/9 -23,5/7,75 kW	11090337

AVAILABLE OPTIONS R8

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 106.

SELECTION HELIONE Unclassified/ F200 (120) - 2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)								
	150	200	250	300	350	400	450	500	
5400	20	20							
7200	20	20							
9000	20	22							
10800	21	22							
11400	21	22	24	24					
12000	21	22	24	24	26	26	27	31	
12600	21	22	24	24	26	26	27	31	
13200	22	22	24	24	26	26	27	31	
13800	22	22	24	24	26	26	27	31	
14400	22	22	24	24	26	26	27	31	
15000	22	22	24	24	26	27	27	31	
15600	22	23	24	24	26	27	27	32	
16200	22	23	24	24	26	27	31	32	
16800	22	23	24	24	26	27	31	32	
17400	23	23	24	24	27	27	31	32	
18000	23	23	24	24	27	27	31	32	
21000	23	23	25	27	27	27	32	32	
24000	23	25	27	27	27	28	32	33	
27000	25	27	27	28	28	32	33	35	
30000	27	27	29	28	32	33	33	35	
33000	29	29	32	33	33	33	33	35	
36000	29	29	30	33	33	33	34	34	
39000	29	30	33	34	34	34	34	35	
42000	30	33	34	34	34	34	35	35	
45000	33	34	34	34	34	34	35	35	
48000	34	34	34	34	34	35	35	35	
54000	34	34	34	35	35	35	36	36	
60000	35	35	36	36	36	36	37	37	
66000	36	36	37	37	37				
72000	37	37							

ELECTRICAL DETAILS F200

F200 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	55,4/10,8
5,75/1,5	11,8/3,78	88,5/21,5
7,2/1,8	13,8/4,24	89,7/22
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23,5/7,75	43,4/15,1	339/72,5

Smoke Exhaust Fans

HELIONE F400 - 1 SPEED



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

**CIVIL
DEFENCE
APPROVED**

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Smoke exhaust in public assembly and high rise buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) - 1 SPEED R8

Description	Code
HELIONE F400-560/16/4/5 - 0,9 kW	11090340
HELIONE F400-630/20/4/6 - 0,9 kW	11090341
HELIONE F400-630/20/4/6 - 1,27 kW	11090342
HELIONE F400-630/20/4/6 - 1,8 kW	11090343
HELIONE F400-710/25/4/6 - 1,8 kW	11090345
HELIONE F400-800/25/4/3 - 1,8 kW	11090346
HELIONE F400-800/25/4/3 - 2,64 kW	11090347
HELIONE F400-800/25/4/6 - 2,64 kW	11090348
HELIONE F400-800/25/4/6 - 3,6 kW	11090349
HELIONE F400-900/25/4/3 - 3,6 kW	11090350
HELIONE F400-900/25/4/6 - 3,6 kW	11090351
HELIONE F400-900/25/4/6 - 4,8 kW	11090352
HELIONE F400-900/25/4/6 - 6,6 kW	11090353
HELIONE F400-900/25/4/9 - 4,8 kW	11090355
HELIONE F400-900/25/4/9 - 6,6 kW	11090356
HELIONE F400-900/25/4/9 - 9 kW	11090357
HELIONE F400-900/25/4/9 - 11 kW	11090358
HELIONE F400-1000/31/4/6 - 6,6 kW	11090359
HELIONE F400-1000/31/4/6 - 9 kW	11090360
HELIONE F400-1000/31/4/6 - 11 kW	11090361
HELIONE F400-1000/31/4/6 - 13,2 kW	11090362
HELIONE F400-1000/31/4/9 - 11 kW	11090363
HELIONE F400-1000/31/4/9 - 13,2 kW	11090364
HELIONE F400-1000/31/4/9 - 18 kW	11090365
HELIONE F400-1000/31/4/9 - 20,4 kW	11090366
HELIONE F400-1000/31/4/9 - 27 kW	11090367

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE F400 (120) - 1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	40	41	45	45				
7200	40	42	45	48				
9000	42	42	45	48				
10800	42	43	45	48				
11400	43	43	48	48	51			
12000	43	43	48	48	51	51	55	55
12600	43	45	48	48	51	52	55	55
13200	43	46	48	51	51	52	55	55
13800	45	46	48	51	51	52	55	56
14400	46	47	48	48	51	55	55	56
15000	46	47	48	51	51	55	55	56
15600	46	48	48	51	51	55	55	56
16200	46	48	48	51	51	55	55	56
16800	46	48	48	51	52	55	56	56
17400	47	48	49	51	52	55	56	56
18000	47	48	49	51	52	55	56	59
21000	47	49	49	52	56	56	63	63
24000	49	50	52	52	56	56	63	63
27000	50	52	52	53	53	57	57	63
30000	52	52	53	53	57	57	63	
33000	53	53	53	57	57	57	63	63
36000	53	53	59	57	57	58	63	64
39000	59	57	57	58	58	61	64	64
42000	57	58	58	58	51	64	64	65
45000	58	58	61	61	62	64	65	65
48000	60	61	61	62	62	65	65	65
54000	61	62	62	65	65	65	66	67
60000	62	65	65	66	67	67		
66000	66	67	67	67				
72000	67							

ELECTRICAL DETAILS F400

F400 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,56	8,2
0,9	2	9,4
1,27	3,08	14,2
1,8	3,75	19,8
2,64	5,42	30,9
3,6	7,03	38,6
4,8	9,23	57,2
6,6	12,6	84
9	17,1	114
11	21,4	107
13,2	24,3	165,3
18	34,7	170
20,4	41,4	242
27	49,8	284

Smoke Exhaust Fans

HELIONE F400 - 2 SPEEDS



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

**CIVIL
DEFENCE
APPROVED**

APPLICATION

- Smoke exhaust in Public Assembly and High Rise Buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) -2 SPEEDS R8

Description	Code
HELIONE F400-560/16/4-8/5 - 0,92/0,23 KW	11090370
HELIONE F400-630/20/4-8/6 - 0,92/0,23 KW	11090371
HELIONE F400-630/20/4-8/6 - 1,84/0,46 KW	11090372
HELIONE F400-710/25/4-8/6 - 1,84/0,46 KW	11090373
HELIONE F400-800/25/4-8/3 - 1,84/0,46 KW	11090374
HELIONE F400-800/25/4-8/6 - 2,53/0,63 KW	11090376
HELIONE F400-800/25/4-8/6 - 3,22/0,8 KW	11090377
HELIONE F400-900/25/4-8/3 - 3,22/0,8 KW	11090378
HELIONE F400-900/25/4-8/6 - 4,37/1,15 KW	11090379
HELIONE F400-900/25/4-8/6 - 5,75/1,5 KW	11090380
HELIONE F400-900/25/4-8/6 - 7,92/1,98 KW	11090381
HELIONE F400-900/25/4-8/9 - 4,37/1,15 KW	11090382
HELIONE F400-900/25/4-8/9 - 5,75/1,5 KW	11090383
HELIONE F400-900/25/4-8/9 - 7,92/1,98 KW	11090384
HELIONE F400-900/25/4-8/9 - 12,7/3,47 KW	11090385
HELIONE F400-1000/31/4-8/6 - 7,92/1,98 KW	11090387
HELIONE F400-1000/31/4-8/6 - 12,7/3,45 KW	11090388
HELIONE F400-1000/31/4-8/9 - 7,92/1,98 KW	11090297
HELIONE F400-1000/31/4-8/9 - 12,7/3,45 KW	11090298
HELIONE F400-1000/31/4-8/9 - 16,1/4,03 KW	11090389
HELIONE F400-1000/31/4-8/9 - 19,6/4,95 KW	11090390
HELIONE F400-1000/31/4-8/9 - 23/5,75 KW	11090391

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 106.

SELECTION HELIONE F400 (120) -2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	70	71	73	73				
7200	70	71	73	76				
9000	72	72	73	76				
10800	72	72	73	76				
11400	72	72	73	76				
12000	72	72	76	76	79	79	82	83
12600	72	73	76	76	79	79	82	83
13200	72	74	76	79	79	79	82	83
13800	73	74	76	79	79	82	83	83
14400	73	74	76	79	79	82	83	83
15000	74	74	76	79	79	82	83	83
15600	74	76	77	79	79	83	83	83
16200	74	76	77	79	79	83	83	83
16800	74	76	77	79	79	83	83	83
17400	74	77	77	79	79	83	83	83
18000	74	77	77	79	79	83	83	83
21000	77	77	79	79	83	83	83	297
24000	78	79	79	79	83	84	83	298
27000	78	79	80	80	84	84	84	298
30000	79	80	80	81	84	85	85	
33000	80	81	81	81	85	85	298	
36000	81	81	81	87	87	85	298	298
39000	81	87	87	87	85	85	298	89
42000	87	87	85	85	85	88	89	89
45000	87	85	85	85	88	89	89	89
48000	88	88	88	88	89	89	89	89
54000	88	88	89	89	90	90	90	91
60000	89	90	90	90	91	91		
66000	90	91	91	91				
72000	91							

ELECTRICAL DETAILS F400

F400 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
2,53/0,63	5,46/2,07	33,4/7
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	57,8/11
5,75/1,5	11,8/3,78	88,5/21,5
7,92/1,98	16,3/4,83	117/28,5
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23/5,75	43,4/15,1	339/72,5

Motorised Smoke Dampers



With spring return actuator



SD125

CIVIL DEFENCE APPROVED

Compliance

- UL 555S Classified.
- Constructed and tested as per latest version of UL 555S standard.

Advantages

- Leakage: Class II - 250°F.
- Dynamic rating: 2000 fpm at 4" w.g.
- Fire resistance: 1.5h.
- Installation: Upstream or downstream; Vertical or Horizontal.
- Suitable for static & dynamic systems.
- Easy maintenance due to motorization.

APPLICATION

- Motorised smoke dampers are designed to be installed vertically or horizontally, in accordance with NFPA90A, at or adjacent to the point where the ductwork passes through the smoke barrier.
- It either prevents smoke distribution through HVAC duct work (normally open) or assists in smoke extraction through smoke extraction duct work (normally close) in residential, commercial and industrial buildings.

DESCRIPTION

- Normally close, but can be opened through remote signal from smoke management system to facilitate smoke extraction from the fire zone.

CONSTRUCTION

- Casing: 140mm deep, hat-shaped casing manufactured from 16 ga. (1.5mm) galvanised steel.
- Blade: 3V-groove shaped, single skin blades manufactured from 16 ga. (1.5mm) galvanized steel. Parallel blade operation.
- TRD: No TRD installed.
- Blade tip seal: Silicon rubber seals permanently bonded to blade edge through self-forming silicon sealant.
- External linkages concealed in hat - shape frame.
- Jamb seal: Stainless steel, spring action type.
- Actuator: UL listed, Spring return, Electric 24VAC / 230VAC, quick opening & closing.
- Jackshaft: 12mm x 12mm square jackshaft to ensure tight grip at the actuator.
- Brass bush: round for spindles and square for jackshaft.
- Sleeve: 400mm long factory installed sleeve (standard supply) manufactured from 16ga (1.5mm) galvanised steel.
- Minimum size: 203mm x 203mm (for ** 150mm x 150mm, see note under Available Sizes table).
- Maximum size: 914mm x 914mm (single section).
* Larger sizes manufactured in multiple sections.

INSTALLATION

- Jackshaft upstream or jackshaft downstream.
- Vertical in wall / partitions or horizontal in floors.

RANGE

Description	Code
SD 125 - MSD with G.I. casing & blades	
*SD 125-1 - MSD with G.I. casing & SS (grade 304) blades	
*SD 125-2 - MSD with SS (grade 304) casing & blades	

ACCESSORIES

Description	Code
Retaining angles frame - 40 x 40 x 2.3 mm	
Retaining angles lose - 40 x 40 x 2.3 mm	
Duct transitions: rectangular, circular or oval	
Access doors (see page 62)	

*, ** Not available for UL Classified dampers

DIMENSIONS (mm)

DESCRIPTION

① Casing G.I. 1.5 mm	⑧ Blade stopper G.I. 1.5 mm
② 3V-groove blades G.I. 1.5 mm	⑨ Slide Seal S.S. 0.3 mm
③ Spring return actuator	⑩ Jackshaft lever
④ Square Jack Shaft (12mm)	⑪ Side linkage
⑤ Sleeve G.I. 1.5 mm	⑫ Rivet Ø 4.8 X 10 mm
⑥ Square brass bush	⑬ Round brass bush
⑦ Silicon rubber tip Seal	

INSTALLATION DETAILS

Retaining angles or retaining angle frame (40 X 40 X 2.3 mm)

Sleeve and retaining angle frame connection by Ø 4.8 X 16 mm rivets or M6 X 16 mm bolts or 12 mm long welds spaced @ 152 mm centres(max)

Blade stopper

Casing

Sleeve

Spring return actuator

Expansion gap $\frac{1}{8}$ " per foot-min $\frac{1}{4}$ "

Breakaway joint

Wall(masonry/gypsum)

16" max

6" max

Duct

AVAILABLE SIZES (mm)

W	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
H	150**	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900

** 200W or 200H damper with factory installed sleeve will have rectangular/round/oval duct transition on both sides of sleeve.

- Any combination of W x H. For non-standard sizes, please consult us.

Motorised Smoke Dampers

Motorised smoke dampers



SD 125 A

APPLICATION

- Motorised smoke dampers are designed to be installed vertically or horizontally, in accordance with NFPA90A, at or adjacent to the point where the ductwork passes through the smoke barrier.
- It either prevents smoke distribution through HVAC duct work (normally open) or assists in smoke extraction through smoke extraction duct work (normally close) in residential, commercial and industrial buildings.

DESCRIPTION

- Normally close, but can be opened through remote signal from smoke management system to facilitate smoke extraction from the fire zone.

CONSTRUCTION

- Casing manufactured from 18 ga. galvanized sheet. Other gauges available upon request.
- Single skin blades manufactured from 18 ga. galvanized steel. Aerofoil blades available upon request. Blades are parallel operated. Oposed blade operation available upon request.
- Stainless steel side seal. Silicon rubber blade tip seal.
- Standard external linkages. Internal linkages available upon request.
- Standard brass bushes. Bronze bushes available upon request.
- Spring return actuator 24V/230V available as requested.
- Minimum size: 150 x 150 mm.
- Maximum size: 800 x 800 mm as single section. Larger sizes can be manufactured in multiple sections for assembly on site.

INSTALLATION

- Vertical / horizontal installation.

ACCESSORIES

- Circular, rectangular and oval spigot for mounting: please, see page 59.
- Access doors: please, see page 62.

RANGE

Type	Description	Code
SD 125 A	Motorised smoke damper with casing and blades manufactured from GI	
SD 125 A1	Motorised smoke damper with casing made from GI and blades from SS (grade 304)	
SD 125 A2	Motorised smoke damper with casing and blades manufactured from SS (grade 304)	

Compliance

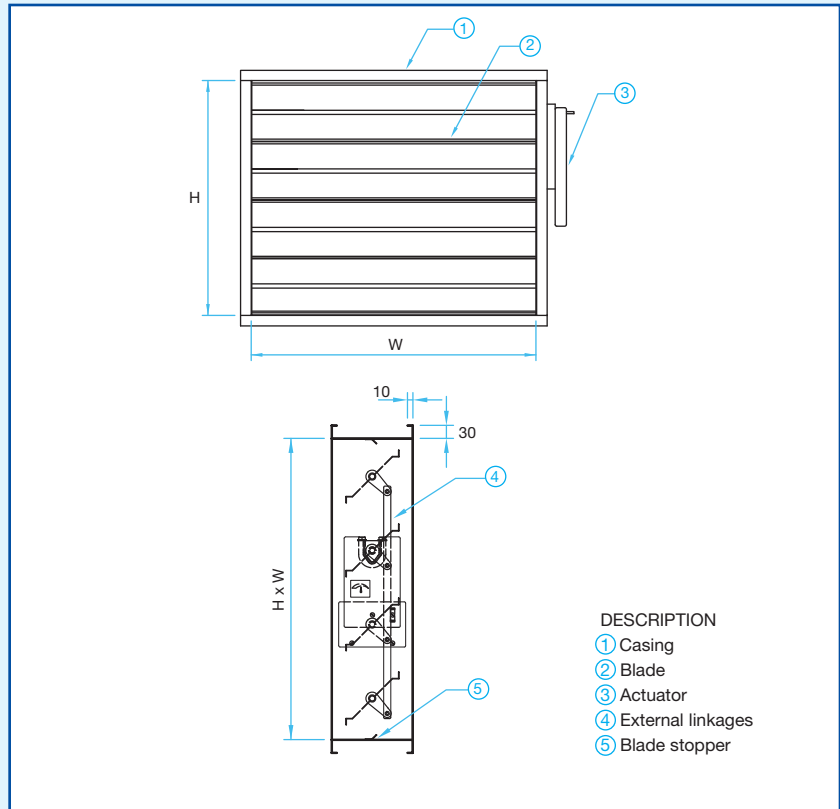
- Constructed in accordance with UL 555S.

CIVIL DEFENCE APPROVED

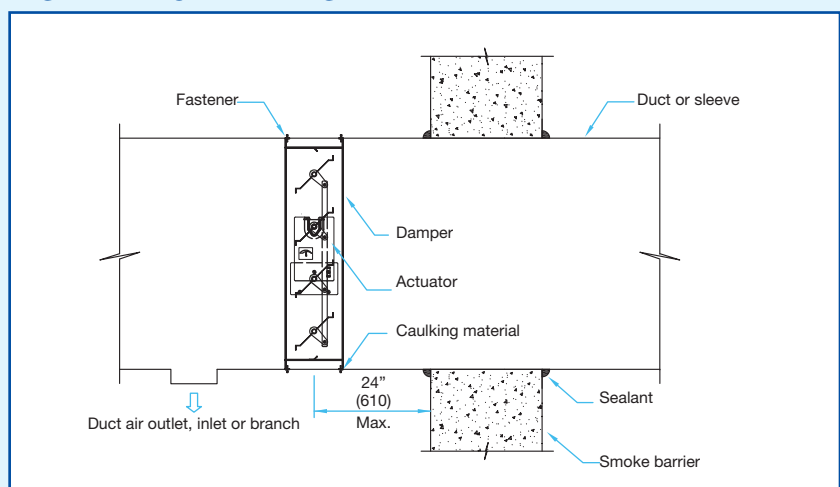
Advantages

- No smoke leakage.
- Suitable for static and dynamic systems.
- Duct installation.

DIMENSIONS (mm)



INSTALLATION DETAILS



AVAILABLE SIZES (mm)

W	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900
H	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900

• Any combination of W x H. For other sizes, please consult us.

Project Reference List

Below are some of our prestigious project references.

S. No.	Project	Consultant/Client	Contractor	Location
1	Al Wahada Cinema	Line Investment Property	Weathertech	Abu Dhabi
2	Bahya & Nadia Substation	Lahmeyer	AL Inayah	Abu Dhabi
3	Ministry of Interior	Bayaty Architect	Trans Emirates	Abu Dhabi
4	Premiere Inn Hotel	Dewan	Update Group	Abu Dhabi
5	Qasr Al Sarab	Halcrow Yolles	ALEC	Abu Dhabi
6	Sub-Station at Delma & Shuweihat	Mott McDonald	York's A/C	Abu Dhabi
7	UAE University Campus	AECOM	Universal Voltas	Al Ain
8	Oasis Hospital	Peddle Thorp Arch.	RNC Update	Al Ain / Dubai
9	220KV Substation, Marsa H Bahrain	MEW	Almoayyed	Bahrain
6	BANAGAS Compressor Station (CS9)	IKA Consulting Engineers	Airmech WLL	Bahrain
11	GCT Tower @ Juffair	MSCEB	Star Technical Co. WLL	Bahrain
12	LBOP	Barco	Alkomed	Bahrain
13	Moda Mall	MSCEB	Trust Electromechanical	Bahrain
14	Sakis Palace Majilis	MSCEB	Yateem	Bahrain
15	Salmaniya Medical Center	MOH	Mercury Engineering	Bahrain
16	Sofitel Zallaq Resort	Halcron	Awal Products	Bahrain
17	Armade Tower	Adnan Saffarini	Fawaz A/C	Dubai
18	Concorde Tower	Arif & Bintook	Drake & Scull	Dubai
19	DAMAC Executive Heights	IBA	Omega	Dubai
20	DEWA Substations	DEWA	TTE	Dubai
21	Dubai Concourse 3	Dar Al Handasah	Al Tamimi	Dubai
22	Dubai Library @ Al Twar	Dubai Municipality (Gulf Eng.)	Condor	Dubai
23	Dubai Modern School	AEIB	MAG Int'l	Dubai
24	Emirates Headquarters	Arch Group / Archon	Int'l Electro-mechanical	Dubai
25	Emirates Park Hotel	IBA	Bilt ME	Dubai
26	Iranian Hospital Extension	Schuster Pechtold & Partners	Bilt ME	Dubai
27	JAFZA Twin Towers	WSP Watson	Saifco	Dubai
28	Life Line Hospital @ Jebel Ali	Hosmac	Multiline	Dubai
29	Marina View Towers	Adnan Saffarini	Transgulf	Dubai
31	Masfout Hospital	UPA by MOPW	RNC Update	Dubai
31	Reef Tower	KEO	GECO	Dubai
32	Sidra Tower	APG Consultants	Omega	Dubai
33	Fujairah Secondary School	MOPW	GIBCA	Fujairah
34	Fujairah Tower	Al Qalaa Engg	ETA	Fujairah
35	Oman Arab Bank	Khatib & Alami	Bahwan Engineering	Oman
36	Oman National Museum	COWI	Drake & Scull	Oman
37	Akis Primary School	QEA Consultant	Diplomat Group	Qatar
38	Al Ghanem Appartment	KEO	RAMCO	Qatar
39	Al Udeid Project	Qatar Armed forces	Voltas	Qatar
40	Arab Museum of Modern Art	ASTAD / QP	Midmac	Qatar
41	Business Park & Hotel Facilities	AEB	QEMG	Qatar
42	Dukhan Hospital	HDP Overseas	Diplomat	Qatar
43	Khalifa stadium	Midmac	Qatari Engg	Qatar
44	Lusail Car Park	ACE	Arabian AC	Qatar
45	Malul dept	QP	Krantz Engg	Qatar
46	New Doha International Airport - Duty Free Warehouse	GDH / MACE / Kling Consult	Mercury Engineering	Qatar
47	Pearl Qatar VB-29	KEO	Arabian AC	Qatar
48	Regent Hotel	KEO	Samko	Qatar
49	Texas A & M College	QP/KEO	Midmac	Qatar
50	WOQOD Tower	Romatre	Diplomat	Qatar
51	Al Naeem Mall	Dynamic Engg.	Strabag	Ras Al Khaimah
52	Sheik Khalifa Hospital	Bayaty Architect	ETA	Ras Al Khaimah
53	Al Mana General Hospital	Al Mana	Al Mana	Saudi Arabia
54	King Saud University (ENDOWMENT)	Saudi Diyar Consultant	Al Sharqawi Electromech. Co.	Saudi Arabia
55	Al Qassimi Hospital	UPA by MOPW	Ali Moosa & Sons	Sharjah
56	Research Laboratory	Cansult	GECO	Sharjah
57	Umm Al Quwain Hospital	HDP	Bpower	Umm Al Quwain

Air Distribution

Selection Guides p.120 - 121
p.146
p.156 - 157
Selection Tables from p.241

Pressure Independent VAV boxes:

- Volume flow rate controlled by:
 - duct static pressure,
 - zone temperature control signal.
- Lower system energy consumption cost.
- Lower set-up and installation cost.

Constant Airflow Regulators (CAR):



- Airflow automatically balanced at pre-set constant levels.
- Air exhaust and air supply.
- Horizontal or vertical.

Sound Attenuators:

- Provide technical assistance for selection.
- Large size adopted to project needs.

A complete range of grilles and diffusers for commercial and residential buildings designed:
 - for full control of air diffusion,
 - to fulfill thermal, airflow and acoustical comfort.



Airflow control	
Pressure Independent VAV Boxes	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Basic unit VA 110 p. 122</p> </div> <div style="text-align: center;">  <p>Extended casing VA 120 p. 122</p> </div> </div>
Volume Control Dampers	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Rectangular VCD, aerofoil blades - SU 651 Q p. 133</p> </div> <div style="text-align: center;">  <p>Rectangular VCD, aerofoil blades - SP 651 Q p. 134</p> </div> </div>
Volume Control Dampers	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  <p>Motorised Plastic Damper: RPM p. 139</p> </div> <div style="text-align: center;">  <p>Duct mounted SG 661 p. 141</p> </div> </div>
Sound Attenuation	
Rectangular Sound Attenuators	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SA 20 p. 150</p> </div> <div style="text-align: center;">  <p>Bend Type Attenuators Vertical and horizontal SA 20V p. 151</p> </div> </div>
Cross Talk Attenuators	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>SCS p. 153</p> </div> <div style="text-align: center;">  <p>Acoustic Louvres SU 631 p. 154</p> </div> </div>

Bypass VAV Boxes



VA 200
p. 126

Constant Airflow Regulators



Fixed single airflow
MR MONO
p. 127



Manually adjustable
airflow - MR MODULO
p. 130



Motorised dual airflow
RMA
p. 131



Rectangular VCD,
3V groove blades - SU 650 Q
p. 135



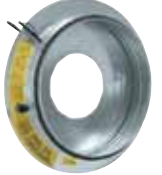
Rectangular VCD,
3V groove blades - SP 650 Q
p. 136



Circular VCD
SR 653 Q
p. 137



Airtight circular
VCD - RGE
p. 138



Iris damper
p. 139



Wall mounted
SG 663
p. 141

Pressure Relief Dampers



Wall mounted
SG 662
p. 141

Circular Sound Attenuators



Standard
SAR 100
p. 152

Air Diffusion

Swirl Diffusers



Aesthetic swirl diffusers for ceiling tiles
p. 161

Green Product



Adjustable circular swirl diffusers
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Adjustable square swirl diffusers
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Adjustable square swirl diffusers
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Fixed square swirl diffusers
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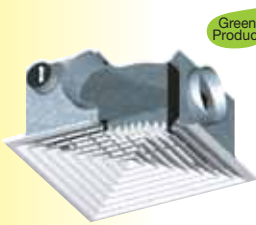


Fixed circular swirl diffusers for ceiling tiles
p. 168



Fixed circular swirl diffusers
p. 169

Special Diffusers



Standard Combined Solution
p. 170

Green Product



Multi-slot Combined Solution
p. 171

Green Product



Adjustable diffusers with rotating nozzles
p. 172

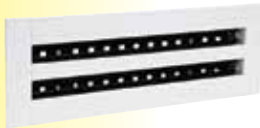


Jet diffusers
p. 173



High induction textile ducts
p. 178

Slot Diffusers



Adjustable aluminium slot diffusers
p. 179



Adjustable aluminium slot diffusers
p. 181



Fixed high airflow level aluminium slot diffusers
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Diffusers compatible with Armstrong® Tech Zone
p. 184

Ceiling Diffusers



Multi-slot square diffusers
p. 186



Fixed square diffusers for ceiling tiles
p. 187



Fixed square diffusers
p. 188



Fixed circular diffusers for ceiling tiles
p. 190



Fixed circular diffusers
p. 191



Adjustable circular diffusers for ceiling tiles
p. 192



Adjustable circular diffusers
p. 193



Adjustable square diffusers for ceiling tiles
p. 194



Square diffusers with perforated sheet
p. 195

Small & Constant Exhaust Grilles



Green Product

Self-balanced grilles
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Humidity controlled grilles
p. 202



Adjustable core grilles
p. 211



Small plastic grilles
p. 212

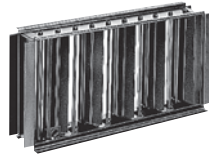


Small fixed metal grilles
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Indoor Grilles



Single & double deflection grilles
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Opposed blade damper
p. 217



Fixed blade grilles
p. 218



Fixed mesh grilles
p. 219



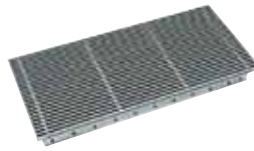
Grilles with fixed aluminium linear bars
p. 220



Fixed blade grilles with filter
p. 222



Fixed blades air transfer grilles
p. 223



Grilles with fixed linear bars for floor mounting
p. 224



Pressed grilles
p. 226



Fixed blade grilles for ceiling tiles
p. 227



Fixed blade grilles with filter for ceiling tiles
p. 228



Grilles for circular ducts
p. 229

Air displacement diffusers



Air displacement diffusers
p. 230

Louvres



Fresh air louvres
AG 638A
p. 234



Fresh air louvres
Robust construction - AG 639A
p. 235



Fresh air louvres
AR 637
p. 236



Small outdoor grilles
AWA 251
p. 237



Fresh air louvres
Movable blades - AG 645
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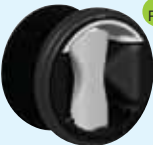




Sand trap louvres
AG 644
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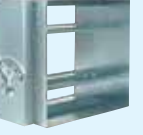

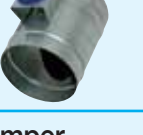





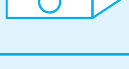



Acoustic louvres
SU 631
p. 240

Selection Guide

Category	Model	Description	Sound attenuation 	Comfort 	Energy saving 	AHU 
Variable Air Volume Boxes	Pressure independent VAV boxes  Green Product	▶▶▶ VA 110 / VA 120 <ul style="list-style-type: none"> • Lower system energy consumption cost • Lower set-up and installation cost • Greater flexibility with regulation resulting in occupancy controlled comfort • Volume flow rate controlled by: <ul style="list-style-type: none"> - duct static pressure - zone temperature control signal 	✓	✓✓✓	✓✓✓	✓
	Bypass VAV boxes  Green Product	▶▶▶ VA 200 <ul style="list-style-type: none"> • Controls volume flow rate in response to zone temperature control signal • Excess air inside the VAV diverted through bypass damper into ceiling plenum or return duct 	✓	✓✓		✓
Category	Model	Description	Comfort 	Energy saving 	Ventilation 	AHU 
Constant Airflow Regulators	Fixed single airflow  Green Product	▶▶▶ MR MONO <ul style="list-style-type: none"> • Airflow automatically balanced at pre-set constant level. • Operating range of standard range : 50-250 Pa • Operating range of high pressure range : 150-600 Pa 	✓✓	✓✓	✓✓	✓
	Manually adjustable airflow 	▶▶▶ MR MODULO <ul style="list-style-type: none"> • Tool free manual adjustment of airflow • Operating range : 50-250 Pa 	✓	✓✓	✓✓	✓
	Motorised dual airflow 	▶▶▶ RMA <ul style="list-style-type: none"> • Manages two airflow rates <ul style="list-style-type: none"> - Basic airflow - Maximum airflow (fully open via motor) • Basic airflow regulated at 50-200Pa 	✓✓	✓	✓✓	✓

Selection Guide

Category	Model	Description	Control 	Comfort 	Ventilation 	AHU 
Volume Control Dampers	Rectangular volume control damper 	<ul style="list-style-type: none"> ➔ SU 650 / SU 651 / SU 651A • U-Channel frame for flanged connection with duct • Single skin blade (SU 650) or GI aerofoil blade (SU 651) or Aluminium aerofoil blade (SU 651A) • With manual quadrant (Q) or motor (M) 	Manual or Motorised	✓✓	✓	✓✓
	Rectangular volume control damper 	<ul style="list-style-type: none"> ➔ SP 650 / SP 651 / SP 651A • Plain casing suitable for drive & slip connection with duct. • Single skin blade (SP 650) or GI aerofoil blade (SP 651) or Aluminium aerofoil blade (SP 651A) • With manual quadrant (Q) or motor (M) 	Manual or Motorised	✓✓	✓	✓✓
	Circular volume control damper 	<ul style="list-style-type: none"> ➔ SR 653 / SR 653T • Single skin blade (standard construction) • Double skin blade with sandwich gasket (airtight construction) • With manual quadrant (Q) or motor (M) 	Manual or Motorised	✓✓	✓	✓✓
	Circular airtight volume control dampers 	<ul style="list-style-type: none"> ➔ RGE / RGEM • Insulated blade • Manual (RGE) or motorised (RGEM) • Class 3 airtightness, upstream & downstream, as per EN 1751 upto 1500 Pa. 	Manual or Motorised	✓✓	✓	✓
	Iris damper 	<ul style="list-style-type: none"> ➔ Iris damper • Adjustable diaphragm • Integrated airflow / pressure plugs for measurement 	Manual	✓✓	✓	✓

Category	Model	Description	Control 	Comfort 	Ventilation 	AHU 
Non-Return Dampers	Duct/wall mounted non-return damper 	<ul style="list-style-type: none"> ➔ SG 661 / SG 663 • Air intake or exhaust • Blades remain closed to prevent reverse airflow • Duct mounted (SG 661); wall mounted (SG 663) 		✓	✓✓	✓✓
Pressure Relief Dampers	Wall mounted pressure relief damper 	<ul style="list-style-type: none"> ➔ SG 662 • Air exhaust • Blades open to relieve excess pressure • Counter weight 	Motorised version available	✓	✓✓	✓

Pressure Independent VAV Boxes

Presentation of pressure independent VAV boxes



VA 110
Basic unit



VA 120
Extended box

Green
Product

Advantages

- Volume flow rate controlled by:
 - zone temperature control signal,
 - duct static pressure.
- Lower system energy consumption cost.
- Lower set up and installation cost.

APPLICATION

- The extensive range of VAV terminals manufactured by Aldes Euroregister have been designed specifically to accommodate the rigorous criteria of today's modern buildings.
- The equipment selection offers outstanding advantages in terms of service, flexibility reliability and product performance which are equally recognised by the energy conscious designer and provides a tangible system which is capable of meeting the most demanding design applications.

DESCRIPTION

- Aldes Euroregister VAV boxes are designed to control the volume flow rate of the conditioned air in an occupied zone in response to a duct static pressure or zone temperature control signal.
- These VAV deliver variable / constant air volume (CAV) as designed by providing excellent performance and temperature control for central air distribution with unlimited zoning.

Extensive range of 10 sizes, covering volume flow range

- from 374-6524 m³/h. Accurate control with low leakage damper achieving proportional control between volume flow range 20 to 100% depending on controller used.

AVAILABLE OPTIONS

- Extended terminal box construction for additional attenuation.
- Ancillary connecting flange.
- Direct digital controllers.
- Perforated sheet over acoustic lining.
- Electric duct heaters.

OPERATION PRINCIPLE

- Model type VA100 features a unique cross flow sensor located in the upstream section of the valve chamber. The sensing points collectively average the primary air velocity pressure across the entire inlet area.
- Requirement is achieved through a differential pressure sensing system which regulates the damper independent of static pressure developed in the supply duct. Air volume is achieved in the limit to Vmin to Vmax by directing required volume of air in direct response to temperature signals for modulating thermostat installed in the room. This grid measures the differential pressure at the inlet and transfer to the actuator through a controller to adjust the damper in order to meet required air flow within the set values.
- Aldes Euroregister averaging differential cross flow sensor integrates and monitors the pressure difference and allows precise volume flow control, regardless of adverse upstream conditions and ductworks configuration. The accuracy of the sensor is however subject to the upstream condition of the ductwork.
- Ideally the inlet condition to the sensor should be in the region of 4 x diameter of straight ductwork, to achieve accurate flow readings. The terminal housing is constructed from high quality heavy gauge galvanized mild steel which is clad internally with 25 mm thick high density insulation. The face of the insulation is lined to prevent degradation and air erosion. The complete assembly is secured to the structure by means of hanger brackets for drop rod fixing by others.

VAV boxes + Twisted



VA 110
Basic unit



Twisted

Green
Product

DESCRIPTION

- The association of a Twisted swirl diffuser with a wide airflow capacity (150 to 650 m³/h) and a pressure independant VAV box is the best solution to ensure comfort in any variable airflow system.
- For more details, please consult us.

Pressure Independent VAV Boxes

Basic units and extended casings



VA 110
Basic unit



VA 120
Extended box comprising of
basic unit with attenuator section

Green
Product

Advantages

- Volume flow rate controlled by:
 - zone temperature control signal
 - duct static pressure.
- Lower system energy consumption cost.
- Lower set up and installation cost.

DESCRIPTION

- Please, see page xxx

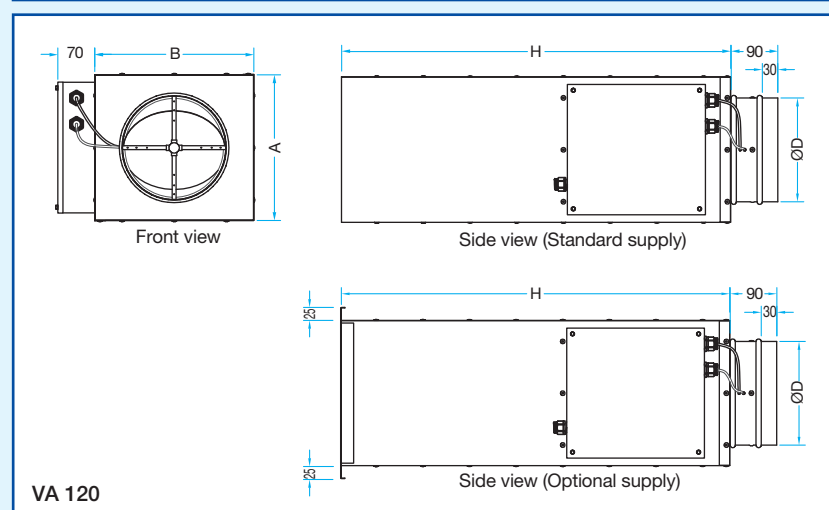
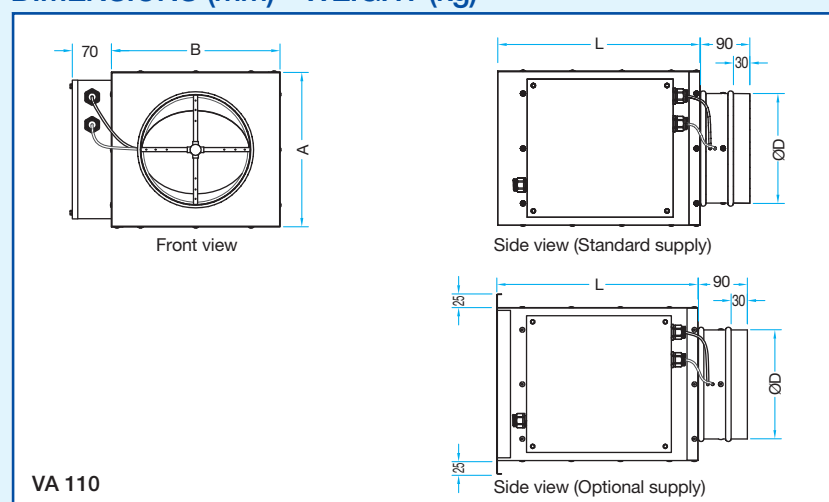
CONSTRUCTION

- VA 110 and VA 120 units manufactured from 22 ga. galvanized sheet steel casing.
- The blade assembly comprised of double skin 24 ga. galvanized sheet steel with a flexible gasket sandwiched between the two layers to assure low leakage.
- All VA units are lined by 13mm thick 32kg/m³ acoustic insulation
- All VA units are equipped with actuator which accepts as standard 0-10 or 2-10 V signals from thermostat units.
- All units can be supplied with secondary attenuators to achieve required noise levels.
- Cross-flow sensor having multiple averaging points located as per ISO 10780 for an accurate measurement of the whole cross-section of the VAV inlet.

RANGE

Description	Code
Pressure independent VAV: VA 110	
VA 110 - 04	
VA 110 - 05	
VA 110 - 06	
VA 110 - 07	
VA 110 - 08	
VA 110 - 09	
VA 110 - 10	
VA 110 - 12	
VA 110 - 14	
VA 110 - 16	
Pressure independent VAV: VA 120	
VA 120 - 04	
VA 120 - 05	
VA 120 - 06	
VA 120 - 07	
VA 120 - 08	
VA 120 - 09	
VA 120 - 10	
VA 120 - 12	
VA 120 - 14	
VA 120 - 16	

DIMENSIONS (mm) - WEIGHT (kg)

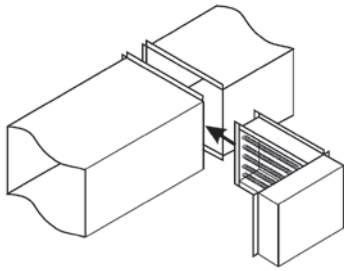


VA 110 & VA 120	Inlet	Outlet		Length		Q _{nom}		
	ØD	B	A	L	H	l/s	m ³ /h	cfm
04	102	254	254	343	1000	104	374	220
05	127	254	254	343	1000	160	578	340
06	152	254	254	343	1000	231	833	490
07	178	279	254	356	1000	316	1138	670
08	203	305	279	368	1000	411	1478	870
09	229	330	305	381	1000	519	1869	1100
10	254	356	330	394	1000	642	2311	1360
12	305	406	381	419	1000	1019	3670	2160
14	356	457	432	457	1000	1388	4995	2940
16	406	508	483	508	1000	1812	6524	3840

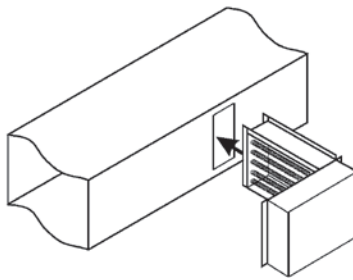
• Q_{nom} is the nominal airflow rating of the VAV box.

Pressure Independent VAV Boxes

Electric Heater - Modulating control



Flange type heater



Slip-in type heater

Advantages

- Delivered to site as a single assembly fitted with VAV / CAV.
- Pre-wired in the factory.
- Zero clearance construction.

APPLICATION

- Electric heater is installed at the downstream of a VAV / CAV box to reheat the cold air entering in a particular zone within a centralized air-conditioning system, as per the demand of the occupant of that zone.
- Heating capacity (kW) of electric heater is dependent on the required T ($^{\circ}\text{C}$ or $^{\circ}\text{F}$) and required minimum airflow rate (m^3/h or cfm).

DESCRIPTION

- Modulating control (0-10VDC or 2-10VDC).
- Frame and control panel manufactured from galvanised steel as standard. SS (grade 304) construction available upon request.
- For open coil heating elements:
 - Electronic airflow sensor to turn off the heater if there is no airflow detected.
 - Minimum air velocity of 100 fpm (0.5 m/s) for proper operation of heater.
- For tubular or finned tubular heating elements:
 - Fixed airflow switch to turn off the heater if there is no airflow detected.
 - Minimum air velocity of 300 fpm (1.5 m/s) for proper operation of heater.
- Automatic reset thermal cut-out to avoid overheating.
- Nema 1 control panel, right extension. For other Nema ratings or left extension, please consult us.
- Disconnecting switch.

INSTALLATION

- 1" flange connection with VAV/CAV or duct. Slip-in type available upon request.
- Horizontal or vertical airflow.

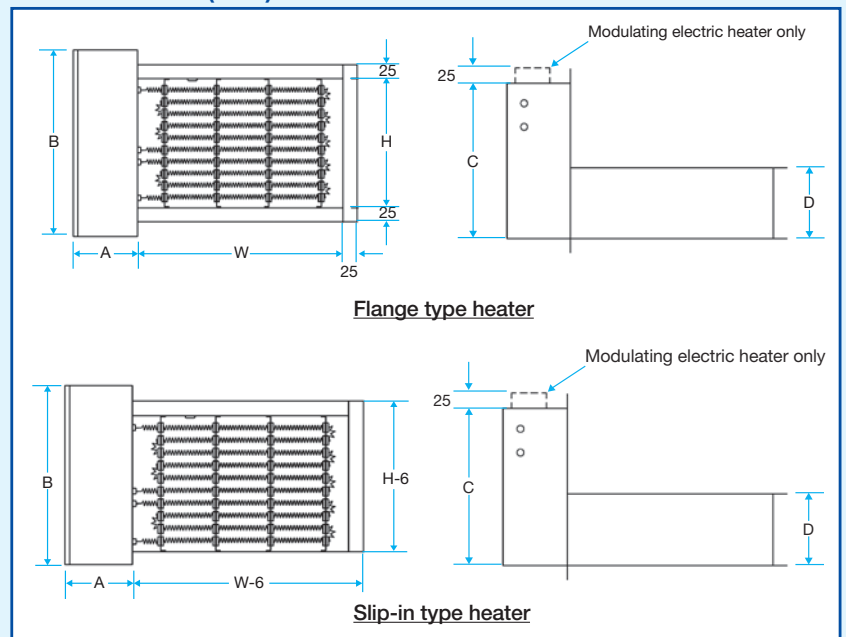
RANGE WITH CHOICE OF OPTIONS

Description	Code
Certification:	
CSA & ETL	
UL	
Heating elements:	
Open coil (NiCr 60 – grade C)	
Open coil (NiCr *0 – grade A)	
Tubular (Incoloy 800 with magnesium oxide)	
Finned Tubular (Incoloy 800 with magnesium oxide & aluminium fins)	
Protective screen: Optional	
One side of heating elements	
Both sides of heating elements	
Indication lights on control panel: Optional	
Power ON	
Heating	
Overheating	
No airflow	

ELECTRICAL DETAILS

- Control voltage: 24VAC
- Heating capacity : min. 0.5 kW ; max. 1000 kW
- Single phase, 220/240VAC ($\leq 3\text{kW}$)
- Three phase, 380/400VAC ($> 3\text{kW}$)
- Frequency : 50Hz. / 60Hz.

DIMENSIONS (mm)



Note : For dimensions, please consult us.

FORMULA FOR CALCULATING HEATING CAPACITY

Imperial

$$P = \frac{Q \times (T_2 - T_1) \times 1.08}{3413}$$

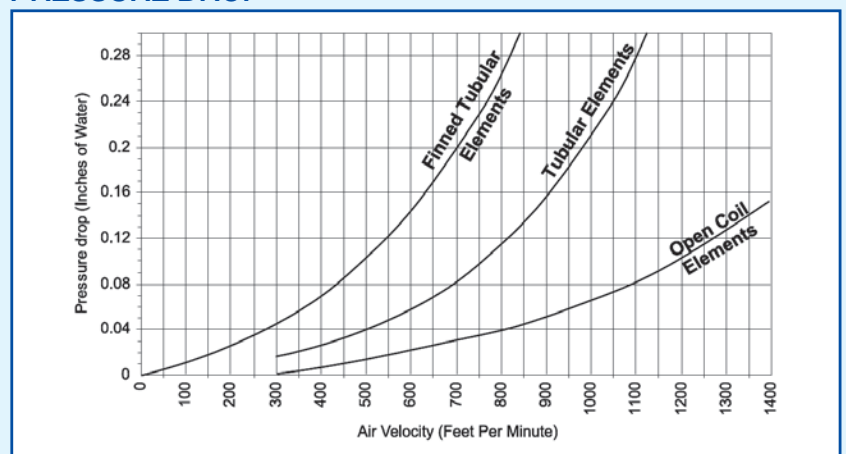
- P = Power in kW
- Q = Air volume in CFM
- T_1 = Temperature of air entering heater ($^{\circ}\text{F}$)
- T_2 = Temperature of air leaving heater ($^{\circ}\text{F}$)

Metric

$$P = \frac{Q \times (T_2 - T_1) \times 1.3}{3600}$$

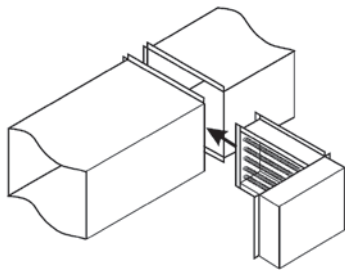
- P = Power in kW
- Q = Air volume in m^3/hr
- T_1 = Temperature of air entering heater ($^{\circ}\text{C}$)
- T_2 = Temperature of air leaving heater ($^{\circ}\text{C}$)

PRESSURE DROP

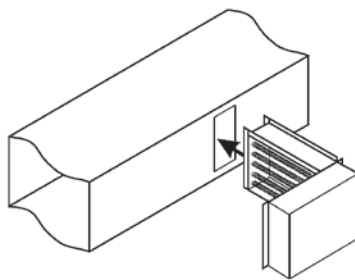


Pressure Independent VAV Boxes

Electric Heater - ON / OFF control



Flange type heater



Slip-in type heater

Advantages

- Delivered to site as a single assembly fitted with VAV / CAV.
- Pre-wired in the factory.
- Zero clearance construction.

APPLICATION

- Electric heater is installed at the downstream of a VAV / CAV box to reheat the cold air entering in a particular zone within a centralized air-conditioning system, as per the demand of the occupant of that zone.
- Heating capacity (kW) of electric heater is dependent on the required T ($^{\circ}\text{C}$ or $^{\circ}\text{F}$) and required minimum airflow rate (m^3/h or cfm).

DESCRIPTION

- ON/OFF type control (1 stage, 2 stage, 3 stage).
- Frame and control panel manufactured from galvanised steel as standard. SS (grade 304) construction available upon request.
- Fixed airflow switch to turn off the heater if there is no airflow detected.
- Minimum air velocity of 300 fpm (1.5 m/s) for proper operation of heater.
- Automatic reset thermal cut-out to avoid overheating.
- Nema 1 control panel, right extension. For other Nema ratings or left extension, please consult us.
- Disconnecting switch.

INSTALLATION

- 1" flange connection with VAV/CAV or duct. Slip-in type available upon request.
- Horizontal or vertical airflow.

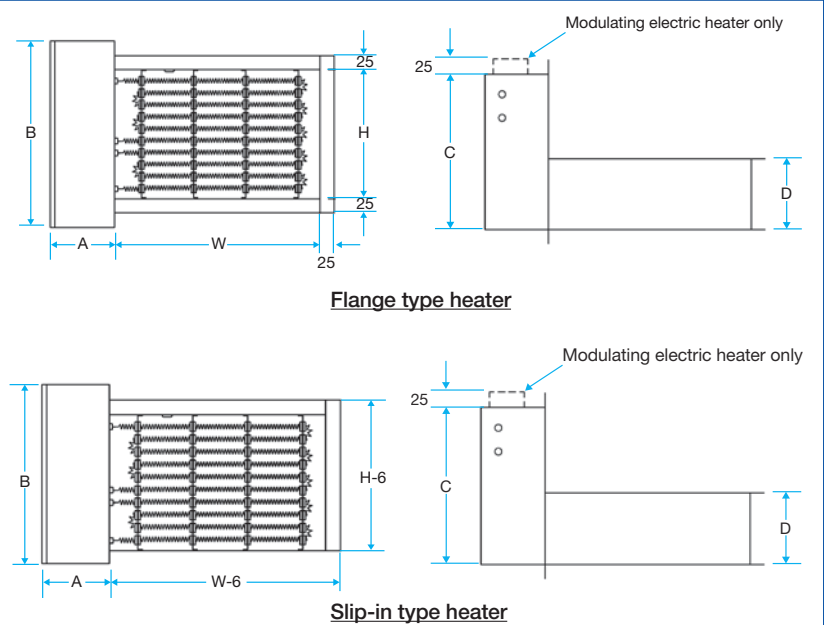
RANGE WITH CHOICE OF OPTIONS

Description	Code
Certification:	
CSA & ETL	
UL	
Heating elements:	
Open coil (NiCr 60 – grade C)	
Open coil (NiCr *0 – grade A)	
Tubular (Incoloy 800 with magnesium oxide)	
Finned Tubular (Incoloy 800 with magnesium oxide & aluminium fins)	
Protective screen: Optional	
One side of heating elements	
Both sides of heating elements	
Indication lights on control panel: Optional	
Power ON	
Heating	
Overheating	
No airflow	

ELECTRICAL DETAILS

- Control voltage: 24VAC
- Heating capacity : min. 0.5 kW ; max. 1000 kW
- Single phase, 220/240VAC ($\leq 3\text{kW}$)
- Three phase, 380/400VAC ($> 3\text{kW}$)
- Frequency : 50Hz. / 60Hz.

DIMENSIONS (mm)



Note : For dimensions, please consult us.

FORMULA FOR CALCULATING HEATING CAPACITY

Imperial

$$P = \frac{Q \times (T_2 - T_1) \times 1.08}{3413}$$

P = Power in kW

Q = Air volume in CFM

T_1 = Temperature of air entering heater ($^{\circ}\text{F}$)

T_2 = Temperature of air leaving heater ($^{\circ}\text{F}$)

Metric

$$P = \frac{Q \times (T_2 - T_1) \times 1.3}{3600}$$

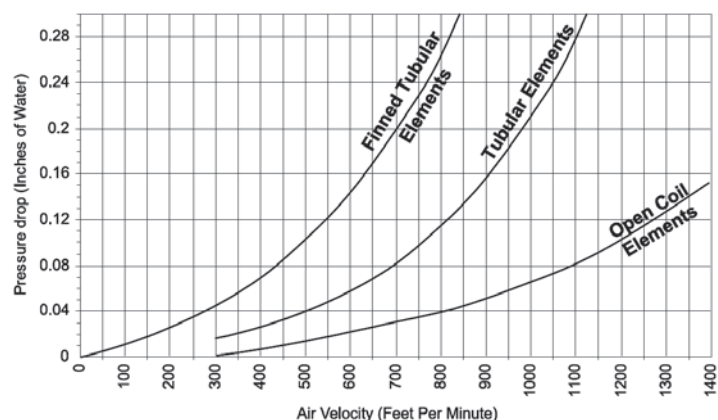
P = Power in kW

Q = Air volume in m^3/hr

T_1 = Temperature of air entering heater ($^{\circ}\text{C}$)

T_2 = Temperature of air leaving heater ($^{\circ}\text{C}$)

PRESSURE DROP



Bypass VAV Boxes

Bypass VAV boxes



VA 200

Advantages

- Provides airflow to individual zone while Bypassing the unneeded air to ceiling plenum for recirculation.
- Delivers relatively constant airflow over the full range of Bypass damper positions.

DESCRIPTION

- Combination of the advantages of proven air handling concepts to give complete flexibility from a single zone source.
- Provides excellent temperature control and central air distribution with unlimited zoning.
- Simple solution to distribute and control airflow from constant speed FCUs or AHVs
- Multi-zone systems: supplying centralized air distribution from unwanted zones to demand related zones.
- Extensive range of 8 sizes covering volume flow range from up to 5440 m³/h.

CONSTRUCTION

- Manufactured from 20 ga. galvanized steel casing.
- Incorporate a 13mm thick, 32kg/m³ acoustic insulation.
- Blades composed of 20 ga. galvanized mild steel with a flexible gasket to assure low leakage.
- Equipped with modulating actuator, which accepts 0-10 or 2-10 V signals from thermostats.
- Electronic thermostat provides accurate modulating - ON/OFF. Standard supply is modulating 0-10 V.
- In case lower noise levels are required, VAV units can be provided with integral sound attenuators to achieve lower noise level.

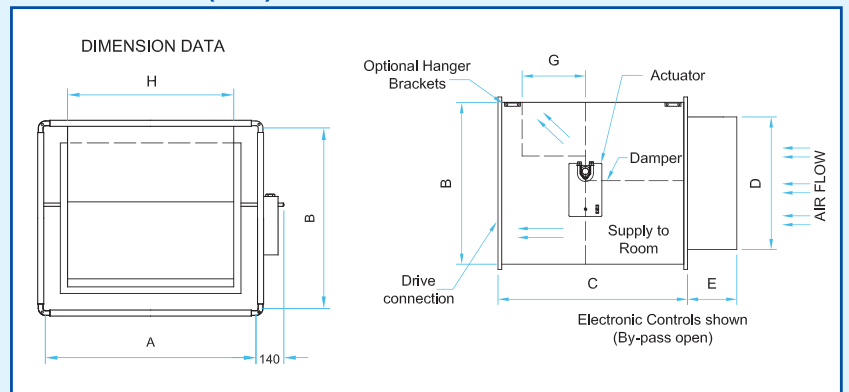
OPERATION PRINCIPLE

- A variable air volume, Bypass system consists of VAV units connected to the supply air duct of a constant air volume source. A constant air volume of conditioned air is supplied to each VAV unit. The primary damper modulates in response to a zone thermostat demand, to vary the amount of combined air delivered to the occupied zone. Damper modulation will range from full shut off to full open position by supplying variable air volume or to a minimum air volume to the conditioned zone.
- As the primary damper modulates in response to room thermostat demand and once it is satisfied to reduce the air to occupied zone, the excess air is diverted through the secondary Bypass damper into ceiling plenum or ducted return.

RANGE

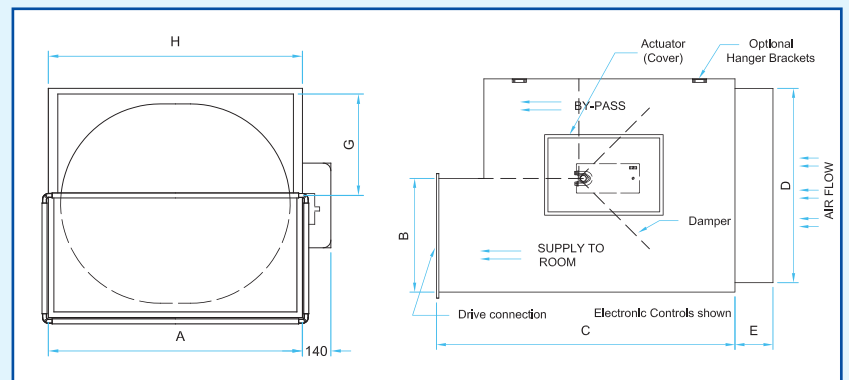
Description	Code
Bypass VAV	
VA 200 - 02	
VA 200 - 04	
VA 200 - 06	
VA 200 - 08	
VA 200 - 12	
VA 200 - 16	
VA 200 - 24	
VA 200 - 32	

DIMENSIONS (mm)



Unit size	Discharge		Basic assembly			Bypass opening		Q _{nom}		
	A	B	C	D	E	G	H	l/s	m ³ /h	cfm
02	254	203	400	127	60	111	178	94	340	200
04	305	254	400	203	60	137	229	189	680	400
06	356	305	552	254	60	238	279	283	1020	600
08	406	356	552	305	60	238	330	378	1360	800
12	457	406	603	356	60	264	381	567	2040	1200

• Q_{max} is the nominal airflow rating of the VAV box.



Unit size	Discharge		Basic assembly			Bypass opening		Q _{nom}		
	A	B	C	D	E	G	H	l/s	m ³ /h	cfm
16	508	254	622	406	67	165	432	708	2550	1500
24	610	254	622	406 x 457	86	165	533	1133	4080	2400
32	813	254	622	406 x 610	92	165	737	1571	5440	3200

• Q_{nom} is the nominal airflow rating of the VAV box.

Constant Airflow Regulators

General information



Green Product

Advantages

- Automatically adjusts airflow at pre-set constant levels.
- Maintenance free.

MR MONO

APPLICATION

- Airflow is controlled at a pre-set value in HVAC circular ductwork.
- Installation of CMEV and air conditioning.
- Air exhaust and supply.
- Operating temperature range: -10°C / +60°C.

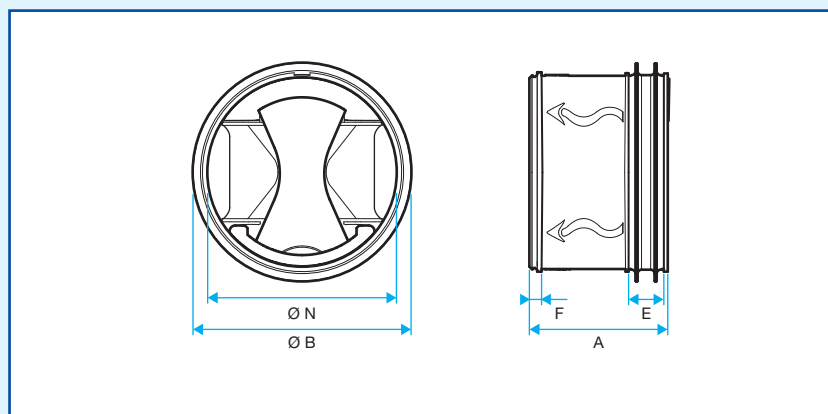
DESCRIPTION

- Plastic body (M1 fire resistance classification) housing the silicone regulating membrane in a calibrated air passage.
- Peripheral seal for air tight connection with duct.
- Outdoor diameter calibrated for standard duct diameters up to 250 mm.
- Operating range of standard range: 50-250 Pa.
- Operating range of high pressure range: 150-600 Pa.
- Airflow tolerances:
 - Q medium = Q nominal +/- 5 m³/hr for MR ≤ 50 m³/hr,
 - Q medium = Q nominal +/- 10% for MR > 50 m³/hr.

INSTALLATION

- Inserts directly into a circular duct near a connection or a terminal.
- In air exhaust mode: distance equivalent to 1 diameters between the MR and the terminal.
- In air supply mode: distance equivalent to 3 diameters between the MR and the terminal.
- Direction of assembly indicated on the component.
- Horizontal / vertical.

DIMENSIONS



Ø Duct (mm)	Ø N (mm)	Ø B (mm)	A (mm)	E (mm)	F (mm)
80	76	85	53	14	2
100	92	105	61	14	2
125	116	132	61	14	2
125	116	132	97	14	2
150	147	153	103	14	2
160	153	167	103	14	2
200	190	210	130	20	2
250	238	262	159	20	2

MR MONO 50 - 250 Pa

RANGE R11

Diameter	Description	Code
D80	MR MONO D80/3IN 15CMH/10CFM	11016226
	MR MONO D80/3IN 20CMH/12.5CFM	11016227
	MR MONO D80/3IN 25CMH/15CFM	11016228
	MR MONO D80/3IN 30CMH/17.5CFM	11016229
	MR MONO D80/3IN 35CMH/20CFM	11016230
	MR MONO D80/3IN 40CMH/22.5CFM	11016231
	MR MONO D80/3IN 45CMH/25CFM	11016232
	MR MONO D80/3IN 50CMH/30CFM	11016233
	MR MONO D80/3IN 60CMH/35CFM	11016234
	D100	MR MONO D100/4IN 15CMH/10CFM
MR MONO D100/4IN 20CMH/12.5CFM		11016236
MR MONO D100/4IN 25CMH/15CFM		11016237
MR MONO D100/4IN 30CMH/17.5CFM		11016238
MR MONO D100/4IN 35CMH/20CFM		11016239
MR MONO D100/4IN 40CMH/22.5CFM		11016240
MR MONO D100/4IN 45CMH/25CFM		11016241
MR MONO D100/4IN 50CMH/30CFM		11016242
MR MONO D100/4IN 55CMH/32.5CFM		11016243
MR MONO D100/4IN 60CMH/35CFM		11016244
MR MONO D100/4IN 65CMH/37.5CFM		11016245
MR MONO D100/4IN 70CMH/40CFM		11016246
MR MONO D100/4IN 75CMH/45CFM		11016247
MR MONO D100/4IN 80CMH/47.5CFM		11016248
MR MONO D100/4IN 85CMH/50CFM		11016249

Constant Airflow Regulators

MR MONO 50 - 250 Pa



Green Product

Advantages

- Automatically adjusts airflow at pre-set constant levels.
- Maintenance free.

RANGE R11

Diameter	Description	Code
D100	MR MONO D100/4IN 90CMH/52.5CFM	11016250
D125	MR MONO D125/5IN 15CMH/10CFM	11016251
	MR MONO D125/5IN 25CMH/15CFM	11016252
	MR MONO D125/5IN 30CMH/17.5CFM	11016253
	MR MONO D125/5IN 45CMH/25CFM	11016254
	MR MONO D125/5IN 50CMH/30CFM	11016255
	MR MONO D125/5IN 60CMH/35CFM	11016256
	MR MONO D125/5IN 65CMH/37.5CFM	11016257
	MR MONO D125/5IN 70CMH/40CFM	11016258
	MR MONO D125/5IN 75CMH/45CFM	11016259
	MR MONO D125/5IN 80CMH/47.5CFM	11016260
	MR MONO D125/5IN 85CMH/50CFM	11016261
	MR MONO D125/5IN 90CMH/52.5CFM	11016262
	MR MONO D125/5IN 95CMH/55CFM	11016263
	MR MONO D125/5IN 100CMH/60CFM	11016264
	MR MONO D125/5IN 105CMH/62.5CFM	11016265
	MR MONO D125/5IN 110CMH/65CFM	11016266
	MR MONO D125/5IN 115CMH/67.5CFM	11016267
	MR MONO D125/5IN 120CMH/70CFM	11016268
	MR MONO D125/5IN 125CMH/72.5CFM	11016269
	D150	MR MONO D125/5IN 130CMH/75CFM
MR MONO D125/5IN 140CMH/80CFM		11016271
MR MONO D125/5IN 150CMH/90CFM		11016272
MR MONO D125/5IN 160CMH/95CFM		11016273
MR MONO D125/5IN 190CMH/110CFM		11016274
MR MONO D150/6IN 110CMH/65CFM		11016275
MR MONO D150/6IN 130CMH/75CFM		11016276
D160	MR MONO D150/6IN 150CMH/90CFM	11016277
	MR MONO D150/6IN 170CMH/100CFM	11016278
	MR MONO D150/6IN 210CMH/125CFM	11016279
	MR MONO D150/6IN 240CMH/150CFM	11016280
	MR MONO D160/6IN 120CMH/70CFM	11016281
	MR MONO D160/6IN 130CMH/75CFM	11016282
	MR MONO D160/6IN 140CMH/80CFM	11016283
D200	MR MONO D160/6IN 150CMH/90CFM	11016284
	MR MONO D160/6IN 160CMH/95CFM	11016285
	MR MONO D160/6IN 170CMH/100CFM	11016286
	MR MONO D160/6IN 180CMH/105CFM	11016287
	MR MONO D160/6IN 190CMH/110CFM	11016288
	MR MONO D160/6IN 200CMH/120CFM	11016289
	MR MONO D160/6IN 210CMH/125CFM	11016290
	MR MONO D160/6IN 240CMH/150CFM	11016291
	MR MONO D200/8IN 200CMH/120CFM	11016292
	MR MONO D200/8IN 225CMH/130CFM	11016293
D250	MR MONO D200/8IN 250CMH/150CFM	11016294
	MR MONO D200/8IN 275CMH/160CFM	11016295
	MR MONO D200/8IN 300CMH/175CFM	11016296
	MR MONO D200/8IN 325CMH/190CFM	11016297
	MR MONO D200/8IN 350CMH/205CFM	11016298
	MR MONO D200/8IN 400CMH/235CFM	11016299
	MR MONO D250/10IN 300CMH/175CFM	11016300
	MR MONO D250/10IN 350CMH/205CFM	11016301
D250	MR MONO D250/10IN 400CMH/235CFM	11016302
	MR MONO D250/10IN 450CMH/265CFM	11016303
	MR MONO D250/10IN 500CMH/295CFM	11016304
	MR MONO D250/10IN 550CMH/325CFM	11016305
	MR MONO D250/10IN 650CMH/385CFM	11016306

Constant Airflow Regulators

MR MONO 150 - 600 Pa



Green Product

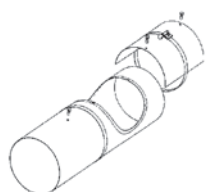
Advantages

- Automatically adjusts airflow at pre-set constant levels.
- Maintenance free.

RANGE R1

Diameter	Description	Code
D125	MR MONO D125/5IN 110CMH/65CFM HP	11016071
	MR MONO D125/5IN 150CMH/90CFM HP	11016072
	MR MONO D125/5IN 200CMH/120CFM HP	11016073
	MR MONO D125/5IN 240CMH/140CFM HP	11016074
	MR MONO D125/5IN 290CMH/170CFM HP	11016075
D150	MR MONO D150/6IN 210CMH/125CFM HP	11016076
	MR MONO D150/6IN 260CMH/155CFM HP	11016077
	MR MONO D150/6IN 310CMH/180CFM HP	11016078
	MR MONO D150/6IN 380CMH/225CFM HP	11016079
	MR MONO D150/6IN 450CMH/265CFM HP	11016080
D160	MR MONO D160/6IN 210CMH/125CFM HP	11016081
	MR MONO D160/6IN 260CMH/155CFM HP	11016082
	MR MONO D160/6IN 310CMH/180CFM HP	11016083
	MR MONO D160/6IN 380CMH/225CFM HP	11016084
	MR MONO D160/6IN 450CMH/265CFM HP	11016085
D200	MR MONO D200/8IN 350CMH/205CFM HP	11016086
	MR MONO D200/8IN 440CMH/260CFM HP	11016087
	MR MONO D200/8IN 530CMH/310CFM HP	11016088
	MR MONO D200/8IN 620CMH/365CFM HP	11016089
	MR MONO D200/8IN 700CMH/410CFM HP	11016090
D250	MR MONO D250/10IN 550CMH/325CFM HP	11016091
	MR MONO D250/10IN 600CMH/355CFM HP	11016092
	MR MONO D250/10IN 800CMH/471CFM HP	11016093
	MR MONO D250/10IN 950CMH/560CFM HP	11016094
	MR MONO D250/10IN 1100CMH/647CFM HP	11016095

Sleeve with inspection door for MR



DESCRIPTION

- Enables the MR to be extracted for maintenance.

RANGE R3

Description	Code
Sleeve with inspection window Ø 100 mm	11013121
Sleeve with inspection window Ø 125 mm	11013122
Sleeve with inspection window Ø 150 mm	11013123
Sleeve with inspection window Ø 160 mm	11013124
Sleeve with inspection window Ø 200 mm	11013125

Constant Airflow Regulators

New

General information



MR MODULO

Advantages

- Maintenance free.
- Tool free adjustment.
- Wide range of air flow.

APPLICATION

- Airflow is controlled at a pre-set value in HVAC circular ductwork.
- Installation of CMEV and air conditioning.
- Air exhaust and supply.
- Operating temperature range: -10°C / +60°C.
- Operating range of standard range: 50-250 Pa.

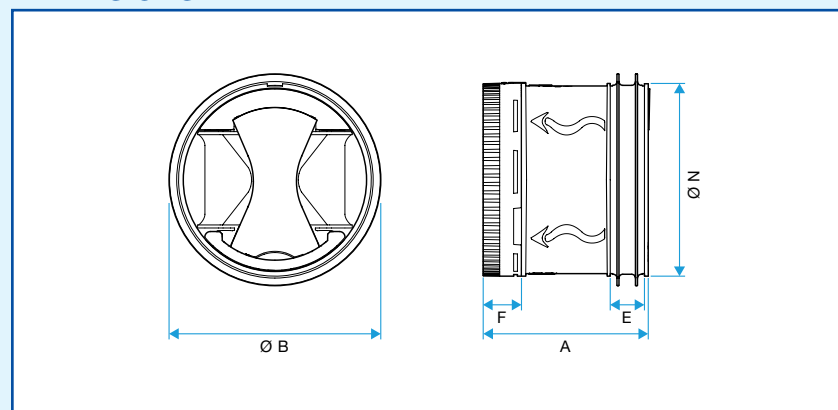
DESCRIPTION

- Plastic body (M1 fire resistance classification) housing the silicone regulating membrane in a calibrated air passage.
- Peripheral seal for air tight connection with duct.
- Outdoor diameter calibrated for standard duct diameters up to 250 mm.
- Airflow tolerances:
 - Q medium = Q nominal +/- 5 m³/hr for MR ≤ 50 m³/hr,
 - Q medium = Q nominal +/- 10% for MR > 50 m³/hr.

INSTALLATION

- Tool free manual adjustment of air flow.
- Inserts directly into a circular duct near a connection or a terminal.
- In air exhaust mode: distance equivalent to 1 diameters between the MR and the terminal.
- In air supply mode: distance equivalent to 3 diameters between the MR and the terminal.
- Direction of assembly indicated on the component.
- Horizontal / vertical.

DIMENSIONS



Ø Duct (mm)	Ø N (mm)	Ø B (mm)	A (mm)	E (mm)	F (mm)	Airflow (m ³ /h)
80	76	85	65	13	15	15 - 65
100	92	105	70	13	13	20 - 90
125	116	133	70	13	17	20 - 90
125	116	133	110	13	17	100 - 180
150	153	166	118	13	19	100 - 240
160	153	166	118	13	19	100 - 240
200	190	210	145	19	23	200 - 400
250	238	258	180	19	23	300 - 650

RANGE ^{R1}

Ø (mm)	Description	Code
80	MR MODULO D80/3IN 15-65CMH/10-37.5CFM	11016307
100	MR MODULO D100/4IN 20-90CMH/12.5-52.5CFM	11016308
125	MR MODULO D125/5IN 20-90CMH/12.5-52.5CFM	11016309
125	MR MODULO D125/5IN 100-180CMH/60-105CFM	11016310
150	MR MODULO D150/6IN 100-240CMH/60-140CFM	11016311
160	MR MODULO D160/6IN 100-240CMH/60-140CFM	11016312
200	MR MODULO D200/8IN 200-400CMH/120-235CFM	11016313
250	MR MODULO D250/10IN 300-650CMH/175-385CFM	11016314

Constant Airflow Regulators

Motorised constant airflow regulator

New



RMA Ø125 mm

Advantages

- Basic airflow ensured by silicone regulating membrane while maximum airflow is achieved by fully open damper via motor.
- Possibility of regulating high airflow by adding MR.

APPLICATION

- Air supply and air exhaust.
- Manages two airflow rates (basic-max.).
- Electric control.
- Operating temperature: 0°C / +50°C.

DESCRIPTION

- Body made entirely of non-flammable (M1) classified plastic.
- Silicone regulating membrane.
- Peak airflow is activated via the thermally-controlled piston.
- Basic airflow rate regulated at 50-200 Pa.
- Connection Ø125 mm.
- Airflow tolerances:
 - Q medium = Q nominal +/- 5 m³/h for MR ≤ 50 m³/h,
 - Q medium = Q nominal +/- 10 % for MR > 50 m³/h.
- High airflow not regulated.
- Possibility of regulating it, by adding an MR.

CAUTION:

- The RMA should not be energized continuously for more than 12 hours.
- They should be plugged into a timer switch.
- RMA 2 pistons: RMA Ø 125 mm that can be continuously supplied for more than 12 hours for the Dee Fly system with bypass.

INSTALLATION

- Inserted directly between two circular ducts.
- Airflow direction indicated on the component.

RANGE Ø 125 R11

Description	Code
RMA Ø 125 - 15 m ³ /h 230 V	11016057
RMA Ø 125 - 20 m ³ /h 230 V	11016474
RMA Ø 125 - 25 m ³ /h 230 V	11016472
RMA Ø 125 - 30 m ³ /h 230 V	11016471
RMA Ø 125 - 45 m ³ /h 230 V	11016475
RMA Ø 125 - 50 m ³ /h 230 V	11016470
RMA Ø 125 - 60 m ³ /h 230 V	11016469
RMA Ø 125 - 75 m ³ /h 230 V	11016468
RMA Ø 125 - 90 m ³ /h 230 V	11016467
RMA Ø 125 - 15m ³ /h 12-24 V	11016058
RMA Ø 125 - 25 m ³ /h 12/24 V	11016492
RMA Ø 125 - 30 m ³ /h 12/24 V	11016491
RMA Ø 125 - 50 m ³ /h 12/24 V	11016490
RMA Ø 125 - 60 m ³ /h 12/24 V	11016489
RMA Ø 125 - 75 m ³ /h 12/24 V	11016488
RMA Ø 125 - 90 m ³ /h 12/24 V	11016487

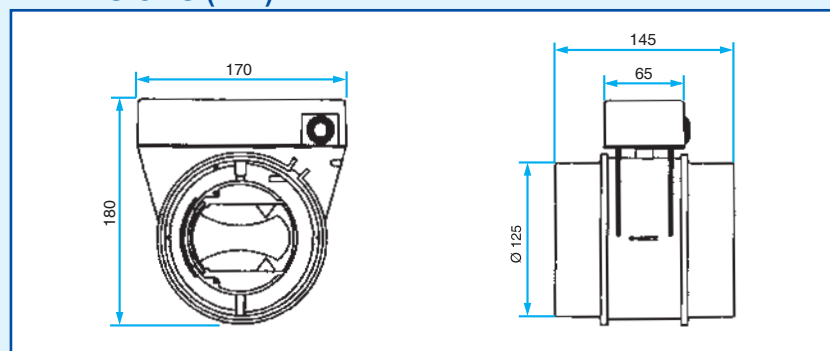
RANGE Ø 125 R11

Description	Code
RMA 125 mm Ø 2 pistons 12-24 V	11016069
RMA 125 mm Ø 2 pistons 230 V	11016070

ACCESSORIES R1

Description	Code
1H timer	11022008
2H timer	11029010

DIMENSIONS (mm)

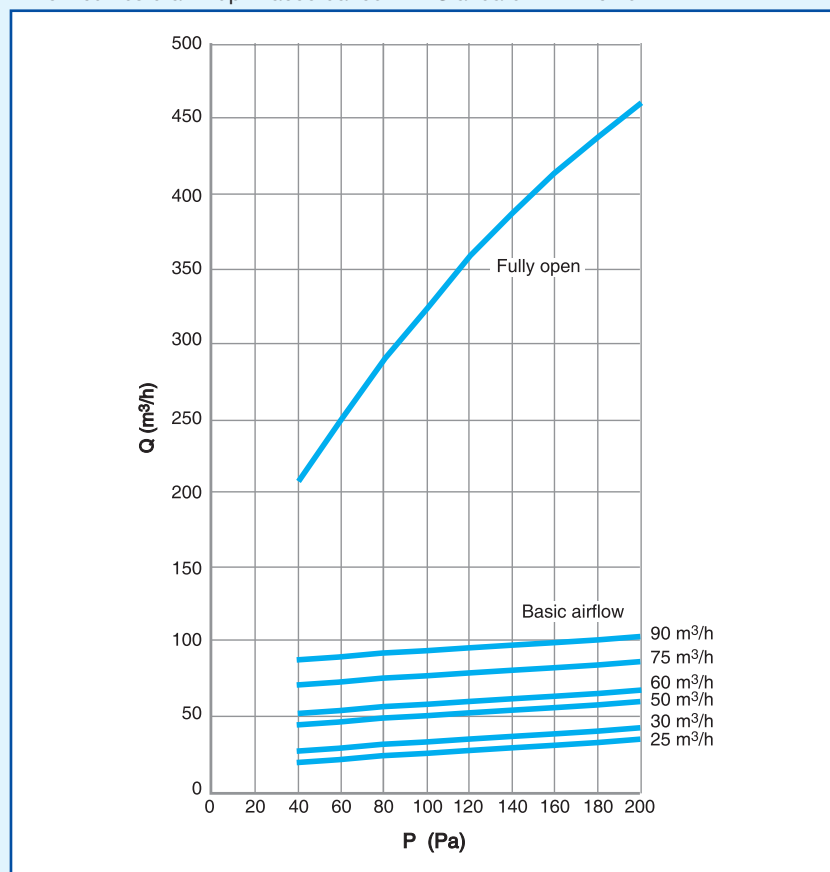


ELECTRICAL DETAILS

Supply voltage	Supply frequency	Power consumption	Protection
230 VAC.	50-60 Hz	6 W	2 A
12 - 24V AC/DC	50-60 Hz	3 W	2 A

AIRFLOW DETAILS

Airflow curves drawn up in accordance with Standard NF-X 10.231.



Constant Airflow Regulators

Motorised constant airflow regulators

New



RMA Ø200 mm

DESCRIPTION

- Range with a choice of options. Option available: Basic airflow:
- 15 - 25 - 30 or 50 m³/h with the airflow regulation sub-assembly Ø 100 mm.
- 60 - 75 - 90 - 100 or 130 m³/h with the airflow regulation sub-assembly Ø 125 mm.
- 160 - 170 - 190 - 210 or 250 m³/h with the airflow regulation sub-assembly Ø 160 mm.
- Airflow tolerances:
- Q medium = Q nominal +/- 5 m³/h for MR ≤ 50 m³/h,
- Q medium = Q nominal +/- 10 % for MR > 50 m³/h.
- High airflow not regulated.
- Possibility of regulating it, by adding an MR.

CAUTION:

- The RMA should not be energized continuously for more than 12 hours.

- They should be plugged into a timer switch.
- RMA Air supply: RMA Ø 200 mm delivered with 2 RCC for duct connection of Ø 160 mm or Ø 125 mm for the Dee Fly collective housing without bypass.
- RMA 2 pistons: RMA Ø200 mm that can be continuously supplied for more than 12 jours, supplied with 2 RCC for duct connection of Ø160 mm or Ø125 mm for the Dee Fly system with bypass.

RANGE R1

Description	Code
RMA Ø 200 - 12-24 V	11016059
RMA Ø 200 - 230 V	11016060
RMA Ø 200 + RCC air supply - 12-24 V	11016063
RMA Ø 200 + RCC air supply - 230 V	11016064
RMA Ø 200 mm + RCC 2 pistons - 12-24 V	11016067
RMA Ø 200 mm + RCC 2 pistons - 230 V	11016068

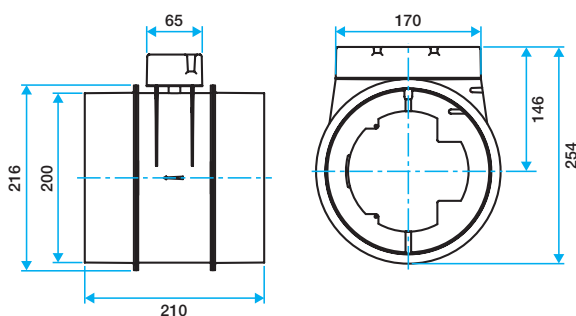
ACCESSORIES R9

Description	Code
1H timer	11022008
2H timer	11029010

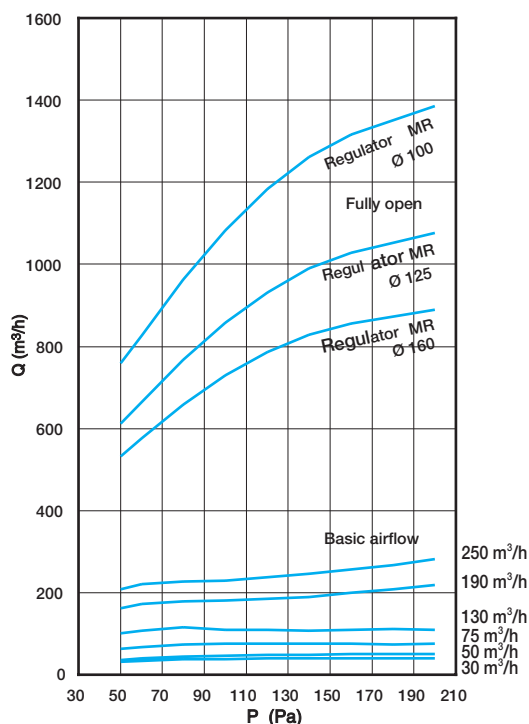
Advantages

- Basic airflow ensured by silicone regulating membrane while maximum airflow is achieved by fully open damper via motor.
- Possibility of regulating high airflow by adding MR.

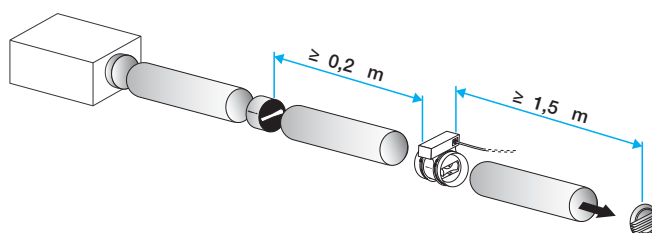
DIMENSIONS (mm)



AIRFLOW DETAILS



INSTALLATION



Volume Control Dampers

Rectangular VCD - aerofoil blades



SU 651 Q



SU 651 M

Advantages

- Manual or motorised control.
- Low pressure loss resulting from aerofoil blades.
- Flanged duct connection.

APPLICATION

- Volume control dampers with manual quadrant are generally installed in branches / ducts to manually adjust the airflow in that particular branch / duct or to isolate any particular area of the building.
- Volume control dampers with motorization are generally installed at the inlet and outlet of the AHU to facilitate the airflow or to protect the AHU or ductwork against any unwanted ingress.

DESCRIPTION

- Motorised VCD or manual VCD that are used to isolate any particular zone / duct of the building are generally air tight. But air tight construction is generally not required for VCD that are only used for balancing the airflow in a branch / duct because blades are always open.

CONSTRUCTION

- Casing: 127mm deep, U-channel casing manufactured from 20ga. galvanised steel with 30mm flange for duct connection.
- Blade: Aerofoil, double skin blades manufactured from 24 ga. galvanised steel (SU 651) and aluminium aerofoil blade with extruded profile of 20 ga. (SU 651A).
- Blade Operation: Opposed blade standard. Parallel blade available upon request.
- Blade spindles: Ø12mm round zinc plated steel joined with blades by bolts & nuts (standard) or welding (optional). 10 x 10mm square spindle available upon request.
- Bush: Nylon bush standard. Brass, Bronze available upon request.
- Linkage: Zinc plated steel external linkage, concealed in frame.
- Control: Manual quadrant (Code Q); Motorization (Code M)

Extra items for air tight VCDs:

- Blade tip seal: Closed celled foam with an acrylic pressure sensitive adhesive coated on one side. Fire retardant silicon rubber tip seal available upon request.
- Side seal: Stainless steel, spring action (Code J).

Dimensions:

- Minimum single section size: 100mm x 100mm
- Maximum single section size: 1000mm x 1000mm (without partition) 2000mm x 1000mm (with partition in width)

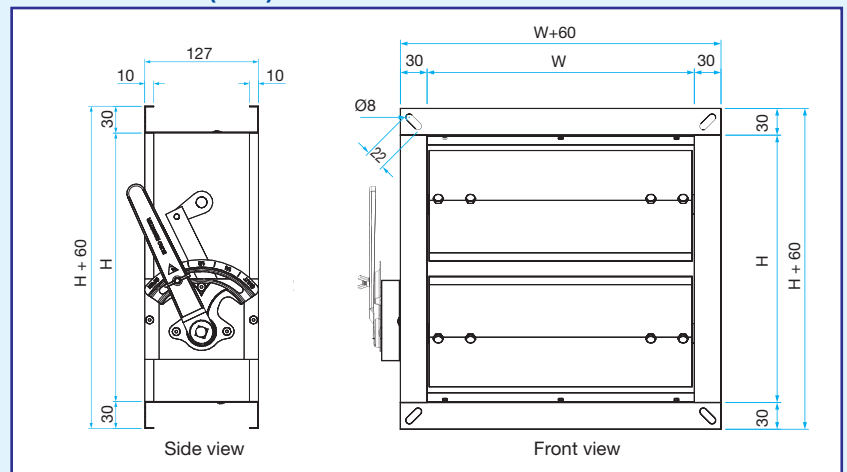
Note: Larger sizes are manufactured in multiple sections for assembly at site.

RANGE

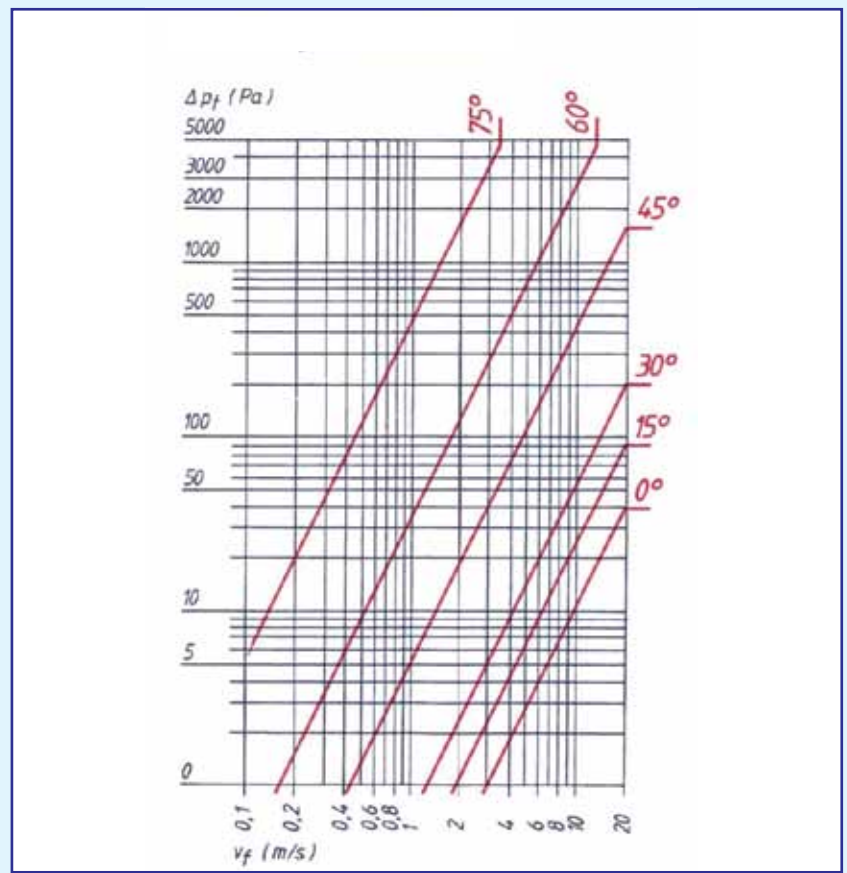
Type	Description	Code
SU 651	Aerofoil blade VCD with casing and blades made of galvanised steel	
SU 651A	Aerofoil blade VCD with casing made of galvanised steel and blades from extruded aluminium	
EU 651	Aerofoil blade VCD with casing and blades made of SS (grade 304)	

Note: For non-standard materials or thickness, please consult us.

DIMENSIONS (mm)



PRESSURE DROP



Volume Control Dampers

Rectangular VCD - aerofoil blades



SP 651 Q



SP 651 M

Advantages

- Manual or motorised control.
- Low pressure loss resulting from aerofoil blades.
- Drive & slip duct connection.

APPLICATION

- Volume control dampers with manual quadrant are generally installed in branches / ducts to manually adjust the airflow in that particular branch / duct or to isolate any particular area of the building.
- Volume control dampers with motorization are generally installed at the inlet and outlet of the AHU to facilitate the airflow or to protect the AHU or ductwork against any unwanted ingress.

DESCRIPTION

- Motorised VCD or manual VCD that are used to isolate any particular zone / duct of the building are generally air tight. But air tight construction is generally not required for VCD that are only used for balancing the airflow in a branch / duct because blades are always open.

CONSTRUCTION

- Casing: 210mm deep casing manufactured from 20ga. galvanised steel suitable for drive & slip type duct connection.
- Blade: Aerofoil, double skin blades manufactured from 24 ga. galvanised steel (SP 651) and aluminium aerofoil blade with extruded profile of 20 ga. (SP 651A).
- Blade Operation: Opposed blade standard. Parallel blade available upon request.
- Blade spindles: Ø12mm round zinc plated steel joined with blades by bolts & nuts (standard) or welding (optional). 10 x 10mm square spindle available upon request.
- Bush: Nylon bush standard. Brass, Bronze available upon request.
- Linkage: Zinc plated steel external linkage, concealed in frame.
- Control: Manual quadrant (Code Q); Motorization (Code M)

Extra items for air tight VCDs:

- Blade tip seal: Closed celled foam with an acrylic pressure sensitive adhesive coated on one side. Fire retardant silicon rubber tip seal available upon request.
- Side seal: Stainless steel, spring action (Code J).

Dimensions:

- Minimum single section size: 100mm x 100mm
- Maximum single section size: 450mm x 450mm

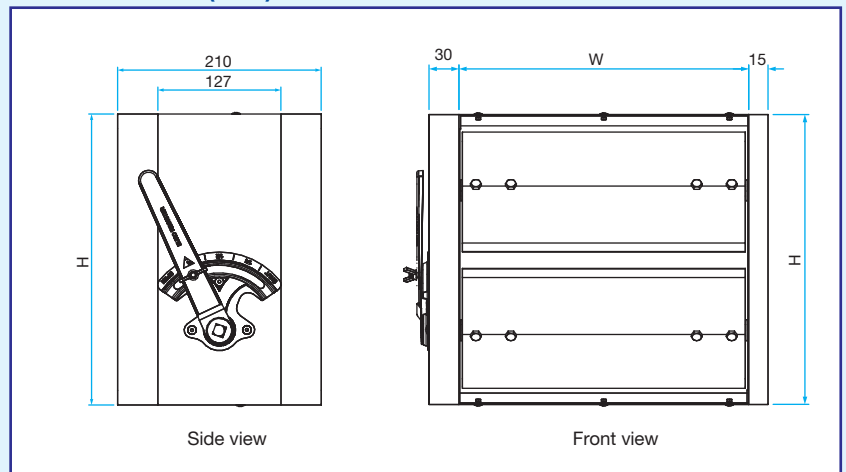
Note: No multiple sections due to limitation of drive & slip type duct connection in standard.

RANGE

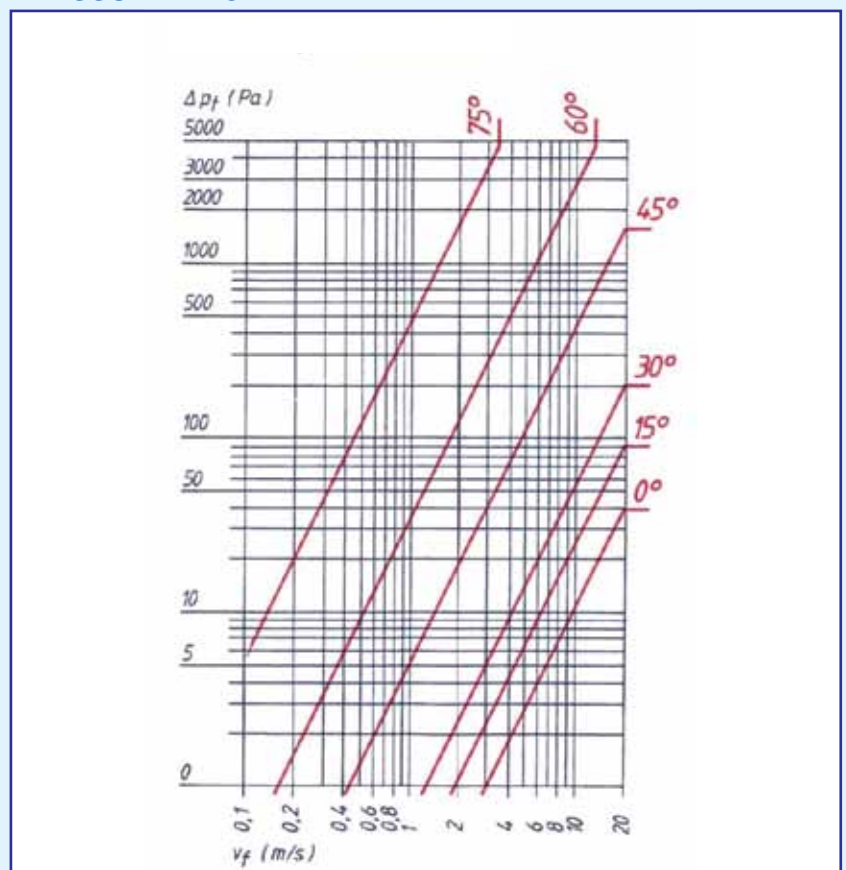
Type	Description	Code
SP 651	Aerofoil blade VCD with casing and blades made of galvanised steel	
SP 651A	Aerofoil blade VCD with casing made of galvanised steel and blades from extruded aluminium	
EP 651	Aerofoil blade VCD with casing and blades made of SS (grade 304)	

Note: For non-standard materials or thickness, please consult us.

DIMENSIONS (mm)



PRESSURE DROP



Volume Control Dampers

Rectangular VCD - single skin blades



SU 650 Q



SU 650 M

Advantages

- Manual or motorised control.
- Flanged duct connection.

APPLICATION

- Volume control dampers with manual quadrant are generally installed in branches / ducts to manually adjust the airflow in that particular branch / duct or to isolate any particular area of the building.
- Volume control dampers with motorization are generally installed at the inlet and outlet of the AHU to facilitate the airflow or to protect the AHU or ductwork against any unwanted ingress.

DESCRIPTION

- Motorised VCD or manual VCD that are used to isolate any particular zone / duct of the building are generally air tight. But air tight construction is generally not required for VCD that are only used for balancing the airflow in a branch / duct because blades are always open.

CONSTRUCTION

- Casing: 127mm deep, U-channel casing manufactured from 20ga. galvanised steel with 30mm flange for duct connection.
- Blade: 3V groove type, single skin blades manufactured from 20 ga. galvanised steel.
- Blade Operation: Opposed blade standard. Parallel blade available upon request.
- Blade spindles: Ø12mm round zinc plated steel joined with blades by bolts & nuts (standard) or welding (optional). 10 x 10mm square spindle available upon request.
- Bush: Nylon bush standard. Brass, Bronze available upon request.
- Linkage: Zinc plated steel external linkage, concealed in frame.
- Control: Manual quadrant (Code Q); Motorization (Code M)

Extra items for air tight VCDs:

- Blade tip seal: Closed celled foam with an acrylic pressure sensitive adhesive coated on one side. Fire retardant silicon rubber tip seal available upon request.
- Side seal: Stainless steel, spring action (Code J).

Dimensions:

- Minimum single section size: 100mm x 100mm
- Maximum single section size: 1000mm x 1000mm (without partition) 2000mm x 1000mm (with partition in width)

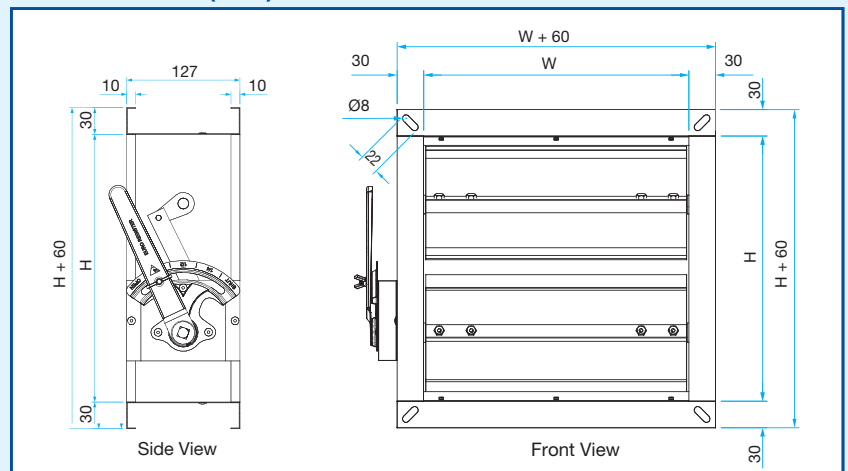
Note: Larger sizes are manufactured in multiple sections for assembly at site.

RANGE

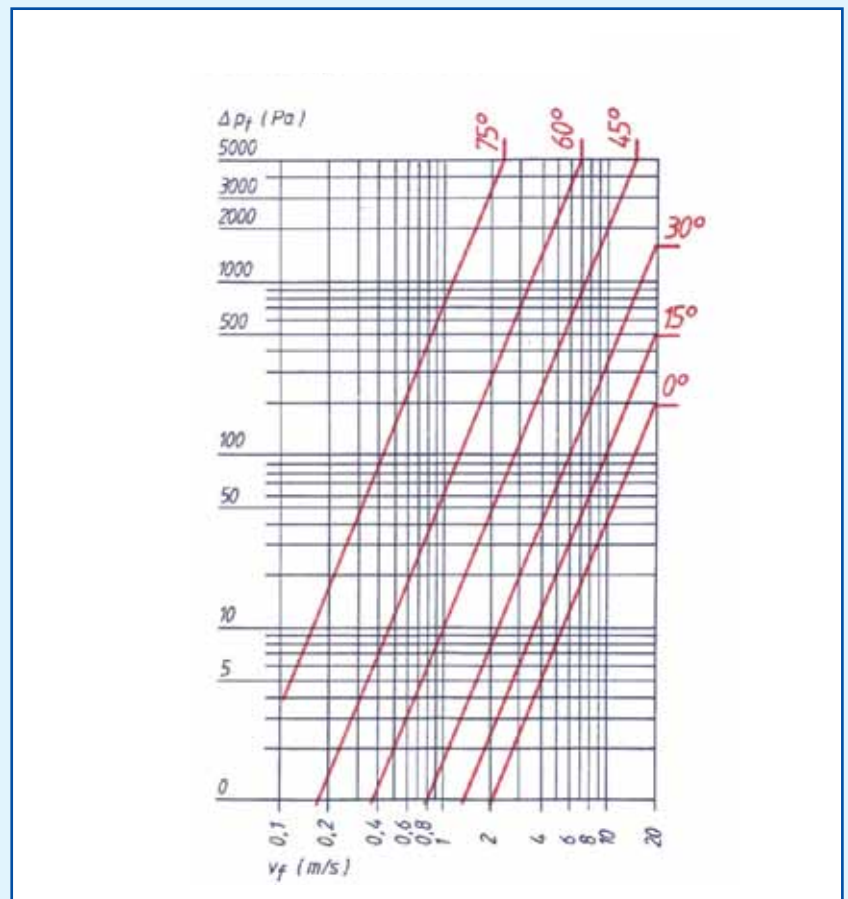
Type	Description	Code
SU 650	Single skin blade VCD with casing and blades made of galvanised steel	
EU 651	Single skin blade VCD with casing and blades made of SS (grade 304)	

Note: For non-standard materials or thickness, please consult us.

DIMENSIONS (mm)



PRESSURE DROP



Volume Control Dampers

Rectangular VCD - single skin blades



SP 650 Q



SP 650 M

Advantages

- Manual or motorised control.
- Drive & slip duct connection.

APPLICATION

- Volume control dampers with manual quadrant are generally installed in branches / ducts to manually adjust the airflow in that particular branch / duct or to isolate any particular area of the building.
- Volume control dampers with motorization are generally installed at the inlet and outlet of the AHU to facilitate the airflow or to protect the AHU or ductwork against any unwanted ingress.

DESCRIPTION

- Motorised VCD or manual VCD that are used to isolate any particular zone / duct of the building are generally air tight. But air tight construction is generally not required for VCD that are only used for balancing the airflow in a branch / duct because blades are always open.

CONSTRUCTION

- Casing: 210mm deep casing manufactured from 20ga. galvanised steel suitable for drive & slip type duct connection.
- Blade: 3V groove type, single skin blades manufactured from 20 ga. galvanised steel.
- Blade Operation: Opposed blade standard. Parallel blade available upon request.
- Blade spindles: Ø12mm round zinc plated steel joined with blades by bolts & nuts (standard) or welding (optional). 10 x 10mm square spindle available upon request.
- Bush: Nylon bush standard. Brass, Bronze available upon request.
- Linkage: Zinc plated steel external linkage, concealed in frame.
- Control: Manual quadrant (Code Q); Motorization (Code M)

Extra items for air tight VCDs:

- Blade tip seal: Closed celled foam with an acrylic pressure sensitive adhesive coated on one side. Fire retardant silicon rubber tip seal available upon request.
- Side seal: Stainless steel, spring action (Code J).

Dimensions:

- Minimum single section size: 100mm x 100mm
- Maximum single section size: 450mm x 450mm

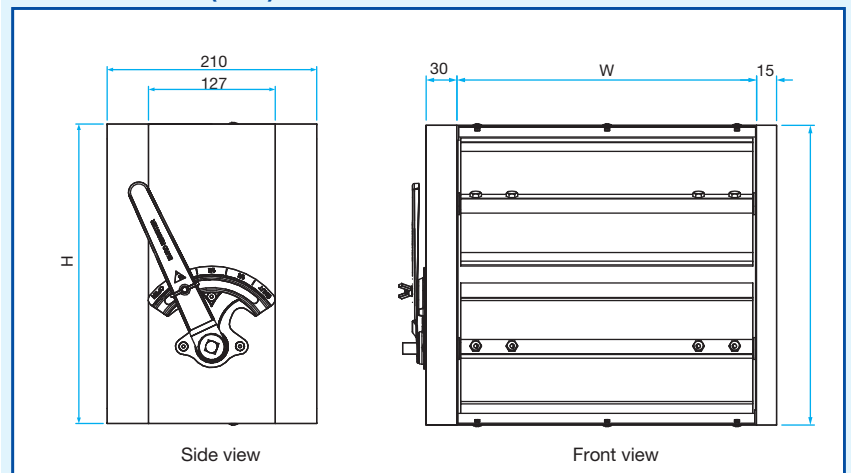
Note: No multiple sections due to limitation of drive & slip type duct connection in standards.

RANGE

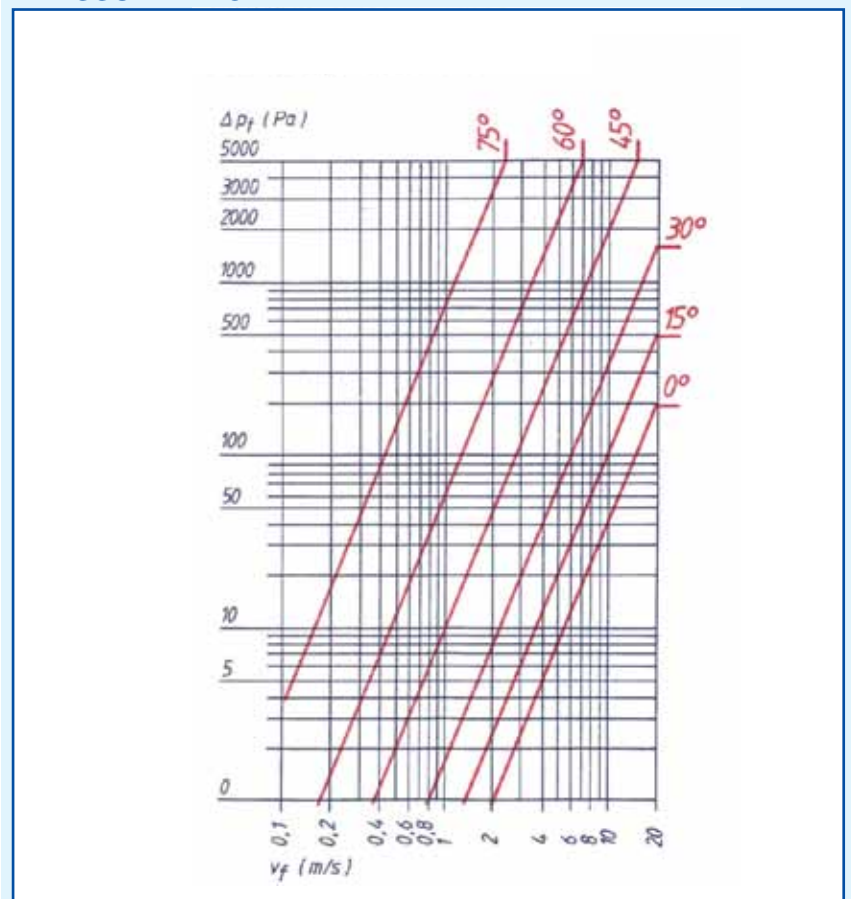
Type	Description	Code
SP 650	Single skin blade VCD with casing and blades made of galvanised steel	
EP 650	Single skin blade VCD with casing and blades made of SS (grade 304)	

Note: For non-standard materials or thickness, please consult us.

DIMENSIONS (mm)



PRESSURE DROP



Volume Control Dampers

Circular VCD



SR 653 Q

Advantages

- Manual or motorised control.

APPLICATION

- Volume control dampers with manual quadrant are generally installed in branches / ducts to manually adjust the airflow in that particular branch / duct or to isolate any particular area of the building.
- Volume control dampers with motorization are generally installed at the inlet and outlet of the AHU to facilitate the airflow or to protect the AHU or ductwork against any unwanted ingress.

DESCRIPTION

- Motorised VCD or manual VCD that are used to isolate any particular zone / duct of the building are generally air tight. But air tight construction is generally not required for VCD that are only used for balancing the airflow in a branch / duct because blades are always open.

CONSTRUCTION

- Casing: Manufactured from 20ga. galvanised steel.
- Criteria for length of casing: L = 170mm (up to Ø150mm); L = 260mm (up to Ø300mm); L = 360mm (up to Ø600mm)
- Blade: Single skin blade with 1V groove manufactured from 20 ga. galvanised steel for normal VCD. Double skin blade with sandwiched gasket manufactured from 24 ga. galvanised steel for air tight VCD.
- Blade spindles: Ø12mm round zinc plated steel joined with blade by bolts & nuts (standard) or welding (optional). 10 x 10mm square spindle available upon request.
- Bush: Nylon bush standard. Brass, Bronze available upon request.
- Control: Manual quadrant (Code Q); Motorization (Code M)

Dimensions:

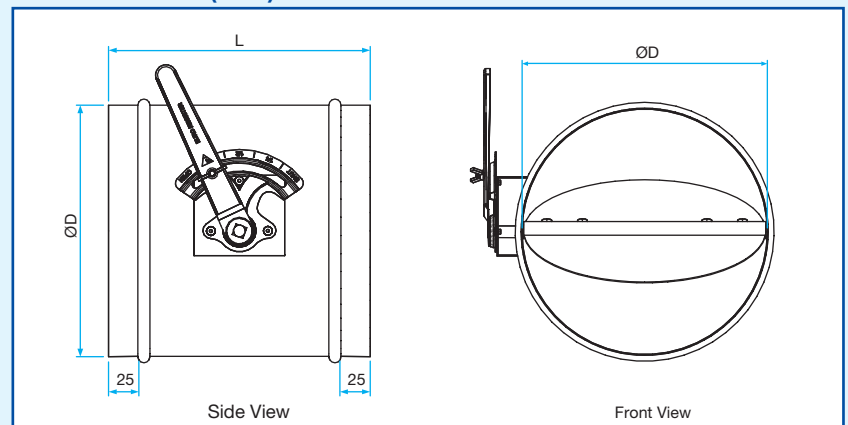
- Minimum single section size: Ø 100mm
- Maximum single section size: Ø 600mm

Note : For larger diameters, please consult us.

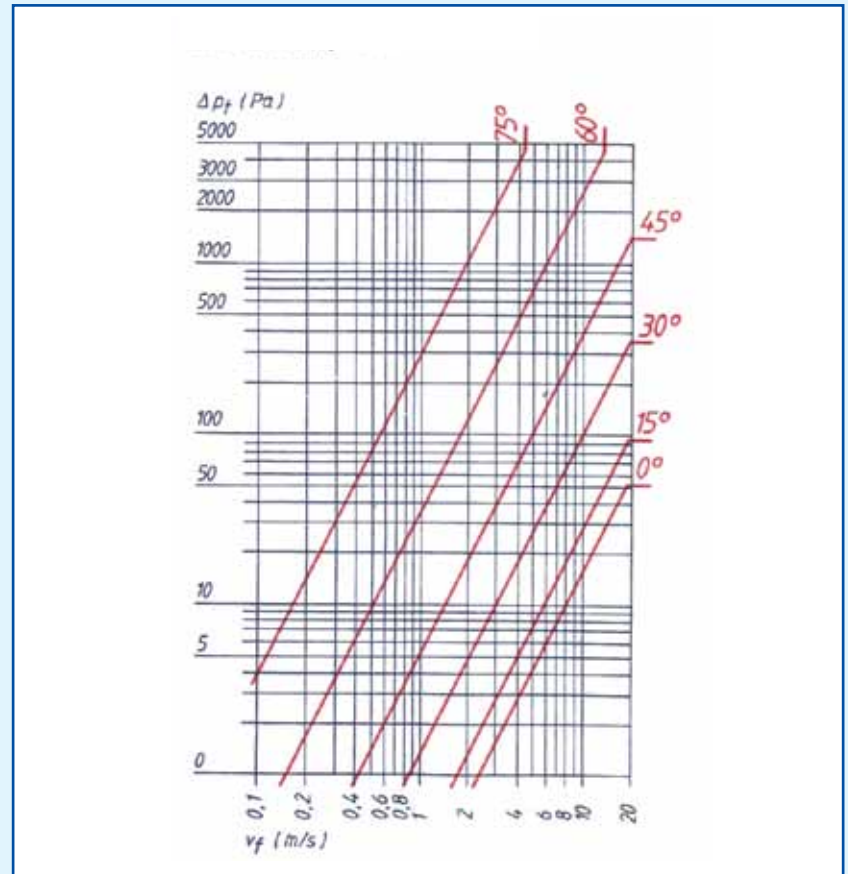
RANGE

Type	Description	Code
SR 653	Circular VCD with casing and blades made of galvanised steel	
SR 653T	Circular VCD with double skin blades - GI construction	
ER 653	Circular VCD with casing and blades made of SS (grade 304)	
ER 653T	Circular VCD with double skin blades - SS (grade 304) construction	

DIMENSIONS (mm)



PRESSURE DROP



Volume Control Dampers

Circular airtight VCD

New



RGE - RGEM

Advantages

- Class 3 airtightness from upstream/downstream as per EN 1751 at 1500Pa.

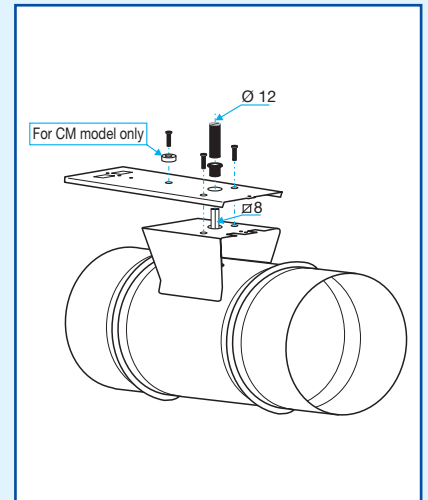
APPLICATION

- Complete partitioning of a circular ductwork branch.
- Class 3 upstream-downstream airtightness in accordance with EN 1751 up to 1500 Pa.
- Manual or motor driven adjustment.
- Operating range: 0°C / +120°C.

DESCRIPTION

- Volume damper with airtight sealing disk.
- RGE: Adjustable handle can be locked by screws. Shafts in zamak (zinc/ aluminium alloy).
- Upper jumper allowing an external insulation without removing the handle.
- Motorization: Adapter plate allowing for a universal assembly of the various motors.
- Motorization: 2N/m for the RGE Ø 125 to 200, 4-5N/m for the RGE Ø 250 to 500.
- Beyond Ø 500 mm, for mechanical strength reasons, provide for a CRGE type volume control damper with connecting plates to the Ø of the ductwork.
- Compatible with Belimo actuators.

FITTING OF THE MOTOR ADAPTER PLATE



- Remove the plastic handle by unscrewing the adjusting screw. Then fix the motor plate using the screws supplied. Fit the plastic adapter component of Ø 12 mm on the square 8mm outgoing shaft. The motor, except for the CM models, is mounted on to the shaft and fixes itself on to the rear part of the plate. In the case of a CM motor, add the spacer to the plate and fix it with the aid of the clip supplied with the motor.

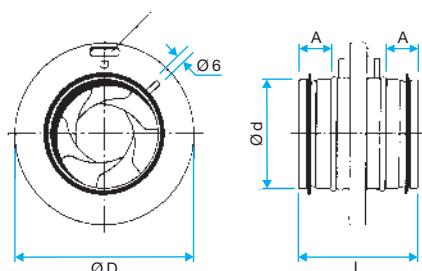
RANGE R10

Ø A	Code
100	11055110
125	11055111
160	11055112
200	11055113
250	11055114
315	11055115
355	11055116
400	11055117
450	11055118
500	11055119
Motor adapter plate kit	11055122

Volume Control Dampers

IRIS dampers

New



Advantages

- Integrated airflow/pressure plugs for measurement.

IRIS

APPLICATION

- Allows fine adjustment of the airflow in a branch of the ductwork.
- Integrated airflow/ pressure plugs (\varnothing 6 mm): measurement devices.
- Operating range: -20°C / $+80^{\circ}\text{C}$.

DESCRIPTION

- Iris damper with highly accurate adjustment of the diaphragm by hexagonal nut.
- Lip seals on the connection sleeves.
- Adjustment tolerance 7% on the airflow rate.

RANGE R10

\varnothing A	Code
100	11055090
125	11055091
160	11055092
200	11055093
250	11055094
315	11055095
400	11055096
500	11055097
630	11055098
800	11055099

Motorised Plastic Damper: RPM

New



Caution

The RPM should not be energized continuously for more than 12 hours. They should be plugged into a timer switch.

APPLICATION

- Isolation of a branch using a motorised damper.
- Operating temperature: 0°C / $+50^{\circ}\text{C}$.

DESCRIPTION

- Body made entirely of non-flammable (M1) classified plastic.
- Damper airflow is activated via the thermally-controlled piston.

INSTALLATION

- Inserted directly between two circular ducts.
- Airflow direction indicated on the RPM.
- Operating pressure $P < 200$ Pa.
- To be connected to a timer switch type 22008 (1h) or 29010 (2h).

RANGE R11

Description	Code
RPM \varnothing 125 - 230V	11093017
RPM \varnothing 125 - 12-24 V	11093018
RPM \varnothing 200 - 230 V	11016061
RPM \varnothing 200 12-24V	11016062
ACCESSORIES	
RCC F/M \varnothing 200/ \varnothing 160	11041935
1H timer	11022008
2H timer	11029010

Volume Control Dampers

Motorisation and accessories



APPLICATION

- Motorisation and adjustment of SU650, SU651 and SR653 dampers.
- Choice of actuators depending on torque, modulated or total open / close functions, safety functions and data feedback.

DESCRIPTION

- Actuators covering torque levels of 2 to 20 Nm.
- Open / close type or modulating type.
- Safety functions: re-arming spring.
- Data feedback: actuators with contacts.
- All the F type actuators have a reversible sprocket wheel in the event that the shaft is too short.
- Actuators type 24: 24 V AC / DC.
- Actuators type 230: 230 V AC.

DETAILS

Damper type	Max. area (m ²)	Type of actuators	Torque (Nm)	Circular shaft Ø (mm)	Square Shaft (mm)
Non-spring return actuators					
SU 650 M SU 651 M SR 653 M	up to 1 m ²	LM 24 A-S & LM 230 A-S LM 24 A-SR & LM 230 A-SR	5	6-20	6-20
	from 1 to 2 m ²	NM 24 A-S & NM 230 A-S NM 24 A-SR & NM 230 A-SR	10	8-20	8-20
Spring return actuators					
SU 650 M SU 651 M SR 653 M	up to 0.4 m ²	TF 24-S & TF 230-S TF 24-SR & TF 230-SR	2	6-12	6-12
	from 0.4 to 0.8 m ²	LF 24-S & LF 230-S LF 24-SR & LF 230-SR	4	8-16	8-16
	from 0.8 to 3 m ²	AF 24-S & AF 230-S AF 24-SR & AF 230-SR	15	10-20	10-16

ACCESSORIES

Description	Code
Contacts (for LM and NM models only)	
S1 A	
S2 A	

NON-SPRING RETURN ACTUATORS

Description	Code
Open / close type	
LM 230 A - S	
LM 24 A - S	
NM 230 A - S	
NM 24 A - S	
Modulating type	
LM 230A - SR	
LM 24A - SR	
NM 230A - SR	
NM 24A - SR	

SPRING RETURN ACTUATORS

Description	Code
Open / close type	
TF 230 - S	
TF 24 - S	
LF 230 - S	
LF 24 - S	
AF 230 - S	
AF 24 - S	
Modulating type	
TF 230 - SR	
TF 24 - SR	
LF 230 - SR	
LF 24 SR	
AF 230 - SR	
AF 24 SR	

Non Return Dampers/Pressure Relief Dampers

Non return / pressure relief dampers



SG 661
Non return damper
(duct mounted)



SG 663
Non return damper
(wall mounted)



SG 662
Pressure relief damper
(wall mounted)

Advantages

- NRD prevents reverse airflow.
- PRD releases excess pressure inside pressure controlled rooms.

DESCRIPTION

- Non return dampers are designed for use in intake and discharge opening in commercial and residential air conditioning systems.
- When the ventilation system is on, the blades of the non-return damper are held in the open position by the airflow.
- If the system is switched off, the damper blades close automatically, thus preventing reverse airflow and giving protection against the ingress of untempered air, rain and birds into the air conditioning system.

CONSTRUCTION

SG 661

- Duct mounted, non return damper.
- Frame & blades made from 20 ga. galvanized steel.
- Round spindles \varnothing 12 mm linked together by means of external linkages.
- Gasket provided on blade tips for low leakage.

AG 661

- Same as SG 661 but frame and blades manufactured from mill finish aluminium.

EG 661

- Same as SG 661 but frame and blades manufactured from SS (grade 304).

SG 663

- Wall mounted, non return damper.
- Frame and blades manufactured from 20 ga. galvanized steel. Other gauges available upon request. Blades are fixed on \varnothing 12 mm round spindle and are linked together by external linkages.

AG 663

- Same as SG 663 but frame and blades manufactured from mill finish aluminium.

EG 663

- Same as SG 663 but frame and blades manufactured from SS (grade 304).

SG 662

- Wall mounted, pressure relief damper.
- Casing manufactured from 18 ga.
- Blades manufactured from 20 ga. galvanized steel sheet.

AG 662

- Same as SG 662 but frame and blades manufactured from mill finish aluminium.

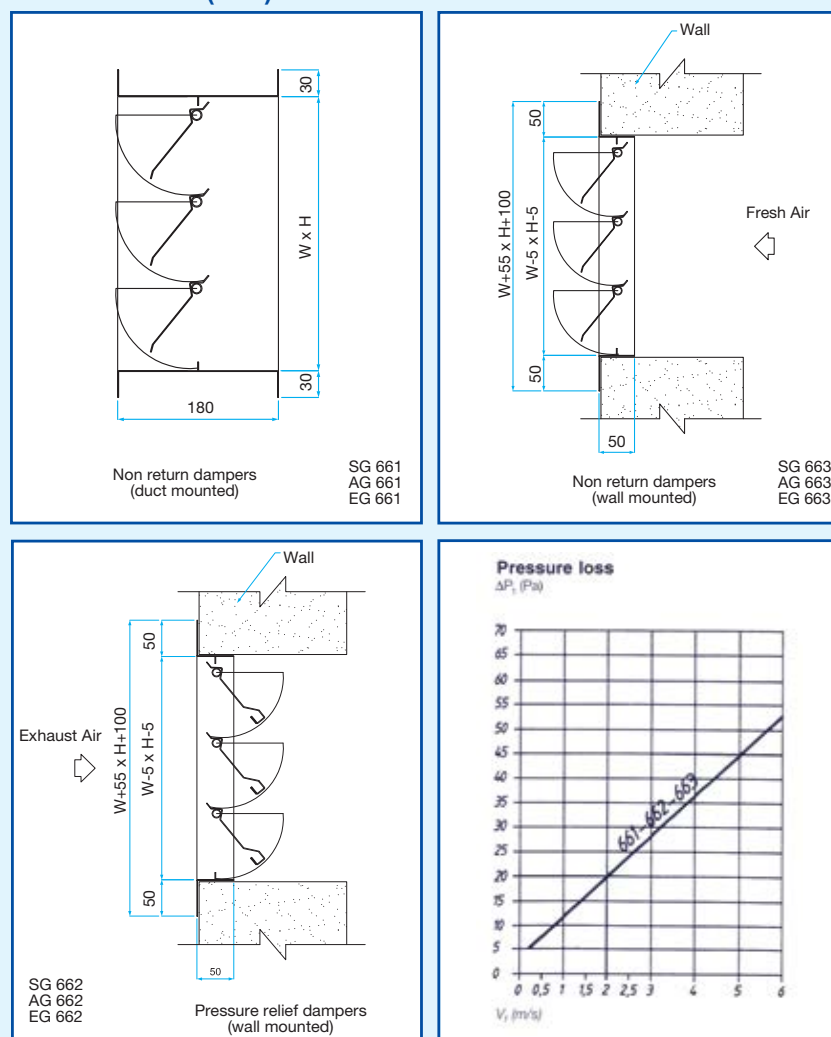
EG 662

- Same as SG 662 but frame and blades manufactured from SS (grade 304).

AVAILABLE OPTIONS

- Actuator, code M.
- Brass / Nylon bushes, code B1/B2.
- Counter weight, code K.
- Natural anodized aluminium, code A.
- Power coated to RAL colour, code Z.

DIMENSIONS (mm) - PRESSURE DROP



RANGE

Type	Description	Code
SG 661	Duct mounted NRD, casing and blades made from GI	
AG 661	Duct mounted NRD, casing and blades made from aluminium	
EG 661	Duct mounted NRD, casing and blades made from SS (grade 304)	
SG 663	Wall mounted NRD, casing and blades made from GI	
AG 663	Wall mounted NRD, casing and blades made from aluminium	
EG 663	Wall mounted NRD, casing and blades made from SS (grade 304)	
SG 662	Wall mounted PRD, casing and blades made from GI	
AG 662	Wall mounted PRD, casing and blades made from aluminium	
EG 662	Wall mounted PRD, casing and blades made from SS (grade 304)	

Measurement devices

High precision electronic micro-manometer



Advantages

- Ideal for expert reports and precision adjustments.
- Very easy to use for on-site measurements and adjustments.

APPLICATION

- Precise pressure measurements for HVAC ventilation and air conditioning installations.

DESCRIPTION

- Digital display of the pressure level in Pa.
- Precision: 1 Pa on a measurement range of 0-1000 Pa. COFRAC French Certificate of calibration attached.
- Can be used to measure negative pressure, over-pressure or pressure difference.
- Auto-zero, manual, hold, min./max. values, auto-stop functions.

RANGE R10

Description	Code
High precision electronic micro-manometer + carrying case	11090027
Supplied in a carrying case, ready to use with a 9V battery and two pressure sensor tubes.	

Electronic manometer



Advantages

- Ideal for measurements connected with the annual verifications of CMEV/CMEV gas.
- Practical and easy to use.

APPLICATION

- Pressure measurements for HVAC ventilation and air conditioning installations.

DESCRIPTION

- Digital display of the pressure level in Pa.
- Precision: 5 Pa on a measurement range of 0-1,000 Pa.
- Auto-zero, manual, hold, min./max. values, auto-stop functions.
- Delivered with a pitot tube, 2 x 1m of tube, stainless steel tip and travel bag.

RANGE R10

Description	Code
Electronic manometer	11090007
Supplied ready to use with a 9V battery and two pressure sensor tubes.	

Fixed position liquid column manometer.



APPLICATION

- Continuous measurement and control of pressure on the fixed part (ductwork accessory, filter, fan).
- To be installed sheltered from bad weather.

DESCRIPTION

- Pressure readings in mm WG.
- Range: 0 to 40 mm WG.
- Can be used to measure negative pressure, over-pressure or pressure difference.

RANGE R10

Description	Code
0-40 mm WG liquid column manometer	11090033
Supplied with 2 m of tube, 2 quick connections, bottle of coloured liquid.	

Permeascope

Leakage tester for buildings



Permeascope

APPLICATION

- Individual and collective housing
- New and renovation.

DESCRIPTION

Permeascope:

- Fan + frequency converter.
- Temperature and pressure sensor.
- Data acquisition card and PC connections.
- Software - I4 master.
- Automatic control of the measurement.
- Production of test report.

INSTALLATION

Preparing the building:

- Calculation of the surface areas on cold walls.
- Blocking off openings on the exterior (CMEV system grilles and air inlets, open spots, water traps etc.).
- Opening doors inside the building.

Installation of the permeascope:

- Connection of air exhaust outdoors.
- Pressure trap outdoors.
- 230 V mains power supply.
- Connection to a laptop PC by USB port.

RANGE **R1**

Description	Code
Permeascope	11023249

ACCESSORIES SUPPLIED

- PVC Algaine Ø160 mm: 2.5 metres.
- Honeycomb aluminium duct Ø160 mm: approx. 1 m.
- Silicone hose for outdoor pressure readings: 15 m.
- Diaphragm adjustment key.
- Accessories carrying case containing:
 - 3 plugs Ø 125 mm,
 - 1 roll of cotton fabric adhesive tape,
 - 1 roll of aluminium adhesive tape,
 - 1 mains plug,
 - 1 CD-ROM disk for installation + instructions,
 - 1 USB cable.

Advantages

- Compact and easy to transport device.
- Simple to use with the software supplied.
- Start up and measurements in 1 hour.

WHY THE PERMEASCOPE?

A building enclosure that is too permeable to air has negative impacts on the quality of the building:

- excessive energy losses,
- deteriorated air quality and comfort for the occupants,
- risks of the appearance of condensation.

The development of building techniques passes via the control of a minimum performance for permeability of air in housing, A Standards project proposes recommendations for on-site verifications. The permeascope is a new measuring instrument which, by facilitating measurements in comparison with existing techniques, should lead to the democratization of this test.

TECHNICAL DETAILS

Permeascope

- Length x Width x Height: 750 mm x 530 mm x 460 mm.
- Weight: 20 kg.
- Supply: 230 V - 50 Hz.
- Max. current: 4 A.

Software - I4 master

- Minimum configuration: 64 Mb RAM.
- Windows 95, 98, NT, 2000, XP.
- Minimum display: 800 x 600.
- USB port available.


Project Reference List


Below are some of our prestigious project references.

S. No.	Project	Consultant/Client	Contractor	Location
1	ADCB Head Quarter	APG	ETA	Abu Dhabi
2	ADNOC Head Quarter	Atkins	ETA	Abu Dhabi
3	Ajman University	Adnan Saffarini	ETTS	Abu Dhabi
4	Bab & Buhasa Substation	Lahmeyer	York's A/C	Abu Dhabi
5	Emirates Pearl	Arkan	Voltag Limited	Abu Dhabi
6	Etihad Airways Complex	ACG	Verger	Abu Dhabi
7	Habshan 5 - Industrial Facilities	AECOM	Gulf Star Cooling	Abu Dhabi
8	Qasr Al Sarab	Halcrow Yolles	ALEC	Abu Dhabi
9	Sheikh Khalifa Medical Centre	Ministry of health	Al Sabah Company	Abu Dhabi
6	Bahrain International Circuit	Tilke	Almoayed-Bhn	Bahrain
11	Isa Sport City	Gemac	Almoayyed	Bahrain
12	Sheikh Isa Library	EMDEG	Al Komed	Bahrain
13	Sofitel Zallaq Resort	Halcron	Awal Products/Awdco	Bahrain
14	Al Jalila Children Speciality Hospital	Adnan Saffarini	Sensaire	Dubai
15	Al Mas Tower	W. S. Atkins	ETA	Dubai
16	American School	RMJM	Drake & Scull	Dubai
17	Aviation Club Hotel	COWI / Larsen	Sensaire	Dubai
18	College of Media & Communication	Louis Berger	BK Gulf	Qatar
19	Emirates Sports Centre	Spec/Emirates Airlines	Bilt ME	Dubai
20	Harvard Medical School	Arif & Bintoak	Transgulf	Dubai
21	Latifa Tower	Arkiplan	ETA	Dubai
22	Madina Jumeirah Resort III	RPW	Transgulf	Dubai
23	Mall of the Emirates	WSP watson	Khansaheb/Voltas	Dubai
24	Masdar Institute of Science & Technology	WSP	Thermo	Dubai
25	Police Station	Arenco	Mechwatt	Dubai
26	Renaissance Hotel at Motor City	Burt Hill	Thermo	Dubai
27	Zulekha Hospital	Electrowatt	Jamaheer	Dubai
28	Fujairah Beach Resort	Archon	Bilt ME	Fujairah
29	Jebel Al Akdar Resort	Atkins	Drake & Scull	Oman
31	Ministry of Defense	MOD	Airmech	Oman
31	Ministry of Higher Education	Gulf Engineering Consultancy	Al Adrak	Oman
32	Nizwa Appeal Court	RCA	Drake & Scull	Oman
33	Palm Garden @ Sohar	Kadri Consultant	Larsen & Toubro	Oman
34	Qasr Al Alam	RCA	IRACO	Oman
35	Sohar Court Complex	National Engineering Office	Drake & Scull	Oman
36	Al Ghanem Appartment	KEO	RAMCO	Qatar
37	Business Park & Hotel Facilities	AEB	QEMG	Qatar
38	Khalifa stadium	Qatari Engg	Midmac	Qatar
39	New Doha International Airport - Duty Free Warehouse	GDH / MACE / Kling Consult	Mercury Engineering	Qatar
40	Pearl Qatar Parcel 1C, 2A, 7A	KEO	Arabian AC	Qatar
41	Qatar Foundation Central Library	ASTAD / QP	Mercury Engineering	Qatar
42	Regent Hotel	KEO	Samko	Qatar
43	Sidra Medical Research Centre	KEO	Voltag Limited	Qatar
44	Texas A & M College	QP/KEO	Midmac	Qatar
45	UB 400	Kahrama	Butec	Qatar
46	Woqod Tower	Romatre	Diplomat	Qatar
47	Sheikh Khalifa Specialist Hospital	Bayaty Architect	ETA	RAK
48	Al Mana General Hospital	Al Mana	Al Mana	Saudi Arabia
49	Bay La Sun Water Front Mall & Hotel	V3 International	Specialized Contracting Co.	Saudi Arabia
50	King Saud University (ENDOWMENT)	Saudi Diyar Consultant	Al Sharqawi Electromech. Co.	Saudi Arabia
51	Udhailiyah Laboratory Renovation	Saudi ARAMCO	Saudi Aircon	Saudi Arabia
52	Al Qassimi Hospital	UPA by MOPW	Ali Moosa & Sons	Sharjah
53	American University	AECOM	AMBB	Sharjah
54	Palm Tower	Consultair	ETA	Sharjah
55	Petrofac Tower	Consultair/Al Turath/Arenco	ETA	Sharjah
56	Sharjah Expo Centre	WSP	AMBB	Sharjah
57	UAE Model School - Khorfakan	MOPW	GIBCA	Sharjah

Notes

Selection Guide

Category	Model	Description	Sound attenuation		Pressure loss	AHU
			Low frequency	High frequency		
Sound Attenuators	Rectangular sound attenuators  Green Product	→ SA20 • Highly effective at medium & high frequencies • SA or SAL type baffles • Available with air gaps from 75 mm - 200 mm • Easy installation	✓✓	✓✓✓	✓	✓✓
	Circular sound attenuators 	→ SAR100 • Passive circular sound attenuator • Acoustic infill 100 mm thick • Available in spigot or flange connection • Circular sound attenuator with pod (SARP 100) available upon request	✓	✓✓	✓✓	✓✓✓
	Cross talk sound attenuators 	→ SCS • Designed for inline duct mounting in system where rooms are served by branches of common duct • Reduce noise transfer in adjacent rooms	✓	✓	✓	✓✓

Category	Model	Description	Sound attenuation	Comfort	Ventilation	AHU
Louvres	Acoustic louvres 	→ SU 631 / SU 632 • Air intake or air exhaust • Acoustic infill for reduced noise • SU 632: combination of two back-to-back SU 631 acoustic louvres	✓	✓✓	✓✓	✓

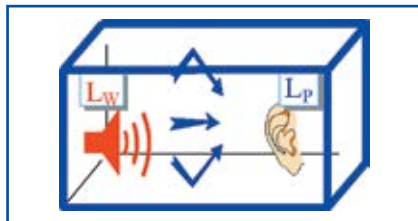
General Information

DEFINITIONS

The following terms are commonly used in the field of acoustic and understanding of their practical (rather than academic) meaning and import might be of use to the ventilation engineer. (as a high tone) or slowly (a low tone) or somewhere in the middle, and we hear these pressure changes as sound.

1. Attenuation

The reduction of sound level per unit distance by divergence, diffusion, absorption or scattering.



Pressure (Lp) - Power (Lw)

2. Sound power level (LW)

A level which depends only on the source and is independent of the environment or location. The sound power level of a fan is therefore very useful information since any level quoted can be compared directly with data from any other manufacturer.

3. Sound pressure level (LP)

A measured sound level which is an indication only of the noise produced at source since environmental factors such as reverberation and distance from the source shall affect the measurement. The sound pressure level of a fan is not very useful since environmental factors apparent when the unit was measured may or may not be present in the actual location of the plant.

4. Decibel (DB)

Commonly, the unit used to measure sound. It is a logarithmic ratio of two sound pressures or sound powers where one is a reference level. Care must be exercised when mathematically manipulating decibels.

5. A-weighting

The A-weighting is a collection of coefficients to be added to the acoustic pressure levels or acoustic power levels for each octave band. The overall acoustic pressure level is therefore closer to sensorial perception by the human ear.

6. Criteria

Noise levels which are subjectively or objectively acceptable in a given environment. The most commonly used criteria are Noise Criteria Curves (NC Levels), Noise Rating Curves (NR Levels) and dB (A).

7. Ductborne noise

Noise which is transmitted along ductwork, both upstream and downstream of a fan.

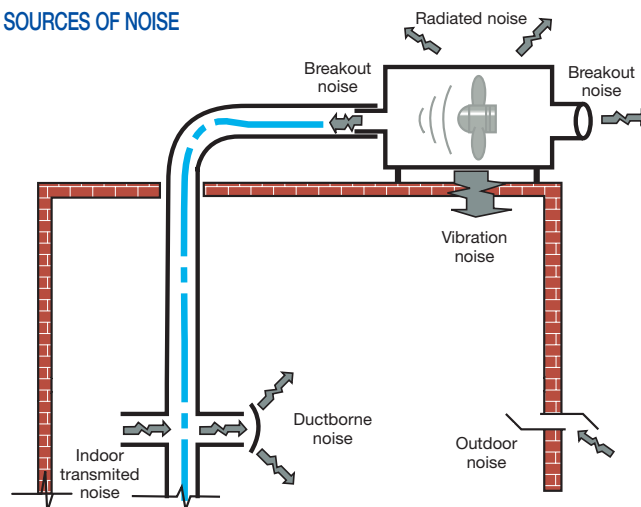
8. Flanking noise (breakout)

Noise transmitted through a barrier, often a fan casing or ductwork. Any indirect noise path which tends to devalue noise control measures used to reduce the transmission along the more obvious paths.

9. Noise outlet

Usually a grille or a diffuser. Any opening acting as a terminal element on either an extract or supply system.

SOURCES OF NOISE



10. Direct sound power level

Noise, which is transmitted directly from a source (i.e. a grille or diffuser) without reflection.

11. Reverberant sound power level

Noise, which is transmitted by reflection from room surfaces.

12. Reverberation time

A measurement of a room acoustic "reflectiveness".

13. Background noise

It is the constant noise level measured in the absence of any building occupants when all of known sound sources have been turned off.

14. Insertion loss

A measure of the noise reduction capability of an attenuator (sometimes of a partition) so named after the method of testing where a section of ductwork is replaced by an attenuator between two test rooms. One room contains the noise source and the other sound level measuring equipment. The difference in recorded noise level is said to be the insertion loss due to the insertion of the attenuator in the system.

15. Regenerated noise

Noise in addition to that produced by the fan, caused by air passing over fixed duct elements such as blades on grilles, dampers, air turns, splitters in attenuators, etc. Not normally a problem on low velocity systems and is not dealt with in this booklet.

16. Frequency (Hz.)

The pitch of sound. The number of sound pressure waves arriving at a fixed point per second.

17. Octave bands

Subdivisions of the frequency range each identified by its mid (or centre) frequency. By international agreements these comprise 63, 125, 250, 500, 1k, 2k, 4k and 8k Hz, and sometimes 31.5 Hz.

Acoustic Design

Definition & basic principles

NOISE CONTROL PRINCIPLES

There are three distinct stages to the noise control process:

1. Source
2. Transmission
3. Reception

Noise control problem involves examining the noise sources (fan noise, duct noise, diffuser noise and building noise), the sound transmission paths and the receivers.

For most HVAC system, the sound sources are associated with the building mechanical and electrical equipment. Noise travels from the source to the receiver through many possible sound transmission paths, (structure-borne path through floor, airborne path through supply air system, duct breakout from supply air duct, airborne path through return air system, and airborne path through mechanical equipment room wall). Sound sources are the components that either generate noise, like electric motors, or produce noise when air passes by them, like dampers or diffusers. Sound receivers are generally the occupant of the building. The noise control engineers are most often constrained to modify the sound transmission paths as a means of achieving the desired sound levels in occupied areas of a building.

HOW TO CONTROL THE NOISE

Efforts to control noise and vibration in a wide range of mechanisms and devices inevitably require the use of passive acoustical materials. To achieve the greatest performance per dollar requires not only the correct choice of materials, but also an understanding of how they work, and of how and where to install them. All passive noise control systems use at least one of the following material types:

- **Barrier...** Enclosures, weighted materials
- **Walls Absorption materials...** Acoustical foams, fibrous batts or blankets acoustical tiles.
- **Vibration isolators...** Equipment mounts plastic or rubber-based bushing and grommets, steel spring equipment supports...
- **Damping materials...** Plastic sheets, mastic solutions, adhesive films.

To carry out an accurate acoustic assessment of a ductwork run for the selection of a silencer, the following information will be required:

1. Ductwork losses

This is assessed from ductwork layout drawing provided by the design team. However site co-ordination can often result in some ductwork runs being altered. Ductwork losses should always be checked with the mechanical contractor prior to final schedule selection of the silencers.

2. Grille size and location

Required to assess end reflection. 'The End Reflection - the energy loss and subsequent attenuation of sound change in cross section from one area to another and directivity' without the need for detailed drawing, air volumes and approximate pressure and fan type.

3. Number of noise sources in a room

For instance one extract and one supply grille would be two noise sources. This would add 10 (Log2) to the overall sound pressure, i.e. 3dB. Hence if one calculated NR30 independently for each noise source, without taking into account the two noise sources within the calculation, the overall result could be NR30 + 3dB, an excess. The greater the number of noise sources, the worse the potential problem.

4. Sound power to room

Sound is measured in decibels, a logarithmic scale, and this changes in proportion to the amount of air entering a room from the total being handled by the fan.

5. Room size (volume)

In reality, it is really the room volume that one requires. However, most room tend to be a standard Length x Width x Height, hence 'Room Size'.

6. Reverberation time (RT)

The reverberation time can dramatically change overall sound pressure measured in a room from the same sound source. The lower the reverberation time the lower the contribution to the overall sound level, and vice versa with a higher RT.

However, as it is affected by the amount of total absorption in a room (the great number of soft furnishings, i.e. chairs, curtains, carpets etc., the greater the absorption and the lower the reverberation time and hence overall sound level in the room, from a given noise source), it is often difficult to assess at design stage. Opposite is a basic guide for different applications where the RT is unknown.

7. Sound power to outlet

This is effectively the outlet for the sound power, which in the case of an induct silencer is often an air inlet or outlet grill, diffuser, stub duct or other termination, such as an atmospheric louvre.

8. Distance to listener

The distance from the sound source (for instance the grille) to the receiver (the human ear). Generally for a ceiling mounted grille with a standard room height of 2.8m - this is usually calculated as 1.0m (average human height is 1.8m). In the case of an atmospheric calculation this will change from site to site and will be dependent upon the proximity of other noise sensitive areas on the site, i.e. office or bedroom windows and / or the site legal boundary, i.e. industrial location or close to residential properties.

The above is a basic guide only with regards to the minimum of information required to a carryout an induct silencer selection.

Please, note this system is a guide only and not a substitute for accurate calculations.

Design Guidelines

Recommended design criteria for various area functions

Situation	NC
Section 1 - Studios and Auditoria	
Sound Broadcasting (drama)	15
Sound Broadcasting (general), TV (general), Recording Studio	20
TV (audience studio)	25
Concert Hall, Theatre	20 - 25
Lecture Theatre, Cinema	25 - 30
Section 2 - Hospital	
Audiometric Room	20 - 25
Operating Theatre, Single Bed Ward	30 - 35
Multi-bed Ward, Waiting Room	35
Corridor, Laboratory	35 - 40
Wash Room, Toilet, Kitchen	35 - 45
Staff Room, Recreation Room	30 - 40
Section 3 - Hotels	
Individual Room, Suite	20 - 30
Ballroom, Banquet Room	30 - 35
Corridor, Lobby	35 - 40
Kitchen, Laundry	40 - 45
Section - 4 Restaurants, Shops and Stores	
Restaurant, Department Store (Upper floor)	35 - 40
Club, Public House, Cafeteria, Canteen, Retail Store (main floor)	40 - 45
Section 5 - Offices	
Boardroom, Large Conference Room	25 - 30
Small Conference Room, Executive Office, Reception Room	30 - 35
Open Plan Office	35
Drawing Office, Computer Suite	35 - 45
Section 6- Public Building	
Court Room	25 - 30
Assembly Hall	25 - 35
Library, Bank, Museum	30 - 35
Wash Room, Toilet	35 - 45
Swimming Pool, Sports Arena	40 - 50
Garage, Car Park	55
Section 7 - Ecclesiastical and Academic Building	
Church, Mosque	25 - 30
Classroom, Lecture Theatre	25 - 35
Laboratory, Workshop	35 - 40
Corridor, Gymnasium	35 - 45
Section 8 - Industrial	
Warehouse, Garage	45 - 50
Workshop (light engineering)	45 - 55
Workshop (heavy engineering)	50 - 65
Section 9 - Private Dwelling (Urban)	
Bedroom	25
Living Room	30

Rectangular Sound Attenuators

Rectangular sound attenuators



SA 20
SA type baffle



SA 20
SAL type baffle

Green Product

Advantages

- Efficient at medium and high frequencies.
- Easy installation.

APPLICATION

- Attenuation of fan / AHU noises propagated through air ducting.
- Highly effective at medium and high frequencies.
- Air exhaust and air supply.

DESCRIPTION

- Sound attenuators and sound baffles are heavy duty type, galvanized mild steel construction for air conditioning and industrial applications.

CONSTRUCTION

- Casing and baffles manufactured from galvanized sheets metal of 20 ga. thicknesses are formed with lock formed seams. The construction complies with DW 144 code, slide on flanges are fitted as standard.
- The baffle contains acoustic infill which complies with Class O building regulation. The infill cloth has a black glass tissue facing and is contained behind perforated sheet of 0.7 mm thickness on both sides.

D = Width of baffles (200 mm)

S = Air gap (75 to 200 mm)

S+D = 1 module

- Minimum size: W = 275 mm; H = 300 mm; L = 600 mm.
- Maximum size: W=2100 mm; H=1800 mm; L=2400 mm.

NOTE: bigger sizes available upon request and will be supplied in sections.

INSTALLATION

- Install directly on a duct section.
- Horizontal / vertical Installation.
- Indoor / outdoor.

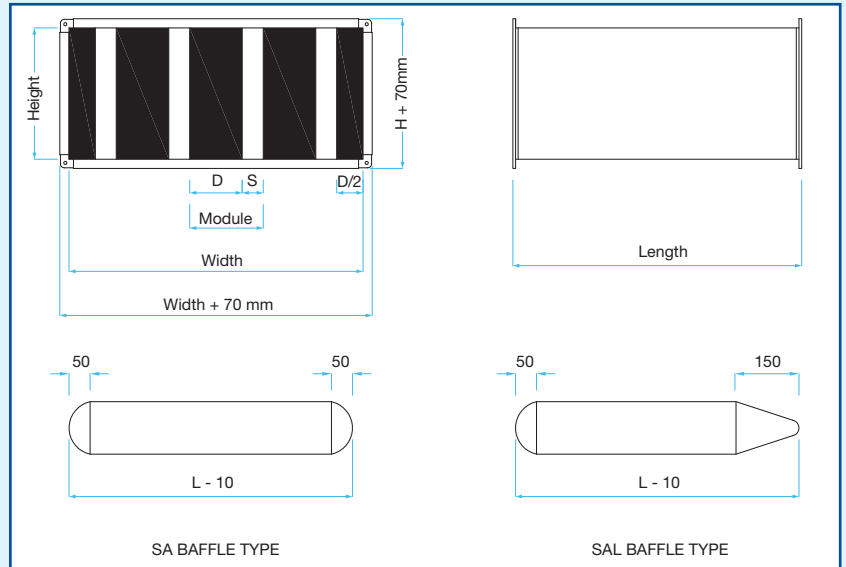
AVAILABLE OPTIONS

- Melinex is an impervious thin membrane used totally enclosed sound absorbent material where clinical conditions are required. This is used for the hospitals food factories and also where humidifiers are used.
- Melinex film on both sides reducing contamination risk, code P.

RANGE with a choice of options

Description	Code
SA 20 - 75	
SA 20 - 100	
SA 20 - 125	
SA 20 - 150	
SA 20 - 175	
SA 20 - 200	

DIMENSIONS (mm)

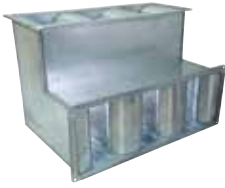


INSERTION LOSS (dB)

Model	Length L	Octave centre frequency in Hz							
		63	125	250	500	1k	2k	4k	8k
SA20 - 75	600	7	11	19	31	45	36	29	20
SA20 - 75	900	9	14	26	49	50	50	37	29
SA20 - 75	1200	10	18	33	50	50	50	47	38
SA20 - 75	1500	12	21	40	50	50	50	50	45
SA20 - 75	1800	13	24	47	50	50	50	50	50
SA20 - 75	2100	15	28	50	50	50	50	50	50
SA20 - 75	2400	17	31	50	50	50	50	50	50
SA20 - 100	600	6	9	14	22	28	28	21	15
SA20 - 100	900	8	11	19	31	37	37	28	21
SA20 - 100	1200	9	14	25	41	48	48	34	27
SA20 - 100	1500	11	17	30	50	50	50	42	33
SA20 - 100	1800	12	20	34	50	50	50	49	39
SA20 - 100	2100	14	23	39	50	50	50	50	45
SA20 - 100	2400	15	26	44	50	50	50	50	50
SA20 - 150	600	5	7	11	17	24	20	13	11
SA20 - 150	900	6	9	14	24	33	25	18	15
SA20 - 150	1200	7	11	18	31	42	33	23	19
SA20 - 150	1500	8	12	22	39	50	40	28	23
SA20 - 150	1800	9	14	25	45	50	47	34	27
SA20 - 150	2100	10	16	29	50	50	50	39	31
SA20 - 150	2400	11	19	32	50	50	50	44	35
SA20 - 200	600	5	6	9	13	18	14	10	9
SA20 - 200	900	6	7	12	20	25	20	14	12
SA20 - 200	1200	6	9	14	25	33	25	18	15
SA20 - 200	1500	7	10	18	30	40	31	22	18
SA20 - 200	1800	8	11	20	35	48	37	26	21
SA20 - 200	2100	8	13	24	40	50	42	30	24
SA20 - 200	2400	9	15	26	45	50	48	34	27

Bend Type Sound Attenuators

Vertical and horizontal bend type sound attenuators



SA 20 V
SA 20 H

APPLICATION

- Bend attenuators can be designed for vertical or horizontal installation to suit the ductwork layout.

DESCRIPTION

- Vertical / horizontal mounting.
- Rectangular cased bend attenuator is mainly used to reduce fan noise to meet the required NC levels.

CONSTRUCTION

- Casing and baffles are manufactured from galvanised sheets metal of 20 ga. thickness. The construction complies with DW 144 code, slide on flanges are fitted as standard.
- Generally as for the straight version. To minimise resistance to airflow, turning vanes are incorporated into the design.
- The vertical and horizontal mounting cased bend rectangular attenuator mainly used to reduce fan & machine noise to meet the required or allowed noise levels.
- The SA sound attenuators offer many advanced features including standard aerodynamic splitters.
- Erosion protected acoustic infills covered by galvanised perforated sheet.

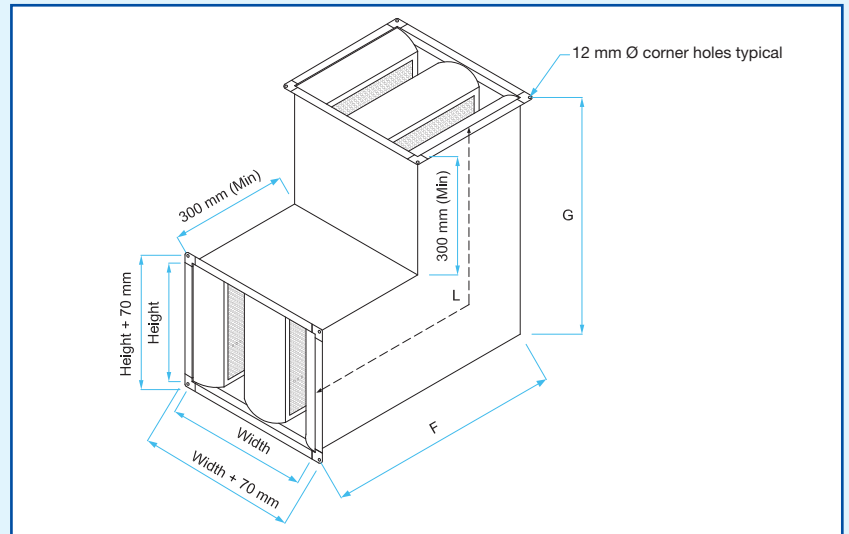
INSTALLATION

- Directly installed on a duct section.
- SA 20 V for vertical installation.
- SA 20 H for horizontal installation.

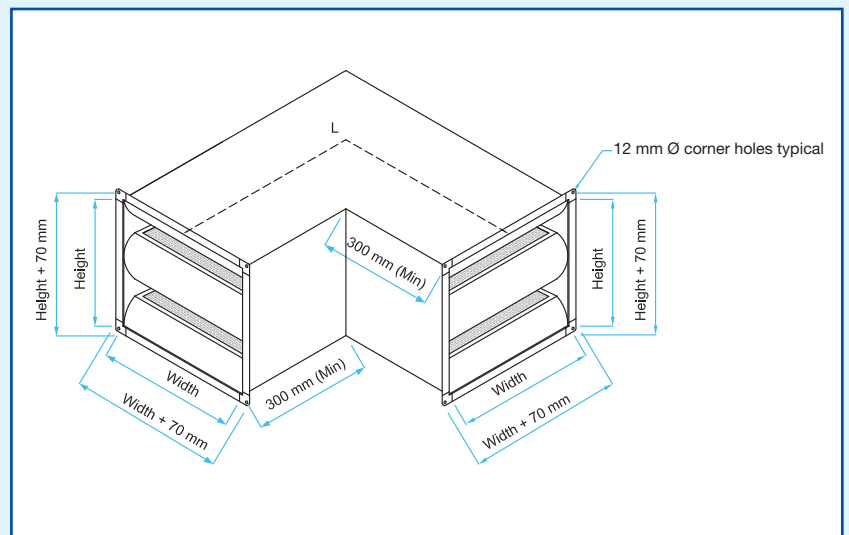
RANGE

Type	Description	Code
SA 20 V	Vertical bend type sound attenuator	
SA 20 H	Horizontal bend type sound attenuator	

DIMENSIONS (mm)



SA 20 V



SA 20 H

Circular Sound Attenuators

Circular passive attenuators



SAR 100
Spigot connection



SAR 100
Flange connection



SARP 100 *

Advantages

- Low pressure loss.
- Easy installation.

APPLICATION

- Attenuation of fan / AHU noises propagated through air ducting.
- Air exhaust and air supply.

DESCRIPTION

- Prefabricated sections of double walled round duct with solid outer shell and perforated inner shell with acoustic infill in between both shells.
- Designed to reduce fan noise meeting required noise levels such as NC and NR levels.

CONSTRUCTION

- Standard type SAR and podded type SARP available in different size range. Standard attenuator casing is manufactured from galvanized sheet metal of 20ga. thickness casing is constructed with full seam welding, construction complies with DW 144 code.
- Contains acoustic infill which complies with Class O building regulation. The infill has black glass tissue coating contained behind perforated sheet of 0.7mm thickness. This dual protection prevent damage and fibre erosion up to 30 m/s air way velocity.
- Available in diameter from 100 to 630 mm and incorporating absorbing partitions available in two densities.
- SAR 100: 100 mm thickness.

INSTALLATION

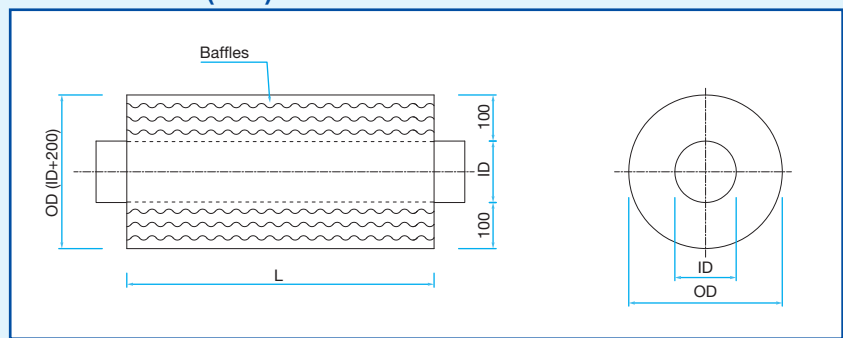
- Directly installed on a duct section.
- Horizontal / vertical installation.
- Indoor / outdoor.

RANGE

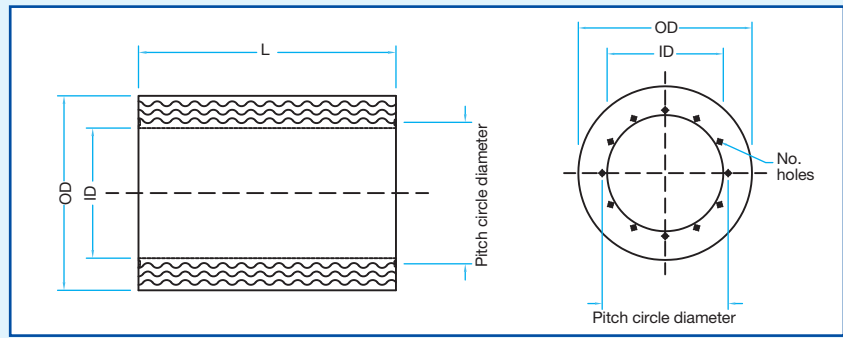
Description	Code
SAR 100 - Ø 100 mm	
SAR 100 - Ø 125 mm	
SAR 100 - Ø 160 mm	
SAR 100 - Ø 200 mm	
SAR 100 - Ø 250 mm	
SAR 100 - Ø 315 mm	
SAR 100 - Ø 400 mm	
SAR 100 - Ø 500 mm	
SAR 100 - Ø 630 mm	

* SARP 100 and other sizes of SAR 100 are also available upon request.

DIMENSIONS (mm)



SAR 100 (spigot connection)



SAR 100 (flange connection)

INSERTION LOSS (dB)

Model	Length L	Octave centre frequency in Hz							
		63	125	250	500	1k	2k	4k	8k
100	300	6	8	13	20	26	30	30	24
125	300	6	7	12	19	24	29	28	21
160	300	5	6	9	14	20	22	22	16
200	600	6	9	13	22	27	32	21	18
250	600	6	7	12	21	26	29	19	17
315	600	5	7	10	16	20	22	16	15
400	900	3	5	9	19	26	20	13	10
500	900	3	4	9	15	23	17	12	8
630	1200	5	7	12	16	16	16	12	8

Cross Talk Sound Attenuators

Cross talk sound attenuators



SCS series

Advantages

- Reduce noise transfer in adjacent room.
- Easy installation.

APPLICATION

- SCS type is designed for in-line duct mounting in a ventilation system where rooms are served by branches of common duct in order to stop transfer of noise from one space to other adjacent space.

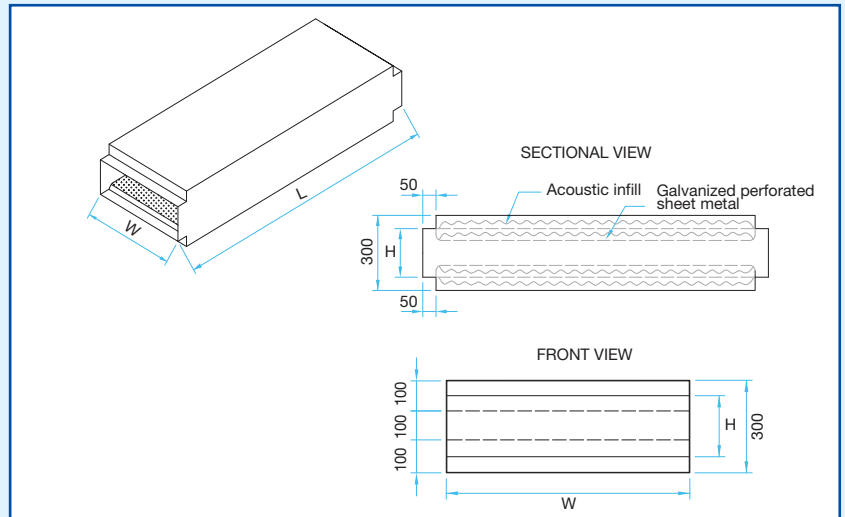
DESCRIPTION

- The splitters are radiussed at both ends to minimize air pressure loss and regenerated noise.

CONSTRUCTION

- Casing and side splitters manufactured from 20 ga. galvanised sheet metal. Casing formed with pittsburgh lock formed seams with mastic sealant. The construction complies with SMACNA & DW 144 standards. Plain ends for duct connection as standard.
- The side baffles contain acoustic infill which complies with class O building regulations.

DIMENSIONS (mm)



PRESSURE DROP

QUICK SELECTION

Design noise criterion in noise critical area	Attenuator length required (mm)	Total noise reduction at 500 Hz, dB
NC45	500	30
NC40	750	35
NC35	1000	40
NC30	1250	45
NC25	1500	50

INSERTION LOSS, D. IN dB

Attenuator length L (mm)	Octave band central frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
500	5	7	10	15	23	17	13	11
750	6	9	14	23	37	29	22	16
1000	8	11	19	31	48	37	28	21
1250	9	14	23	38	50	44	32	26
1500	10	16	27	45	50	50	39	31

Attenuator Type	Air velocity, v, in m/s at duct size B x H		2.0	3.0	4.0	5.0
	Self noise guide against velocity		NC 25	NC 30	NC 35	NC 40
	Width B (mm)	Height H (mm)	Volume flow V liters / seconds			
SCS - 1	100	100	20	30	40	50
	150	100	30	45	60	75
	200	100	40	60	80	100
	Pressure loss, Δp in Pa		<5	<5	<5	<5
SCS - 2	150	150	45	70	90	115
	200	150	60	90	120	150
	250	150	75	115	150	190
	300	150	90	135	180	225
Pressure loss, Δp in Pa		<5	<5	<5	<5	
SCS - 3	200	200	80	120	160	200
	250	200	100	150	200	250
	300	200	120	180	240	300
	350	200	140	210	280	350
	400	200	160	240	320	400
Pressure loss, Δp in Pa		<5	10	15	25	
SCS - 4	250	250	125	190	250	315
	300	250	150	225	300	375
	350	250	175	265	350	440
	400	250	200	300	400	500
	450	250	225	340	450	565
500	250	250	375	500	625	
Pressure loss, Δp in Pa		10	20	35	50	
SCS - 5	300	300	180	270	360	450
	350	300	210	315	420	525
	400	300	240	360	480	600
	450	300	270	405	540	675
	500	300	300	450	600	750
	550	300	330	495	660	825
600	300	360	540	720	900	
Pressure loss, Δp in Pa		15	30	55	85	

Acoustic Louvres

Acoustic Louvres



SU 631 - Galvanized steel
AU 631 - Aluminium

Advantages

- Noise reduction with minimal airflow restrictions.
- AMCA Certified air performance.

APPLICATION

- Mostly used for air exhaust but can also be used for air intake
- Acoustic louvers are well-adapted to commercial and industrial applications
- It can also be installed in a generator room.

DESCRIPTION

- Acoustic louvres designed to provide optimal acoustic performance (noise reduction) with minimal airflow restrictions (low pressure drop).

CONSTRUCTION

- SU 631: blades with 300 mm pitch centers provide a resistance to water ingress with acoustic properties. Infill material is inert, incombustible, non-hygroscopic and vermin proof. Enclosed and covered on the under side with a perforated sheet suitable for velocities up to 20 m/s.
- SU 632: combination of two SU 631 back to back to achieve 610 mm depth.
- Minimum single section size : 300 x 600 mm
- Maximum single section size : 2450 x 2450 mm
- Larger sizes manufactured in multiple sections for assembly at site.

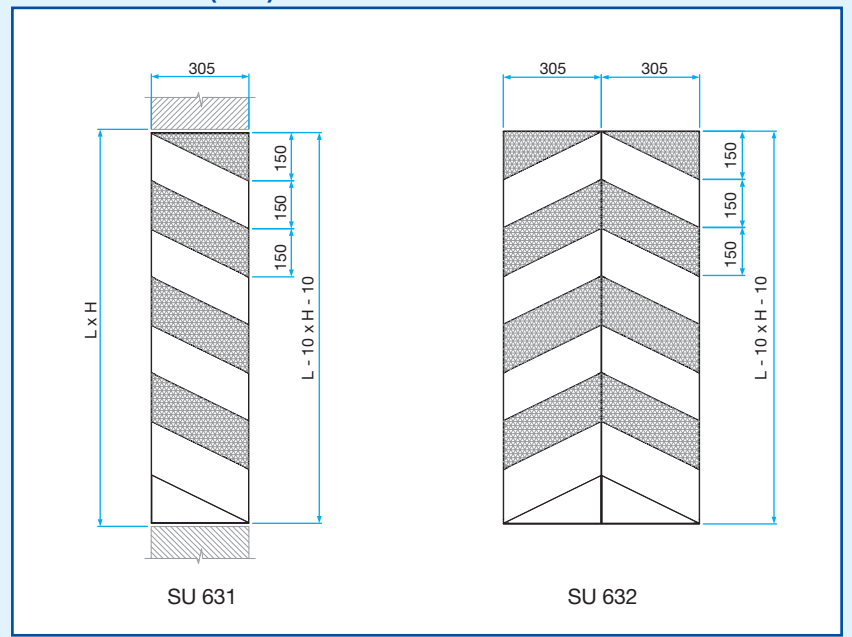
AVAILABLE OPTIONS

- Natural anodized aluminium, code A.
- Insect mesh in galvanized steel (6 x 6 x Ø 0.8 mm).
- Bird mesh in galvanized steel as standard (12 x 12 x Ø 1 mm).

RANGE

Type	Description	Code
SU 631	Construction in galvanized steel	
AU 631	Construction in aluminium	
EU 631	Construction in stainless steel (grade 304)	
SU 632	Combination of two SU 631 back to back	
AU 632	Combination of two AU 631 back to back	
EU 632	Combination of two EU 631 back to back	

DIMENSIONS (mm)



Project Reference List

Below are some of our prestigious project references.

S. No.	Project	Consultant/Client	Contractor	Location
1	7 Substations	PB Power Ltd.	York's A/C	Abu Dhabi
2	Abu Dhabi Exhibition Center	RMJM	ETA	Abu Dhabi
3	ADDC Head Quarters	APG	York's A/C	Abu Dhabi
4	ADWEA Head Quarters	APG	Verger et Delporte	Abu Dhabi
5	ADWEA Substation	ADWEA / ESBI	Hyundai	Abu Dhabi
6	Al Hamed Residential Compound	Khatib & Alami	Emirates – EMI	Abu Dhabi
7	Al Wahda Mall	Khatib Alami/EC Harris	Aster	Abu Dhabi
8	Citibank	Prolead	Al Reyami E/M	Abu Dhabi
9	Conference Palace Hotel	Mott McDonald	Al Inayah	Abu Dhabi
6	K - Race Track	Tilke & Partner	Volta Limited	Abu Dhabi
11	Qasr Al Sarab	Halcrow Yolles	ALEC	Abu Dhabi
12	Qusaiwera Airbase	UAE Armed Forces	Cummins	Abu Dhabi
13	Sheraton Hotel Extension	Khatib & Alami	Airmech	Abu Dhabi
14	Tweelah 400 Kv Substation	Lahmeyer International	Aceco	Abu Dhabi
15	Al Ain Airport Extension	Mein-Hardt	Nael E/m	Al Ain
16	Celebration Hall	Parc International /CRSS	Al Sabbah E/M	Al Ain
17	I.T. College	KEO	Emirates – EMI	Al Ain
18	Soldier's Club	Military Works	Al Sabbah	Al Ain
19	City Center	AAA	Bukamal	Bahrain
20	Riffa Views	MSCEB	Al Moayyed	Bahrain
21	SPM Project	MSCEB	Yateem A/c	Bahrain
22	Al Mas Tower	Atkins	ETA	Dubai
23	DIFC - District Cooling North Plant	Ellerbe Becket/Tebodin	Volta Limited	Dubai
24	Dubai Festival City	Mario & Associates	Transgulf	Dubai
25	Dubai Marina	Roberts & Partners	Yateem A/c	Dubai
26	Dubai Marina Phase - 1	Mott McDonald	Danway	Dubai
27	Dubai Municipality	Dubai Municipality	MACAir	Dubai
28	Dubai Public Library @ Al Twar	Gulf Engineering	Condor	Dubai
29	Indoor sports Hall	Archon / Jain & Partners	ETA	Dubai
31	Infinity Tower	Khatib & Al Alami	Drake & Scull	Dubai
31	Jebel Ali Airport	Dar al Handasah	Kharafi	Dubai
32	Laboratory Building at Dubiotech	Kling	MACAir	Dubai
33	Madinat Jumeirah	RPW	Transgulf	Dubai
34	Marina View Towers @ Dubai Marina	Engg. Adnan Safrini	Transgulf	Dubai
35	Masfout Hospital	UPA by MOPW	RNC Update	Dubai
36	Nilona Tower / Marriot Hotel & Aptmnt @DHCC	Arif & Bintoak	Transgulf	Dubai
37	Petrofac Tower	Consultair / Arenco	ETA	Dubai
38	Zabeel Sports Club	Engineer's Office	Engineer's Office	Dubai
39	Palm Garden @ Sohar	Kadri Consultant	Larsen & Toubro	Oman
40	QLNG Headquarter @ Gala	Atkins	Al Ansari	Oman
41	Al Ghanem Appartments	KEO	RAMCO	Qatar
42	Al Nakheel Tower at West Bay	Diwan Al Emara	Al Moayyed	Qatar
43	Al Saad Development Complex	AEB	Samko	Qatar
44	Anti Dope Laboratory	Qatar Design	Diplomat	Qatar
45	Business Park & Hotel Facilities	AEB	QEMG	Qatar
46	Dental Clinics	QEA	Satco	Qatar
47	Kinder Garden School	QEA	Al Malki	Qatar
48	Preparatory Schools	QEA	Al Moayyed	Qatar
49	Ras Gas Project	Qatar Petroleum	Al Moayyed	Qatar
50	Regent Hotel	KEO	Samko	Qatar
51	Two Oil Platform for Maersk Oil	Maersk Oil Qatar S.A./GPMC	Specialist Services	Qatar
52	GCC Secretary Building Extension	ADA	Masar Almoheet	Saudi Arabia
53	Al Nahda residence	QHC/TNQ	Al Hamad	Sharjah
54	Emirates Banking Institute	Gambert	Al Hamad	Sharjah
55	Etisalat - Thuraya Extension	Arif & Bintoak	Al Rehan	Sharjah
56	Youth Center At Malyha	CAB Consultant	IECO	Sharjah
57	Umm Al Quwain Hospital	HDP	Bpower	Umm Al Quwain


Selection Guide








Suitable for ceiling heights of less than 3 metres

- ++ Optimal comfort and system efficiency
- + Correct comfort level, acceptable system performance
- Prior to use an in-depth diffusion study must be carried out.

Applications	Range	Model		System upstream of the diffuser		
				Ventilation 	AHU 	Fan coil unit 
Wall-mounted air supply	Small fixed metal grilles Air circulation levels 1 - 6		BIM 320 Page 213	++	+	-
	Adjustable core grilles Air circulation levels 1 - 4		SR 149 Page 211	++	-	-
	Single / double deflection grilles Air circulation levels 4 - 10		AC 101 Page 215	++	++	+
	Fixed linear bar grilles Air circulation levels 4 - 10		AC 440 Page 220	++	++	++
	Floor-mounted fixed linear bar grilles Air circulation levels 4 - 10		AG 450 Page 224	++	+	+
	Fixed linear bar grilles (L/H ≥ 10) Air circulation levels 4 - 15		AC 440 Page 220	+	++	++
	Fixed blades air transfer grilles		AC 181 Page 223	++	++	++
Ceiling-mounted air supply	Small fixed metal grilles Air circulation levels 1 - 6		BIM 320 Page 213	++	+	-
	Fixed circular diffusers for ceiling tiles Air circulation levels 6 - 10		SC 832 TP Page 190	++	+	-
	Adjustable circular diffusers for ceiling tiles Air circulation levels 6 - 25		AT 842 Page 192	+	++	++
	Fixed square diffusers for ceiling tiles Air circulation levels 6 - 20		SF 704 TP Page 187	+	++	++
	Combined multi-slots square diffusers for ceiling tiles (air supply and return) Air circulation levels 6 - 22	 <small>Green Product</small>	ALD 610 K COMBINED Page 171	+	++	++
	Adjustable square diffusers - perforated sheet - for ceiling tiles Air circulation levels 6 - 20		SC 360 R Page 194	+	+	++
	Swirl square diffusers for ceiling tiles Air circulation levels 6 - 28		SF 785 Page 165	+	++	++

Selection Guide

Applications	Range	Model	System upstream of the diffuser		
			Ventilation 	AHU 	Fan coil unit 
Ceiling-mounted air supply	Swirl diffusers for ceiling tiles Air circulation levels 6 - 32	 Green Product Twisted 850 Page 161	+	++	++
	Adjustable aluminium slot diffusers Air circulation levels 6 - 20	 AG 280 Page 179	+	++	++
	Adjustable aluminium slot diffusers Air circulation levels 6 - 20	 AN 285 DTP Page 181	++	+	++
Wall-mounted air return	Small fixed metal grilles	 BIM 300 Page 213	++	+	-
	Fixed blades grilles	 AC 121 Page 218	++	+	+
	Fixed blades grilles with filter	 AC 163 W Page 222	++	+	+
Ceiling-mounted air return	Small fixed metal grilles	 BIM 300 Page 213	++	+	-
	Frameless grilles for ceiling tiles	 AU 124 Page 227	+	++	++
	Fixed blade grilles with fitted filter - for ceiling tiles	 AG 637 WZ Page 228	+	++	++

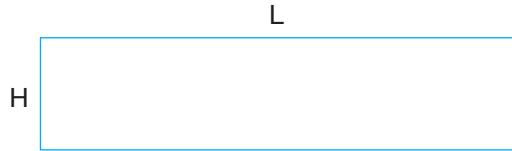
Category	Model	Description	Sound attenuation 	Comfort 	Ventilation 	AHU 
Louvres	 Fresh air louvres	<ul style="list-style-type: none"> ➡ AG 638A / AG 639A • Air intake or air exhaust • Rectangular fixed blade louvres ➡ AG 645 • Rectangular movable blade louvres ➡ AR 637 • Circular fixed blade louvres 		✓	✓✓	✓
	 Sand trap louvres	<ul style="list-style-type: none"> ➡ AG 644 / AG 644A • Air intake • Separates sand and dust particles • Self cleaning & maintenance free 		✓✓	✓✓	✓
	 Acoustic louvres	<ul style="list-style-type: none"> ➡ SU 631 / SU 632 • Air intake or air exhaust • Acoustic infill for reduced noise • SU 632: combination of two back-to-back SU 631 acoustic louvres 	✓	✓✓	✓✓	✓

Technical Datas

Air diffusion and comfort

DIMENSIONS

- All grille dimensions are in nominal values L x H (in mm). L x H is the opening required in either the duct or the partition.

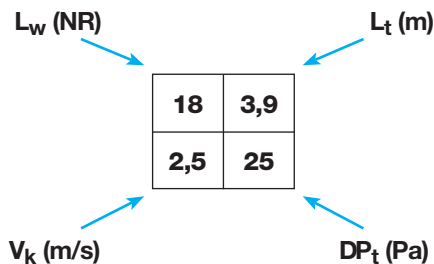


SYMBOLS

- Q_v (m³/h) = Airflow.
- V_k (m/s) = Airspeed in the diffuser.
- V_t (m/s) = Final velocity (at the end of the airstream throw).
- A_k (m²) = Free surface.
- L_w (NR) = Sound power level.
- ΔP_t (Pa) = Total pressure drop.
- L_t (m) = Air jet throw.

SELECTION TABLES

- The selection tables at the end of the section comprise the following information:
 - Nominal dimensions L x H (or D) and free surface area A_k .
 - The airflow Q_v .
 - The four data items below.



AIR JET THROW (L_t)

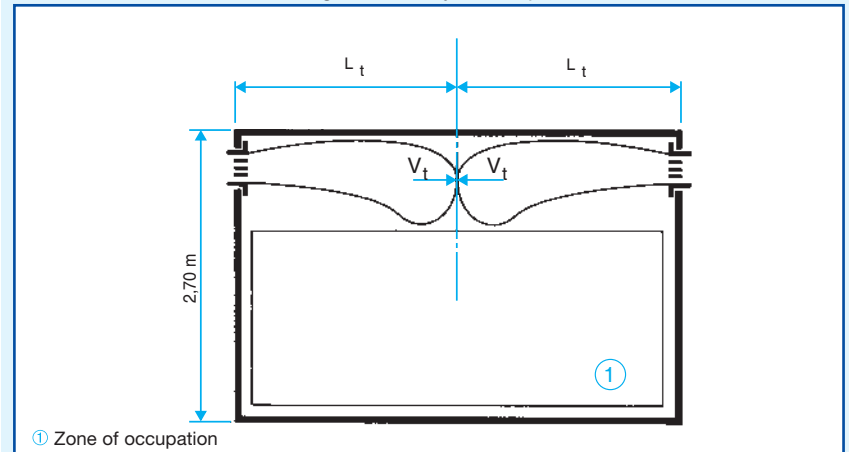
- In most cases, for high wall grilles or ceiling grilles with ceiling heights of about 2.7 m (± 0.3 m) the throw is considered as being the distance of the grille as far as the opposite wall or the middle distance between two opposite grilles with air jets that meet in the middle. For even higher ceilings, one could add, to this distance, the difference between 3 m and the actual room height. In such a way that this vertical throw L_v is less than or equal to the half of the horizontal part L_h of the air throw. Thus $L_t = L_h + L_v < 1.5 \times L_h$.
- The airthrow depends on the accepted final velocity (V_t) in order to guarantee comfort (see below).

FINAL VELOCITY (V_t)

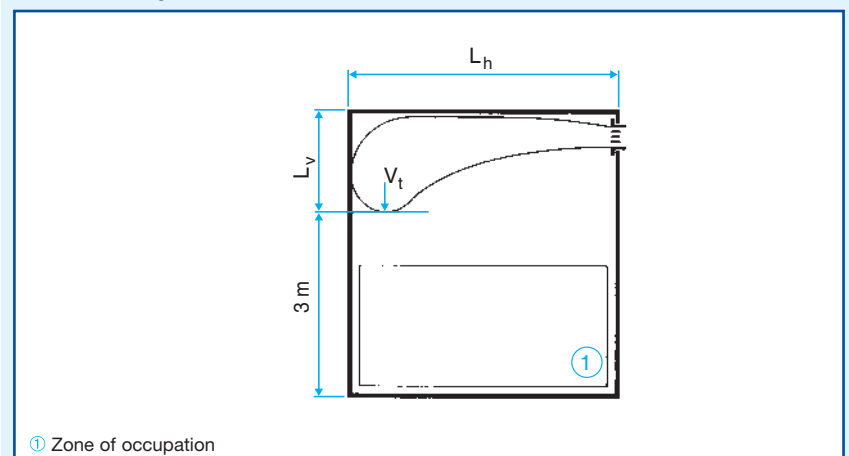
- The published ranges are for final, optimum velocity in the direction of the air jet axis. This optimum velocity is a value found by experimentation, giving the best criteria of comfort for each type of air grille. Final throw levels for other terminal velocities are given in the form of correction factors. Extreme values represent the practical limitations for use.

ZONE OF OCCUPATION

- The occupied zone is defined as being that volume contained within two horizontal planes at 0.15 and 1.80 metres from the ground and by vertical planes 0.15 metres from the walls.

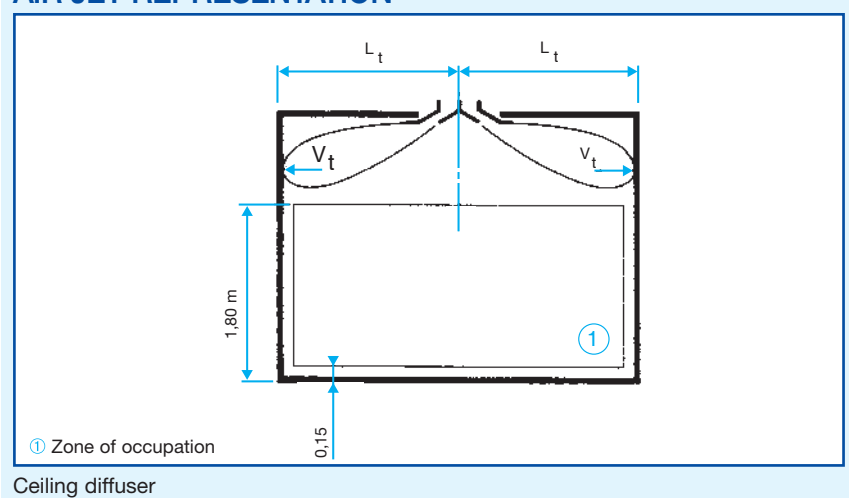


Wall-mounted grilles face-to-face



Wall mounted grille

AIR JET REPRESENTATION



Ceiling diffuser

Technical Data

Recommended design criteria for various area functions

Situation	NC
Section 1 - Studios and Auditoria	
Sound Broadcasting (drama)	15
Sound Broadcasting (general), TV (general), Recording Studio	20
TV (audience studio)	25
Concert Hall, Theatre	20 - 25
Lecture Theatre, Cinema	25 - 30
Section 2 - Hospital	
Audiometric Room	20 - 25
Operating Theatre, Single Bed Ward	30 - 35
Multi-bed Ward, Waiting Room	35
Corridor, Laboratory	35 - 40
Wash Room, Toilet, Kitchen	35 - 45
Staff Room, Recreation Room	30 - 40
Section 3 - Hotels	
Individual Room, Suite	20 - 30
Ballroom, Banquet Room	30 - 35
Corridor, Lobby	35 - 40
Kitchen, Laundry	40 - 45
Section - 4 Restaurants, Shops and Stores	
Restaurant, Department Store (Upper floor)	35 - 40
Club, Public House, Cafeteria, Canteen, Retail Store (main floor)	40 - 45
Section 5 - Offices	
Boardroom, Large Conference Room	25 - 30
Small Conference Room, Executive Office, Reception Room	30 - 35
Open Plan Office	35
Drawing Office, Computer Suite	35 - 45
Section 6- Public Building	
Court Room	25 - 30
Assembly Hall	25 - 35
Library, Bank, Museum	30 - 35
Wash Room, Toilet	35 - 45
Swimming Pool, Sports Arena	40 - 50
Garage, Car Park	55
Section 7 - Ecclesiastical and Academic Building	
Church, Mosque	25 - 30
Classroom, Lecture Theatre	25 - 35
Laboratory, Workshop	35 - 40
Corridor, Gymnasium	35 - 45
Section 8 - Industrial	
Warehouse, Garage	45 - 50
Workshop (light engineering)	45 - 55
Workshop (heavy engineering)	50 - 65
Section 9 - Private Dwelling (Urban)	
Bedroom	25
Living Room	30

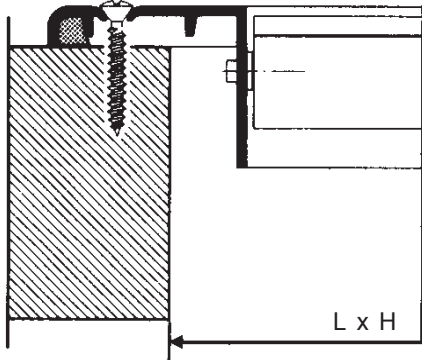
Technical Datas

Grille fixing systems

OTHER FIXING AVAILABLE UPON REQUEST

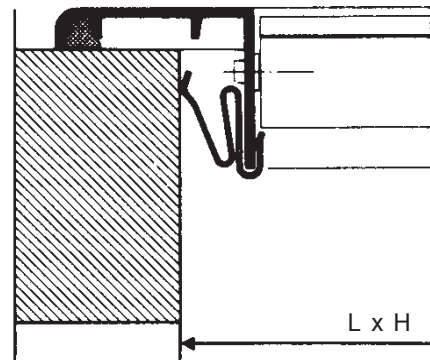
Fixing type F1

Visible screw fixing.
Fixing holes location see above.



Fixing type F3

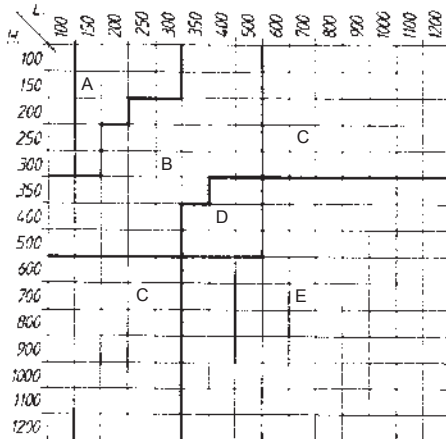
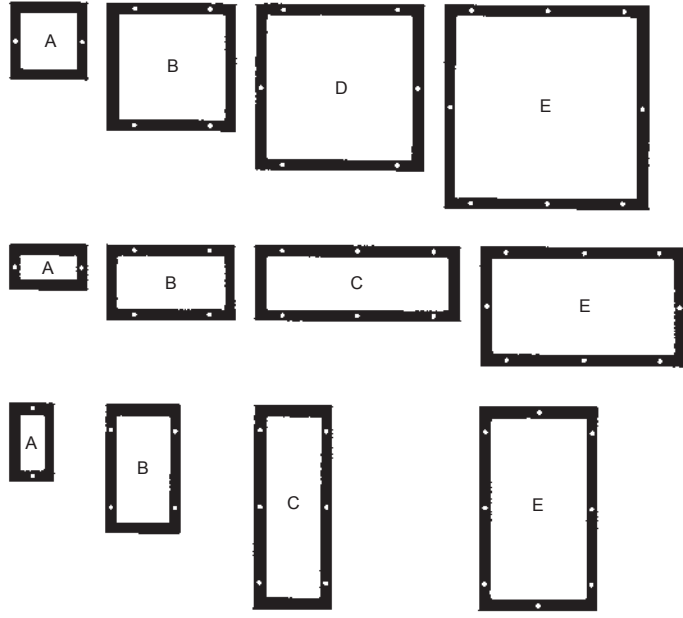
Concealed spring clip.
(Not recommended for ceiling mounting)



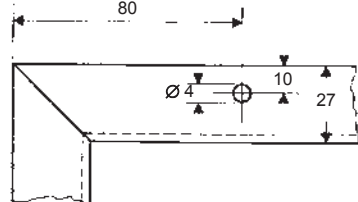
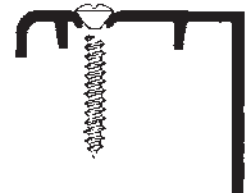
Standard fixing (flange screw fixing)

All grilles supplied with visible screw fixing pre-punched holes, code F1.

Screw hole location chart.



Recommended self tapping screw cross recess
DIN 7983
Ø 3,5 x 38 mm
(not supplied)



Swirl Diffusers

Aesthetic swirl diffusers for ceiling tiles



Green Product

Twisted 850 air supply diffuser for ceiling tiles

Advantages

- Can be installed to replace a suspended ceiling tile 600 x 600 or 675 x 675mm.
- Adapted version for staff/BA13 plasterboards.
- Blends perfectly with the majority of ambience fittings in commercial premises.
- Ideal for variable airflow systems.
- Excellent high level air circulation.
- Supports large temperature differences.
- Models of supply and return are identical.
- Easy access to the filter on the exhaust model.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 or 675 x 675 mm suspended ceiling tile.
- Adapted version for staff/BA13 plasterboards.
- Air supply or exhaust, fixed high induction diffusion by swirl diffusers.
- Large airflow range on a single dimension of diffuser.
- Heating and air-conditioning installations requiring high air circulation levels.
- Ideal for the supply of cold or hot air (air conditioning) with large temperature gaps and low ceiling heights.
- Ideal for variable airflow installations (duct-mounted fan coil units type or VAV).

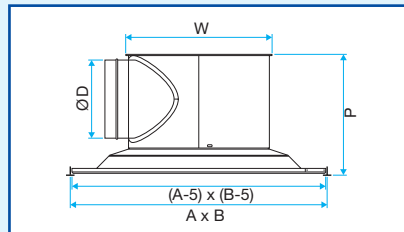
DESCRIPTION

Design

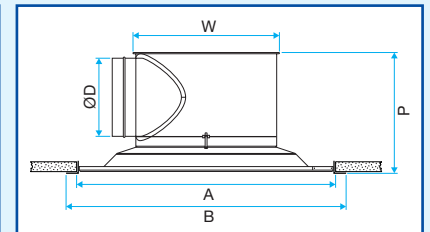
- Diffusion of high induction air by the rotation of an air jet inside the plenum.

The diffusion cone, by maintaining a sufficient speed of ejection, ensures a perfect Coanda effect (ceiling effect) and a helicoid air pattern. It is this swirl effect (or helicoid air pattern) that will induce the movement of the ambient air, and thus mix it with the supply air to guarantee great homogeneity of temperatures in the occupied area.

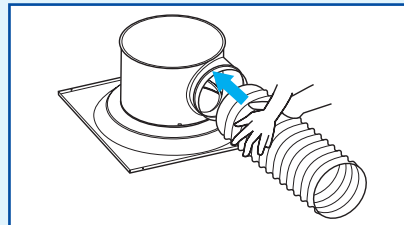
DIMENSIONS



Twisted 850 diffuser for ceiling tiles



Twisted 850 diffuser for staff or BA13 plasterboards



Flexible duct connection

Diffusers for suspended ceilings							
Comfort airflow levels for $L_w < NR 35$ and dimensions							
Mounting	A x B* (mm)	Réservation A (mm)	B (mm)	Ø W (mm)	Ø D (mm)	P (mm)	Airflow (m ³ /h)
Suspended ceilings	600 x 600	-	-	366	200	298	150 to 600
	675 x 675	-	-	366	200	298	150 to 600
Staff / BA13	-	600 x 600	630 x 630	366	200	298	150 to 600

* Nominal ceiling tile dimensions. See selection table on page 241.

STANDARD RANGE R10 - Diffusers for suspended ceilings

Dimensions	Air exhaust diffuser with filter Twisted 850 W 600 x 600 Code	Air supply diffuser Twisted 850 600 x 600 Code	Spare filter W 850 Code
Ø 200	11051162	11051161	11053949

Swirl Diffusers

Aesthetic swirl diffusers for ceiling tiles



Twisted 850 air supply diffuser for staff / BA13 plasterboards



Twisted 850 diffuser with filter for air exhaust

Advantages

- Can be installed to replace a suspended ceiling tile 600 x 600 or 675 x 675mm.
- Adapted version for staff/BA13 plasterboards.
- Blends perfectly with the majority of ambience fittings in commercial premises.
- Ideal for variable airflow systems.
- Excellent high level air circulation.
- Supports large temperature differences.
- Models of supply and return are identical.
- Easy access to the filter on the exhaust model.

DESCRIPTION

- Diffusion cone and central disk made of painted steel.
- Steel compensation plate adapted to 600x600 mm or 675x675 mm ceiling panels, with "Tbar" or "Fine-Line" frames.
- Mounting frame aesthetic (white aluminum) for staff version.
- Air supply model fitted with a fixed central plate, serving as a deflector.

NB: On staff version, the central plate is opening for easy installation in plasterboard ceilings.

- Return air model fitted with a removable central plate and an elliptical filter. Access to the filter by quick and easy opening of the central disk.
- Galvanized steel cylindrical plenum for direct connection to a 200 mm-diameter circular duct.
- Version without plenum available for direct return air or direct connection to D200 or D250 circular connection. Non-opening diffuser only.

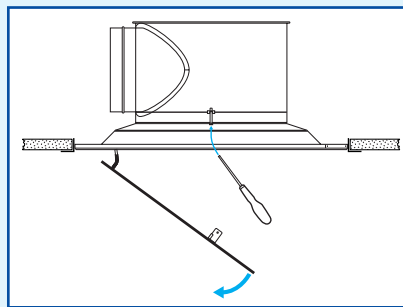
Warning: this model can not be used for air supply.

- Powder coated RAL9010 matt 30%.

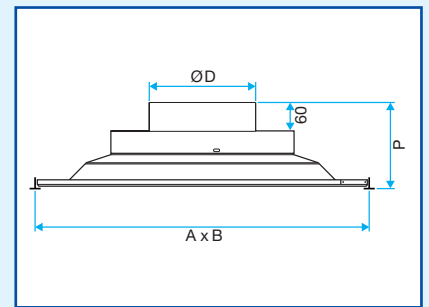
ACCESSORIES

- G2 efficiency elliptical flat filter in compliance with the HQE label supplied with the return air diffuser. M1 fire protection rating
- Mounting frame aesthetic (white aluminum) for staff version.
- Bridge system to facilitate the implementation of non-removable ceilings (F7 fixing).
- Acoustic insulation (15mm-thick M1 melamine foam inside the plenum).
- Thermal insulation (5mm M1 polyurethane foam outside the plenum).

DIMENSIONS



Implementation of the Twisted, staff with the F7 bridge



Twisted 850 direct return air diffuser.

Comfort airflow levels for Lw < NR 35 and dimensions.

Dimensions A x B* (mm)	Ø D (mm)	P (mm)	Airflow (m ³ /h)
600 x 600	200 or 250	170	150 to 600
675 x 675	200 or 250	170	150 to 600

* Nominal ceiling panel dimensions. See selection table on page 241.

RANGE WITH CHOICE OF OPTIONS R10

Dimensions	Reported aesthetic framework for Twisted 850 Code	Direct return air diffuser Twisted 850 Code	Air return diffuser with filter Twisted 850 W Code	Air supply diffusers Twisted 850 Code	Air supply diffusers Twisted 850 Code
600x600 tiles		11003366	11003362		11003361
675x675 tiles		11003368	11003364		11003363
600x600 staff	11003379		11003372	11003371	

OPTIONS

Option	Option
For Tbar or Fine Line type ceilings (for suspended ceiling models only)	Acoustic insulation
F7 bridge system (staff version only)	Acoustic + thermal insulation
Epoxy paint according to RAL colour chart.	D200 or D250 connection on direct air return

Swirl Diffusers

Adjustable circular swirl diffusers



AR 883 diffuser - Aluminium

Advantages

- Adjustable air diffusion.
- Ideally suited for high-ceiling installations or those requiring a good mix rate.
- Motorised adjustment of diffuser size according to needs, for excellent comfort management.

APPLICATION

- Air supply: adjustable high-induction diffusion by swirl jet
- Ideal for high temperature difference air conditioning installations in high-ceiling rooms.
- Adjustable, motorised diffusion for optimum supply in both winter and summer.
- High level of air mixing.
- Ceiling mounted.

DESCRIPTION

- Aluminium body and diffusion vanes.
- White epoxy painted aluminium finish, RAL 9010 colour.
- Concealed attachment to plenum using a screw on the neck of the diffuser. The plenum is fitted with lugs for attachment to the concrete beam. Use the suspension cables.

ACCESSORIES

- Connection plenum, "side connection".
- On/Off 230V motor included.

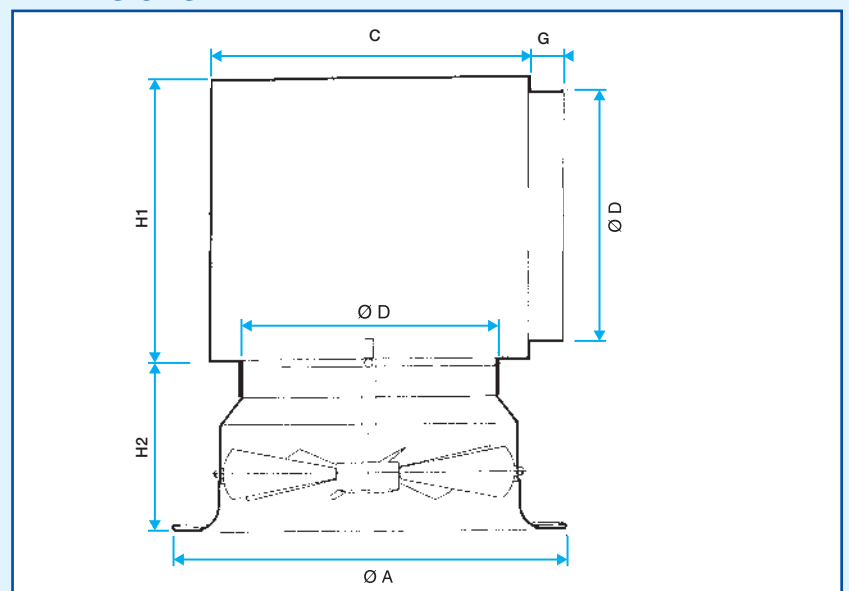
ADDITIONAL RANGE

- Proportional motors.
- Manual version.
- Insulated plenums on 2 or 5 sides.
- Paint finish in accordance with the RAL colour chart (please consult us).

RANGE ^{R10}

Dimensions	AR 883 M1 Motorised Code	Plenum LRE Side connector Code
Ø 250	11051095	11053313
Ø 315	11051096	11053314
Ø 400	11051097	11053316
Ø 500	11051098	11053318
Ø 630	11051099	

DIMENSIONS



AR 883 diffuser with RE plenum

Comfort airflow levels for Lw < NR 40 and dimensions							
Ø D (mm)	C (mm)	Ø A (mm)	G (mm)	H1 (mm)	H2 (mm)	Airflow (m³/h)	Airflow in cooling position (m³/h)
250	310	425	50	300	225	500	450
315	375	500	50	365	240	1000	750
400	460	615	60	450	280	1600	900
500	560	850	70	550	320	2500	1400
630	690	1070	70	680	410	6000	1600

Selection Table page 242.

Swirl Diffusers

Thermostatic circular swirl diffusers

New



AR 883 Thermo diffuser - Aluminium

Advantages

- Adjustable air diffusion.
- Ideally suited for high-ceiling installations or those requiring a good mix rate.
- Automatic adjustment of diffuser size according to needs, for excellent comfort management in all seasons.
- No electrical connections required.

APPLICATION

- Air supply: adjustable high-induction diffusion by swirl jet
- Ideal for high temperature-difference air conditioning installations in high-ceiling rooms.
- Automatic diffusion orientation according to the temperature of the air supply for optimum operation both in winter and summer.
- No electrical connections required.
- High mixing rate.
- Ceiling mounted

DESCRIPTION

- Aluminium body and diffusion vanes.
- Heat-sensitive spring made of nickel-titanium alloy to automatically toggle the diffusion angle according to the temperature of the blown air:
 - "winter" position (heating) for de-stratification of hot air.
 - "summer" position (cooling) for perfect management of air speeds in the occupied areas.
- "Winter" and "summer" diffusion angles adjustable on site using screws.
- White epoxy painted aluminium finish, RAL 9010 colour.
- Concealed attachment to plenum using a screw on the neck of the diffuser. The plenum is fitted with lugs for attachment to a concrete ceiling. Use suspension cables.

ACCESSORIES

- Connection plenum, "side connection".

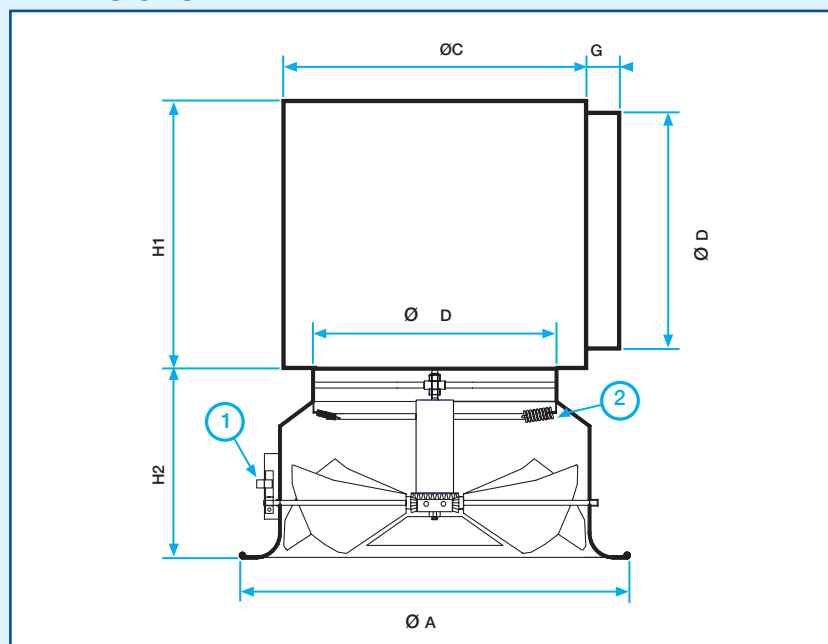
ADDITIONAL RANGE

- Motorised version (AR 883 M1) : see previous page.
- Manual version (AR 883) : contact us.
- Insulated plenums on 2 or 5 sides.
- Paint finish in accordance with the RAL colour chart (please consult us).

RANGE R10

Dimensions	Thermostatic diffuser AR 883 Thermo Code	Plenum LRE Side connector Code
Ø 250	11051031	11053313
Ø 315	11051032	11053314
Ø 400	11051033	11053316
Ø 500	11051034	11053318
Ø 630	11051035	

DIMENSIONS



AR 883 Thermo diffuser with RE plenum

- 1- Manual adjustment of "winter" and "summer" angles.
2- Heat-sensitive spring

Comfort airflow levels for Lw < NR 40 and dimensions

Ø D (mm)	C (mm)	Ø A (mm)	G (mm)	H1 (mm)	H2 (mm)	Airflow (m ³ /h)	Airflow in cooling position (m ³ /h)
250	310	425	50	300	225	500	450
315	375	500	50	365	240	1000	750
400	460	615	60	450	280	1600	900
500	560	850	70	550	320	2500	1400
630	690	1070	70	680	410	6000	1600

Selection Table page 242.

Swirl Diffusers

Adjustable square swirl diffusers with helical air pattern

New



SF 785 - Steel

Advantages

- Adjustable diffusion.
- Ideally suited for installations requiring a high-volume air displacement.

APPLICATION

- Air supply: adjustable diffusion.
- Heating and air conditioning installations with high and modulated airflows.
- Very high air circulation levels.
- Ceiling mounted.

DESCRIPTION

- Finish - white epoxy painted steel RAL 9010 tint.
- Black polypropylene adjustable blades.
- Fixing to the plenum by means of a central screw (F7). This fixing is well adapted to staff or BA13 non removable fixed ceilings.
- Fixing to the concrete tile using the lugs located on the connection plenum. Use the suspension cables

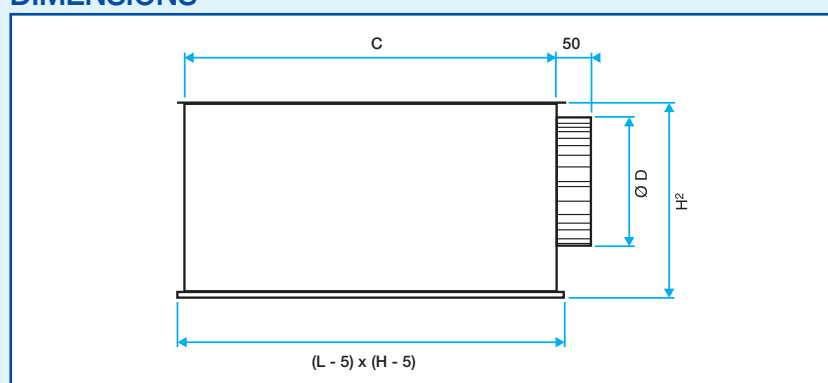
ACCESSORIES

- RE connection plenum (side connection).
- NB: The plenums are fitted, as standard, with an airflow distributor.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).
- Insulated plenum (please consult us).
- Top connection plenum (please consult us).

DIMENSIONS



SF 785 diffuser with RE plenum

Comfort airflow levels for $L_w < NR 30$ and dimensions					
L x H (mm)	No of slots	C (mm)	Ø D (mm)	H2 (mm)	Airflow (m ³ /h)
400 x 400	16	360	200	290	300
500 x 500	24	460	200	290	450
600 x 600*	32	560	250	340	600
825 x 825	64	785	315	405	800

* Dimension adapted to standard 600 x 600 mm ceiling tiles. See Selection table page 242.

RANGE R10

Dimensions	Diffuser SF 785 F7 Code	Plenum RE Code
400 x 400	11051130	11002950
500 x 500	11051131	11002950
600 x 600	11051132	11002950
825 x 825	11002947	11002950

Swirl Diffusers

Adjustable square swirl diffusers with helical air pattern



SF 783 series - Steel

Advantages

- Adjustable air diffusion.
- Ideally suited for installations requiring a high-volume air displacement.

APPLICATION

- SF 781: air exhaust.
- SF 783: air supply.
- Heating installations ($\Delta T_{max} = -30^{\circ}\text{C}$) and air-conditioning ($\Delta T_{max} = -16^{\circ}\text{C}$) with adjustable, important airflow rates.
- Very high levels of air circulation.
- Ceiling mounted.

DESCRIPTION

- Flush mounted square ceiling diffuser designed specifically for T-bar lay-in application (tile replacement) for standard modular ceiling grid sizes, also available for surface mounted applications.
- Creative helical airstream discharge of supply air resulting in a high induction ratio and a rapid consolidation of supply air and room air temperature. Ability to handle high air change rates with draught free mixing.
- Galvanised mild steel pressed fascia having transverse supply apertures. Located within the supply apertures are acute angled deflectorals, adjustable for directional flow and painted stove enamelled black.

ACCESSORIES

- Connection arrangements for plenum boxes, manufactured from galvanised mild steel and available in 4 options as indicated below:
 - ST: top entry inlet spigot complete with perforated equalising grid and air deflectors (SF 783 ST).
 - RT: top entry inlet spigot without perforated equalising grid and air deflectors for return air application (SF 781 RT).
 - RS: side entry inlet spigot complete with perforated equalising grid and air deflectors (SF 783 RS).
 - RE: side entry inlet spigot without perforated equalising grid and air deflectors for return air application (SF 781 RE).

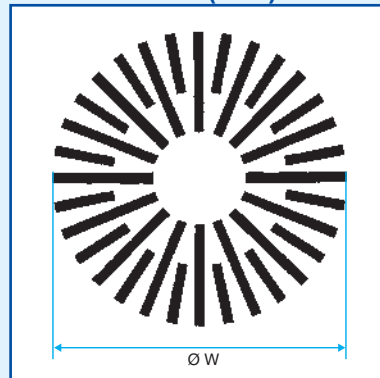
ADDITIONAL RANGE

- Version without plenum.
- Paint finish in accordance with the RAL colour chart.
- Damper with control dial, supplied with the diffuser (delivered already fitted to the plenum connection).
- Lever operated quadrant damper located in the plenum inlet spigot, code Q.

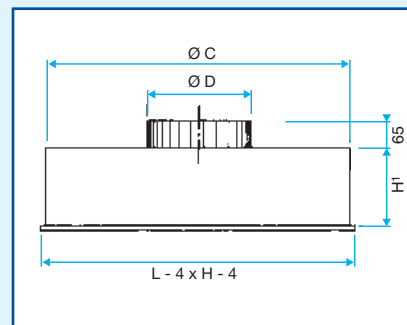
RANGE with choice of options

Description	Code
SF 783 - 400 x 400 mm (option: 44.4)	
SF 783 - 500 x 500 mm (option: 55.4, 55.5)	
SF 783 - 600 x 600 mm (option: 66.4, 66.5, 66.6)	
SF 783 - 625 x 625 mm (option: 662.4, 662.5, 662.6)	
SF 783 - 825 x 825 mm (option: 882.8)	

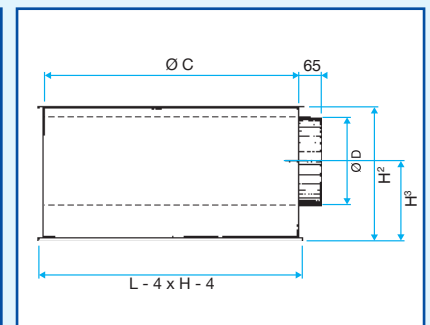
DIMENSIONS (mm)



SF 783 diffuser



ST and RT type



RS and RE type

L X H	Option	Ø C	Ø D	H1	H2	H3
400 x 400	44.4	360	198	200	300	175
500 x 500	55.4	460	198	200	300	175
500 x 500	55.5	460	198	200	300	175
600 x 600	66.4	545	198	200	300	175
600 x 600	66.5	545	198	200	300	175
600 x 600	66.6	545	248	250	350	200
625 x 625	662.4	545	198	200	300	175
625 x 625	662.5	545	198	200	300	175
625 x 625	662.6	545	248	250	350	200
825 x 825	882.8	745	313	300	415	234

L X H	ØW			
	345	445	525	725
400 x 400	44.4	-	-	-
500 x 500	55.4	55.5	-	-
600 x 600	66.4	66.5	66.6	-
625 x 625	662.4	662.5	662.6	-
825 x 825	-	-	-	882.8

Swirl Diffusers

Fixed square swirl diffusers



SF 786 series - Steel

Advantages

- Easy installation.
- Ideally suited for installations requiring a high-volume air displacement.

APPLICATION

- Air supply fixed diffusion pattern.
- Heating and air-conditioning installations where the airflows are high and modulated.
- Very high levels of air circulation.
- Ceiling mounted.

DESCRIPTION

- Finish - white epoxy painted steel RAL 9010 tint.
- Fixing (F7) by means of a central screw under the plenum. This fixing is well adapted to staff or BA13 non removable fixed ceilings.
- Finish - white epoxy painted steel RAL 9010 tint.
- Front face adjustable blades in black polypropylene.
- Fixing to the plenum by means of a central screw (F7). This fixing is well adapted to staff or BA13 non removable fixed ceilings.
- Fixing to all of the concrete tile using the lugs located on the connecting plenum. Use the suspension cables.

ACCESSORIES

- RE connecting plenum (side connection).

NOTE: the plenums are fitted, as standard, with an airflow diffuser.

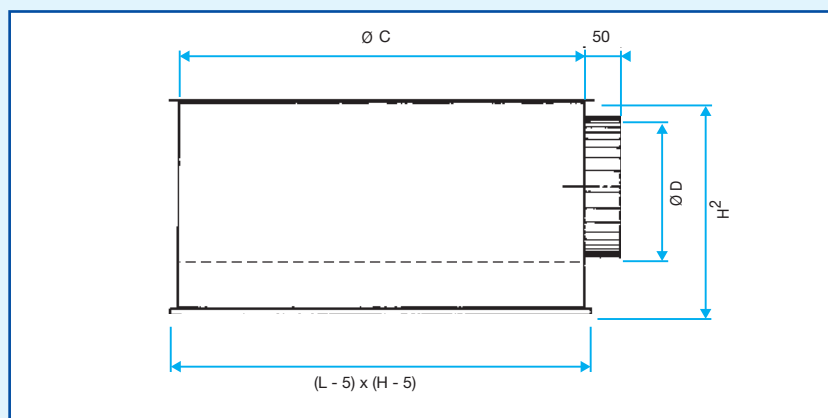
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Insulated plenum (please, consult us).
- Top connection plenum (please, consult us).

RANGE R10

Dimensions	Diffuser SF 786 F7 Code	Plenum RE Code
600 x 600	11051133	11002950

DIMENSIONS



SF 786 diffuser with RE plenum

Comfort airflow levels for Lw < NR 30 and dimensions

L x H (mm)	Ø C (mm)	Ø D (mm)	H2 (mm)	Airflow (m ³ /h)
600 x 600	560	250	340	550

- Dimension adapted to standard 600 x 600 mm ceiling tiles.
- See selection table on page 243.

Swirl Diffusers

Fixed circular swirl diffusers for ceiling tiles



SF 861T series - Steel



BR damper

Advantages

- Designed for 600 x 600 mm ceiling tiles.
- Efficient diffusion and easy to fit.
- Excellent high level air circulation.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 mm suspended ceiling tile.
- Heating and air-conditioning installations requiring high levels of air circulation.
- Ideal for the cold air supply (air-conditioning).

DESCRIPTION

- Body and diffusion vanes in steel.
- Based on the design of the SF 861 diffuser as standard, integrated into a steel plate.
- Connection to circular ducts or the LRE plenum.
- White steel epoxy painted, RAL 9010 tint.

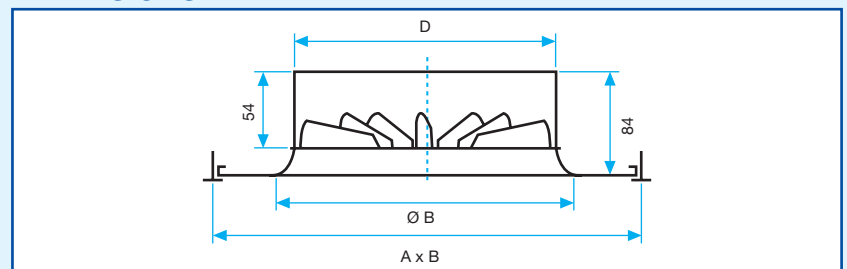
ACCESSORIES

- BR damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjustment through the diffuser uses a screw.
- LRE side connector plenum in galvanised steel.

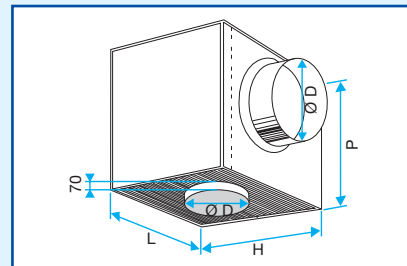
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

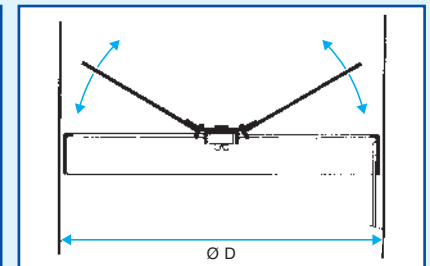
DIMENSIONS



SF 861T diffuser



LRE plenum



BR damper

Comfort airflow levels for Lw < NR 30 and dimensions

Ø D (mm)	A x B* (mm)	Ø B (mm)	Ø Connections Plenum (mm)	P (mm)	Airflow (m ³ /h)
160	600 x 600	200	160	210	130
200	600 x 600	250	200	250	200
250	600 x 600	300	250	300	280
315	600 x 600	360	315	365	420

- * Nominal ceiling tile dimensions.
- See selection table on page 243.

RANGE R10

Dimensions	Diffuser SF 861 T Code	Damper BR Code	Plenum LRE Side connector Code
Ø 160	11051081	11053220	11053311
Ø 200	11051082	11053221	11053312
Ø 250	11051083	11053222	11053313
Ø 315	11051084	11053223	11053314

Swirl Diffusers

Fixed circular swirl diffusers



SF 861 series - Steel



SR 861 series - Steel

Advantages

- Perfect for cooling installations.
- Excellent high level air circulation.

APPLICATION

- Air supply and air exhaust: high inductance fixed airflow.
- Heating and air-conditioning installations requiring high levels of air circulation.
- Ideal for the cold air supply (air-conditioning).
- Ceiling mounted.

DESCRIPTION

- Body and diffusion vanes in steel.
- Finish - white epoxy painted steel RAL 9010 tint.
- Invisible fixing, using a screw in the diffuser neck.

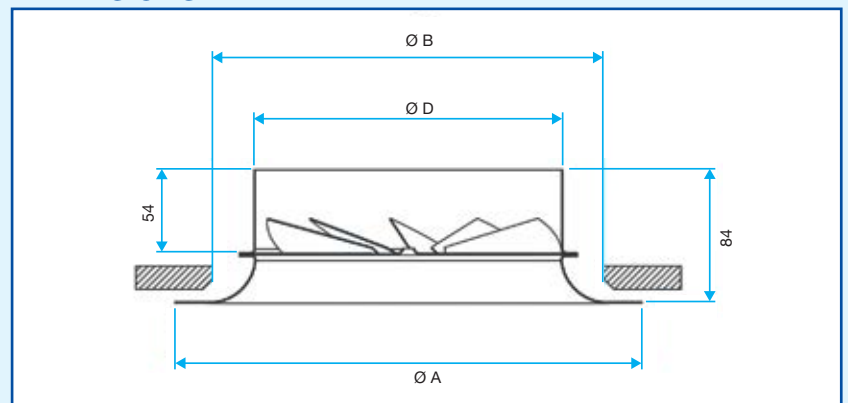
ACCESSORIES

- LRE: side connector plenum in galvanised steel.
- BR damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjustment through the diffuser uses a screw.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Models available to replace suspended ceiling tiles, see page 168.

DIMENSIONS



SR 861 & SF 861 diffusers

Comfort airflow levels for Lw < NR 30 and dimensions SR 861			
Ø D (mm)	Ø A (mm)	Ø B (mm)	Airflow (m ³ /h)
125	225	175	80
160	250	210	130
200	300	250	200
250	350	300	280
315	415	360	420

Comfort airflow for Lw < NR 30 and connector diameters SF 861			
Ø D (mm)	A (mm)	Ø B (mm)	Airflow (m ³ /h)
125	225	175	80
160	250	210	130
200	300	250	200
250	350	300	280
315	415	360	420

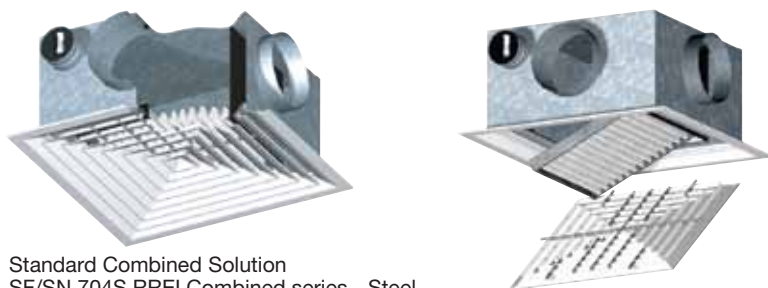
• See selection table on page 243.

RANGE R10

Dimensions	Diffuser SF 861 Code	Diffuser SR 861 Code	Plenum LRE Side connector Code	Damper BR Code
Ø 125	11051121	11051105		
Ø 160	11051122	11051106	11053311	11053220
Ø 200	11051123	11051107	11053312	11053221
Ø 250	11051124	11051108	11053313	11053222
Ø 315	11051125	11051109	11053314	11053223

Special Diffusers

Square diffusers air supply + air exhaust



Standard Combined Solution
SF/SN 704S RREI Combined series - Steel
AF/AN 704S RREI Combined series - Aluminium

Advantages

- Integrated air supply + air exhaust diffuser.
- Saves time during installation.
- Suitable for both centralised air conditioning and convector fans using ducts.
- Access to the air return filter (optional).

APPLICATION

- Simultaneous air supply (on the periphery) and air exhaust (at the centre) for all ventilation and air-conditioning applications.
- Ceiling mounted diffuser designed to replace a 600 x 600 or 675 x 675 mm suspended ceiling tile (T-shaped framework).
- Fixed air diffusion in four directions.
- Heating and air-conditioning installations.

DESCRIPTION

- Double plenum and air diffuser assembly ensuring the functions of air supply and exhaust simultaneously.
- SF and SN types: white epoxy painted steel RAL 9010 tint.
- AF and AN types: diffuser in anodised aluminium, natural satin finish.
- Double plenum in galvanised steel with two branches at 90°.
- Invisible fixing, using a screw in the neck of the diffuser. The plenum is fitted with lugs for fixing to the concrete tile. Use the suspension cables.

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling.

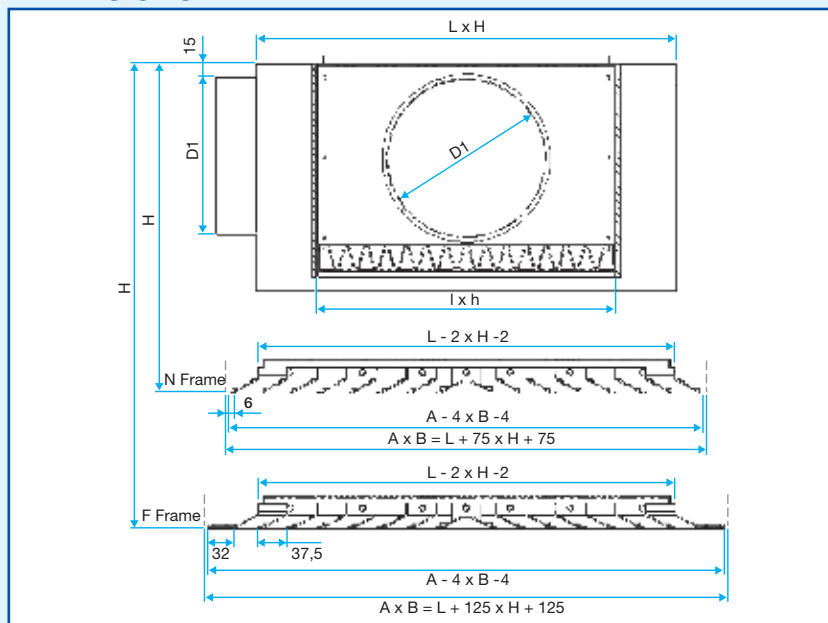
ACCESSORIES

- Folded 35 mm filter – G3 efficiency – M1 fire-resistance rating for air exhaust.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Other connection diameters for the various airflow rates (please, consult us).

DIMENSIONS



704 S R REI diffuser

Comfort airflow levels for LW < NR 35 (air supply + exhaust) and dimensions

Model	A x B* (mm)	L x H (mm)	l x h (mm)	H (mm)	Ø D1 (mm)	Airflow (m³/h)
AF/SF 704S R REI	600 x 600	472 x 472*	323 x 323	355	250	500
AN/SN 704S R REI	600 x 600	525 x 525*	375 x 375	420	315	650
AN/SN 704S R REI	675 x 675	600 x 600**	375 x 375	420	315	850

* Dimensions for 600 x 600 mm suspended ceiling tiles.

** Dimensions for 675 x 675 mm suspended ceiling tiles.

• See selection table on page 244.

RANGE R10

Dimensions	Diffuser SF 704 S Code	Double plenum R-REI Code	Filter (L1 x H1) W Code
472 x 472*	11051051	11003291	11053511
525 x 525 + 600 x 600			11053512

PRODUCT RANGE WITH CHOICE OF OPTIONS R10

Dimensions	Diffuser AF 704 S Code	Diffuser AN 704 S Code	Diffuser SF 704 S Code	Diffuser SN 704 S Code	Double plenum R-REI Code
472 x 472*	11002804		11002803		11003291
525 x 525*		11002807		11002805	11003292
600 x 600**		11002808		11002806	11003293

Special Diffusers

Multi-slot square diffusers air supply + air exhaust



Multi-slot Combined Solution
ALD 610 K - Aluminium

Advantages

- Integrated air supply + air exhaust diffuser.
- Saves time during installation
- Suitable for both centralised air conditioning and convector fans using ducts.
- Access to the air return filter (optional).

APPLICATION

- Simultaneous air supply (on the periphery) and air exhaust (at the centre) for all ventilation and air-conditioning applications.
- Four direction horizontal fixed diffusion with 1, 2, 3 or 4 slots.
- Heating and air-conditioning installations.
- Ceiling mounted diffuser designed to replace a 600 x 600 or 675 x 675 mm suspended ceiling tile (T-shaped framework).

DESCRIPTION

- Diffuser equipped with a double plenum for simultaneous air supply and air exhaust functions.
- Body and deflectors of air supply in aluminium extrusions.
- Central plate (for exhaust) comprising a perforated steel sheet. This plate can have a filter, and in that case the central core opens for easy access.
- Double plenum in galvanised steel with two facing branches.
- White epoxy painted steel RAL 9010 tint.
- Diffuser fixed discreetly to plenum using non-removable clips.
- Fixing to all of the concrete tile using the lugs located on the plenum.

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.

ACCESSORIES

- G2 or G3 flat filter delivered mounted in the plenum for air exhaust (M1).
- 5 sided plenum insulation (M1 polyurethane foam).

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

RANGE R10

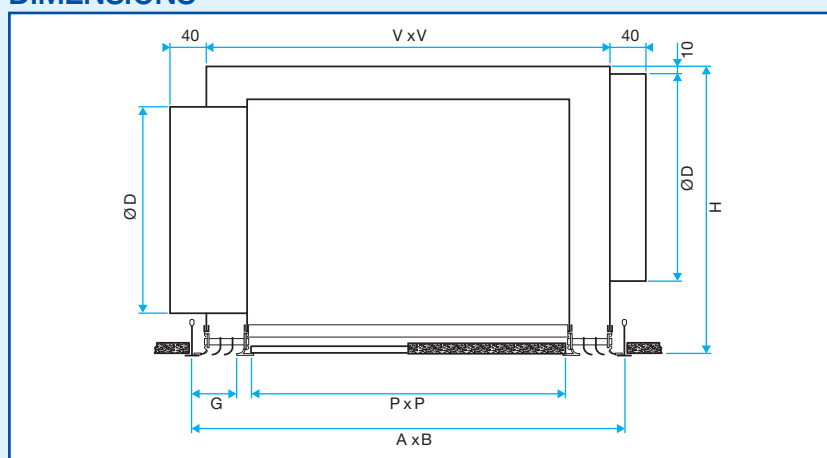
Dimensions	N° slots	Fixed diffuser with perforated sheet metal Combined ALD610K	Opening core with filter included option	Double plenum R-RE	Filter holder on plenum option
		Code	Code	Code	Code
600 x 600	1	11002881	-	11003341	-
600 x 600	2	11002882	-	11003342	-
600 x 600	3	11002883	-	11003343	-
600 x 600	4	11002884	-	11003344	-
675 x 675	1	11002886	-	11003346	-
675 x 675	2	11002887	-	11003347	-
675 x 675	3	11002888	-	11003348	-
675 x 675	4	11002889	-	11003349	-

NB: the diffuser and plenum cannot be sold separately

OPTIONS

Diffuser	Plenum
Epoxy paint according to RAL colour chart.	Connections positioned at 90°
	5 sides insulation

DIMENSIONS



Combined ALD 610 K diffuser

Comfort airflow levels for LW < NR 35 (air supply + exhaust) and dimensions							
A x B* (mm)	Number of slots	P x P (mm)	V x V (mm)	H (mm)	G (mm)	Ø D (mm)	Airflow (m³/h)
600 x 600	1	508 x 508	560 x 560	365	25	250	300
600 x 600	2	474 x 474	560 x 560	365	42	250	500
600 x 600	3	440 x 440	560 x 560	365	59	250	750
600 x 600	4	406 x 406	560 x 560	365	76	250	900
675 x 675	1	583 x 583	635 x 635	365	25	250	350
675 x 675	2	549 x 549	635 x 635	365	42	250	550
675 x 675	3	515 x 515	635 x 635	365	59	250	850
675 x 675	4	481 x 481	635 x 635	365	76	250	1000

- * Nominal ceiling tile dimensions.
- See selection table on page 246.

Special Diffusers

Adjustable diffusers with rotating nozzles



SC 984 diffuser - Steel



Plenum LREI (5)

Advantages

- Aesthetic design.
- Ideally suited for installations requiring a high-volume air displacement.
- Adjustable diffusion.
- Version adapted to 600 x 600 mm. ceiling tiles.
- Easy installation.

APPLICATION

- Air supply; adjustable diffusion.
- Heating and air-conditioning installations.
- Very high levels of air circulation.
- Ceiling mounted.

DESCRIPTION

- Front face in steel plate with RAL9010 tint.
- White plastic rotating nozzles.
- Invisible fixing, using a screw in the neck of the diffuser.
- "T" models adapted to 600 x 600 mm suspended ceiling tiles.

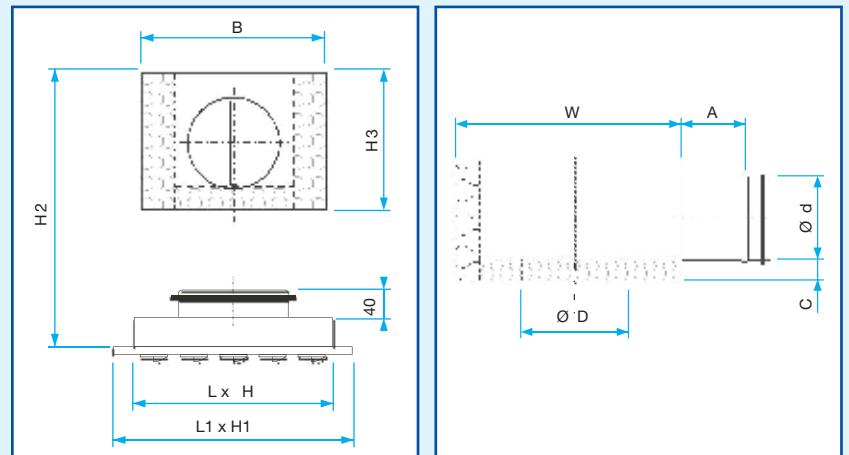
ACCESSORIES

- LREI (5) plenum insulated on 5 sides (side connection).
- Damper with control dial delivered fitted to the plenum connection (supplied as standard).

RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

DIMENSIONS



SC 984 diffuser with plenum

LREI (5) plenum

Comfort airflow levels for Lw < NR 35 and dimensions										
Ø D (mm)	L x H (mm)	L1 x H1 (mm)	Ø d (mm)	H2 (mm)	H3 (mm)	B (mm)	W (mm)	A (mm)	C (mm)	Airflow (m³/h)
125	333	389	100	185	155	250	320	81	30	130
125	333	595*	100	185	155	250	320	81	30	130
160	333	389	125	210	180	300	380	91	40	210
160	333	595*	125	210	180	300	380	91	40	210
200	415	472	160	260	215	370	440	103	35	300
200	415	595*	160	260	215	370	440	103	35	300
250	554	595	200	315	255	465	520	123	30	480
315	554	595	250	360	300	550	580	144	25	600

* Models adapted to 600 x 600 mm suspended ceiling tiles.

Special Diffusers

Jet diffusers



DGH series - Aluminium

Advantages

- Ideal for destratifying air layers in high ceiling premises.
- Adjustable air-jet throw.

APPLICATION

- Air supply for premises with high ceilings of the airport type.
- Long-range diffusion to provide an airflow to the occupied zone, ideal for avoiding stratification of air in heating systems.
- Adjustable diffusion direction – angles of up to 30°.
- Wall or ceiling mounted.

DESCRIPTION

- White epoxy painted aluminium finish, RAL 9010 tint.
- DGH and DGHB: fixing by visible screws against the wall, rectangular frame.
- DGH-C and DGHB-C: fixing directly on to the circular air supply duct.

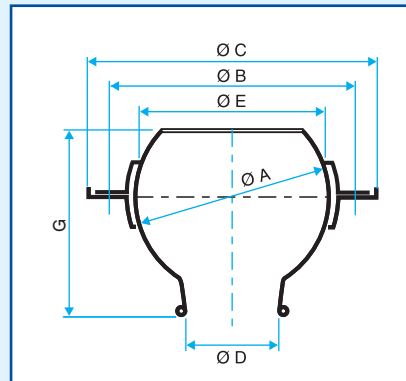
ACCESSORIES

- DGH-C: supplied with circular connector sleeve.
- DGHB: supplied with an integrated damper which can be adjusted.
- DGHB-C: supplied with circular connector sleeve and integrated damper.

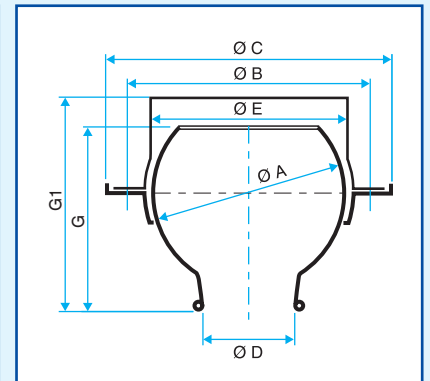
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

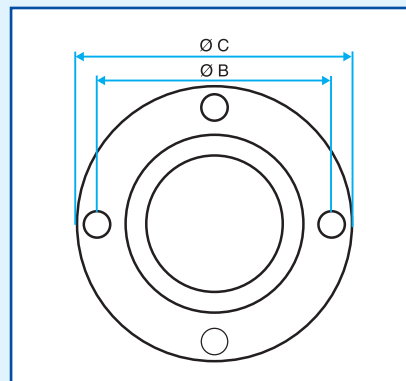
DIMENSIONS



DGH jet diffuser



DGH-C ejector



Comfort airflow levels for Lw < NR 40 and dimensions									
Model (mm)	Ø Réserve (mm)	Ø A (mm)	Ø B (mm)	Ø C (mm)	Ø D (mm)	Ø E (mm)	G (mm)	G1 (mm)	Airflow (m ³ /h)
100	105	95	120	140	45	98	90	98	125
150	165	155	180	200	70	148	140	150	250
200	215	205	240	260	95	198	180	188	450
315	325	315	350	370	160	313	265	305	1000
400	425	415	455	480	225	398	355	395	2000

• See selection table on page 247.

RANGE R10

Dimensions	DGH	DGHB (with damper)	DGHB-C (damper + sleeve)	DGH-C (with sleeve)
	Code	Code	Code	Code
Ø 100	11051681	11051225	11051230	11051220
Ø 150	11051682	11051226	11051231	11051221
Ø 200	11051683	11051227	11051232	11051222
Ø 315	11051684	11051228	11051233	11051223
Ø 400	11051685	11051229	11051234	11051224

Special Diffusers

Jet diffusers



DGH2 series - Aluminium

Advantages

- Ideal for destratifying air layers in high ceilinged premises.
- Adjustable air-jet throw.
- Aesthetic design.

APPLICATION

- Air supply for premises with high ceilings of the airport type.
- Long-range diffusion to provide an airflow to the occupied zone, ideal for avoiding stratification of air in heating systems.
- Adjustable diffusion direction – angles of up to 30°.
- Wall or ceiling mounted.

DESCRIPTION

- White epoxy painted aluminium finish, RAL 9010 tint.
- DGH2: fixing by visible screws against the wall, rectangular frame.
- DGH2-C: fixing directly on to the circular air supply duct.

NOTE: no damper available for this range.

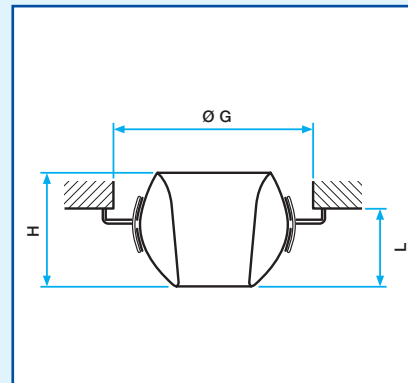
ACCESSORIES

- DGH2-C supplied with circular connector sleeve.

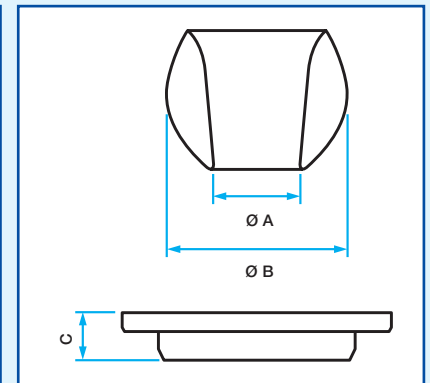
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

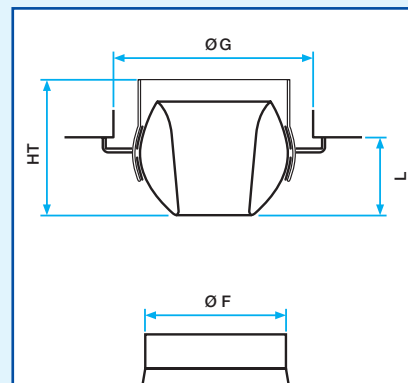
DIMENSIONS



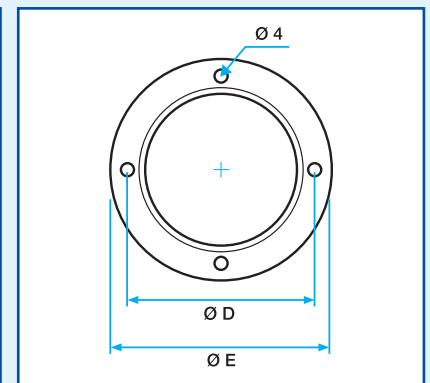
DGH2 jet diffuser



DGH2 jet diffuser



DGH2-C jet diffuser



Connection flange

Comfort airflow levels for Lw < NR 40 and dimensions											
Model (mm)	Ø G (mm)	Ø A (mm)	Ø B (mm)	Ø C (mm)	Ø D (mm)	Ø E (mm)	Ø F (mm)	H (mm)	HT (mm)	L (mm)	Airflow (m ³ /h)
100	105	45	95	25	120	140	98	75	85	50	125
150	165	70	155	25	180	200	148	120	130	80	250
200	215	95	205	30	240	260	198	150	155	100	450
315	325	160	315	35	350	370	313	215	230	145	1000

• See selection table on page 247.

RANGE R10

Dimensions	DGH2	DGH2-C (with sleeve)
	Code	Code
Ø 100	11051281	11051271
Ø 160	11051282	11051272
Ø 200	11051283	11051273
Ø 315	11051284	11051274

Special Diffusers

Thermostatic jet diffusers

New



AR 190 Thermo series - Aluminium

Advantages

- Ideal for de-stratification of air layers in high-ceiling areas
- Adjustable air jet direction.
- Aesthetic design.

APPLICATION

- Air supply for high-ceiling premises such as airports.
- Long-throw diffusion to provide airflow to the occupied zone, ideal for avoiding stratification of air in heating systems.
- Automatic diffusion orientation according to the temperature of the blown air for optimum operation both in winter and summer.
- Can be inclined to 30°.
- Wall or ceiling mounted.

DESCRIPTION

- Aluminium finish with natural anodised colour or epoxy white paint - RAL 9010.
- Heat-sensitive spring made of nickel-titanium alloy to automatically toggle the diffusion angle according to the temperature of the blown air:
 - "winter" position (heating) for de-stratification of hot air.
 - "summer" position (cooling) for perfect management of air speeds in the occupied areas.
- "Winter" and "summer" diffusion angles adjustable on installation using screws (max. +/- 30°)
- Fixed in place using invisible screws on rectangular duct (or plenum), or direct connection to circular supply duct.

Note: no damper available for this range.

ACCESSORIES

- Face plate to cover screws (supplied).
- Connection sleeve for rectangular duct (contact us).
- Connection sleeve for rigid circular duct (contact us).

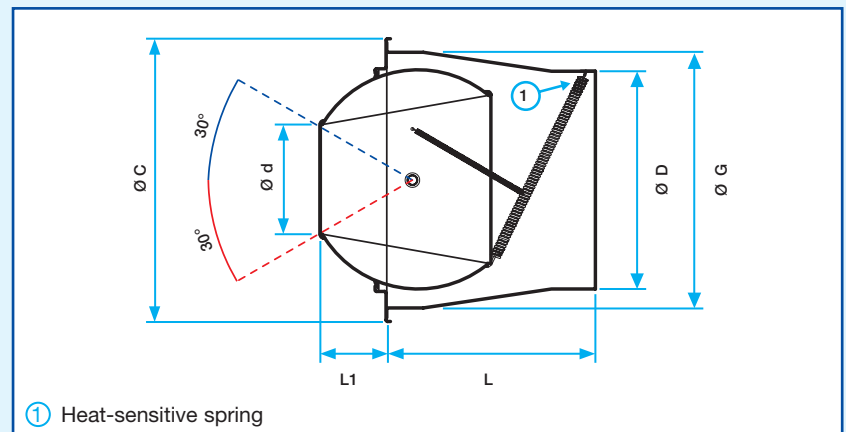
ADDITIONAL RANGE

- Manual adjustment versions: DGH and DGH2 (see previous pages).

RANGE R10

Dimensions	Anodised aluminium jet diffuser AR 190 Thermo Code	White aluminium jet diffuser AR 190 Thermo Code
150	11051264	11051267
200	11051265	11051268
230	11051266	11051269

DIMENSIONS



AR 190 Thermo diffuser

Comfort airflow levels for Lw < NR 40 and dimensions.							
Model (mm)	Ø d (mm)	Ø D (mm)	Ø G (mm)	Ø C (mm)	L1 (mm)	L (mm)	Airflow (m³/h)
150	150	300	362	380	130	285	750
200	200	400	462	480	167	290	1300
230	230	400	462	480	167	290	1700

See selection table on page 247.

Special Diffusers

Jet diffusers



SR 151 S series - Steel

Advantages

- Ideal for destratifying air layers in high ceilinged premises.

APPLICATION

- Air supply for premises with high ceilings of the industrial type.
- Long-range diffusion to provide an airflow to the occupied zone, ideal for avoiding stratification of air in heating systems.
- Adjustable diffusion direction - angles of up to 30°.
- Wall or ceiling mounted.

DESCRIPTION

- White epoxy painted steel finish, RAL9010 tint. Other colours on request.
- Fixing directly on to the circular air supply duct.
- Standard sizes: Ø 200, 250, 300, 350 mm.
- Adjustable core may be rotated through 360° and tilted up to a maximum of 30° from mid position to produce a wide variation in air jet angles.
- Available with one, two, three or four elements per panel.

AVAILABLE OPTIONS

- Painted to RAL, code Z.

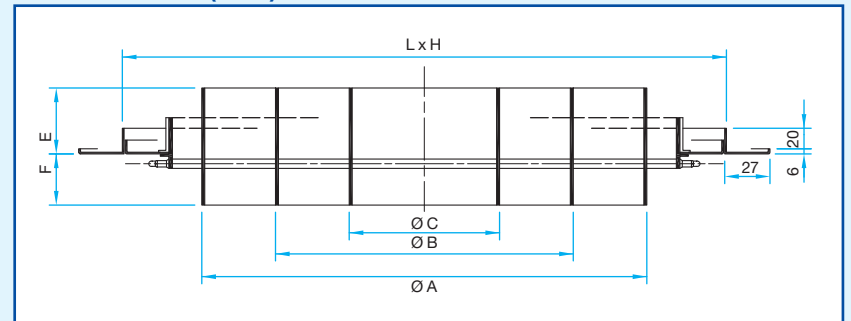
ADDITIONAL RANGE

- Air diffusers are mounted in batteries.
- Paint finish in accordance with the RAL colour chart (please, consult us).

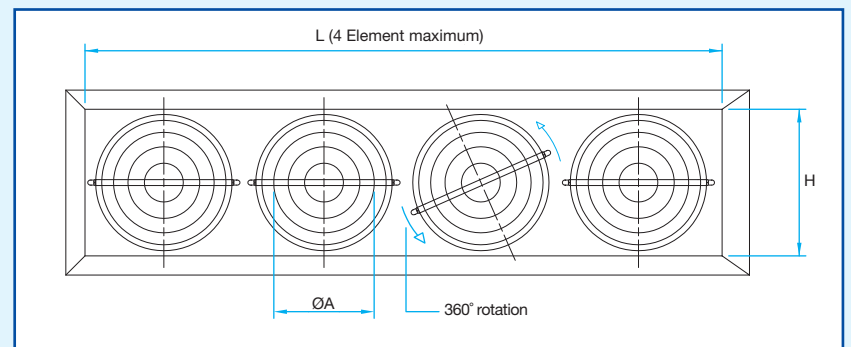
RANGE R10

Dimensions	Code
SR 151 S	(1 elements)
Ø 200	
Ø 250	
Ø 300	
Ø 350	
Ø 400	11051679
SR 152	(2 elements)
Ø 200	
Ø 250	
Ø 300	
Ø 350	
SR 153	(3 elements)
Ø 200	
Ø 250	
Ø 300	
Ø 350	
SR 154	(4 elements)
Ø 200	
Ø 250	
Ø 300	
Ø 350	

DIMENSIONS (mm)



SR 151 diffuser



SR 154 (4 elements) diffuser

Size	No. of elements	L	H	Ø A	Ø B	Ø C	E	F
Ø 200	1	300	300	200	150	100	60	70
	2	600						
	3	900						
	4	1200						
Ø 250	1	350	350	250	175	100	60	70
	2	700						
	3	1050						
	4	1400						
Ø 300	1	400	400	300	200	100	70	90
	2	800						
	3	1200						
	4	1600						
Ø 350	1	450	450	350	225	100	70	90
	2	900						
	3	1350						
	4	1800						
Ø 400	1	500	500	400	250	100	70	100

• See selection table on page 247.

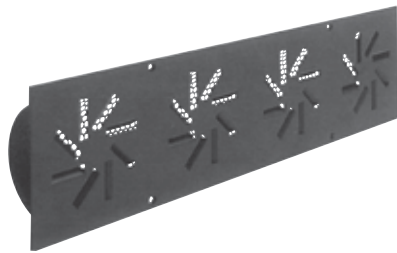
Special Diffusers

Square diffusers for risers

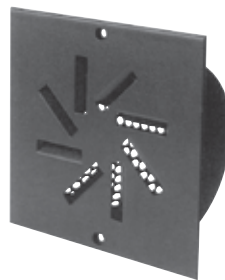
New

Advantages

- Individual air diffusion per seat.
- High induction swirl jet.
- Floor mounting



Diffuser Mini - AWT 4 x 8 - Steel



Diffuser Mini - AWT 8

APPLICATION

- Diffuser suitable for amphitheatre or auditorium.
- For installation in the stair risers behind chairs or in the floor.
- Swirl diffusion ensuring homogeneous temperature distribution.

DESCRIPTION

- Steel construction.
- Black epoxy painted steel finish, RAL 9005 tint.
- Fitting by visible screws.

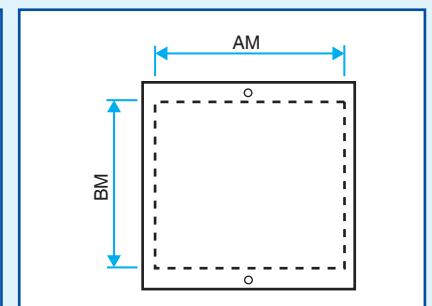
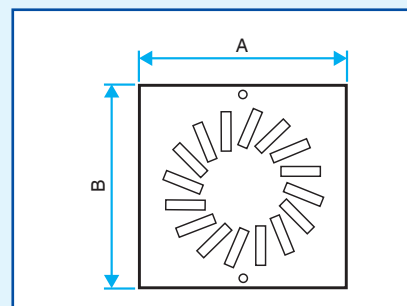
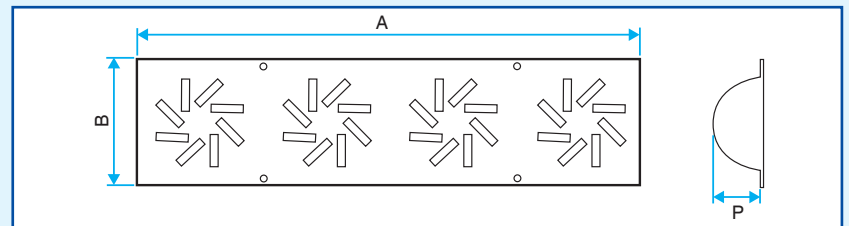
ACCESSORY

- Semi-cylindrical distribution steel sheet supplied as standard model.

ADDITIONAL RANGE

- Linear version.
- Paint finish in accordance with the RAL colour chart (please consult us).
- Connection plenum (please consult us).

DIMENSIONS



Comfort airflow levels for Lw < NR 20 and dimensions.				
AM x BM (mm)	Number of slots	A x B (mm)	P (mm)	Airflow (m ³ /h)
105 x 95	8	130 x 130	50	20
130 x 120	12	155 x 155	50	30
150 x 140	16	175 x 175	50	40
185 x 175	24	210 x 210	50	60
475 x 95	4 x 8	498 x 130	50	80

RANGE R10

Dimensions	Diffuser Mini - AWT Code
105 x 95	11051190
130 x 120	11051191
150 x 140	11051192
185 x 175	11051193
475 x 95	11051194

Special Diffusers

High Induction textile ducts

New



CSI series - textile

Advantages

- Ideal for air destratification in high ceiling premises.
- High rate of air induction.

APPLICATION

- Air diffusion for large volume premises with high ceilings.
- Ventilation, heating and/or air-conditioning installations.
- Suitable for atmospheres charged with salt, acid, etc.

DESCRIPTION

- The operating principle of the CSI is based on the induction phenomenon. This effect is obtained by means of appropriate piercing holes throughout the whole length of a CSI textile duct.
- Each hole acts as an air supply nozzle. The air is ejected at high speed, creating a depression zone around the duct, causing the movement of a mass of air throughout the room.
- This system ensures uniform temperatures throughout the room, without causing annoying draughts.
- To respect fire protection regulation, the fabric exists in two versions:
 - M0: incombustible (fibreglass). Available in three colours: aluminium grey, black or white.
 - M1: non-flammable (PVC). Several colours available (please consult us).
- The fabric will not degrade with time (treated against the effects of dust, UV radiation and acidic atmospheres).
- Numerous fixing systems are available for use in suspending ducts (cables, rails with or without moving truck(s)).
- Zip fastenings every 15 m for ease of installation.

ADDITIONAL RANGE

- Flexible ducts in porous material, exclusively for cooling installations (diffusion at very low speed - please consult us).
- Flexible ducts in fabric with slots for hot/cold installations and low ceiling heights (contact us for details).

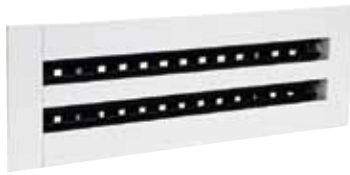


RANGE

Nominal diameter (mm)	Comfort airflow for Lw < NR 40 (m³/h)	Max. weight per metre (M0 fabric) (g/m)	Height of the duct Installation at rest (mm)
200	1000	450	400
250	1500	550	500
315	2500	650	600
355	2800	750	650
400	3500	850	750
450	4500	950	800
500	5500	1050	900
560	6800	1150	1000
630	8800	1300	1050
710	11500	1500	1200
800	14500	1600	1350
900	19200	1800	1500
1000	25000	2000	1700
1120	31000	2200	1850
1250	40000	2500	2100

Slot Diffusers

Adjustable aluminium slot diffusers



AG 280 BDE - Extruded aluminium

Advantages

- Adjustable diffusion.
- Aesthetic design.
- Possible exhaust filtration.
- Integrated damper.

APPLICATION

- Supply or exhaust systems.
- Adjustable diffusion using two directional deflectors on each slot.
- Heating installations ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air-conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.
- Ceiling mounted.

DESCRIPTION

- AG 200 series: available in slots of 20 mm, 25 mm and 12.5 mm, from 1 to 8 slots.
- For continuous length assembly, the maximum length per section will be 3000 mm complete with alignment strips.
- Two air pattern deflectors per slot provide an adjustable air pattern of 180° fully. The hit-and-miss damper does not affect the air pattern and can be used as an equalizing grid.

ACCESSORIES

- Connector plenum and lever in simple galvanised steel (P/S3) or insulated on two sides (PI/S3).

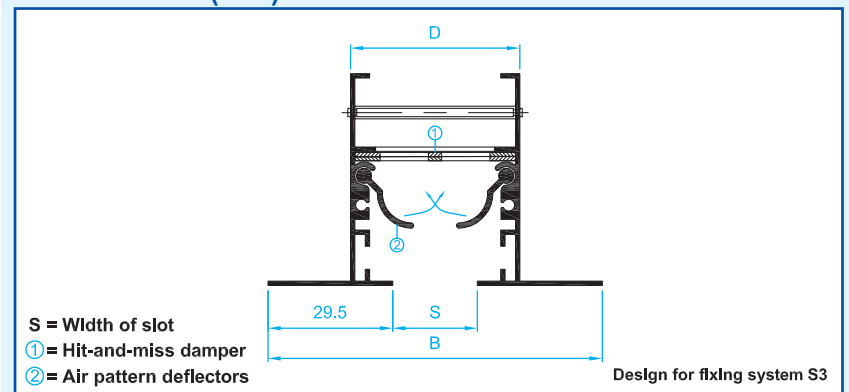
RANGE

Description	Code
AG 270 - No of slots 1 to 8	
AG 280 - No of slots 1 to 8	
AG 290 - No of slots 1 to 8	

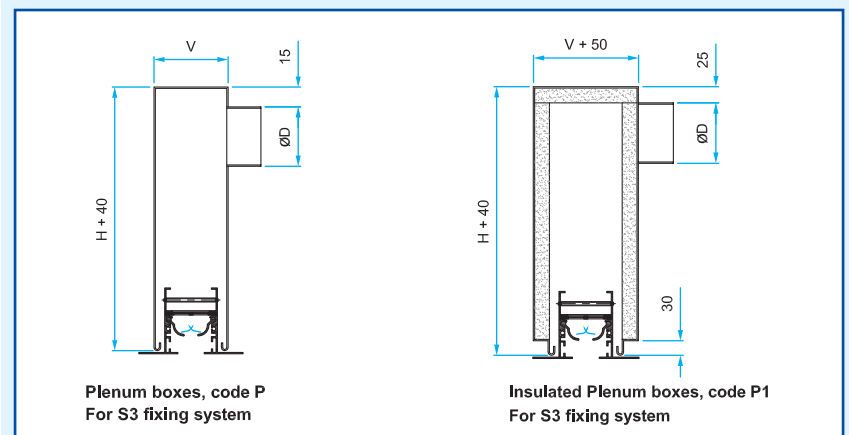
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Version with between 5 and 8 slots (please, consult us).
- For the linear strips version (please, consult us).
- Corner pieces (please, consult us).
- For the expansion and insulated connection on 5 faces (please, consult us).
- Version without deflector or damper (please, consult us).

DIMENSIONS (mm)



AG 270 S = 12.5 mm			AG 280 S = 20 mm			AG 290 S = 25 mm		
No. of Slots	B	D	No. of Slots	B	D	No. of Slots	B	D
1	69	33	1	77	40	1	82	45
2	100	63	2	115	78	2	125	88
3	131	94	3	154	117	3	169	132
4	162	125	4	192	155	4	212	175
5	193	156	5	231	193	5	256	218
6	224	187	6	269	232	6	299	262
7	255	218	7	308	270	7	343	305
8	286	249	8	346	309	8	386	349



AG 270 S = 12.5 mm				AG 280 S = 20 mm				AG 290 S = 25 mm			
No. of Slots	H	Ø D	V	No. of Slots	H	Ø D	V	No. of Slots	H	Ø D	V
1	250	123	53	1	250	123	60	1	250	158	65
2	250	158	83	2	250	158	98	2	250	198	108
3	300	198	117	3	300	198	137	3	300	198	152
4	300	198	145	4	300	248	175	4	300	248	219
5	300	198	176	5	300	248	213	5	300	248	238
6	300	248	207	6	300	248	252	6	365	313	282
7	300	248	238	7	365	313	290	7	365	313	325
8	300	248	268	8	365	313	328	8	365	313	368

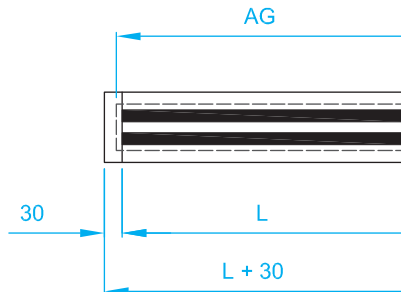
• See selection table on page 244 - 245.

Slot Diffusers

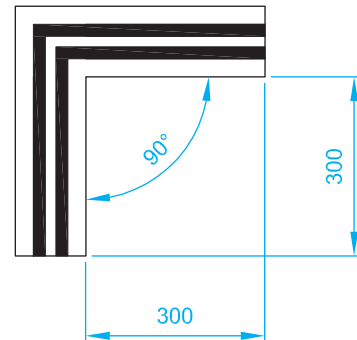
Assembly options

End Caps

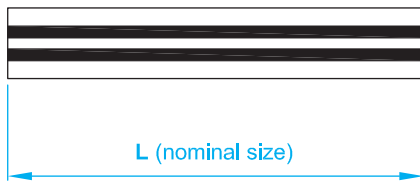
Flange type AG



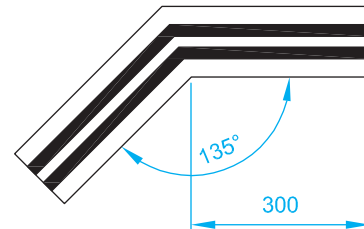
Corner Section



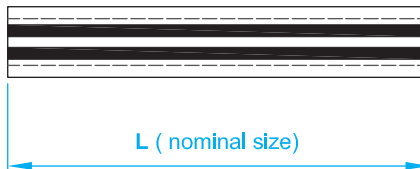
Code K 90



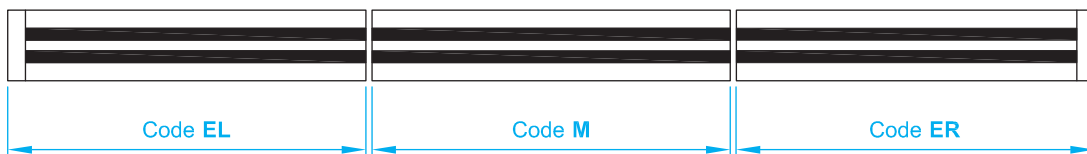
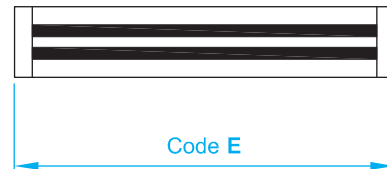
Slot diffuser without end caps



Code K 135



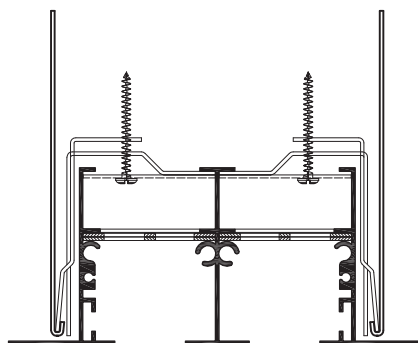
Slot diffuser without end caps (left or right)
Code EL or ER



Installation Details

Concealed bracket mounting

Code S3



Concealed bracket mounting for flange type AG as illustrated on the above drawing (Bracket & screw not supplied)

Slot Diffusers

Adjustable aluminium slot diffusers



AN 285 D TP
1200 x 300 mm



AN 294 TP
600 x 600 mm

Advantages

- Adjustable diffusion.
- Aesthetic design.
- Replaces a standard suspended ceiling tile.
- Adapted to T frames or Fine-line frames.
- Slot length adjustable independently of ceiling panel.

APPLICATION

- Supply or exhaust systems – adjustable diffusion using two directional deflectors on each slot.
- Heating and air-conditioning installations.
- Ceiling mounted.
- Designed to replace a standard type T or Fine-line suspended ceiling tile.
- Inlet air supply models with filter replacing filter in duct-mounted convector fans.

DESCRIPTION

- Extruded aluminium body with RAL9010 tint.
- Ceiling-mounted compensation plate in RAL9010 tinted steel.
- Aluminium deflectors with RAL9005 black.
- Type 280 D: slot width 20 mm.
- Type 290 D: slot width 25 mm.
- Standard slot length (L) is the maximum available length in the selected ceiling panel. This length (L) can be reduced on request depending on the installation airflow.

NOTE: types 280 and 290: diffusers without deflectors to be used for air exhaust only. Come in air inlet filter holder models with core mounted on hinges and push-push opening.

- Concealed fixing, using screws in the plenum (type S2). The plenum is fitted with lugs for fixing to the concrete tile. Use the suspension cables.

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling.

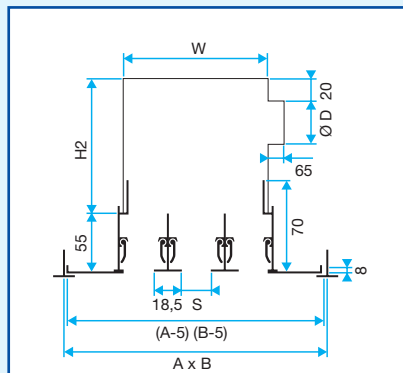
ACCESSORIES

- B: slide damper, in galvanised black sheet steel. Adjustable from the front panel of the diffuser. Delivered mounted on the diffuser.
- 1/2 B: attractive cover in black coloured sheet steel allowing for reducing the "openwork" effect of the slots (pointless with D deflectors). Delivered mounted on the diffuser.
- White deflectors (type D only).
- Connecting and expansion plenum in simple or insulated galvanised steel (models P280 and P290).

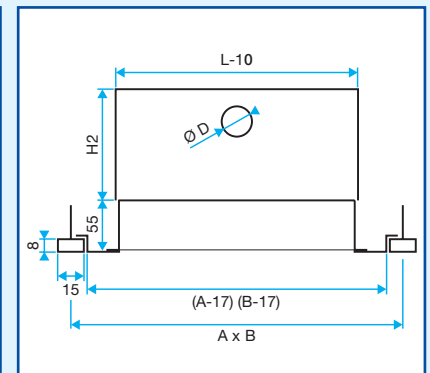
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Available in up to 8 slots if the ceiling width allows (please, consult us).
- Slot length (L) can be adjusted depending on airflow and / or desired attractiveness (please, consult us).
- Linear range without compensation plate (see preceding pages).

DIMENSIONS



Ceiling mounted with T profiles



Ceiling mounted with Fine-line profiles

AN 280 D TP : S = 20 mm				
Comfort airflow levels in m ³ /h for Lw < NR 30 and dimensions				
No. of slots	W (mm)	H2* (mm)	Ø D (mm)	Air supply airflow (m ³ /h)
1	34	175	125	125
2	72	210	160	225
3	110	250	200	300
4	149	300	250	400
5	187	300	250	480
6	225	300	250	550
7	263	365	315	610
8	302	365	315	700

• See selection tables on page 282.

AN 290 D TP : S = 25 mm				
Comfort airflow levels in m ³ /h for Lw < NR 30 and dimensions				
No. of slots	W (mm)	H2* (mm)	Ø D (mm)	Air supply airflow (m ³ /h)
1	39	210	160	150
2	82	250	200	270
3	125	250	200	400
4	169	300	250	500
5	212	300	250	600
6	255	365	315	710
7	298	365	315	810
8	342	365	315	900

• See selection table on page 244 - 245.

* Add 10 mm for the fitter holder version.

Slot Diffusers

Adjustable aluminium slot diffusers



AN 285 D TP
1200 x 300 mm



AN 294 TP
600 x 600 mm

Advantages

- Adjustable diffusion.
- Aesthetic design.
- Replaces a standard suspended ceiling tile.
- Adapted to T frames or Fine-line frames.
- Slot length adjustable independently of ceiling panel.

280D TP and 290D TP air supply diffusers and exhaust diffusers

A x B H / L	AN280DTP code 11002174 - AN290DTP code 11002176 AN280TP code 11002173 - AN290TP code 11002175							
	600x300 570	900x300 870	1200x300 1170	1350x300 1320	600x600 570	675x675 645	1200x600 1170	1350x675 1320
1	•	•	•	•	•	•	•	•
2	•	•	•	•	•	•	•	•
3	•	•	•	•	•	•	•	•
4	•	•	•	•	•	•	•	•
5	•	•	•	•	•	•	•	•
6	•	•	•	•	•	•	•	•

280 TP and 290 TP air exhaust diffusers filter holder

A x B H / L	AN280TP+O code 11002177 - AN290TP+O code 11002178							
	600x300 570	900x300 870	1200x300 1170	1350x300 1320	600x600 570	675x675 645	1200x600 1170	1350x675 1320
4	•	•	•	•	•	•	•	•
5	•	•	•	•	•	•	•	•
6	•	•	•	•	•	•	•	•

P280 and P290 air supply or air exhaust plenums

H / L	P280 code 11002122 - P290 code 11002123				
	570	645	870	1170	1320
1	•	•	•	•	•
2	•	•	•	•	•
3	•	•	•	•	•
4	•	•	•	•	•
5	•	•	•	•	•
6	•	•	•	•	•

AVAILABLE OPTIONS

Diffuser	Options on plenum
White deflectors (type D only)	Special depth
Slide damper B	Special diameter on connectors
Attractive cover 1/2 B	Additional connectors
For T-bar or Fine-line type ceilings	Fresh air connector
Protective film	2 sides insulation
Epoxy paint according to RAL colour chart	5 sides insulation
	G3 filter included

Slot Diffusers

Fixed high airflow level aluminium slot diffusers



AF 792 F0 - (AF791 - AF792 series - aluminium)

Advantages

- Capable of handling large volumes of airflow.
- Easy installation in all types of suspended ceilings with a length of 675 mm.

APPLICATION

- Horizontal air supply diffusion, fixed by 2 or 4 slots.
- Heating installations ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.
- To be mounted in a suspended ceiling.

DESCRIPTION

- Body and deflectors in extruded aluminium.
- Fixed central core.
- White epoxy painted aluminium finish, RAL 9010 tint.
- Fixing by screw into the neck of the diffuser.
- The plenum is fitted with lugs for fixing to the concrete tile.

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.

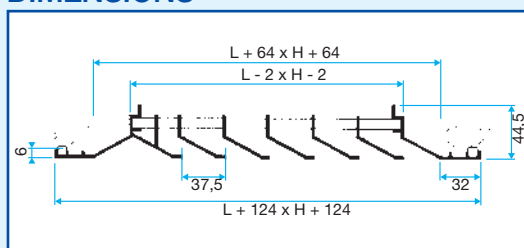
ACCESSORIES

- Damper B 700 in aluminium. Counter-rotating dampers. Adjustment via the front panel of the diffuser. Mounted on the diffuser using the clips supplied.
- Connector plenum and lever in galvanised steel - side connector (type RE).

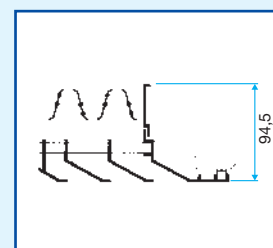
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- F7 fixings for non-removable fixed ceiling tiles (please, consult us).
- For the linear strips version (please, consult us).
- Insulated connector plenum (please, consult us).

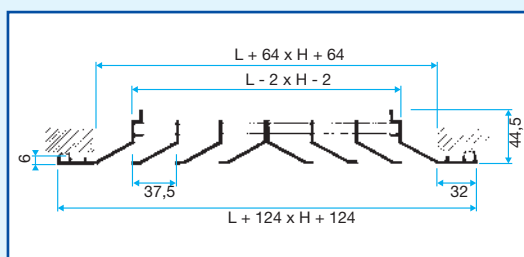
DIMENSIONS



AF 791R diffuser alone



Diffuser + B700 damper



AF 792R diffuser alone

Comfort airflow levels for $Lw < NR 30$ and dimensions

Modèle	L x H (mm)	Tile (mm)	H plenum (mm)	Ø (mm)	Airflow (m ³ /h)
AF 791 Z F0	472 x 75	600	235	125	190
AF 791 Z F0	472 x 150	600	270	160	290
AF 791 Z F0	547 x 75	675	235	125	220
AF 791 Z F0	1072 x 75	1200	310	200	430
AF 791 Z F0	1072 x 150	1200	425	315	660
AF 792 Z F0	1072 x 150	1200	425	315	660
AF 792-1 Z F0	1072 x 150	1200	425	315	660

- For dimensions of the plenums, please contact us.
- See selection table on page 243.

Directions of the air supply and number of slots

Model	AF 791 Z F0	AF 792 Z F0	AF 792-1 Z F0
Width	75	150	150
No. of slots	2	4	4
Directions of air supply			

RANGE R10

Dimensions	1 direction diffuser AF 791 Z F0	2 directions diffuser AF 792 Z F0	2 directions diffuser AF 792-1 Z F0	Damper B 700	Plenum side connection RE
	Code	Code	Code	Code	Code
472 x 75	11051241			11051331	11053541
472 x 150	11051242			11051334	11053544
547 x 75	11051243			11051332	11053542
1072 x 75	11051244			11051333	11053543
1072 x 150	11051245	11051246	11051247	11051335	11053545

Slot Diffusers

Diffusers compatible with Armstrong® Tech Zone

New



TechLined 280 - TechLined 290 series - Aluminium

Advantages

- Perfect integration into Armstrong Tech Zone suspended ceilings.
- Diffusion can be oriented independently on each slot.
- Finish is identical to Armstrong Tech Zone tiles and frames.

APPLICATION

- Diffusers specially developed for perfect integration into Armstrong Tech Zone suspended ceilings.
- Installation by replacing the Armstrong ceiling tile in the "technical area" of the ceiling, by realigning with the other items of equipment such as luminaires or sprinklers for instance.
- Air supply or exhaust for all ventilation and air-conditioning applications.
- Adjustable diffusion.

DESCRIPTION

- Body and deflectors in extruded aluminium.
- Exhaust models not fitted with deflectors. Also available in opening filter panel models with core mounted on hinges and push-push opening.
- Ceiling-mounted compensation plate in RAL9010 galvanised steel.
- "Global White" epoxy white paint mat 20% finish, identical to the finish on Armstrong Tech Zone tiles and frames.
- Aluminium deflectors with RAL9005 black paint.
- S2: concealed fixing of the diffuser to the plenum by screws.
- Fixing to the concrete tile using the lugs located on the plenum.

NB: the weight of the diffuser must not be borne by the frame of the suspended ceiling. Use the suspension cables page 534.

- Adapted to TechZone ceilings with a width of 150 mm and 300 mm.
- Possibility of 1 to 6 slots depending on the width of the ceiling.

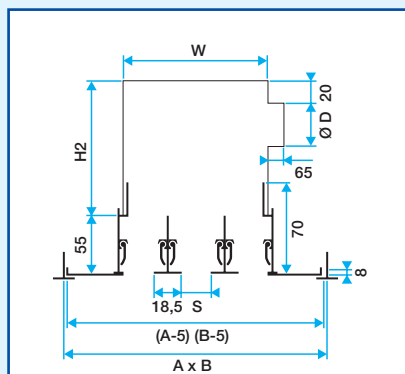
ADDITIONAL RANGE

- Epoxy paint finish in RAL9010 mat 20% on request (no other tints available).

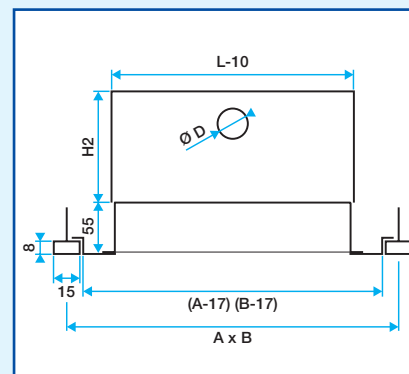
ACCESSORIES

- B: slide damper, in galvanised black sheet steel. Adjustable from the front panel of the diffuser. Delivered mounted on the diffuser.
- 1/2 B: aesthetic cover in black coloured sheet steel allowing the reduction of the "openwork" effect of the slots (pointless with D deflectors). Delivered mounted on the diffuser.
- White deflectors (type D only).
- Connection and expansion plenum in simple or insulated galvanised steel (models P280 and P290).

DIMENSIONS



Ceiling-mounted BOARD with T24



Ceiling-mounted MICROLOOK with SILHOUETTE

Comfort airflow levels in m³/h for Lw < NR 30 and dimensions

Number of slots	TechLined 280				TechLined 290			
	W (mm)	H2* (mm)	Ø D (mm)	Air supply airflow (m ³ /h)	W (mm)	H2* (mm)	Ø D (mm)	Air supply airflow (m ³ /h)
1	34	175	125	125	39	210	160	150
2	72	210	160	225	82	250	200	270
3	110	250	200	300	125	250	200	400
4	149	300	250	400	169	300	250	500
5	187	300	250	480	212	300	250	600
6	225	300	250	550	255	365	315	710

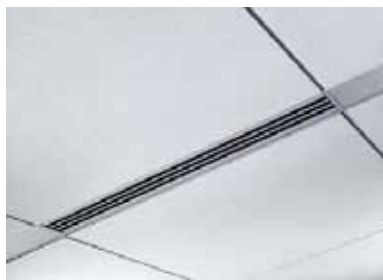
*Add 10 mm for the filter retainer version. See selection table on page 244 and 245.

Maximum number of slots and nominal length (L) per type of ceiling

Ceiling	Maximum number of slots				Ceiling tile 1200	Ceiling tile 1350
	TechLined 280		TechLined 290			
	Width 150	Width 300	Width 150	Width 300	L (mm)	L (mm)
BOARD T24	3	6	2	6	1170	1320
VECTOR T24	2	6	2	5	1150	1300
TEGULAR or SL2 with T24	2	6	2	5	1150	1300
MICROLOOK T15	3	6	2	6	1159	1309
MICROLOOK INTERLUDE	3	6	2	5	1159	1309
MICROLOOK SILHOUETTE	3	6	2	5	1159	1309

Slot Diffusers

Diffusers compatible with Armstrong® Tech Zone



TechLined 280 - TechLined 290 series - Aluminium

TechLined 280 D and TechLined 290 D air supply diffusers and exhaust diffusers

A x B H / L	TechLined280D code 11002305 - TechLined290D code 11002306 TechLined280 code 11002301 - TechLined290 code 11002302			
	1200x150 1170	1350x150 1320	1200x300 1170	1350x300 1320
1	•	•	•	•
2	•	•	•	•
3	•	•	•	•
4	•	•	•	•
5	•	•	•	•
6	•	•	•	•

TechLined 280 D and TechLined 290 D exhaust diffusers filter retainer

A x B H / L	TechLined280+O code 11002303 - TechLined290+O code 11002304	
	1200x300 1170	1350x300 1320
4	•	•
5	•	•
6	•	•

P280 et P290 air supply or exhaust plenums

H / L	P280 code 11002122 - P290 code 11002123	
	1170	1320
1	•	•
2	•	•
3	•	•
4	•	•
5	•	•
6	•	•

AVAILABLE OPTIONS

Diffuser	Plénum
White deflectors (type D only)	Special depth
Slide damper B	Special diameter on connections
Aesthetic cover 1/2 B	Additional connections
For Tbar or Fine Line type ceilings	Fresh air connection
Protective film	2 sides insulation
RAL9010 mat 20% epoxy paint	5 sides insulation
	G3 filter included

Ceiling Diffusers

Multi-slot square diffusers



ALD 610 K with central plate



ALD 610 K with suspended ceiling tile

Advantages

- Diffuser adapted to standard 600 x 600 and 675 x 675 mm ceiling tiles.
- Aesthetic design.
- Access to the air return filter.
- Accepts variable flow system.

APPLICATION

- Air supply or exhaust. Four direction horizontal fixed diffusion with 1, 2, 3 or 4 slots.
- Filter holder version with opening core for easy access to the interior filter.
- Heating installations ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air-conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.
- Ceiling mounted diffuser designed to replace a 600 x 600 or 675 x 675 mm suspended ceiling tile (T-shaped framework).

DESCRIPTION

- Body and deflectors in epoxy painted aluminium extrusions, RAL 9010 white tint.
 - White epoxy painted steel RAL 9010 tint.
- NOTE: the central plate may be replaced by a suspended ceiling tile cut in the same format as the plate for a more attractive integration.

- Filter holder model with opening central core.
- Side (RE type) or top (RT type) connection plenum in galvanised steel, simple or insulated.
- Diffuser fixed to plenum using non-removable clips. Fixing to all of the concrete tile using the lugs located on the plenum.

NOTE: the diffuser weight must not be borne by the structure of the suspended ceiling. Use the suspension cables.

ACCESSORIES

- G2 or G3 flat filter for exhaust (M1).
- Adjustment damper mounted on the plenum with access via the diffuser.
- 2 or 5 sided plenum insulation (M1 polyurethane foam).

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

RANGE ^{R10}

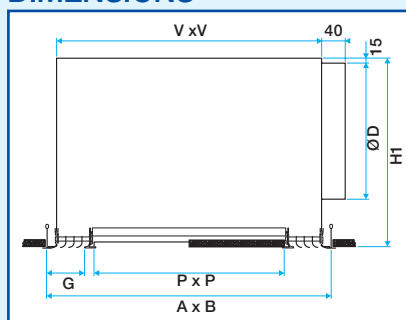
Dimensions	N°. slots	Fixed diffuser without central plate ALD610K	Full central plate option	Opening core with filter included option	Plenum side connection RE610	Filter holder on RE610 plenum option	Damper on RE610* plenum (option)	Plenum with top connection RT610
		Code	Code	Code	Code	Code	Code	Code
600 x 600	1	11002861	-	-	11003321	-	-	11003331
600 x 600	2	11002862	-	-	11003324	-	-	11003334
600 x 600	3	11002863	-	-	11003324	-	-	11003334
600 x 600	4	11002864	-	-	11003324	-	-	11003334
675 x 675	1	11002866	-	-	11003326	-	-	11003336
675 x 675	2	11002867	-	-	11003329	-	-	11003339
675 x 675	3	11002868	-	-	11003329	-	-	11003339
675 x 675	4	11002869	-	-	11003329	-	-	11003339

NB: the diffuser and plenum cannot be sold separately

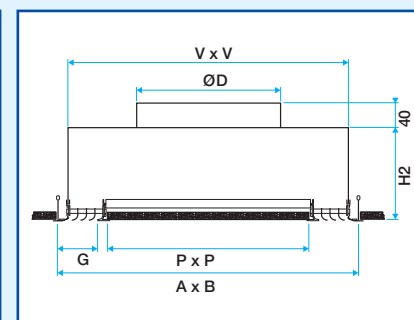
AVAILABLE OPTIONS

Diffuser	Plenum
Epoxy paint according to RAL colour chart	1 additional connector
	2 sides insulation
	5 sides insulation

DIMENSIONS



ALD 610 K diffuser with plenum with side connection



ALD 610 K diffuser with plenum with bottom connection

Comfort airflow levels for $L_w < NR 35$ and dimensions

A x B* (mm)	No of slots	P x P (mm)	V x V (mm)	H1 (mm)	H2 (mm)	G (mm)	Ø D (mm)	H1** (mm)	Ø D** (mm)	Airflow (m ³ /h)
600 x 600	1	508 x 508	560 x 560	265	125	25	200	325	250	300
600 x 600	2	474 x 474	560 x 560	325	125	42	250	325	250	500
600 x 600	3	440 x 440	560 x 560	325	125	59	250	325	250	750
600 x 600	4	406 x 406	560 x 560	325	125	76	250	325	250	900
675 x 675	1	583 x 583	635 x 635	265	125	25	200	325	250	350
675 x 675	2	549 x 549	635 x 635	325	125	42	250	325	250	550
675 x 675	3	515 x 515	635 x 635	325	125	59	250	325	250	850
675 x 675	4	481 x 481	635 x 635	325	125	76	250	325	250	1000

* Nominal ceiling tile dimensions.

**Air inlet diffuser version with filter only.

• See selection tables on page 248.

NOTE: the diffuser and its plenum cannot be sold separately.

Ceiling Diffusers

Fixed square diffusers for ceiling tiles



AN 704 TP - SF 704 TP series
Aluminium or steel



AF 704
with filter for air exhaust



Damper B 700

Advantages

- Designed for 600 x 600 mm suspended ceiling tiles.
- Aesthetic design.
- Air exhaust filter.
- The filter is accessible by a quick and simple dismantling of the central core.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 mm suspended ceiling tile (T-shaped framework).
- Air supply or exhaust, fixed diffusion pattern.
- Heating installations ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air-conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.
- Possibility of adding a filter for air exhaust use.

DESCRIPTION

- External frame and core assembly of extruded aluminium sections (AN type) or in sheet steel section (SF type).
- Based on the design of the type 704 diffuser as standard, integrated into an aluminium or steel plate.
- White epoxy painted, RAL 9010 tint.
- Invisible fixing, using a screw in the neck of the diffuser. The plenum is fitted with lugs for fixing to the concrete tile.

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.

ACCESSORIES

- B700 aluminium damper. Counter-rotating dampers. Adjustment via the front panel of the diffuser. Mounted on the diffuser using the clips supplied.
- W4 folded filter (50 mm in height) G3, M1 fire rating, for air exhaust use. Access to the filter is made by a simple and rapid central core.

NOTE: the use of a W4 filter is incompatible with the B700 damper.

- RT connection plenums (top connection) and RE (side connection) in galvanised steel.
- REI (5) side connection plenums in galvanised steel, thermally insulated on five face (to avoid any risk of condensation in air-conditioning.)

ADDITIONAL RANGE

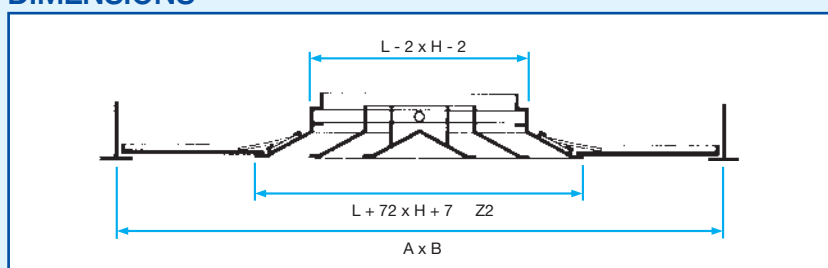
- Models adapted to 675 x 675 mm suspended ceilings or with Fine-line frameworks (please, consult us).
- Paint finish in accordance with the RAL colour chart (please, consult us).
- Various connection diameters for connection on RT and RE plenums.
- For exhaust air filtration (please, consult us).

RANGE R10

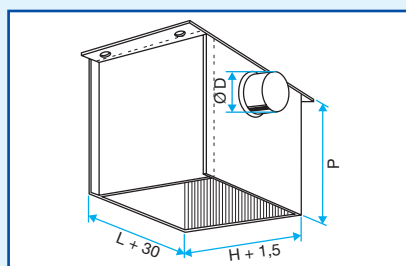
Dimensions	Steel diffuser SF 704 TP Code	White aluminium diffuser AN 704 Z TP Code	Damper B 700 Code	Insulated side plenum REIF (5) Code	Side plenum RE Code	Rear plenum RT Code
150 x 150	11051076	11051746	11051321		11053610	11053580
225 x 225	11051077	11051747	11051322	11053594	11053613	11053583
300 x 300	11051078	11051748	11051323	11053595	11053615	11053585
375 x 375	11051079	11051749	11051324	11053596	11053618	11053588

Dimensions	Filter cassette (G3 filter included) CW4 Code	G3 filter alone (for spare) W4 Code
150 x 150	11053431	11053371
225 x 225	11053432	11053372
300 x 300	11053433	11053373
375 x 375	11053434	11053374

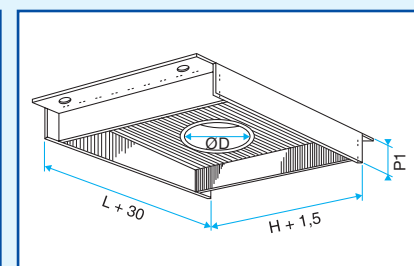
DIMENSIONS



AN 704 TP - SF 704 TP diffusers



RE type plenum



RT type plenum

Comfort airflow levels for $L_w < NR 30$ and dimensions						
L x H (mm)	A x B* (mm)	P1 (mm)	P (mm)	Ø D (mm)	Air supply airflow (m ³ /h)	Air exhaust airflow with filter (m ³ /h)
150 x 150	600 x 600	115	215	125	180	130
225 x 225	600 x 600	115	250	160	320	230
300 x 300	600 x 600	165	340	250	500	350
375 x 375	600 x 600	165	405	315	650	440

- * Nominal ceiling tile dimensions.
- See selection table on page 249.

Ceiling Diffusers

Square, removable core diffusers



AF 704 - Extruded aluminium profiles
AF 704A - Readymade cores



AF 704
with filter for air exhaust



Damper B700

Advantages

- Aesthetic design.
- 1, 2, 3 or 4 way diffusion.
- Air exhaust filter.
- The filter is accessible by a quick and simple dismantling of the central core.

APPLICATION

- Fixed horizontal air supply diffusion.
- Simple heating installations ($\Delta T_{max} = +30^\circ C$) and air-conditioning ($\Delta T_{max} = -14^\circ C$) installations.
- Ceiling mounted.

DESCRIPTION

- External frame and inner core in extruded aluminium assembled profile (AF 704, AF 703, AF 702, AF 701)
- External frame in extruded profiles and inner readymade cores (AF 704A)
- Removable core using a system of clips for access to the interior.
- Finish : white epoxy painted matte finish - RAL9010 tint.
- Concealed fixing, by lateral screws in the neck.
- Connection to circular ducts.

ACCESSORIES

- Damper B 700 in aluminium. Counter-rotating shutters. Adjustment via the front panel of the diffuser. Mounted on the diffuser using the clips supplied.
- RT (top connection) and RE (side connection) plenums in galvanised steel.
- REI (5) side connection plenum in galvanised steel - thermal insulation on 5 faces.

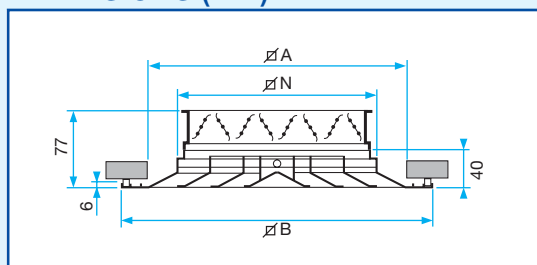
AVAILABLE OPTIONS

- Visible flange screw, code F1 (for AF flange only).
- Concealed bracket fixing, code F7.
- Optional frame, code AS.
- All above types are available with opposed blade damper, adjustable from diffuser front face. eg. AF 704 B.

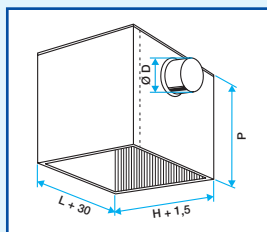
ADDITIONAL RANGE

- Thin framed versions. Rectangular versions.
- Paint finish in accordance with the RAL colour chart (please, consult us).

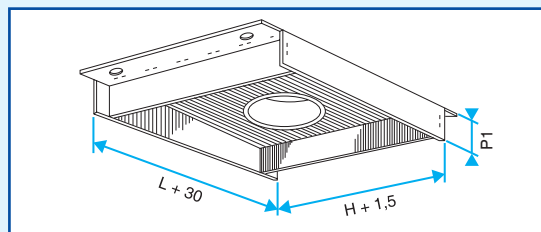
DIMENSIONS (mm)



Diffuser + B 700 damper



RE connecting plenum



RT connecting plenum

Comfort airflow levels for $L_w < NR 30$ and dimensions

Dimensions L x H (mm)	∅ N (mm)	∅ A (mm)	∅ B (mm)	P1 (mm)	P (mm)	∅ D (mm)	Air supply airflow (m ³ /h)	Air exhaust airflow with filter (m ³ /h)
150 x 150	148	214	274	115	215	125	180	130
225 x 225	223	289	349	115	250	160	320	230
300 x 300	298	364	424	165	340	250	500	350
375 x 375	373	439	499	165	405	315	630	440
472 x 472*	470	536	596	215	445	355	950	670
525 x 525	523	589	649	215	445	355	1100	770
600 x 600	598	664	724	215	490	400	1400	980

* Designed for suspended ceiling tiles.

• See selection table on page 249.

RANGE

Dimensions	1-way diffuser AF 701 Code	2-way diffuser AF 702 Code	3-way diffuser AF 703 Code	4-way diffuser AF 704 Code	4-way diffuser AF 704 A Code
150 x 150					
225 x 225					
300 x 300					
375 x 375					
450 x 450					
472 x 472*					
525 x 525					
600 x 600					

Ceiling Diffusers

Square diffusers accessories



B 700 Damper

OPPOSED BLADE DAMPER (OBD)

Code B

- The specially designed blades have an overlapping lip, which assures a tight closure.
- Blades are under spring wire tension to prevent rattling.
- Adjustment by lever through the front face of diffuser.
- Extruded aluminium construction / black matt finish.

EQUALIZING GRID

Code D

- Individually adjustable blades, to provide precise directional control of air through the diffuser. Nylon tension bushes.
- Extruded aluminium construction/ black matt finish.

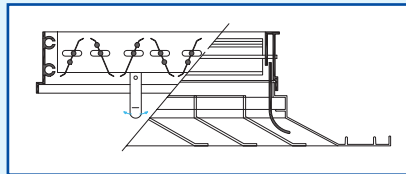
CIRCULAR DUCT CONNECTION ADAPTORS

- Suitable for supply and exhaust ceiling diffusers.
- Round inlet.
- Galvanized steel construction.
- Special construction available on request.

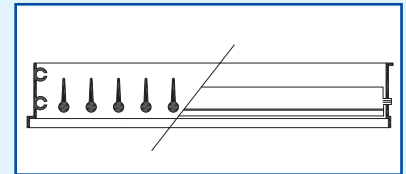
RANGE

Dimensions	Damper B 700 Code
150 x 150	
225 x 225	
300 x 300	
375 x 375	
450 x 450	
472 x 472*	
525 x 525	
600 x 600	

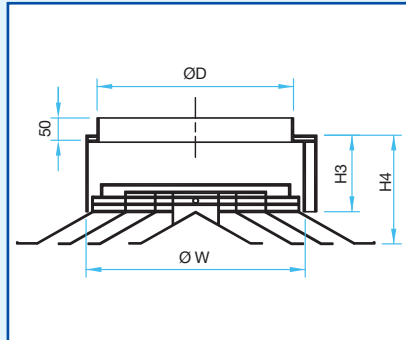
DIMENSIONS (mm)



OBD

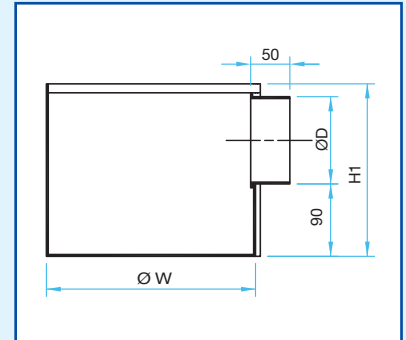


Equalizing grid



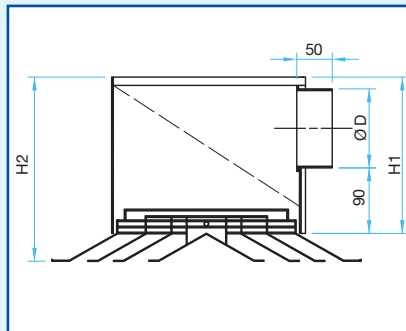
RT

Square to round adaptor without perforated plate. Top inlet.



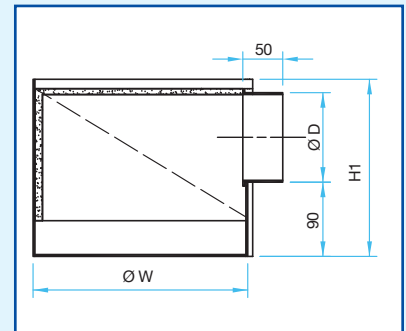
RE

Square to round adaptor without perforated plate. Side inlet.



RS

Square to round adaptor without perforated plate. Side inlet.



RSI

Insulated square to round adaptor with perforated plate. Side inlet.

Dim.	Ø D	Ø W	Type RS		Type RT	
			H1	H2	H3	H4
150	123	148	245	263	115	133
225	198	223	320	338	115	133
300	248	298	368	388	165	183
375	313	373	435	453	165	183
450	398	448	520	538	215	233
472	398	470	520	538	215	233
525	398	523	520	538	215	233
600	498	598	620	638	215	233

Ceiling Diffusers

Fixed circular diffusers for ceiling tiles



SC 832 TP series - Steel



BR damper

Advantages

- Designed for 600 x 600 mm suspended ceiling tiles.
- Easy installation.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 mm suspended ceiling tile (T-shaped framework).
- Horizontal air supply, fixed diffusion pattern.
- Simple heating and air-conditioning installations.

DESCRIPTION

- Fixed circular cones in pressed steel.
 - Compensation plate in steel to replace a suspended ceiling tile.
 - Concealed fixing to the concrete tile, using a screw in the neck of the diffuser.
- NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.
- Direct connection to circular ducts or the LRE plenum.
 - Finish - white epoxy painted steel RAL 9010 tint.

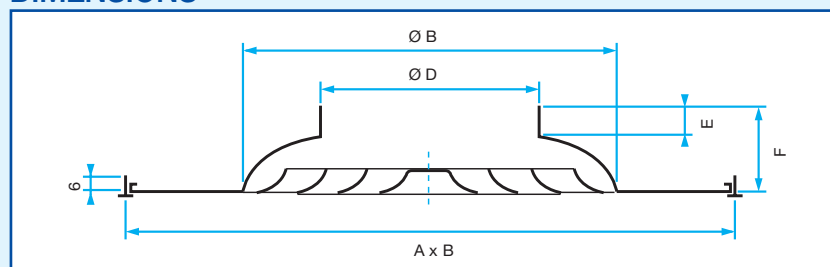
ACCESSORIES

- Butterfly type BR damper with 2 V-shaped blades.
- LRE side connection plenum in galvanised steel.

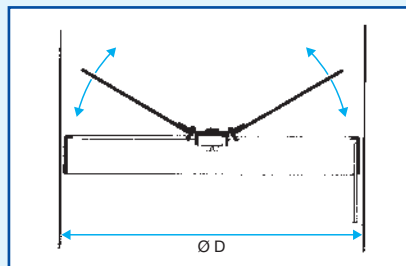
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

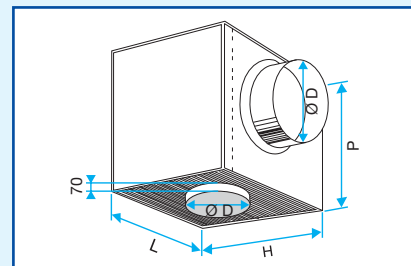
DIMENSIONS



SC 832 TP diffuser



BR damper



LRE plenum

Comfort airflow levels for $L_w < NR 35$ and dimensions

Ø D (mm)	A x B* (mm)	Ø B (mm)	E (mm)	F (mm)	P (mm)	Airflow from (m ³ /h)
160	600 x 600	188	60	104	210	250
200	600 x 600	235	60	104	250	450
250	600 x 600	294	60	104	300	600
315	600 x 600	370	60	104	365	900

- * Nominal ceiling tile dimensions.
- For plenum sizes see page 193.
 - See selection table on page 250.

RANGE R10

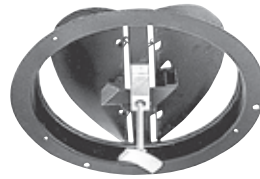
Dimensions	Diffuser SC 832 TP Code	Damper BR Code	Plenum LRE Side connection Code
Ø 160	11051015	11053220	11053311
Ø 200	11051016	11053221	11053312
Ø 250	11051017	11053222	11053313
Ø 315	11051018	11053223	11053314

Ceiling Diffusers

Fixed circular diffusers



SC 831 series - Steel



Damper BY

Advantages

- Easy installation.

APPLICATION

- Horizontal air supply, fixed air diffusion pattern.
- Simple heating ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air-conditioning ($\Delta T_{\max} = - 14^{\circ} \text{C}$) installations.
- Ceiling mounted or on exposed ductwork.

DESCRIPTION

- Protruding pressed steel circular cones.
- Finish - white epoxy painted steel RAL 9010 tint.
- Visible fixing to ceiling, using screws in the external cone and FR mounting ring or BY damper.
- Connection to circular ducts.

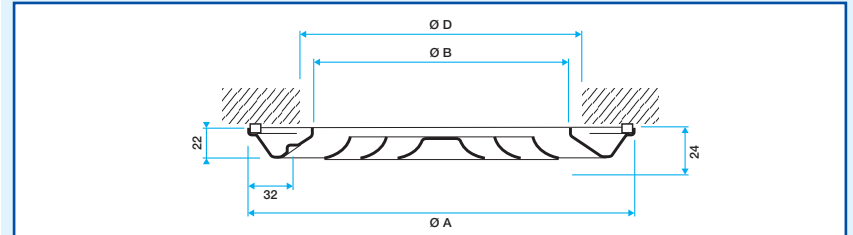
ACCESSORIES

- FR mounting ring in steel.
- BY damper in steel, also used as a mounting ring. Adjusted through the centre of the diffuser. Adjustment key supplied with the damper.
- LRE side connection plenum in galvanised steel.

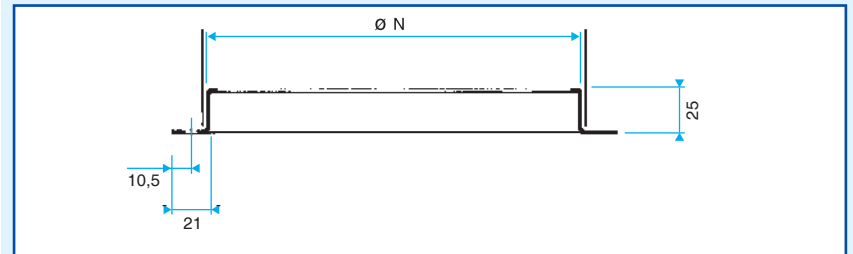
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).

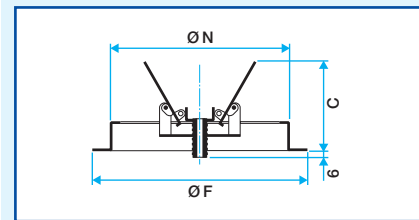
DIMENSIONS



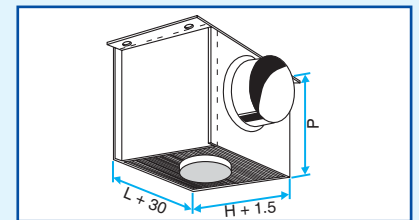
SC 831 diffuser



FR mounting ring



BY damper



LRE plenum

Accessories: Dimensions

Ø N (mm)	Ø A (mm)	C (mm)
160	190	110
200	240	110
250	290	140
315	340	165
355	390	180

Diffusers: Comfort airflow levels for $L_w < NR 35$ and dimensions

Ø N (mm)	Ø A (mm)	Ø B (mm)	E (mm)	Airflow (m ³ /h)
160	230	134	24	250
200	282	186	30	450
250	334	238	35	600
315	386	290	40	900
355	440	340	45	1200

- See selection table on page 250.
- For plenum sizes, see page 193.

RANGE R10

Dimensions	Diffuser SC 831 Code	Mounting ring FR Code	Damper BY Code	Plenum LRE Side connection Code
Ø 160	11051020	11053440	11053180	11053311
Ø 200	11051021	11053441	11053181	11053312
Ø 250	11051022	11053442	11053182	11053313
Ø 315	11051023	11053443	11053183	11053314
Ø 355	11051024	11053444	11053184	11053315

The LRE plenum does not dispense with the need of using an FR mounting ring.

Ceiling Diffusers

Adjustable circular diffusers for ceiling tiles



AT 842 series - Aluminium



BR damper

Advantages

- Replaces a 600 x 600 mm suspended ceiling tile.
- Aesthetic design.
- Wide airflow level range.
- Highly simplified adjustment (patented system).
- Easy ceiling fixing using the F16 lugs.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 mm suspended ceiling tile (T-shaped framework).
- Adjustable horizontal or vertical air supply diffusion.
- Heating installations ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air -conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.

DESCRIPTION

- Outer cone in aluminium and core in pressed steel.
 - Adjustable air diffusion by a quick and easy worm screw system (patented).
 - Designed from a standard AF 842 diffuser whose outer cone is extended from a compensation plate for 600 x 600 mm ceiling tiles (pressed into one part).
 - Fixing to the concealed concrete tile using lugs mounted on the diffuser (F16 fixing).
- NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.
- Connection to circular ducts or the LRE plenum.
 - Finish - white epoxy painted steel RAL 9010 tint.

ACCESSORIES

- BR damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjusted through the diffuser by direct movement of the blade
- BY damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjusted through the diffuser by direct movement of the blades.
- LRE side connection plenum in galvanised steel.

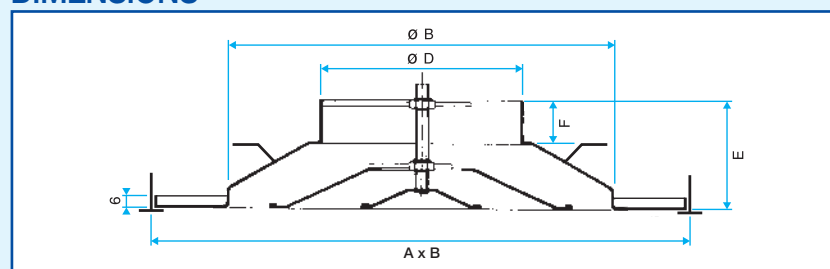
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- LRE insulated connection plenums or with different connection diameters (please, consult us).

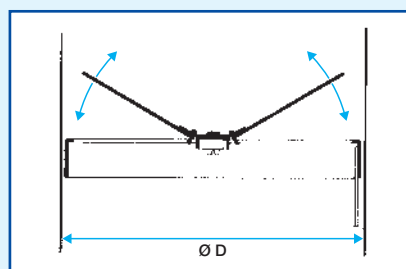
RANGE R10

Dimensions	Diffuser AT 842 F16 RAL9010 Code	Damper BR Code	Plenum LRE Side connection Code
Ø 160	11051071	11053220	11053311
Ø 200	11051072	11053221	11053312
Ø 250	11051073	11053222	11053313
Ø 315	11051509	11053223	11053314

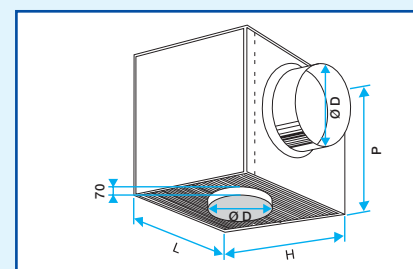
DIMENSIONS



AT 842 diffuser



BR damper



LRE plenum

Comfort airflow levels for $L_w < NR 35$ and dimensions

Ø D (mm)	A x B* (mm)	Ø B (mm)	E (mm)	F (mm)	P (mm)	Airflow (m ³ /h)
160	600 x 600	295	110	55	210	250
200	600 x 600	370	120	60	250	400
250	600 x 600	465	135	60	300	650
315	600 x 600	555	150	60	365	900

- * Nominal ceiling tile dimensions.
- For plenum sizes see page 193.
- See selection table on page 249.

Ceiling Diffusers

Adjustable circular diffusers



AF 842 series - Aluminium



BR damper

Advantages

- Available in two standard finishes.
- Wide airflow level range.
- Highly simplified adjustment (patented system).
- Easy ceiling fixing using the F16 lugs.

APPLICATION

- Adjustable horizontal or vertical air supply diffusion.
- Heating ($\Delta T_{\max} = + 30^{\circ} \text{C}$) and air-conditioning ($\Delta T_{\max} = - 16^{\circ} \text{C}$) installations.
- Ceiling mounted or on exposed ductwork.

DESCRIPTION

- External cone in aluminium and core in pressed steel.
- Adjustable air diffusion by a quick and easy worm screw system (patented).
- Painted in epoxy, white RAL 9010 or coloured alu. RAL 9006.
- Fixing to the concealed concrete tile using lugs mounted on the diffuser (F16 fixing).
- Direct connection on a circular duct or using the LRE plenum.

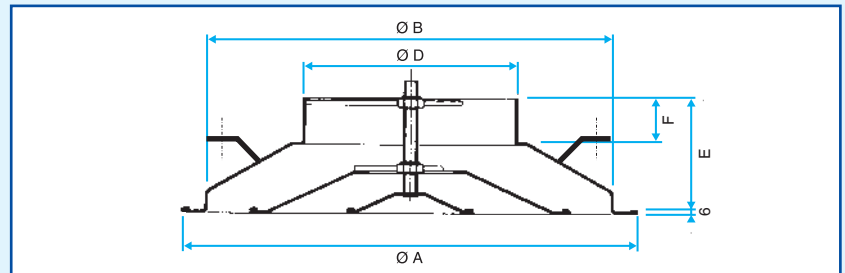
ACCESSORIES

- BR damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjusted through the diffuser by direct movement of the blades.
- BY damper: butterfly type with either 2 or 4 V-shaped blades (depending on diameter). Manufactured in steel. Adjusted through the diffuser by direct movement of the blade.
- LRE side connection plenum in galvanised steel.

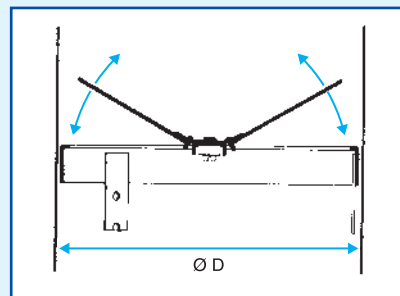
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- LRE insulated connection plenums or with different connection diameters (please, consult us).

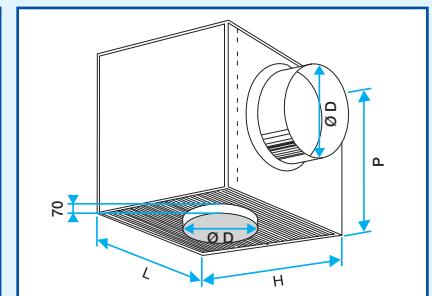
DIMENSIONS



AF 842 diffuser



BR damper



LRE plenum

Comfort airflow levels for $L_w < NR 35$ and dimensions

Ø D (mm)	Ø A (mm)	Ø B (mm)	E (mm)	F (mm)	P (mm)	L x H (mm)	Airflow (m ³ /h)
160	354	295	110	55	210	220 x 220	250
200	428	370	120	50	250	265 x 265	400
250	532	465	135	50	300	315 x 315	650
315	623	555	150	50	365	375 x 375	850
355	730	645	187	75	405	420 x 420	1100
400	776	690	185	78	450	460 x 460	1300
500	909	807	195	79	550	560 x 560	1800
630	1045	950	184	75	680	690 x 690	2500

• See selection table page 249.

RANGE R10

Dimensions	Diffuser AF 842 F16 RAL9010 Code	Diffuser AF 842 F16 RAL9006 Code	Damper BR Code	Plenum LRE Side connection Code
Ø 160	11051060	11051521	11053220	11053311
Ø 200	11051061	11051522	11053221	11053312
Ø 250	11051062	11051523	11053222	11053313
Ø 315	11051063	11051524	11053223	11053314
Ø 355	11051064	11051525	11053224	11053315
Ø 400	11051065	11051526	11053225	11053316
Ø 500	11051067	11051528	11053227	11053318
Ø 630	11051068	11051529	11053228	

Ceiling Diffusers

Adjustable square diffusers for ceiling tiles



SC 360 R - Steel
SC 369 series



SC 360 R - Rear

Advantages

- Designed for 600 x 600 mm suspended ceiling tiles.
- Circular connection to gain installation time.
- Diffusion 1, 2, 3 or 4 ways adjustable on-site.

APPLICATION

- Ceiling mounted diffuser designed to replace a 600 x 600 mm suspended ceiling tile (T-shaped framework).
- Air supply (SC 360 R model) or air exhaust (SC 369 R model).
- Adjustable diffusion in one to four directions by means of individually adjustable deflectors.
- Heating ($\Delta T_{max} = + 30^{\circ} C$) and air-conditioning ($\Delta T_{max} = - 16^{\circ} C$) installations where airflow levels are large and modulated.
- Possible exhaust filtration.

DESCRIPTION

- Removable perforated sheet metal.
- Based on the design of a SC 310 R or SC 319 R diffuser as standard, integrated into a steel compensation plate.
- Finish - white epoxy painted steel RAL 9010 tint.
- Fixing to the concealed concrete tile using lugs mounted on the diffuser (F16 fixing).

NOTE: the diffuser weight must not be borne by the frame of the suspended ceiling. Use the suspension cables.

- Direct connection to circular ducts.
- Thermally insulated version to avoid any risk of condensation under air conditioning.

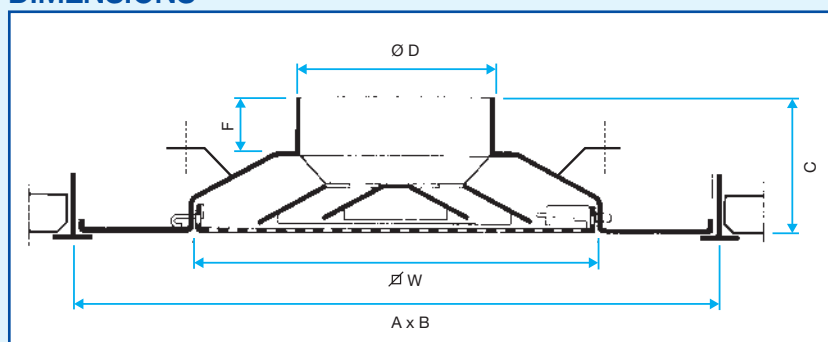
ACCESSORIES

- Dampers and plenums used for standard diffusers.
- W flat filter, attached to the T-stop ring M1 fire rating, G3, for exhaust diffusers SC 369 R.

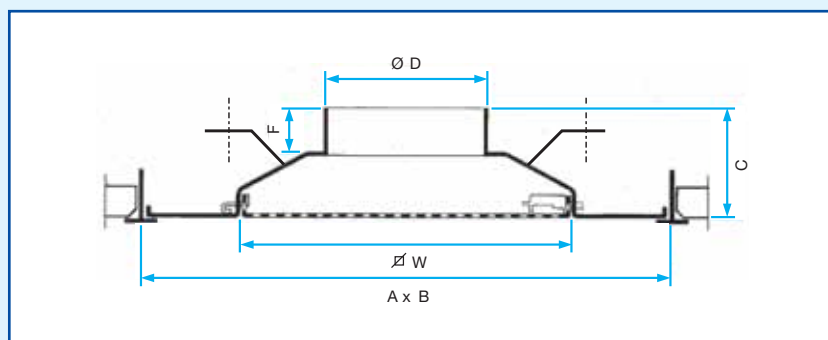
ADDITIONAL RANGE

- Models adapted to 675 x 675 mm suspended ceilings or with Fine-line frameworks (please, consult us).
- Paint finish in accordance with the RAL colour chart (please, consult us).
- SC 350 R range with the compensation plate completely perforated for a different aesthetic design (please, consult us).

DIMENSIONS



SC 360 R air supply diffuser



SC 369 R air exhaust diffuser

Comfort airflow levels for $L_w < NR 30$ and dimensions

Ø D (mm)	A x B* (mm)	∅ W (mm)	C (mm)	F (mm)	Air supply airflow (m³/h)	Air exhaust airflow with filter (m³/h)
160	600 x 600	280	98	55	250	250
200	600 x 600	380	108	60	400	450
250	600 x 600	480	122	60	600	650
315	600 x 600	542	135	60	900	900

- * Nominal ceiling tile dimensions.
- See selection table on page 249.

RANGE R10

Dimensions	Insulated air supply diffuser SC360 RIF (5) F16 Code	Air supply diffuser SC 360 R F16 Code	Exhaust diffuser SC 369 R F16 Code	Spare filter W Code	Damper BR Code
Ø 160		11051145	11051135		11053220
Ø 200	11051159	11051146	11051136	11053519	11053221
Ø 250	11051160	11051147	11051137	11053520	11053222
Ø 315	11051144	11051143	11051173	11053521	11053223

Ceiling Diffusers

Square diffusers with perforated sheet



SC 310 R series - Steel



BR damper



SC 319 R series - Steel

Advantages

- Circular connection and plenum integrated in to the diffuser to gain installation time.
- Diffusion from one to four ways adjustable on site.

APPLICATION

- Air supply (SC 310 R model) or air exhaust (SC 319 R model).
- Adjustable diffusion (in one to four directions) by means of individually adjustable deflectors.
- Heating ($\Delta T_{max} = + 30^{\circ} C$) and air-conditioning ($\Delta T_{max} = - 14^{\circ} C$) installations with adjustable important airflow rates.
- Ceiling mounted.
- Possible air exhaust filtration.

DESCRIPTION

- Removable perforated sheet metal.
- Finish - white epoxy painted steel RAL 9010 tint.
- Fixing to the concealed concrete tile using lugs mounted on the diffuser (F16 fixing).
- Direct connection to circular ducts.

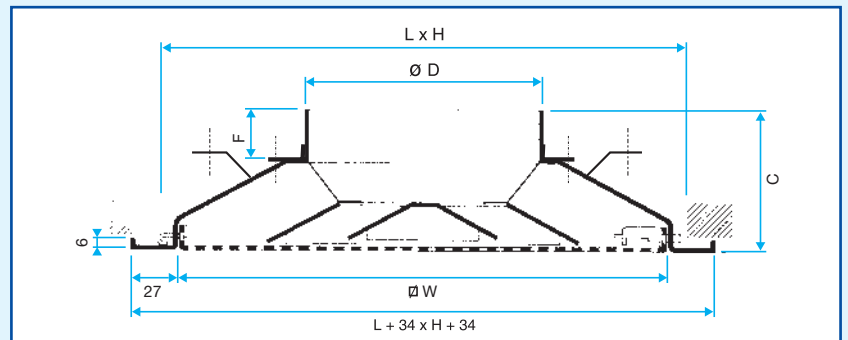
ACCESSORIES

- BR dampers: type butterfly damper with 2-V shaped blades. The damper is fitted into the supply duct.
- Connecting plenum integrated into the diffuser. Circular connection (on the top).
- W flat filter attached to T-stop ring. M1 fire rating. G3 for exhaust diffusers SC 319 R.

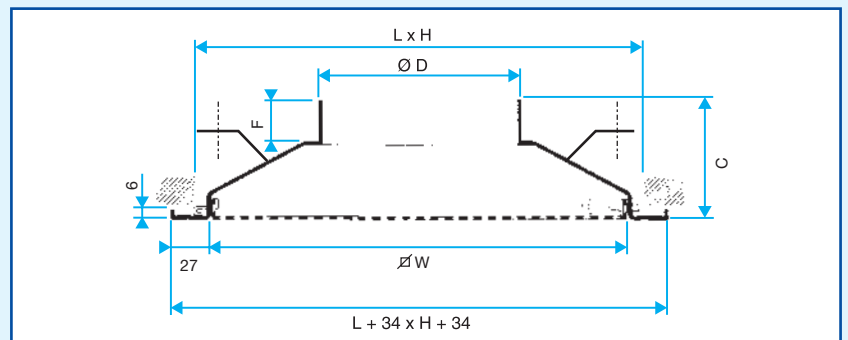
ADDITIONAL RANGE

- Fixed diffusion version.
- Paint finish in accordance with the RAL colour chart (please, consult us).

DIMENSIONS



SC 310 R air supply diffuser



SC 319 R air exhaust diffuser

Comfort airflow levels for Lw < NR 30 and dimensions						
Ø D (mm)	Ø W (mm)	L x H (mm)	C (mm)	F (mm)	Air supply airflow (m³/h)	Air exhaust airflow with filter (m³/h)
160	280	300 x 300	98	55	250	250
200	380	400 x 400	108	60	400	450
250	480	500 x 500	122	60	600	650
315*	542	562 x 562	135	60	900	900

* Designed for 600 x 600 mm suspended ceiling tiles.
• See selection table on page 249.

RANGE R10

Dimensions	Insulated air supply diffuser SC310 RIF (5) F16	Air supply diffuser SC 310 R F16	Exhaust diffuser SC 319 R F16	Spare filter W	Damper BR
	Code	Code	Code	Code	Code
Ø 160		11051140	11051170		11053220
Ø 200		11051141	11051171	11053519	11053221
Ø 250		11051142	11051172	11053520	11053222
Ø 315	11051144	11051143	11051173	11053521	11053223

Small & Constant Exhaust Grilles

Self-balanced systems : General information



Green Product

Bap'SI twin

DESCRIPTION

- In a self-balancing Extract Ventilation system, the grilles and air inlets are self-balancing, guaranteeing a constant airflow whatever the atmospheric conditions or the occupation of the rooms.
- The grilles are installed in wet rooms (kitchen, bath/shower).

AIRFLOW REQUIREMENTS

- The ventilation system must enable the airflow levels indicated in the table opposite at the grilles.

ACOUSTIC REQUIREMENTS

- Acoustic regulations stipulate results to respect: a level of noise perceived at a given location in a room (LnAT, DnT,A). These values depend on the grille, but also on the room parameters (volume and shape, wall coverings, distance between measurement and product).
- For Residential use, the acoustic requirements are stipulated by the administrative decision of 30 June 1999.
- For Commercial use, no such requirements exist.
- Using typical examples of room configurations, we can deduce the requirements concerning the grille itself, independently of the environment (Lw, Dnew).
- Lw: acoustic pressure = perception of noise generated by airflow through the grille
- Dnew (C): acoustic insulation level: aptitude of a grille to prevent the progression of noise from one room to another.

AIRFLOW REQUIREMENTS (according to French building regulation)

Apartment type	Total min.	Kitchen min.	Kitchen max.	Bathroom	Other shower	WC	
						single	multiple
Studio	35	20	75	15	15	15	15
1-bed	60	30	90	15	15	15	15
2 bed.	75	45	105	30	15	15	15
3 bed.	90	45	120	30	15	30	15
4-bed.	105	45	135	30	15	30	15
5 bed.	120	45	135	30	15	30	15
6 bed.	135	45	135	30	15	30	15

ACOUSTIC REQUIREMENTS (according to French building regulation)

Residential

Requirement concerning	Obligation of result	Requirement concerning grilles (examples)
Equipment noise.	LnAT < 35 dB(A) in the kitchen.	Lw < 38 dB (A) if surface area >10 m ² for the kitchen.
	LnAT < 30 dB(A) in a main room.	Lw < 38 dB (A) if surface area >30 m ² for kitchen opening on to the living room.
Insulation between dwellings.	DnT, A>50 dB in kitchen and bathroom.	The requirement concerning the Dnew (C) of the grille depends on the surface area of the room and the diameter of the manifold.
	DnT,A>53 dB in a main room.	

Aeraulic Sizing

APPLICATION

- Self-balancing Mechanical Extract Ventilation
- Residential housing and Commercial premises.
- New buildings and retrofits.

DESCRIPTION

Self-balanced CMEV

- Type of heating: electricity, gas (vented boiler) or other device independent from the Extract Ventilation system.

Self-balanced CMEV with compensation valve

- Type of heating: electricity, gas (vented boiler) or other device independent from the Extract Ventilation system.

Dimensioning of the air inlets to min. airflow.

Self-balanced CMEV for gas applications

- Type of heating - boiler connected to the Extract Ventilation system.

AIRFLOW REQUIREMENTS (according to French building regulation)

Self-balanced

Type of dwelling	Kitchen	Bathroom	Single WC	Multiple WC
Studio	BAP 20/75	BAP 15	BAP 15	BAP 15
1-bed.	BAP 30/90	BAP 15	BAP 15	BAP 15
2-bed.	BAP 45/105	BAP 30	BAP 15	BAP 15
3-bed.	BAP 45/120	BAP 30	BAP 30	BAP 15
4-bed and more	BAP 45/135	BAP 30	BAP 30	BAP 15

Small & Constant Exhaust Grilles

Self-balanced grilles : General information



Bap'SI single airflow



Bap'SI dual airflow



Bap'SI twin

Green Product

APPLICATION

- Self-balanced Mechanical Extract Ventilation
- Residential housing and Commercial premises.
- New buildings and retrofits.

DESCRIPTION

- Self-balanced exhaust grille.
- Self-balance minimum airflow.
- Self-balanced boost airflow, activated on demand, see table opposite.
- Innovative design for perfect integration.
- Accessories that meet all installation needs .
- Pressure range: 50-160 Pa.
- Tolerance on airflow (-0; +30 %).
- Various models:
 - Bap'SI single airflow for airflow needs $\leq 60 \text{ m}^3/\text{h}$: self-balanced minimum airflow (constant airflow whatever the conditions)
 - Bap'SI dual airflow: self-balanced minimum airflow, controlled boost airflow.
 - Bap'SI twin single airflow for airflows from 15 to $150 \text{ m}^3/\text{h}$: self-balanced minimum airflow.
- Bap'SI grilles also exist in modulo versions: the same grille can be used for several airflows (adjustment on site).

INSTALLATION

- Version with $\varnothing 125 \text{ mm}$ shaft
- Connection by slotting into: sleeves, RT Flex, rigid ducts.
- A Roll-In seal (or foam seal for the Bap'SI twin 100 to $150 \text{ m}^3/\text{h}$) ensures an airtight and flush mounting onto the wall/ceiling.
- Versions with $\varnothing 80 \text{ mm}$ shaft
- Connection by slotting into: sleeves, rigid ducts.
- Versions without shaft.
- Connected with a clip on a $\varnothing 125 \text{ mm}$ shaft (Roll-In seal), $\varnothing 116 \text{ mm}$ (Roll-In seal) or $\varnothing 100 \text{ mm}$ (foam seal).
- Screwed directly on to the wall.
- Fixed by clip to the retrofit plate.

CONTROL OF BOOST AIRFLOW

PUSH	SWITCH	PULL CORD
Activated using a push-button (not supplied) Timer-controlled up to 30 minutes.	Activated / deactivated using an ON/OFF switch (not supplied) ON = peak airflow; OFF = minimum airflow.	Activated / deactivated by pulling on the pull cord.
Powered by batteries or mains (with accessories)*.	Powered by batteries or mains (with accessories)*.	No electrical power supply.
* 9 V alkaline battery 6LR61 type (not supplied). Optional 12V AC power supply via CAL (see electrical accessories) p. 210		

ACOUSTIC DETAILS

Type of grille	Lw in dB(A) at 160Pa	Dnew (C) in dB
Bap'SI 15	32	59
Bap'SI 30	31	57
Bap'SI 30/90	32	56
Bap'SI 20/75	32	56
Bap'SI 30/90	31	56
Bap'SI 45/105	38	53
Bap'SI 45/120	38	53
Bap'SI 45/135	38	53
Lw in dB(A) at 160Pa		
Bap'SI twin 15	34	
Bap'SI twin 30	38	
Bap'SI twin 45	41	
Bap'SI twin 60	43	
Bap'SI twin 75	47	
Bap'SI twin 90	49	
Bap'SI twin 100	48	
Bap'SI twin 120	50	
Bap'SI twin 150	51	

* +4 dB minimum with acoustic ring (see accessories).

Small & Constant Exhaust Grilles

Self-balanced grilles

New



Bap'SI single airflow

Compliances

- **NF** Ø125 mm (see range table).
- www.marque-nf.com

Advantages

- Innovative design.
- Roll-In seal.
- Simple to clean and maintain.
- Modulo versions: limits product stocks.

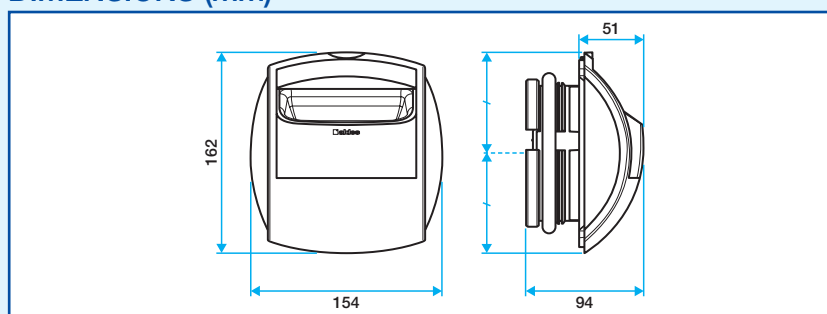
APPLICATION

- Self-balanced Mechanical Extract Ventilation
- Residential housing and Commercial premises (baths, showers, etc.)
- New buildings and retrofits.

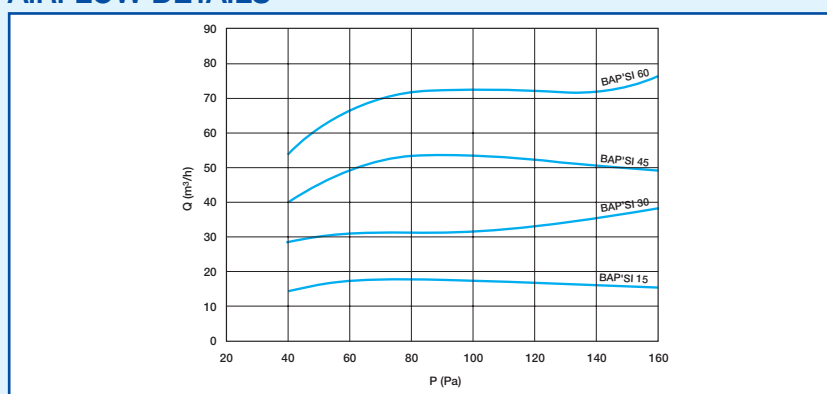
DESCRIPTION

- Single-airflow self-balanced exhaust terminal
- Innovative design, without grille.
- Versions and accessories that meet all installation needs.
- Comprises 3 parts: A technical fitting plate, a regulator, a removable front panel.
- Easy to clean: regulation sub-assembly clipped and unclipped rapidly.
- Modulo: same grille for several different adjustable airflows (see range table).
- modulo S1: for WC and bathrooms in multi-family housing
- modulo S2: for WC/bath in single-family housing and small commercial premises
- Pressure range: 50-160 Pa.
- Tolerance on airflow (-0; +30 %).

DIMENSIONS (mm)



AIRFLOW DETAILS



STANDARD RANGE **R3**

Mounting	Description	Brand	Airflow (m³/h)	Code	Pack.
Ø 125	Bap'SI 15		15	11019003	10
Ø 125	Bap'SI 30		30	11019004	10
Ø 125	Bap'SI 45	-	45	11019005	10
Ø 125	Bap'SI 60	-	60	11019006	10
Without shaft	Bap'SI 15	-	15	11019007	10
Without shaft	Bap'SI 30	-	30	11019008	10
Without shaft	Bap'SI 45	-	45	11019009	10
Without shaft	Bap'SI 60	-	60	11019010	10

Modulo RANGE **R3**

Mounting	Description	Brand	Factory setting airflow	Other adjustable airflows	Code	Pack.
Ø 125	Bap'SI modulo S1		30	20* 15*	11019090	10
Ø 125	Bap'SI modulo S2	-	45	60* 30*	11019091	10
Without shaft	Bap'SI modulo S1	-	30	20* 15*	11019094	10
Without shaft	Bap'SI modulo S2	-	45	60* 30*	11019095	10

* Easy on-site adjustment: adjustable flap (see product notice).

Small & Constant Exhaust Grilles

Self-balanced grilles

New



Bap'SI dual airflow

Compliances

- **NF** Ø125 mm (see range table).
- www.marque-nf.com

Advantages

- Innovative design.
- Roll-In seal.
- Simple to clean and maintain.
- Modulo versions: limits product stocks.
- Electrical versions.

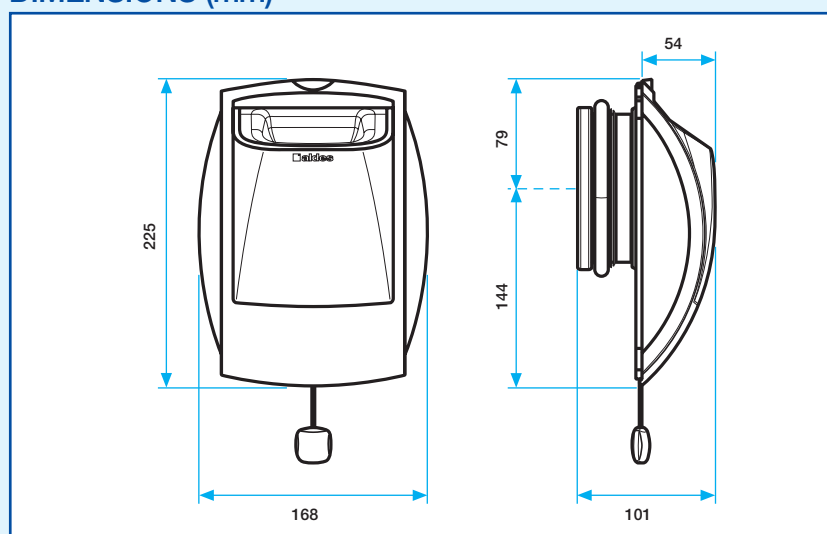
APPLICATION

- Self-balanced Mechanical Extract Ventilation
- Multi-family housing (kitchens) or Commercial premises.
- New buildings and retrofits.

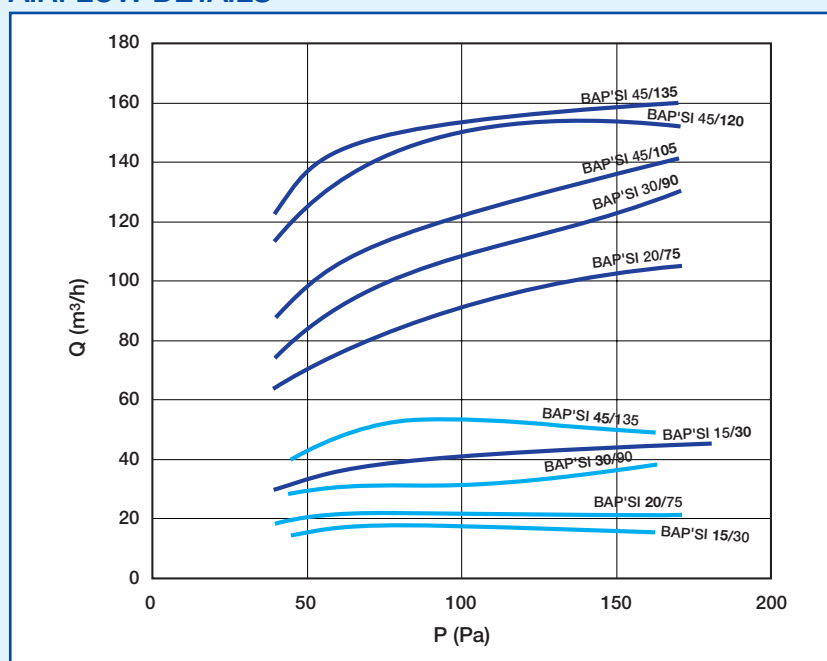
DESCRIPTION

- Dual-flow self-balanced exhaust grille
- Innovative design, without grille.
- Versions and accessories that meet all installation needs.
- Comprises 3 parts: A technical fitting plate, a regulator, a removable front panel.
- Easy to clean: regulation sub-assembly clipped and unclipped rapidly.
- Modulo: same grille for several different adjustable airflows (see range table).
 - modulo D1: for kitchens in Studios and 1-bed apartments,
 - modulo D2: for kitchen in 2bed+ apartments.
- Electric versions with (PUSH) or without timer (SWITCH) for multiple uses in multi-family housing and commercial premises.
- Pressure range: 50-160 Pa.
- Tolerance on airflow (-0; +30 %).

DIMENSIONS (mm)








AIRFLOW DETAILS





Small & Constant Exhaust Grilles

Bap'SI dual airflow

STANDARD RANGE R3

Control	Mounting	Description	Brand	Airflow (m³/h)	Code	Pack.
PULL CORD	Ø 125	Bap'SI 15/30	-	15/30	11019011	10
PULL CORD	Ø 125	Bap'SI 20/75		20/75	11019012	10
PULL CORD	Ø 125	Bap'SI 30/90		30/90	11019013	10
PULL CORD	Ø 125	Bap'SI 45/105		45/105	11019014	10
PULL CORD	Ø 125	Bap'SI 45/120		45/120	11019015	10
PULL CORD	Ø 125	Bap'SI 45/135		45/135	11019016	10
PULL CORD	Without shaft	Bap'SI 15/30	-	15/30	11019017	10
PULL CORD	Without shaft	Bap'SI 20/75	-	20/75	11019018	10
PULL CORD	Without shaft	Bap'SI 30/90	-	30/90	11019019	10
PULL CORD	Without shaft	Bap'SI 45/105	-	45/105	11019020	10
PULL CORD	Without shaft	Bap'SI 45/120	-	45/120	11019021	10
PULL CORD	Without shaft	Bap'SI 45/135	-	45/135	11019022	10

Modulo RANGE R3

Control	Mounting	Description	Brand	Factory setting airflow	Other adjustable airflows		Code	Pack.
PULL CORD	Ø 125	Bap'SI modulo D1		30/90	20/75 *	-	11019092	5
PULL CORD	Ø 125	Bap'SI modulo D2		45/105	45/120 *	45/135 *	11019093	5
PULL CORD	without shaft	Bap'SI modulo D1	-	30/90	20/75 *	-	11019096	5
PULL CORD	without shaft	Bap'SI modulo D2	-	45/105	45/120 *	45/135 *	11019097	5

* Easy on-site adjustment: position a flap or divisible parts (see product notice).

Bap'SI electric dual airflow



DESCRIPTION

- Electric versions with (PUSH) or without timer (SWITCH) for multiple uses in multi-family housing and commercial premises.

PUSH version

- The boost airflow is activated electronically, by pressing a push-button (not supplied). The Bap'SI unit automatically returns to minimum airflow after 30 minutes.

SWITCH version

- The boost airflow is activated electronically, by pressing a switch (not supplied). Pressing the switch toggles the unit from minimum airflow to peak airflow and vice-versa.
- Powered by a 9V alkaline LR6 battery (not supplied) or mains (see electrical accessories)

ELECTRIC RANGE R3

Control	Mounting	Description	Factory setting airflow	Other adjustable airflows		Code	Pack.
PUSH	Without shaft	Bap'SI 15/30	15/30	-	-	11019112	5
PUSH	Without shaft	Bap'SI modulo D1	30/90	20/75 *	-	11019113	5
PUSH	Without shaft	Bap'SI modulo D2	45/105	45/120 *	45/135 *	11019114	5
SWITCH	Without shaft	Bap'SI 15/30	15/30	-	-	11019115	5
SWITCH	Without shaft	Bap'SI modulo D1	30/90	20/75 *	30/90 *	11019116	5
SWITCH	Without shaft	Bap'SI modulo D2	45/105	45/120 *	45/135 *	11019117	5

* Easy on-site adjustment: detachable parts (see product notice).

Small & Constant Exhaust Grilles

Self-balanced grilles



Bap'SI twin



Bap'SI twin air supply + MR

Green Product

Advantages

- Airflow between 15 and 150 m³/h.
- Innovative design.
- Roll-In seal.
- Simple to clean and maintain.
- Modulo versions: airflow adjustment possible.
- Air supply version (associated with an MR).

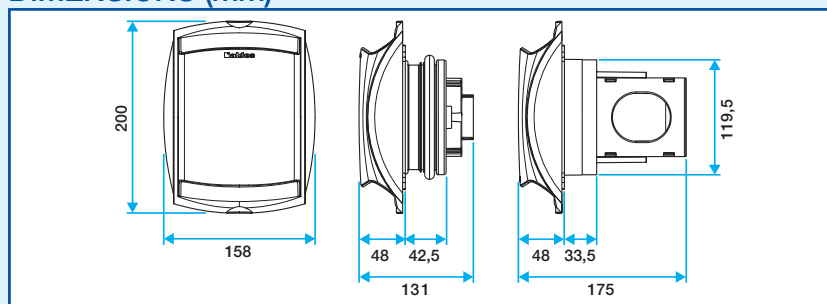
APPLICATION

- Self-balanced Mechanical Extract Ventilation
- Residential housing and Commercial premises.
- New buildings and retrofits.

DESCRIPTION

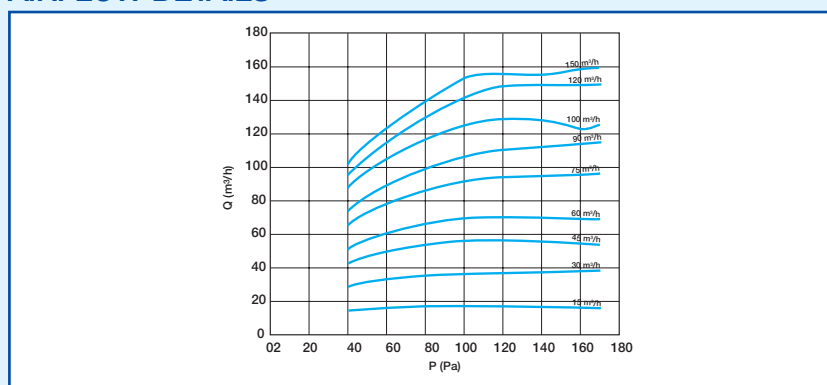
- Single-airflow self-balanced exhaust terminal
- Innovative design, without grille.
- Airflow range between 15 and 150 m³/h.
- Comprises 3 parts: A technical fitting plate, a regulator, a removable front panel.
- Accessories that meet all installation needs .
- Easy to clean: front cover clipped and unclipped rapidly.
- Modulo: same grille for several different adjustable airflows (see range table).
- Pressure range: 50-160 Pa.
- Tolerance on airflow: (-0 +30 %).
- Bap'SI twin air supply: grille without regulator, to be coupled with an MR.

DIMENSIONS (mm)



Front cover for all versions; versions 15 to 90 and air supply; versions 100 to 150.

AIRFLOW DETAILS



Standard and Modulo RANGE R3

Mounting	Description	Factory setting airflow	Other adjustable airflows		Code	Pack.
Ø 125	Bap'SI twin 15	15	-	-	11019185	10
Ø 125	Bap'SI twin 30	30	-	-	11019186	10
Ø 125	Bap'SI twin 45	45	-	-	11019187	10
Ø 125	Bap'SI twin 60 modulo	60	75*	90*	11019188	10
Ø 125	Bap'SI twin 75	75	-	-	11019189	10
Ø 125	Bap'SI twin 90	90	-	-	11019190	10
Ø 125	Bap'SI twin 100 modulo	100	120*	150*	11019191	5
Ø 125	Bap'SI twin 120	120	-	-	11019192	5
Ø 125	Bap'SI twin 150	150	-	-	11019193	5
Without shaft	Bap'SI twin 15	15	-	-	11019194	10
Without shaft	Bap'SI twin 30	30	-	-	11019195	10
Without shaft	Bap'SI twin 45	45	-	-	11019196	10
Without shaft	Bap'SI twin 60 modulo	60	-	-	11019197	10
Without shaft	Bap'SI twin 75	75	-	-	11019198	10
Without shaft	Bap'SI twin 90	90	-	-	11019199	10

* Easy on-site adjustment: adjustable flap or detachable parts (see product notice).

Bap'SI twin Air supply RANGE R3

Mounting	Description	Code	Pack.
Without shaft	Bap'SI twin air supply	11019200	10

Small & Constant Exhaust Grilles

Bahia humidity-controlled grilles and system

New



Bahia Curve range

DESCRIPTION

- In a humidity-controlled extract ventilation system, the airflow is automatically regulated according to the humidity in the rooms and therefore according to the actual ventilation needs of the building.
- The grilles are installed in wet rooms (kitchen, bath/shower).

AIRFLOW REQUIREMENTS

- These optimised systems are not covered by article 4 of the administrative decision of 4 March 1982 amended by that of 28 October 1983, but are authorised for sale through specific Technical Approvals for given systems and brands.
- Aldes holds Technical Approvals for its Residential systems (N° 14/07-1193) and Hospitality systems (N°14/10 - 1580). The grilles should be installed in observance of the following dimensioning tables.

ACOUSTIC REQUIREMENTS (according to French building regulation)

- Acoustic regulations stipulate results to respect: a level of noise perceived at a given location in a room (LnAT, DnT,A). These values depend on the grille, but also on the room parameters (volume and shape, wall coverings, distance between measurement and product).
- For Residential use, the acoustic requirements are stipulated by the administrative decision of 30 June 1999.
- For Commercial use, no such requirements exist.
- Using typical examples of room configurations, we can deduce the requirements concerning the grille itself, independently of the environment (Lw, Dnew).
- Lw: acoustic pressure = perception of noise generated by airflow through the grille
- Dnew (C): acoustic insulation level: aptitude of a grille to prevent the progression of noise from one room to another.

Residential

Requirement concerning	Obligation of result	Requirement concerning grilles (examples)
Equipment noise.	LnAT < 35 dB(A) in the kitchen.	Lw < 38 dB (A) if surface area >10 m ² for the kitchen.
	LnAT < 30 dB(A) in a main room.	Lw < 38 dB (A) if surface area >30 m ² for kitchen opening on to the living room.
Insulation between dwellings.	DnT, A>50 dB in kitchen and bathroom.	The requirement concerning the Dnew (C) of the grille depends on the surface area of the room and the diameter of the manifold.
	DnT,A>53 dB in a main room.	

Aeraulic Dimensioning Hygro A in Hotels

APPLICATION

- Technical Approval N° 14/10 1580.
- Hotel rooms.
- New buildings and retrofits.

DESCRIPTION

- Humidity-controlled air exhaust grilles equipped with a humidity sensor and fixed air inlets.

AIRFLOW REQUIREMENTS (according to French building regulation)

Type of bedroom	Config. Mini.	Air inlet	Exhaust grille		Crbdnr
		Bedroom	Bathroom	WC	
2 persons	1 Bathroom with WC	EF 34 or EA 30	C5	-	0.74
2 persons	1 bathroom + 1 WC	EF 47 or 2 x EF 23 or EA 45 or 2 x EA 22	C5	W13	0.92
3 persons	1 Bathroom with WC	EF 47 or 2 x EF 23 or EA 45 or 2 x EA 22	C6	-	0.51
3 persons	1 bathroom + 1 WC	2 x EF 34 or 2 x EA 30	C6	W13	0.6
4 persons	1 Bathroom with WC	2 x EF 34 or 2 x EA 30	C7	-	0.54
4 persons	1 bathroom + 1 WC	2 x EF 47 or 2 x EA 45	C7	W13	0.62

* EF = EFB or EFT or EFL ; EA = EA or EAI or ELLIA

Crbdnr: Coefficient of airflow reduction to integrate during project thermal calculations.

Small & Constant Exhaust Grilles

Aeraulic Dimensioning Hygro A in Residential

APPLICATION

Hygro A: BAHIA.

- Technical Approval N° 14/07 -1193.
- Dwellings equipped with ducted air conditioning, electric or gas central heating (other than Gas MEV).
- Residential.
- New buildings and retrofits.

DESCRIPTION

- Humidity-controlled air exhaust grilles equipped with a humidity sensor and fixed air inlets.
- For a 2-bed dwelling, the "optimal" dimensioning is used to minimise the extract airflow and therefore the thermal losses. It is often used in multi-family housing and less in single-family housing, with a view to simplifying the range (avoid multiplication of number of grille references).

Apartment type	Config. Mini.	Kitchen	Bathroom*	Single WC
Studio	1 bath with WC	C11	B13	-
	1 Bath + 1 WC		B11	W13
1-bed.	1 bath with WC	C12	B14	-
	1 Bath + 1 WC		B13	W13
2-bed.	1 Bath + 1 WC	C13	B14	W13
3-bed.	1 Bath + 1 WC			W14 or W11 **
4-bed.	1 Bath + 1 WC			
5-bed.	2 Bath + 1 WC			
6-bed.	2 Bath + 1 WC	C14	B14	W13
2-bed optimised	1 Bath + 1 WC			

* BW15 grilles can be installed instead of bathroom grilles when the WC is in the Bathroom.

** W14 in the case of a single WC, W11 in cases of multiple WC.

Aeraulic Dimensioning Hygro B in Residential

APPLICATION

Hygro B: BAHIA.

- Technical Approval N°14/07-1193.
- Humidity-Controlled Mechanical Extract Ventilation System.
- Housing equipped with an electrical heating system, a gas system (boiler electromagnet) or other system independent from the Extract ventilation, except ducted air conditioning.
- Residential.
- New buildings and retrofits.

DESCRIPTION

- Humidity-controlled air exhaust and inlet grilles equipped with a humidity sensor.
- For a 2-bed or 3-bed dwelling, the "optimal" dimensioning is used to minimise the extract airflow and therefore the thermal losses. It is often used in multi-family housing and less in single-family housing, with a view to simplifying the range (avoid multiplication of number of grille references).

Apartment type	Config. Mini.	Kitchen	Bathroom*	WC
Studio	1 Bath with WC	C11	B13	-
Studio	1 Bath + 1 WC		B11	W13
1-bed.	1 Bath with WC	C12	B14	-
1-bed.	1 Bath + 1 WC		B13	W13
2-bed.	1 Bath + 1 WC	C13	B13	W13
3-bed.	1 Bath + 1 WC			
4-bed.	1 Bath + 1 WC			
5-bed.	2 Bath + 1 WC			
6-bed.	2 Bath + 1 WC	C14	B13	W13
2-bed optimised	1 Bath + 1 WC			
3-bed optimised	1 Bath + 1 WC	C15	B13	W13

* BW15 grilles can be installed instead of bathroom grilles when the WC is in the Bathroom.

Aeraulic Dimensioning Hygro Gas in Residential

APPLICATION

BAHIA Hygro Gas

- Technical Approval N° 14/07 -1193.
- Humidity-controlled Mechanical Extract Ventilation with boiler connected to the ventilation system in the kitchen.
- Dwellings equipped with Mechanical Extract Ventilation for Gas installations.
- Residential.
- New buildings and retrofits.

- Hygro A system: Studio to 2-bed.
- Hygro B system: 3-bed to 5-bed+.

DESCRIPTION

- Exhaust grilles in bathrooms and humidity-controlled air inlets equipped with a humidity sensor in 3-bedroom apartments and larger, or fixed air inlets in 1-bed to 2-bed apartments.
- Thermo-adjustable kitchen exhaust grilles (connected to the boiler).

Apartment type	Config. Min.	Kitchen	Bathroom*	WC
Studio	1 Bath with WC	BAZ 20/75	B11	-
Studio	1 Bath + 1 WC			W13
1-bed.	1 Bath with WC	BAZ 30/90		-
1-bed.	1 Bath + 1 WC			W13
2-bed.	1 Bath + 1 WC	BAZ 45/105		W13
3-bed.	1 Bath + 1 WC	BAZ 45/120		
4-bed.	1 Bath + 1 WC	BAZ 45/135		
5-bed.	2 Bath + 1 WC			
6-bed.	2 Bath + 1 WC			

Small & Constant Exhaust Grilles

Bahia curve range table

			NEW RANGE BAHIA CURVE	
Destination	Shaft	Controls	Codes	Descriptions
KITCHEN	Ø 125 mm	BUTTON	11015430	C11 BAHIA CURVE L 5-45/75 D125 PUSH
			11015431	C12 BAHIA CURVE L 10-45/90 D125 PUSH
			11015432	C13 BAHIA CURVE L 20-60/135 D125 PUSH
			11015433	C14 BAHIA CURVE L 10-50/105 D125 PUSH
			11015434	C15 BAHIA CURVE L 10-50/120 D125 PUSH
		PULL CORD	11015435	C11 BAHIA CURVE L 5-45/75 D125 CORD
			11015436	C12 BAHIA CURVE L 10-45/90 D125 CORD
			11015437	C13 BAHIA CURVE L 20-60/135 D125 CORD
			11015438	C14 BAHIA CURVE L 10-50/105 D125 CORD
			11015439	C15 BAHIA CURVE L 10-50/120 D125 CORD
		INFRARED	11015445	C11 BAHIA CURVE L 5-45/75 D125 IR
			11015446	C12 BAHIA CURVE L 10-45/90 D125 IR
			11015447	C13 BAHIA CURVE L 20-60/135 D125 IR
			11015448	C14 BAHIA CURVE L 10-50/105 D125 IR
			11015449	C15 BAHIA CURVE L 10-50/120 D125 IR
	SHAFTLESS	PULL CORD	11015440	C11 BAHIA CURVE L 5-45/75 D0 CORD
			11015441	C12 BAHIA CURVE L 10-45/90 D0 CORD
			11015442	C13 BAHIA CURVE L 20-60/135 D0 CORD
			11015443	C14 BAHIA CURVE L 10-50/105 D0 CORD
			11015444	C15 BAHIA CURVE L 10-50/120 D0 CORD
INFRARED		11015450	C11 BAHIA CURVE L 5-45/75 D0 IR	
		11015451	C12 BAHIA CURVE L 10-45/90 D0 IR	
		11015452	C13 BAHIA CURVE L 20-60/135 D0 IR	
		11015453	C14 BAHIA CURVE L 10-50/105 D0 IR	
		11015454	C15 BAHIA CURVE L 10-50/120 D0 IR	
BATH / WC	Ø 125 mm	PULL CORD	11015476	BW15 BAHIA CURVE S 5-45/30 D125 CORD
		PRESENCE	11015477	BW15 BAHIA CURVE S 5-45/30 D125 PRES
	Ø 80 mm	PRESENCE	11015478	BW15 BAHIA CURVE S 5-45/30 D80 PRES
BATH-ROOM	Ø 125 mm	-	11015460	B11 BAHIA CURVE S 6-45 D125
			11015461	B13 BAHIA CURVE S 5-45 D125
			11015462	B14 BAHIA CURVE S 5-45 D125
	Ø 80 mm	-	11015463	B11 BAHIA CURVE S 6-45 D80
			11015464	B13 BAHIA CURVE S 5-45 D80
			11015465	B14 BAHIA CURVE S 5-45 D80
	SHAFTLESS	-	11015483	B11 BAHIA CURVE S 6-45 D0
			11015484	B13 BAHIA CURVE S 5-45 D0
			11015485	B14 BAHIA CURVE S 5-45 D0
WC	Ø 125 mm	-	11015466	W11 BAHIA CURVE S 15 D125
			11015467	W14 BAHIA CURVE S 30 D125
			11015470	W13 BAHIA CURVE S 5/30 D125 PUSH
			11015472	W13 BAHIA CURVE S 5/30 D125 CORD
	Ø 80 mm	-	11015468	W11 BAHIA CURVE S 15 D80
			11015469	W14 BAHIA CURVE S 30 D80
			11015471	W13 BAHIA CURVE S 5/30 D80 PUSH
			11015473	W13 BAHIA CURVE S 5/30 D80 CORD
	SHAFTLESS	-	11015475	W13 BAHIA CURVE S 5/30 D80 PRES
			11015486	W11 BAHIA CURVE S 15 D0
			11015487	W14 BAHIA CURVE S 30 D0
			11015482	W13 BAHIA CURVE S 5/30 D0 CORD
HOTELS BATHROOMS	Ø 125 mm	-	11017393	C5 BAHIA CURVE S 15-40 D125
			11017394	C6 BAHIA CURVE L 15-56 D125
			11017395	C7 BAHIA CURVE L 15-65 D125
	SHAFTLESS	-	11017396	C5 BAHIA CURVE S 15-40 D0
11017397			C6 BAHIA CURVE L 15-56 D0	
11017398			C7 BAHIA CURVE L 15-65 D0	
OTHER	Ø 125 mm	PRESENCE	11015480	W1 BAHIA CURVE L 12/70 D125 PRES
			11015481	BW11 BAHIA CURVE L 12-70/70 D125 PRES
			11015479	B1 BAHIA CURVE L 12-70 D125
			11015455	C1 BAHIA CURVE L 20-80 D125
			11015456	C2 BAHIA CURVE L 40-100 D125
			11015457	C3 BAHIA CURVE L 60-120 D125
			11015458	C4 BAHIA CURVE L 80-140 D125

Small & Constant Exhaust Grilles

Humidity-controlled grilles : General information



Bahia Curve L



Bahia Curve S



APPLICATION

- Humidity-Controlled Mechanical Extract Ventilation
- Residential housing and Commercial premises.
- New buildings and retrofits.

DESCRIPTION

- Humidity-controlled exhaust grille.
- Basic constant airflow level or depending on the relative humidity.
- Boost airflow activated on demand: see table opposite.
- Innovative design for perfect integration.
- Versions and accessories that meet all installation needs.
- Pressure range: 80-160Pa.
- Various models:
 - Bahia Curve L for airflows > 50 m³/h (kitchen).
 - Bahia Curve S for airflows < 50 m³/h (bath/shower).
 - Bahia Curve S and L for commercial premises.

INSTALLATION

- Versions with Ø 125 mm shaft (Roll-in seal)
- Connection by slotting into: sleeves, RT Flex, rigid ducts.
- The Roll-in seal ensures airtightness and flush fitting against the wall.
- Versions with Ø 80 mm shaft
- Connection by slotting into: sleeves, rigid ducts.
- Versions without shaft.
- Connected with a clip on a Ø125mm shaft (Roll-In seal), Ø116mm (Roll-In seal) or Ø100mm (foam seal).
- Screwed directly on to the wall.
- Fixed by clip to the retrofit plate.

CONTROL OF BOOST AIRFLOW

IR	PRES	PUSH	PULL CORD
Activated by an infra-red remote control (supplied) Timed airflow**	Automatically activated according to room occupation. Timed airflow**	Activated using a push-button (not supplied) Timer ** or ON/OFF ***	Activated by pulling on the pull cord. Timed airflow**
Powered by mains supply with accessories*.	Powered by batteries or mains with accessories*.	Powered by batteries or mains with accessories*.	No electrical power supply.
* Battery: * 9 V alkaline battery 6LR61 type (not supplied). Mains: 12V AC power supply via CAL (see electrical accessories)			
** Boost airflow for 20 minutes (Bahia Curve S) or 30 minutes (Bahia Curve L) after detection / activation.			
*** Use an ON/OFF switch, ON = peak airflow; OFF = minimum airflow. Powered by mains supply with accessories.			

ACOUSTIC DETAILS

Type of grille	Lw in dB(A) at 160Pa	Dnew (C) in dB	Dnew(C) in dB with acoustic ring
C13	33	55	61
B14**	33	56	63

*The other type C grilles offer performance that is at least equivalent.

**The other type B, W, and BW grilles offer performance that is at least equivalent.

Small & Constant Exhaust Grilles

Humidity-controlled grilles

New



Bahia Curve L



Compliances

- French Technical Approval for "Bahia" Humidity-Controlled ventilation (Residential) : N°14/07-1193.
- Hygro A, Hygro B and Hygro Gas.
- Pending CSTBat certification.

Advantages

- Innovative design.
- Easy installation.
- Roll-In seal.
- Simple to clean and maintain.
- Infra-Red version.

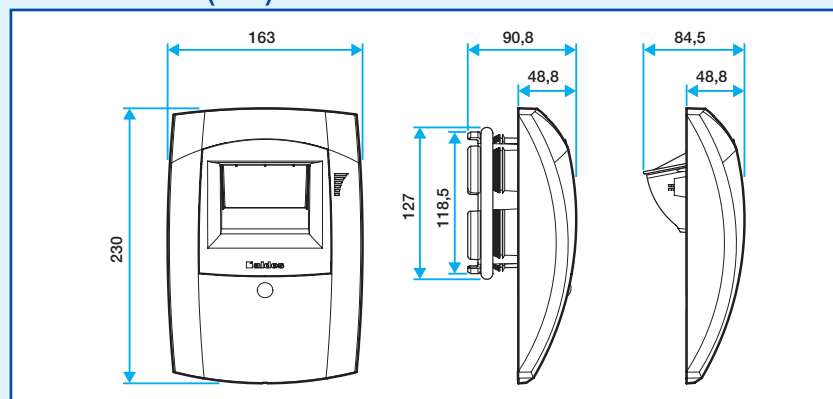
APPLICATION

- Humidity-Controlled Mechanical Extract Ventilation
- Residential: kitchens.
- New buildings and retrofits.

DESCRIPTION

- Large-size humidity-controlled terminal (airflow > 50 m³/h).
- Peak airflow control: see page 205.
- Innovative design, without grille.
- Versions and accessories that meet all installation needs.
- Easy to clean: regulation sub-assembly clipped and unclipped easily.
- Infra-Red version with remote control for a practical, modern design and simple installation without push button control.
- Pressure range: 80-160 Pa.

DIMENSIONS (mm)



RESIDENTIAL - KITCHEN RANGE **R5**

Control	Mounting	Description	Apart. Type Hygro A	Apart. Type Hygro B	Min. airflow m ³ /h	% RH	Peak airflow m ³ /h	Code	Pack.
IR	Ø 125	C11 Bahia Curve L	Studio	Studio	5-45	45 -85 %	75	11015445	30
IR	Ø 125	C12 Bahia Curve L	1-bed.	1-bed.	10-45	50 -85 %	90	11015446	30
IR	Ø 125	C13 Bahia Curve L	2-bed+.	2-bed+.	20-60	36 -76 %	135	11015447	30
IR	Ø 125	C14 Bahia Curve L	2-bed. opt.	2-bed. opt.	10-50	36 -76 %	105	11015448	30
IR	Ø 125	C15 Bahia Curve L	-	3-bed. opt.	10-50	31 -71 %	120	11015449	30
IR	Shaftless	C11 Bahia Curve L	Studio	Studio	5-45	45 -85 %	75	11015450	30
IR	Shaftless	C12 Bahia Curve L	1-bed.	1-bed.	10-45	50 -85 %	90	11015451	30
IR	Shaftless	C13 Bahia Curve L	2-bed+.	2-bed+.	20-60	36 -76 %	135	11015452	30
IR	Shaftless	C14 Bahia Curve L	2-bed. opt.	2-bed. opt.	10-50	36 -76 %	105	11015453	30
IR	Shaftless	C15 Bahia Curve L	-	3-bed. opt.	10-50	31 -71 %	120	11015454	30
PUSH	Ø 125	C11 Bahia Curve L	Studio	Studio	5-45	45 -85 %	75	11015430	30
PUSH	Ø 125	C12 Bahia Curve L	1-bed.	1-bed.	10-45	50 -85 %	90	11015431	30
PUSH	Ø 125	C13 Bahia Curve L	2-bed+.	2-bed+.	20-60	36 -76 %	135	11015432	30
PUSH	Ø 125	C14 Bahia Curve L	2-bed. opt.	2-bed. opt.	10-50	36 -76 %	105	11015433	30
PUSH	Ø 125	C15 Bahia Curve L	-	3-bed. opt.	10-50	31 -71 %	120	11015434	30
PULL CORD	Ø 125	C11 Bahia Curve L	Studio	Studio	5-45	45 -85 %	75	11015435	30
PULL CORD	Ø 125	C12 Bahia Curve L	1-bed.	1-bed.	10-45	50 -85 %	90	11015436	30
PULL CORD	Ø 125	C13 Bahia Curve L	2-bed+.	2-bed+.	20-60	36 -76 %	135	11015437	30
PULL CORD	Ø 125	C14 Bahia Curve L	2-bed. opt.	2-bed. opt.	10-50	36 -76 %	105	11015438	30
PULL CORD	Ø 125	C15 Bahia Curve L	-	3-bed. opt.	10-50	31 -71 %	120	11015439	30
PULL CORD	Shaftless	C11 Bahia Curve L	Studio	Studio	5-45	45 -85 %	75	11015440	30
PULL CORD	Shaftless	C12 Bahia Curve L	1-bed.	1-bed.	10-45	50 -85 %	90	11015441	30
PULL CORD	Shaftless	C13 Bahia Curve L	2-bed+.	2-bed+.	20-60	36 -76 %	135	11015442	30
PULL CORD	Shaftless	C14 Bahia Curve L	2-bed. opt.	2-bed. opt.	10-50	36 -76 %	105	11015443	30
PULL CORD	Shaftless	C15 Bahia Curve L	-	3-bed. opt.	10-50	31 -71 %	120	11015444	30

Small & Constant Exhaust Grilles

Humidity-controlled grilles

New



Compliances

- French Technical Approval for "Bahia" Humidity-Controlled ventilation (Residential) : N°14/07-1193.
- Hygro A, Hygro B and Hygro Gas.
- Pending CSTBat certification.

Advantages

- Innovative design.
- Easy installation.
- Roll-In seal.
- Simple to clean and maintain.

Bahia Curve S

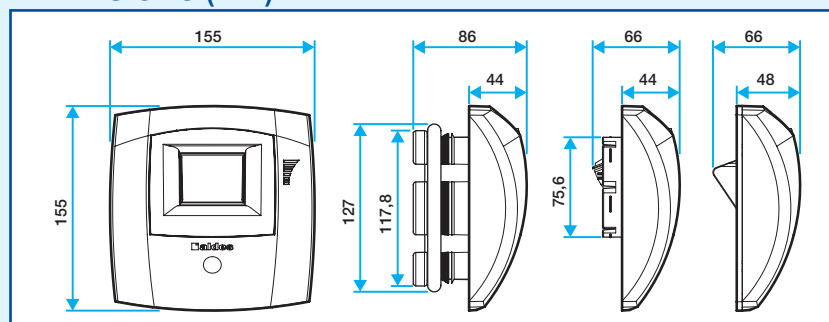
APPLICATION

- Humidity-Controlled Mechanical Extract Ventilation
- Residential: bathroom/shower/WC
- New buildings and retrofits.

DESCRIPTION

- Small-size humidity-controlled terminal for airflow < 50 m³/h.
- Peak airflow control: see page 205.
- Innovative design, without grille.
- Versions and accessories that meet all installation needs.
- Easy to clean: regulation sub-assembly clipped and unclipped easily.
- Pressure range: 80-160 Pa.

DIMENSIONS (mm)



RESIDENTIAL - BATH/SHOWER RANGE **R5**

Mounting	Description	Apart. Type Hygro A	Apart. Type Hygro B	Apart. Type Hygro Gas	Min. airflow m ³ /h	% RH	Code	Pack.
Ø 125	B11 Bahia Curve S	Studio	Studio	Studio +	6-45	46 -85 %	11015460	48
Ø 125	B13 Bahia Curve S	Studio *, 1-bed.	Studio *, 1-bed+	-	5-45	29 -69 %	11015461	48
Ø 125	B14 Bahia Curve S	1-bed *, 2 bed+	1-bed.*	-	5-45	20 -60 %	11015462	48
Ø 80	B11 Bahia Curve S	Studio	Studio	Studio +	6-45	46 -85 %	11015463	46
Ø 80	B13 Bahia Curve S	Studio *, 1-bed.	Studio *, 1-bed+	-	5-45	29 -69 %	11015464	56
Ø 80	B14 Bahia Curve S	1-bed *, 2 bed+	1-bed.*	-	5-45	20 -60 %	11015465	56
Shaftless	B11 Bahia Curve S	Studio	Studio	Studio +	6-45	46 -85 %	11015483	56
Shaftless	B13 Bahia Curve S	Studio *, 1-bed.	Studio *, 1-bed+	-	5-45	29 -69 %	11015484	56
Shaftless	B14 Bahia Curve S	1-bed *, 2 bed+	1-bed.*	-	5-45	20 -60 %	11015485	56

*WC in bathroom,

RESIDENTIAL - WC RANGE **R5**

Control	Mounting	Description	Apart. Type Hygro A	Apart. Type Hygro B	Apart. Type Hygro Gas	Min. airflow m ³ /h	Peak airflow m ³ /h	Code	Pack.
PRES	Ø 125	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015474	48
PRES	Ø 80	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015475	56
PRES	Shaftless	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015488	56
PUSH	Ø 125	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015470	48
PUSH	Ø 80	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015471	56
PULL CORD	Ø 125	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015472	48
PULL CORD	Ø 80	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015473	56
PULL CORD	Shaftless	W13 Bahia Curve S	Studio to 3 bedroom	Studio +	Studio +	5	30	11015482	56
-	Ø 125	W11 Bahia Curve S	4-bed+ **	-	-	15	-	11015466	48
-	Ø 125	W14 Bahia Curve S	4-bed+ *	-	-	30	-	11015467	48
-	Ø 80	W11 Bahia Curve S	4-bed+ **	-	-	15	-	11015468	56
-	Ø 80	W14 Bahia Curve S	4-bed+ *	-	-	30	-	11015469	56
-	Shaftless	W11 Bahia Curve S	4-bed+ **	-	-	15	-	11015486	56
-	Shaftless	W14 Bahia Curve S	4-bed+ *	-	-	30	-	11015487	56

* If just one WC in dwelling. ** If several WC in dwelling.

RESIDENTIAL - BATHROOM WITH WC RANGE **R5**

Control	Mounting	Description	Apart. Type Hygro A	Apart. Type Hygro B	Apart. Type Hygro Gas	Min. airflow m ³ /h	% RH	Peak airflow m ³ /h	Code	Pack.
PRES	Ø 125	BW15 Bahia Curve S	Studio +	Studio +	Studio +	5-45	20-60%	30	11015477	48
PRES	Ø 80	BW15 Bahia Curve S	Studio +	Studio +	Studio +	5-45	20-60%	30	11015478	56
PULL CORD	Ø 125	BW15 Bahia Curve S	Studio +	Studio +	Studio +	5-45	20-60%	30	11015476	48

Small & Constant Exhaust Grilles

Humidity-controlled grilles

New



Bahia Curve Commercial



Advantages

- Innovative design.
- Easy installation.
- Simple to clean and maintain.
- French Humidity-Controlled Technical Approval for Hotels.

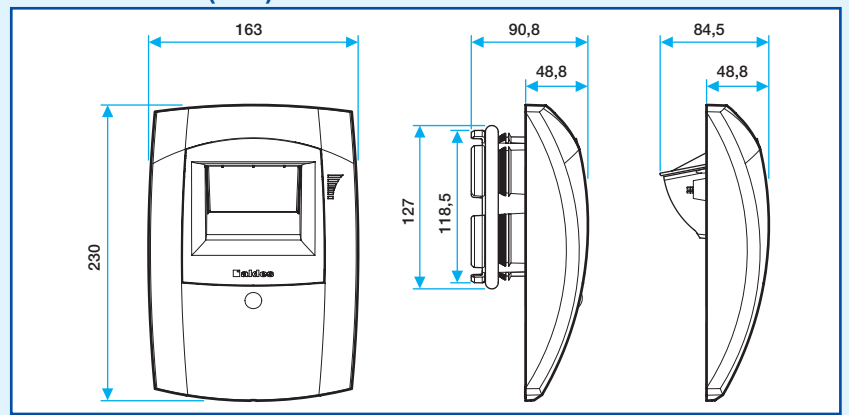
APPLICATION

- Humidity-Controlled Mechanical Extract Ventilation
- Commercial: restaurants, offices, hotels (with Technical Approvals).
- New buildings and retrofits.

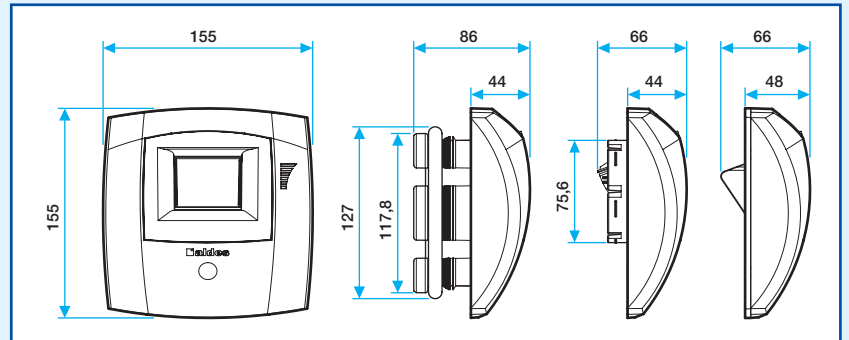
DESCRIPTION

- Humidity-controlled ventilation terminal.
- Innovative design, without grille.
- Peak airflow control.
- Versions and accessories that meet all installation needs.
- Easy to clean: regulation sub-assembly clipped and unclipped easily.
- Pressure range: 80-160 Pa.

DIMENSIONS (mm)



C6 and C7 Bahia Curve L



C5 Bahia Curve S

COMMERCIAL RANGE: HOTEL R12

Mounting	Description	Min. airflow m ³ /h	% RH	Code	Pack.
Ø 125	C5 Bahia Curve S	15-40	26 -51 %	11017393	48
Ø 125	C6 Bahia Curve L	15-56	25 -45 %	11017394	48
Ø 125	C7 Bahia Curve L	15-65	18 -43 %	11017395	48
Shaftless	C5 Bahia Curve S	15-40	26 -51 %	11017396	56
Shaftless	C6 Bahia Curve L	15-56	25 -45 %	11017397	56
Shaftless	C7 Bahia Curve L	15-65	18 -43 %	11017398	56

COMMERCIAL RANGE: OTHER R12

Control	Mounting	Description	Min. airflow m ³ /h	% RH	Peak airflow m ³ /h	Code	Pack.
PRES	Ø 125	W1 BAHIA CURVE L	12	-	70	11015480	48
PRES	Ø 125	BW11 BAHIA CURVE L	12-70	12-70 %	70	11015481	30
-	Ø 125	B1 BAHIA CURVE L	12-70	12-70 %	-	11015479	48
-	Ø 125	C1 BAHIA CURVE L	20-80	20-80 %	-	11015455	48
-	Ø 125	C2 BAHIA CURVE L	40-100	20-80 %	-	11015456	48
-	Ø 125	C3 BAHIA CURVE L	60-120	20-80 %	-	11015457	48
-	Ø 125	C4 BAHIA CURVE L	80-140	20-80 %	-	11015458	48

Small & Constant Exhaust Grilles

Accessories for Bap'SI, Bap'SI Twin, Bahia Curve



Shaft



Retrofit plate

Advantages

- Enable the installation of grilles in all configurations, whether in new or retrofit work.

DESCRIPTION

Shafts

Ø125 and Ø116 (Roll-In seal), Ø100 (foam seal)

- Clips on to the shaftless grille, for connection to existing Ø125, Ø116, Ø100 mm. ducts
- Compatible with Bap'SI, Bap'SI twin, Bahia Curve

Foam airtight seal.

- Ensure an airtight seal when the shaftless grille is screwed directly on to the wall. Positioned on the rear of the grille in the dedicated slot.
- Compatible with Bap'SI, Bap'SI twin, Bahia Curve.

Retrofit plate

- Used to install the shaftless grille on a distorted sleeve, shunt duct or another shaft diameter. 2 types of connection:

- Screw-fit for Bap'SI, Bap'SI twin, Bahia Curve.
- Claw-fit for Bap'SI, Bap'SI twin, Bahia Curve.

Blanking Plate

- To be screwed on in place of an old grille that is not replaced, to cover the hole left behind.

Adapter plate 150/125

- Used to fit a Ø125 single airflow grille in a Ø150 hole
- compatible with Bap'SI, Bahia Curve.

Acoustic ring

- Placed in the Ø125 duct just behind the grille, used to improve the sound insulation between 2 dwellings. It is recommended for use in Kitchens opening onto living rooms.
- Compatible with Bap'SI, Bap'SI twin, Bahia Curve

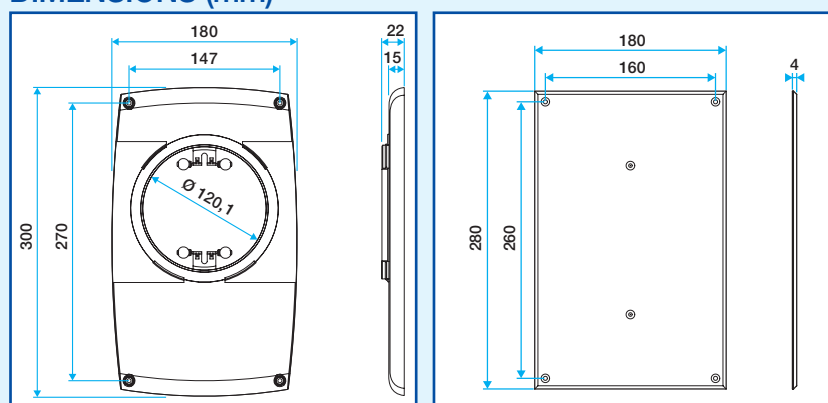
Pull cord return

- Enables to guide the pull cord onto the wall when the grille is ceiling-mounted.
- Compatible with Bap'SI, Bahia Curve.

RANGE R3

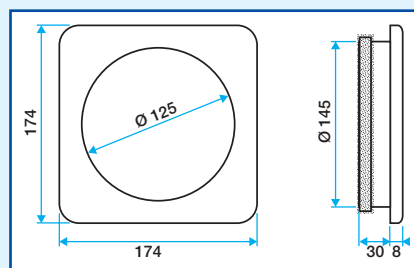
Description	Code
Shaft - Ø125	11019023
Shaft - Ø116	11019024
Shaft - Ø100	11019025
Airtight seals (set of 5)	11019049
Claw-fit retrofit plate	11019050
Screw-fit retrofit plate	11019054
180 x 280 mm blanking plate	11034108
Adapter plate 150/125	11018056
Acoustic ring	11019429
Pull cord return for ceiling mounted unit	11015001

DIMENSIONS (mm)



Retrofit plate

Blanking Plate



Adapter plate 150/125

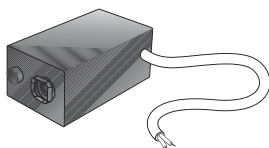
Shaft - Ø125	Shaft - Ø116	Shaft - Ø100	Airtight seal
Claw-fit panel	Screw-fit panel	Blanking Plate	Adapter plate 150/125
Acoustic ring	Pull cord return		

Small & Constant Exhaust Grilles

Accessories for Bap'SI, Bap'SI Twin, Bahia Curve



Push button



Interface 9VDC/230VAC

Advantages

- Interface 9VDC/230VAC : Power board enabling replacement of battery by 230VAC mains supply.

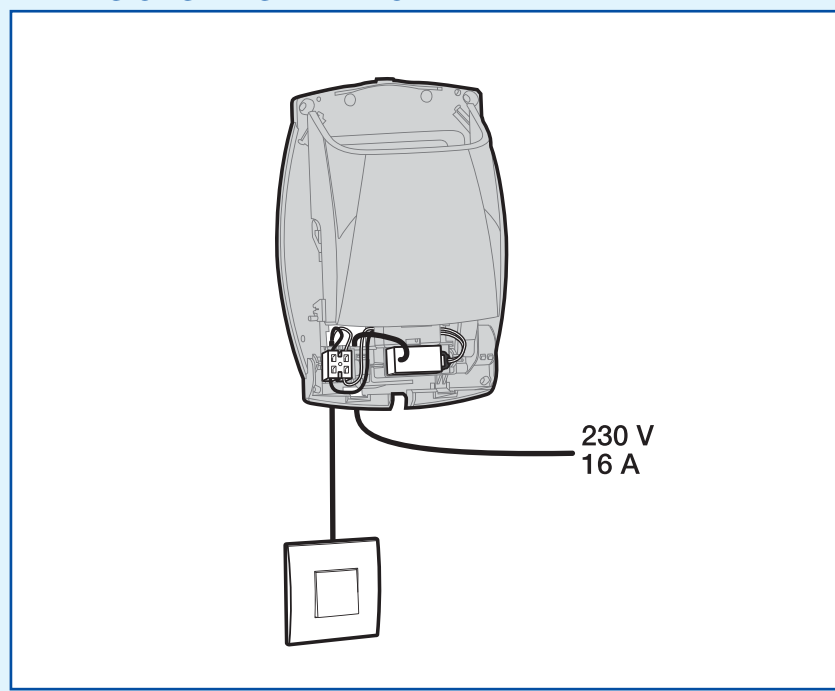
DESCRIPTION

- Push button: Simply press to start the 30-minute period of peak airflow.
- Interface 9VDC/230VAC : used to connect the electrical Bap'SI / Bahia Curve to the mains supply instead of a battery
 - It can be easily inserted in to the Bap'SI / Bahia Curve and provide the connection to the 230VAC mains supply.
- Caution: ensure compliance with the applicable installation standards.

RANGE R3

Description	Code
Push button	11026011
Interface 9VDC/230VAC	11015280

DIMENSIONS - INSTALLATION



Small & Constant Exhaust Grilles

Adjustable core grilles



SR 149 - Plastic



SR143 - Steel



SR 143 with sleeve for plasterboard

Advantages

- Adjustable.
- Connection sleeve supplied.

APPLICATION

- Air exhaust for all ventilation applications in small commercial premises.
- For wall or ceiling mounting.

DESCRIPTION

- Adjustable core.
- SR 143: white epoxy painted steel RAL 9010.
- SR 149: white polypropylene.
- Fitted by clipping into the duct.

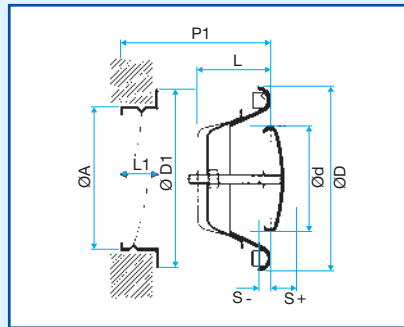
ACCESSORIES

- Connection sleeve supplied.

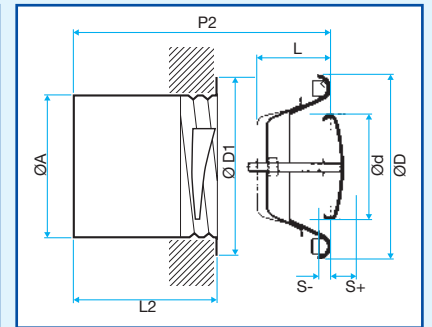
ADDITIONAL RANGE

- Air supply version (on request).
- Paint finish in accordance with the RAL colour chart.

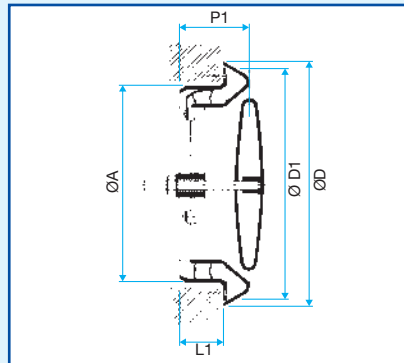
DIMENSIONS



SR 143 with standard sleeve



SR 143 with sleeve for plasterboard



SR 149 with standard sleeve

Model SR 143

Comfort airflow levels for Lw < NR 30 and dimensions

Ø A (mm)	Ø D1 (mm)	Ø d (mm)	Ø D (mm)	L (mm)	L1 (mm)	P1 (mm)	L2 (mm)	P2 (mm)	Débit (m³/h)
Ø 100	125	74	140	38	50	62	130	142	80
Ø 125	150	100	168	45	50	62	130	142	100
Ø 160	185	128	210	55	50	62	130	142	150
Ø 200	225	157	246	63	50	62	130	142	190

Model SR 149

Comfort airflow levels for Lw < NR 30 and dimensions

Ø A (mm)	D (mm)	Ø D1 (mm)	L1 (mm)	P1 (mm)	Débit (m³/h)
Ø 100	Ø 150	122	52	63	80
Ø 125	Ø 170	155	52	63	100
Ø 150	Ø 190	168	52	63	150
Ø 200	Ø 240	220	52	63	190

RANGE R10

Dimensions	SR 143 plasterboard mounting Code	SR 143 standard mounting Code	SR 149 Code
Ø 100	11052256	11052226	11001996
Ø 125	11052257	11052227	11001997
Ø 150			11001998
Ø 160	11052258	11052228	
Ø 200	11052259	11052229	11001999

Small & Constant Exhaust Grilles

Small plastic grilles



BIP Ø 80 and 125 grille



BIO grille



BIP Ø 100 grille



BSP grille

Advantages

- New BIO Design aesthetic and completely adjustable direction grille.
- White plastic material RAL 9010 tint.

APPLICATION

- BSP: Exhaust for all ventilation applications in small, commercial premises. For wall or ceiling mounting.
- BIP: air supply or exhaust for all ventilation applications in small, commercial premises. For wall mounting in air supply and wall or ceiling mounting in air exhaust.
- BIO: air supply for all ventilation applications in small commercial premises and residential premises. For wall or ceiling mounting depending on the configuration.

DESCRIPTION

- Shock-proof injected polystyrene material, white RAL 9010 tint.
- BSP and BIP monobloc construction
- BIO made of two clipped on parts allowing for two operating configurations: "straight" air supply for wall mounted use, or "90°" air supply for ceiling use.
- BIO Design with adjustable direction vanes, ceiling or wall mounting.
- Fixing by clipping on to the sheet metal sleeve.

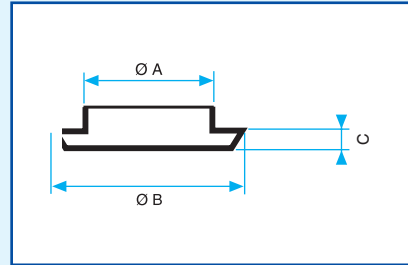
ACCESSORIES

- Sheet metal connection sleeve.
- BIO Design Ø 125 mm: has to be combined with the shaft Ø 125 mm for its fitting in a sleeve.

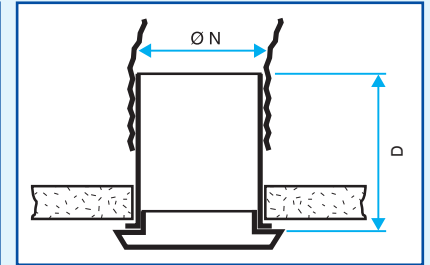
RANGE R1

Description	Dimensions	Code
BSP	Ø 80	11022717
BIP Ø 80 mm	Ø 80	11022073
BIP	Ø 100	11085064
BIP Ø 125 mm	Ø 125	11022078
BIO Ø 80 mm	Ø 80	11012402
Rectangular BIO Design Ø 80 mm	Ø 80	11022064
Square BIO Design Ø 80 mm	Ø 80	11022065
Square BIO Design Ø 125 mm	Ø 125	11022061
Metal sleeve R3	Ø 80	11012490
Shaft - Ø 125 mm	Ø 125	11019023

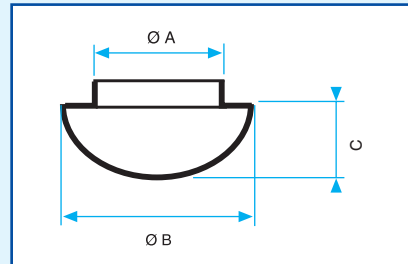
DIMENSIONS



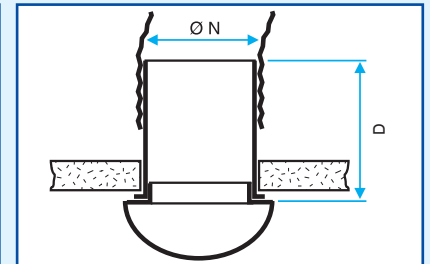
BSP or BIP Grilles alone



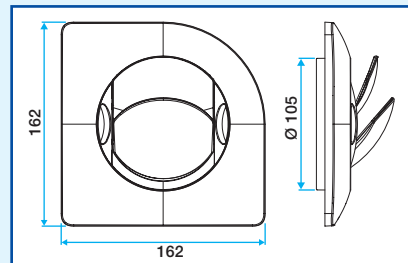
BSP or BIP with sleeve



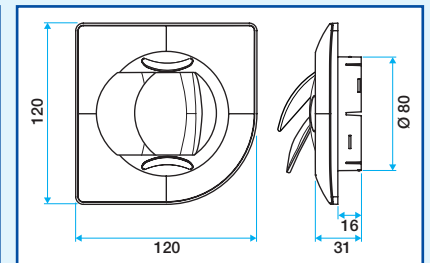
BIO grille alone



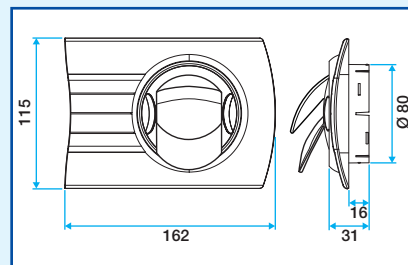
BIO with sleeve



Square BIO Design Ø 125 mm



Square BIO Design Ø 80 mm



Rectangular BIO Design Ø 80 mm

Comfort airflow levels for Lw < NR 30 and dimensions

Model	BIP				Airflow (m³/h) Air supply or exhaust
	Ø N (mm)	Ø A (mm)	Ø B (mm)	C (mm)	
80	75,6	116,5	18,75	100	60
100	100	148	16	-	90
125	125	185	23,7	-	110
Model	BSP				Airflow (m³/h) Air supply or exhaust
80	75	115	10	100	
Model	BIO				Airflow (m³/h) Air supply or exhaust
80	75	113	50	100	

Small & Constant Exhaust Grilles

Small fixed metal grilles



BIM 300 white grille



BIM 320 white grille

Advantages

- Aesthetic design.
- Available in white painted RAL 9010 tint or anodised aluminium.
- Easy to install.

APPLICATION

- Air supply and exhaust for all ventilation applications in air exhaust or heat recovery ventilation, for small commercial premises.
- BIM 300: exhaust air wall or ceiling mounting. Ceiling mounting only for air supply.
- BIM 320: Ceiling mounted.

DESCRIPTION

- Central core in extruded aluminium sections, inclined at 0°, for BIM 300 and at 90° for BIM 320.
- Detachable cheek system to modify the terminal's air throw.
- Framing in M1 polycarbonate.
- Anodised aluminium, natural gloss tint or epoxy white painted aluminium - RAL 9010.
- Wall fixing by slotting into the duct (can be screwed in if required) or into the ceiling by the use of fixing lugs supplied as accessories.

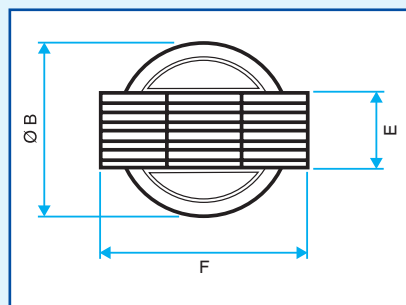
ACCESSORIES

- Mounting claws.

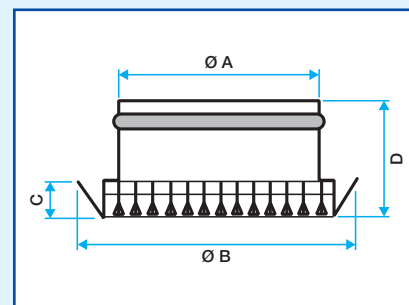
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

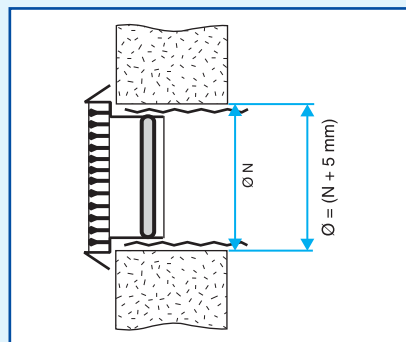
DIMENSIONS



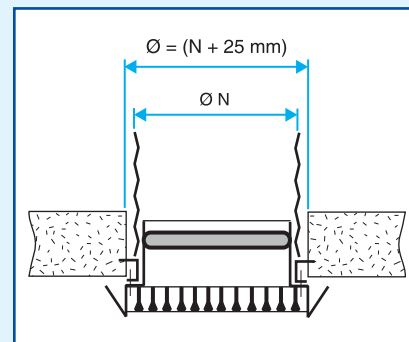
BIM 300 and BIM 320



BIM 300 and BIM 320



Wall mounting.



For ceiling mounting (use the mounting lugs).

Comfort airflow levels for Lw < NR 30 and dimensions

Ø N (mm)	Ø A (mm)	Ø B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Airflow (m ³ /h)
100	99	151	28	73	68	172	80
125	124	172	28	78	82	194	100
160	159	213	28	93	105	247	150

RANGE R10

Dimensions	BIM 300 anodised Code	BIM 300 white Code	BIM 320 anodised Code	BIM 320 white Code
Ø 100	11052216	11052231	11052221	11052236
Ø 125	11052217	11052232	11052222	11052237
Ø 160	11052218	11052233	11052223	11052238

ACCESSORIES R10

Dimensions	Fixing lugs for BEM and BIM Code
Ø 100 - Ø 125 - Ø 160	11053493

Small & Constant Exhaust Grilles

Small fixed metal grilles

New



BIM 400 white grille



BEM 780 white grille

Advantages

- Aesthetic design.
- Available in white painted RAL 9010 tint or anodised aluminium.
- Easy to install.
- Also comes in Ø200 mm.

APPLICATION

- Air supply and exhaust for all ventilation applications in air exhaust or heat recovery ventilation, for small commercial premises.
- BIM 400: exhaust air wall or ceiling mounting. Wall mounting only for air supply.
- BEM 780: for wall or ceiling mounting. exhaust air applications only

DESCRIPTION

- Pressed aluminium frame
- BIM 400: core made of extruded aluminium bars, inclined at 15°.
- BEM 780: core made of a 12.5 x 12.5 mesh.
- Anodised aluminium, natural gloss tint or epoxy white painted aluminium - RAL 9010.
- Wall fixing by slotting into the duct (can be screwed in if required) or into the ceiling by the use of fixing lugs supplied as accessories.

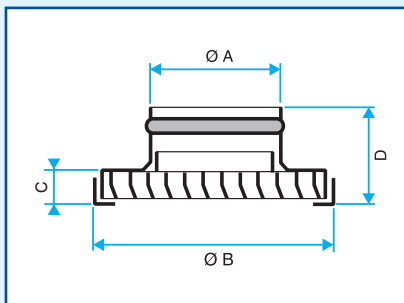
ACCESSORIES

- Mounting claws.

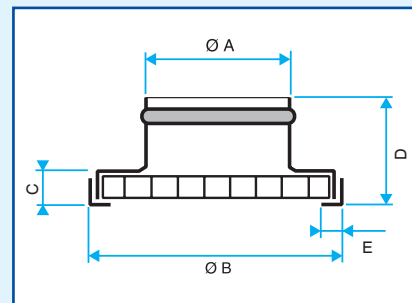
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

DIMENSIONS



BIM 400



BEM 780

Comfort airflow levels for Lw < NR 30 and dimensions

Model	Ø N (mm)	Ø A (mm)	Ø B (mm)	C (mm)	D (mm)	E (mm)	Airflow (m³/h)
BIM 400	100	98	160	20	55	15	75
BIM 400	125	123	160	20	55	15	120
BIM 400	160	158	200	20	55	15	170
BIM 400	200	198	248	20	55	15	250
BEM 780	100	98	160	14	55	15	80
BEM 780	125	123	160	14	55	15	160
BEM 780	160	158	200	14	55	15	250
BEM 780	200	198	248	14	55	15	380

RANGE R10

Dimensions	BIM 400 anodised Code	BIM 400 white Code	BEM 780 anodised Code	BEM 780 white grille Code
Ø 100	11052211	11052208	11052201	11052245
Ø 125	11052212	11052209	11052202	11052246
Ø 160	11052213	11052210	11052203	11052247
Ø 200	11052214	11052215	11052249	11052248

ACCESSORIES R10

Dimensions	Fixing lugs for BEM and BIM Code
Ø 100 - Ø 125 - Ø 160	11053493

Grille + Regulation



BIM 400



MR



DESCRIPTION

- The combination of a BIM and a MR also enables the grille to obtain a properly adjusted solution.
- BIM 400: see above.
- MR: see page 127.

Indoor Grilles

Single & double deflection grilles



AC 101 - SC 101
Extruded aluminium or steel

Advantages

- Adjustable blades.
- Easy installation.

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Wall mounted.

DESCRIPTION

- AC 101: single deflection grille with horizontal, mobile and individually adjustable blades, with a 20 mm spacing.
- AC 101 D: double deflection grille with front horizontal and rear vertical, mobile & individually adjustable blades, with a 20 mm spacing.
- AC 101 B: grille AC 101 with opposed blade damper (OBD).
- AC 101 BD: grille AC 101 D with opposed blade damper (OBD).

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

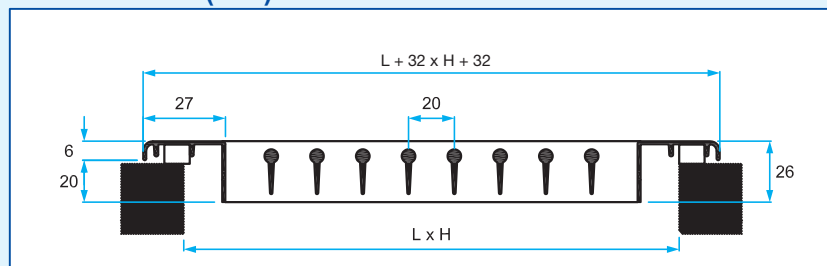
ACCESSORIES

- Opposed blade damper (OBD) - aluminum profiles. Fitted to the grille using clips.
- MT and ME connection plenum, aluminium or galvanized sheet, with rear or side mounted connection. See plenum dimensions on page 217.

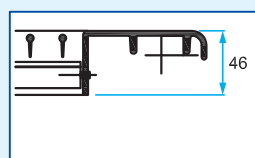
ADDITIONAL RANGE

- Other sizes available upon request.

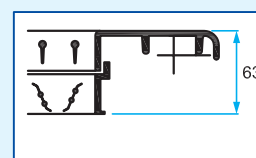
DIMENSIONS (mm)



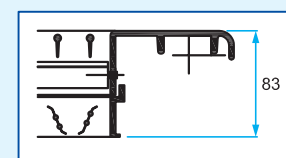
AC 101 grille



AC 101 D



AC 101 B



AC 101 BD

Comfort airflow in m ³ /hr for Lw < NR 25 and dimensions				
L (mm)	H (mm)			
	100	150	200	300
200	200	-	-	-
250	250	370	-	-
300	300	450	-	-
400	400	700	800	-
500	500	800	1000	-
600	-	900	1200	1700
800	-	-	1500	2300
1000	-	-	-	2700

• See selection tables on pages 251 and 254.

RANGE R10

Dimensions	SD Grille AC 101 F3 Code	SD Grille SC 101 F3 Code	DD Grille AC 101 D F3 Code
200 x 100		11050020	
250 x 100		11050021	
300 x 100		11050022	
400 x 100		11050023	
500 x 100		11050024	
250 x 150		11050025	
300 x 150		11050026	
400 x 150		11050027	
500 x 150		11050028	
600 x 150		11050029	
400 x 200		11050030	
500 x 200		11050031	
600 x 200		11050032	
800 x 200		11050033	
600 x 300		11050034	
800 x 300		11050035	
1000 x 300		11050036	

Indoor Grilles

Single & double deflection grilles



AC 102 D - SC 102 D
Extruded aluminium or steel

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Wall mounted.

DESCRIPTION

- AC 102: single deflection grille with vertical, mobile and individually adjustable blades, with a 20 mm spacing.
- AC 102 D: double deflection grille with front vertical and rear horizontal, mobile and individually adjustable blades, with a 20 mm spacing.
- AC 102 B: grille AC 102 with opposed blade damper (OBD).
- AC 102 BD: grille AC 102 D with opposed blade damper (OBD).

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

ACCESSORIES

- Opposed blade damper (OBD) - aluminum profiles. Fitted to the grille using clips.
- MT and ME connection plenum, aluminium or galvanized sheet steel, with rear or side mounted connection. See plenum dimensions on page 217.

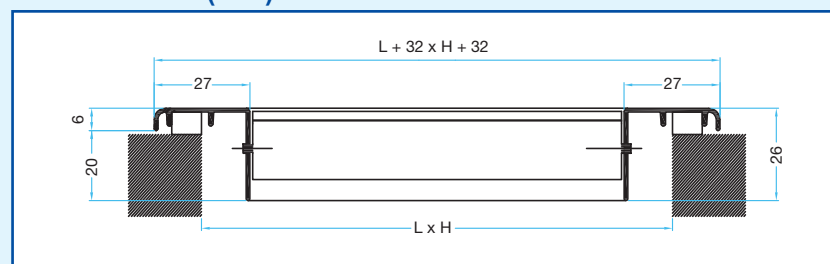
ADDITIONAL RANGE

- Other sizes available upon request.

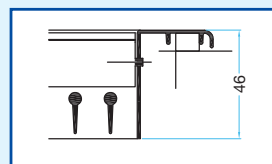
Advantages

- Adjustable blades.
- Easy installation.

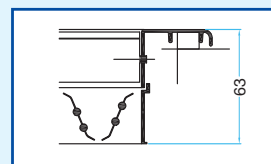
DIMENSIONS (mm)



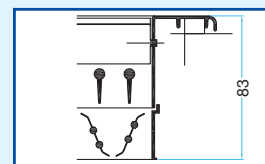
AC 102 grille



AC 102 D



AC 102 B



AC 102 BD

Comfort airflow in m³/hr for Lw < NR 25 and dimensions

L (mm)	H (mm)			
	100	150	200	300
200	200	-	-	-
250	250	370	-	-
300	300	450	-	-
400	400	700	800	-
500	500	800	1000	-
600	-	900	1200	1700
800	-	-	1500	2300
1000	-	-	-	2700

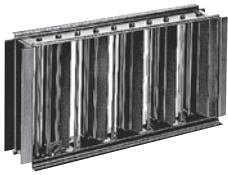
• See selection tables on pages 251 and 254.

RANGE R10

Dimensions	SD Grille AC 102 F3 Code	DD Grille AC 102 D F3 Code	DD Grille SC 102 D F3 Code
200 x 100			11050060
250 x 100			11050061
300 x 100			11050062
400 x 100			11050063
500 x 100			11050064
250 x 150			11050065
300 x 150			11050066
400 x 150			11050067
500 x 150			11050068
600 x 150			11050069
400 x 200			11050070
500 x 200			11050071
600 x 200			11050072
800 x 200			11050073
600 x 300			11050074
800 x 300			11050075
1000 x 300			11050076

Indoor Grilles

Indoor grilles accessories



Opposed Blade Damper (OBD)
MT F3 - ME F3 series - Aluminium

Advantages

- Facilitates installation of the indoor grilles.
- OBD to adjust airflow.

APPLICATION

- Range of accessories suitable for indoor grilles
- CAUTION: these accessories are not compatible with grilles intended for circular ducts.

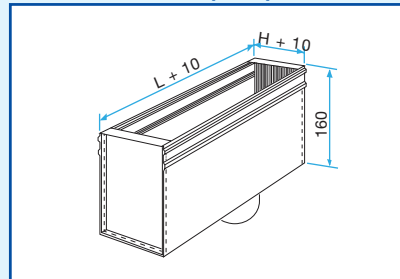
DESCRIPTION

- OBD: counter-rotating adjusting damper-in aluminium or galvanised sheet steel. Attaches to the grille with 'S' clips.
- MT F3: connection plenum with back duct connection. Construction - Aluminium or galvanised sheet steel. Two models are available - depending on the connection branch diameter -
 - "90°" model if the connection diameter < nominal height of the grille.
 - "83°" model if the connection diameter > nominal height of the grille.
- ME F3: connection plenum with side-mounted connector. Construction - aluminium or galvanised sheet steel.
- MEI (5) F3: connection plenum with side-mounted connector. Construction - aluminium or galvanised sheet steel. Insulated on 5 faces.
- Plenums MT F3 and ME F3 are suitable for use with F3 fixings (clips) designed for standard grilles and require no F4 fixing frame.

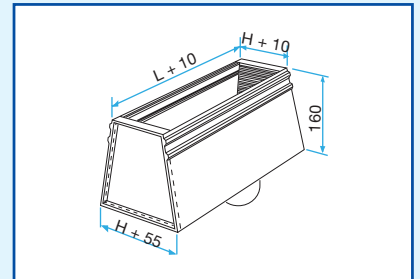
ADDITIONAL RANGE

- Other sizes available upon request.

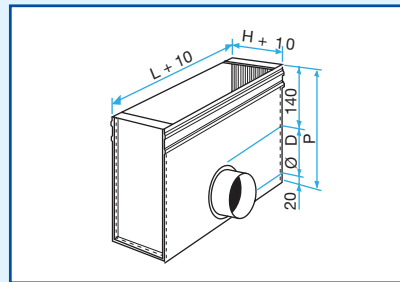
DIMENSIONS (mm)



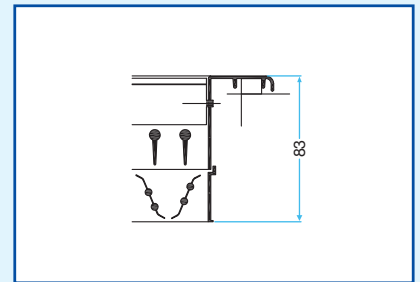
MT F3 plenum with 90° rear connection



MT F3 plenum with 83° rear connection



ME F3 plenum with 90° side connection



AC or SC 102 D grille with damper

L (mm)	Dimensions						
	H = 100		H = 150		H = 200		H = 300
	ME / MT F3	ME F3 A/C.	ME / MT F3	ME F3 A/C.	ME / MT F3	ME F3 A/C.	ME / MT F3
200	Ø 80*	Ø 125	-	-	-	-	-
250	Ø 100	-	Ø 125*	-	-	-	-
300	Ø 125	Ø 160	Ø 160	Ø 200	-	-	-
400	Ø 125	-	Ø 160	-	Ø 200	Ø 200	-
500	Ø 125	-	Ø 160	-	Ø 200	-	-
600	-	-	Ø 160	-	Ø 200	-	Ø 250*
800	-	-	-	-	2 x Ø 200	-	2 x Ø 250*
1000	-	-	-	-	-	-	2 x Ø 250*

• All MT plenums are 83° models except those marked (*).

RANGE

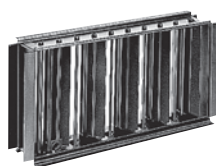
Dimensions	Opposed blade damper Code	ME F3 plenum side connection Code	MT F3 plenum back connection Code	ME F3 plenum connection A/C Code	MEI (5) plenum F3 conn. A/C. Code
200 x 100					
250 x 100					
250 x 150					
300 x 100					
300 x 150					
400 x 100					
400 x 150					
400 x 200					
500 x 100					
500 x 150					
500 x 200					
600 x 150					
600 x 200					
600 x 300					
800 x 200					
800 x 300					
1000 x 300					

Indoor Grilles

Fixed blade grilles



AC 121 - Aluminium
SC 121 - Steel



Opposed Blade Damper

Advantages

- Low noise level.
- Fixed blades for air exhaust.
- Easy installation.

APPLICATION

- Air exhaust for all ventilation and air-conditioning applications.
- Wall mounted.

DESCRIPTION

- AC 121: single deflection grille with fixed horizontal blades, inclined at 40° and with a spacing of 20 mm.
- AC 121 B: AC 121 grille with opposed blade damper (OBD).

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

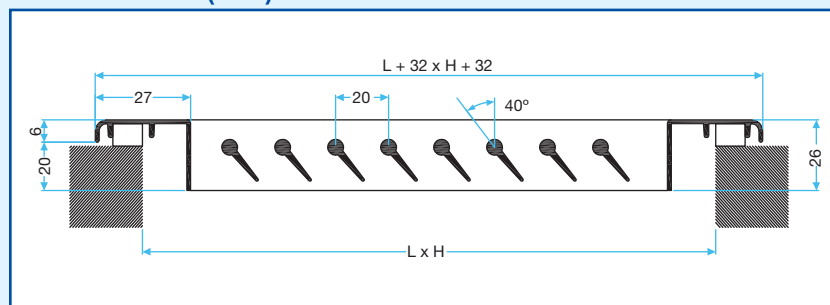
ACCESSORIES

- Opposed blade damper (OBD) - aluminum profiles. Fitted to the grille using clips.
- MT and ME connection plenums in galvanised sheet steel with rear or side mounted connection. See plenum dimensions on page 217.

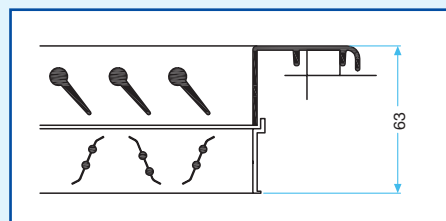
ADDITIONAL RANGE

- Other sizes available upon request.
- Single deflection grille with horizontal vanes, inclined at 40° and with a spacing of 20 mm.
- AC models: finish - anodised aluminium, natural satin finish.
- SC models: finish - white epoxy painted steel RAL 9010 tint.
- Hidden fixing using friction clips.

DIMENSIONS (mm)



AC or SC 121



AC or SC 121 B

Comfort airflow levels for Lw < NR 25 and dimensions

L (mm)	H (mm)	Ø plenum (mm)	Airflow (m³/hr)
200	100	80*	180
300	150	160	350
400	200	200	600
600	200	200	1200
300	300	250	700
500	300	315	1200
600	300	250*	1400
800	300	2 x 250*	1800
600	600	355	2000
1000	600	2 x 315	3000

- All MT plenums are 83° models except those marked (*).
- See selection table on page 254.

RANGE

Dimensions	Aluminium grille AC 121 F3 Code	Steel grille SC 121 F3 Code	Opposed blade damper Code	ME F3 plenum side connection Code	MT F3 plenum back connection Code
200 x 100		11050200			
300 x 150		11050204			
400 x 200		11050208			
600 x 200		11050210			
300 x 300		11050211			
500 x 300		11050212			
600 x 300		11050213			
800 x 300		11050214			
600 x 600		11050218			
1000 x 600					

Indoor Grilles

Fixed mesh grilles



AC 123 - Aluminium



SC 125 - Steel

Advantages

- Aesthetic, "mesh" type design for air exhaust.

APPLICATION

- Air exhaust for all ventilation and air-conditioning applications.
- Wall mounted.

DESCRIPTION

- Meshed grille with 12 x 12 x 0.4 mm squares (AC 123) or perforated sheet with 45 % free surface area (SC 125).
- AC models: finish - aluminium, desired RAL colour.
- SC models: white epoxy painted steel finish, RAL 9010 tint.
- Hidden fixings using friction clips.

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

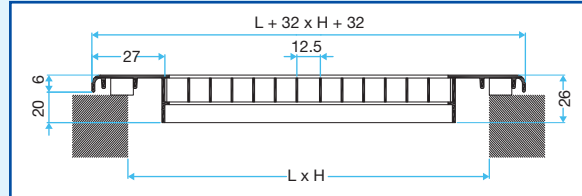
ACCESSORIES

- Opposed blade damper (OBD) - aluminum profiles. Fitted to the grille using clips.
- MT and ME connection plenums in galvanised sheet steel with rear or side mounted connection. See plenum dimensions on page 217.

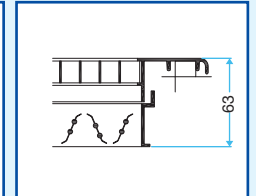
ADDITIONAL RANGE

- Other sizes available upon request.

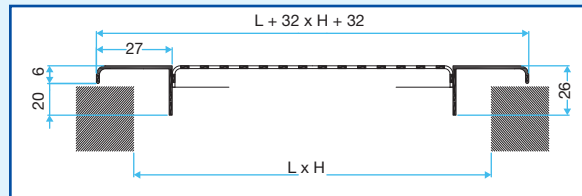
DIMENSIONS (mm)



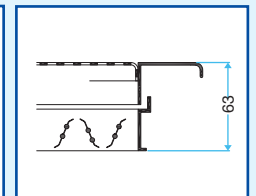
AC 123



AC 123 B



SC 125



SC 125 B

Comfort airflow levels for Lw < NR 25 and dimensions

L (mm)	H (mm)	Ø plenum (mm)	Airflow (m³/hr) for AC 123	Airflow (m³/hr) for SC 125
200	100	80*	160	140
300	150	160	400	350
400	200	200	700	600
600	200	200	1200	900
300	300	250	700	600
500	300	315	1300	1100
600	300	250*	1500	1200
800	300	2 x 250*	1900	1600
600	600	355	2200	1800
1000	600	2 x 315	4000	

- All MT plenums are 83° models except those marked (*).
- See selection table on page 254.

RANGE R10

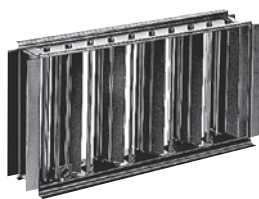
Dimensions	Aluminium grille AC 123 F3 Code	Opposed blade damper Code	ME F3 plenum side connection Code	MT F3 plenum back connection Code	Steel grille SC 125 F3 Code
200 x 100					11050011
300 x 150					11050012
400 x 200					11050013
600 x 200					11050014
300 x 300					11050015
500 x 300					11050016
600 x 300					11050017
800 x 300					11050018
600 x 600					11050019
1000 x 600					

Indoor Grilles

Grilles with fixed aluminium linear bars



AC 440 - Aluminium



Opposed blade damper

Advantages

- Aesthetic design.
- Linear effect.

APPLICATION

- Air supply and air exhaust for all ventilation and air conditioning applications.
- Wall or breast wall mounting.

DESCRIPTION

- AC 440: fixed horizontal linear bars with a 13 mm spacing and 0° deflection.
- AC 440 B: AC 440 grille with opposed blade damper (OBD).
- AC 440 D: fixed horizontal linear bars with a 13 mm spacing and 0° deflection, rear individually adjustable blades, perpendicular to frontal bars.
- AC 440 BD: AC 440 D grille with opposed blade damper (OBD).

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

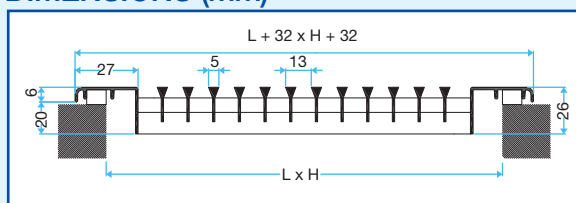
AVAILABLE OPTIONS

- Corner piece 90° or 45°; code K.

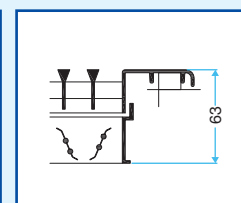
ADDITIONAL RANGE

- Other sizes available upon request.

DIMENSIONS (mm)



AC 440



AC 440 B

Comfort airflow levels for Lw < NR 25 and dimensions					
L x H (mm)	Ø connections (mm)	Airflow (m³/hr)	L x H (mm)	Ø connections (mm)	Airflow (m³/hr)
200 x 100	80	160	600 x 150	160	650
250 x 100	100	180	600 x 200	200	800
300 x 100	125	250	800 x 100	2 x 125	550
400 x 100	125	330	800 x 200	2 x 200	1000
500 x 100	125	380	1000 x 150	2 x 160	1000
600 x 100	2 x 100	500	1500 x 200	3 x 200	1800
250 x 150	125	280	800 x 75	2 x 100	400
300 x 150	160	350	800 x 150	2 x 160	800
400 x 150	160	450	1000 x 75	2 x 100	550
500 x 150	160	550	1000 x 200	2 x 200	1200
400 x 200	200	550	1000 x 100	2 x 125	650
500 x 200	200	680	1500 x 150	3 x 160	1350

- All MT plenums are 83° models, except 250 x 150 and 200 x 100 mm.
- See selection tables on pages 252 and 254.

RANGE

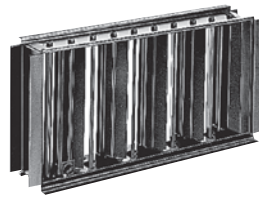
Dimensions	Grille AC 440 F3 Code	Opposed blade damper Code	ME F3 plenum side connection Code	MT F3 plenum back connection Code
800 x 75				
1000 x 75				
200 x 100				
250 x 100				
300 x 100				
400 x 100				
500 x 100				
600 x 100				
800 x 100				
1000 x 100				
250 x 150				
300 x 150				
400 x 150				
500 x 150				
600 x 150				
800 x 150				
1000 x 150				
1500 x 150				
400 x 200				
500 x 200				
600 x 200				
800 x 200				
1000 x 200				
1500 x 200				

Indoor Grilles

Grilles with fixed aluminium linear bars



AC 441 - Aluminium



Opposed blade damper

Advantages

- Aesthetic design.
- Linear effect.

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Wall or breast wall mounting.

DESCRIPTION

- AC 441: fixed horizontal linear bars with a 15 mm spacing and 15° deflection.
- AC 441 B: AC 441 grille with opposed blade damper (OBD).
- AC 441 D: fixed horizontal linear bars with a 15 mm spacing and 15° deflection, rear individually adjustable blades, perpendicular to frontal bars.
- AC 441 BD: AC 441 D grille with opposed blade damper (OBD).

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

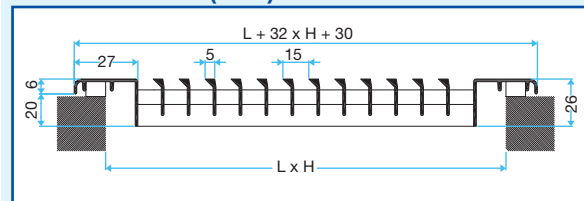
AVAILABLE OPTIONS

- Corner piece 90° or 45°; code K.

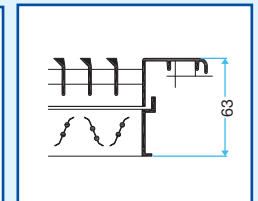
ADDITIONAL RANGE

- Other sizes available upon request.

DIMENSIONS (mm)



AC 441



AC 441 B

Comfort airflow levels for $L_w < NR 25$ and dimensions					
L x H (mm)	Ø connections (mm)	Airflow (m³/hr)	L x H (mm)	Ø connections (mm)	Airflow (m³/hr)
200 x 100	80	160	600 x 150	160	650
250 x 100	100	180	600 x 200	200	800
300 x 100	125	250	800 x 100	2 x 125	550
400 x 100	125	330	800 x 200	2 x 200	1000
500 x 100	125	380	1000 x 150	2 x 160	1000
600 x 100	2 x 100	500	1500 x 200	3 x 200	1800
250 x 150	125	280	800 x 75	2 x 100	400
300 x 150	160	350	800 x 150	2 x 160	800
400 x 150	160	450	1000 x 75	2 x 100	550
500 x 150	160	550	1000 x 200	2 x 200	1200
400 x 200	200	550	1000 x 100	2 x 125	650
500 x 200	200	680	1500 x 150	3 x 160	1350

- All MT plenums are 83° models, except 250 x 150 and 200 x 100 mm.
- See selection tables on pages 252 and 254.

RANGE

Dimensions	Grille AC 441 F3 Code	Opposed blade damper Code	ME F3 plenum side connection Code	MT F3 plenum back connection Code
800 x 75				
1000 x 75				
200 x 100				
250 x 100				
300 x 100				
400 x 100				
500 x 100				
600 x 100				
800 x 100				
1000 x 100				
250 x 150				
300 x 150				
400 x 150				
500 x 150				
600 x 150				
800 x 150				
1000 x 150				
1500 x 150				
400 x 200				
500 x 200				
600 x 200				
800 x 200				
1000 x 200				
1500 x 200				

Indoor Grilles

Fixed blade grilles with filter



AC 161 W - Aluminium



AC 163 W - Aluminium

Advantages

- Front face opening on hinges for easy access to filter.
- RAL 9010 white finish.

APPLICATION

- Air exhaust for all ventilation and air-conditioning applications.
- Wall mounted.

DESCRIPTION

- AC 161: single deflection grille with horizontal fixed blades inclined at 40° with a 20 mm spacing. Housing for 25 mm thick filter. Front of the grille hinged - locked into position with a button screw.
- AC 163: square mesh 12 x 12 mm grille. Housing for 25 mm thick filter. Front of the grille hinged and locked into position with a button screw.
- Models AC 161 & AC 163: finish - extruded aluminium, natural satin finish.
- Hinges in stainless steel.
- Concealed fixing, using screws in the filter housing acting as a mounting frame.

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request
- Fixing F3 clips.

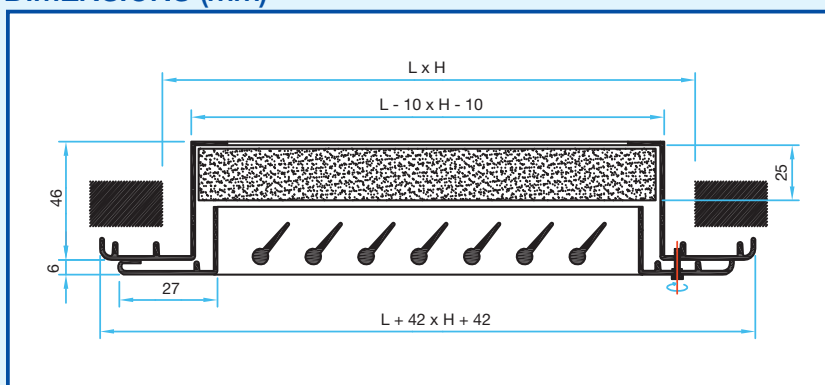
ACCESSORIES

- Washable filter, code W.

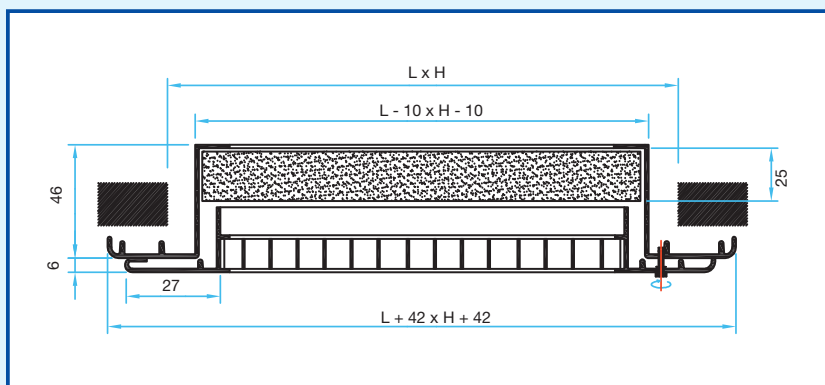
ADDITIONAL RANGE

- Other sizes available upon request.

DIMENSIONS (mm)



AC 161 grille with filter



AC 163 grille with filter

Comfort airflow levels for Lw < NR 25 and dimensions

L x H (mm)	Standard filter (mm)	ØD Plenum (mm)	H Plenum (mm)	Airflow (m³/hr)
622 x 322	596 x 296	250	215	800
522 x 422	496 x 396	355	215	1600
622 x 422	596 x 396	355	215	1600
522 x 522	496 x 496	400	215	1800
622 x 522	596 x 496	450	215	2400

- See selection table on page 254.

RANGE

Dimensions	Vane grille AC 161 W F1 Code	Mesh grille AC 163 W F1 Code	Filters W Code	RT plenum back connection Code
622 x 322				
522 x 422				
622 x 422				
522 x 522				
622 x 522				

Indoor Grilles

Fixed blades air transfer grilles



AC 181 - Aluminium

Advantages

- Aesthetic design.
- Mounting frame supplied.
- No see-through from one room to another.

APPLICATION

- Air transfer from one room to another.
- Normally used as a door grille.

DESCRIPTION

- Single deflection grille with horizontal fixed vanes, spaced at 20 mm. Herringbone vane arrangement.
- Finish – anodised aluminium, natural satin finish.
- Visible fixing, by screwing into the frame.
- AC 180: non-vision door or partition transfer grille with fixed frame on one side. For dark rooms, we suggest two grilles (painted black), fitted to both sides of the door.
- AC 181: non-vision door or partition grille with fixed frame on one side, complete with sliding frame on the opposite side.

STANDARD SUPPLY

- RAL 9010. Other RAL colours available upon request.
- Fixing F3 clips.

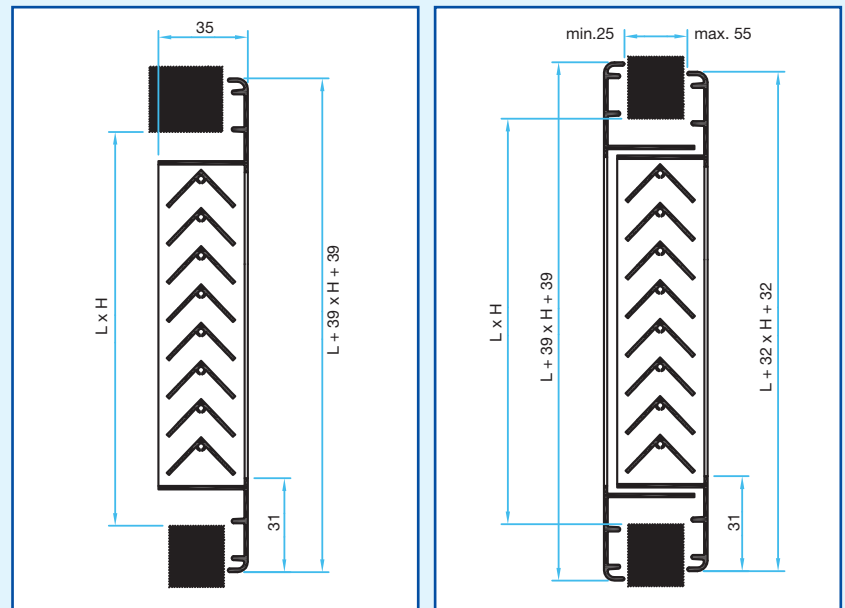
ACCESSORIES

- Mounting frame supplied.

ADDITIONAL RANGE

- All sizes up to 1200 x 600 mm.
- Paint finishes as for RAL card (please, consult us).

DIMENSIONS



AC 180 grille

AC 181 grille

Comfort airflow levels for Lw < NR 25 and dimensions

L (mm)	H (mm)	Airflow (m ³ /h)
200	100	60
300	150	150
400	200	250
600	200	350
500	300	410
600	300	600
600	400	650

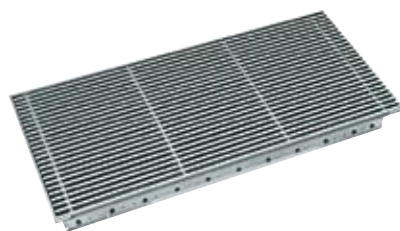
• See selection table on page 250.

RANGE

Dimensions	Air transfer grille AC 180 Code	Air transfer grille AC 181 Code
200 x 100		
300 x 150		
400 x 200		
600 x 200		
500 x 300		
600 x 300		
600 x 400		

Indoor Grilles

Grilles with fixed linear bars for floor mounting



AG 450 - AG 470 series - Aluminium

Advantages

- Version suitable for designed floor assemblies.

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Suitable for floor mounting.

DESCRIPTION

- Fixed horizontal linear bars with a 13 mm spacing.
- Special version for designed floor assemblies with reinforced use (model AG 470).
For this version, it is necessary to stipulate the floor height as the grille will be adapted in the factory up to this height (modification of dimension C).
CAUTION: the minimum value of dimension C is 35 mm.
- Finish – anodised aluminium, natural satin finish.
- Embedded into the floor.

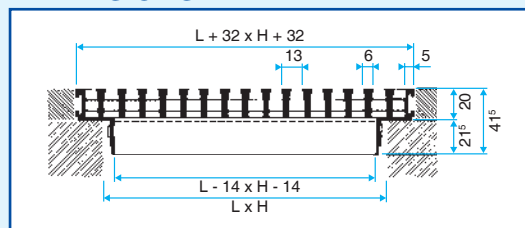
ACCESSORIES

- Counter-rotating movement AGB damper, in aluminium. Fitted to the grille using clips (please, consult us).

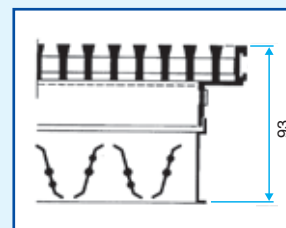
ADDITIONAL RANGE

- All sizes of up to 1200 x 400 mm. Finished with paint in accordance with RAL colour chart (please, consult us).
- All aluminium version for swimming pool applications (please, consult us).

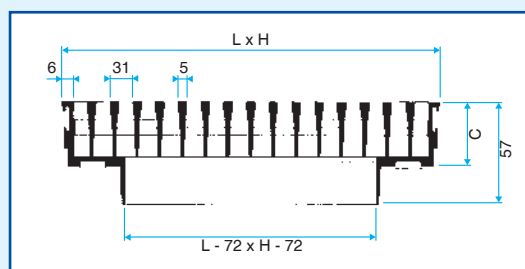
DIMENSIONS



AG 450 grille alone



AG 450 grille with damper



AG 470 grille alone

- C: variable depending on flooring type, specify when ordering.

Comfort airflow in m³/h for Lw < NR 25 and dimensions

L (mm)	H (mm)				
	100	150	200	300	600
200	160	-	-	-	-
300	250	350	-	-	-
400	-	450	550	-	-
500	-	-	-	1200	-
600	-	-	800	1400	2000

- See selection tables on pages 252 and 254.

RANGE R10

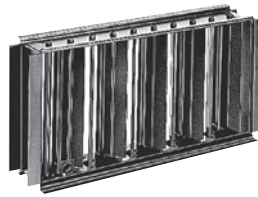
Dimensions	Floor grille AG 450 F0 Code	Floor grille AG 470 F0 Code
200 x 100	11050881	
300 x 100	11050882	
300 x 150	11050883	
400 x 150	11050884	
400 x 200	11050885	
600 x 200	11050886	
500 x 300	11050887	
600 x 300	11050888	
600 x 600	11050889	11002061

Indoor Grilles

Grilles with fixed linear bars for floor mounting



AG 450A - Aluminium



Opposed Blade Damper

Advantages

- Version suitable for designed floor assemblies.

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Floor mounted.

DESCRIPTION

- Fixed horizontal linear bars with a 16 mm spacing.
- Aluminium finish or desired RAL colour, natural satin finish.
- Embedded into the floor.

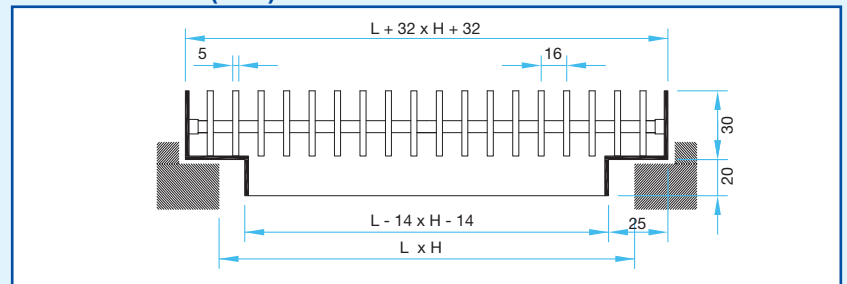
ACCESSORIES

- Opposed blade damper - in aluminium profiles, fitted to the grille using clips.
- All aluminium version for swimming pool applications (please, consult us).

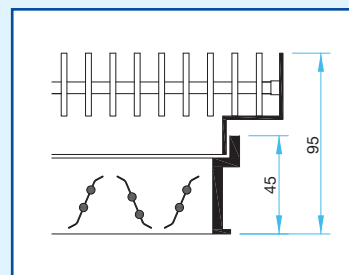
ADDITIONAL RANGE

- Other sizes available upon request.

DIMENSIONS (mm)



AG 450A grille alone



AG 450A with damper

Comfort airflow in m³/hr for Lw < NR 25 and dimensions

L (mm)	H (mm)				
	100	150	200	300	600
200	160	-	-	-	-
300	250	350	-	-	-
400	-	450	550	-	-
500	-	-	-	1200	-
600	-	-	800	1400	2000

- Special grille for designed floor assemblies (600 x 600 mm tiles).
- State the type of flooring when ordering.
- See selection tables on pages 252 and 254.

RANGE

Dimensions	Grille AG 450 F0 Code
200 x 100	
300 x 100	
300 x 150	
400 x 150	
400 x 200	
600 x 200	
500 x 300	
600 x 300	
600 x 600	

Indoor Grilles

Pressed metal grilles



Grille SR 377 - Steel



Grille SR 378 - Steel

Advantages

- Wall mounted installation.

APPLICATION

- Air exhaust for simple air conditioning or heating installations.
- Wall mounted.

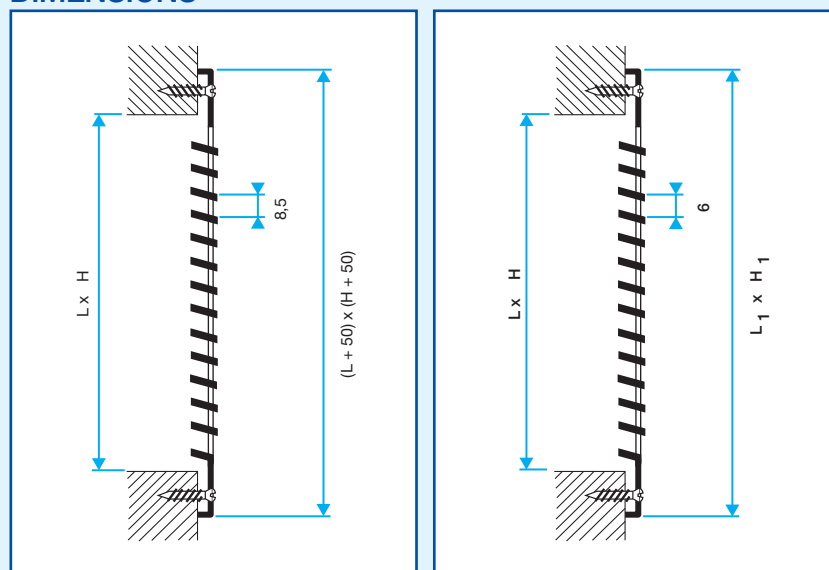
DESCRIPTION

- Single deflection grille with horizontal vanes, inclined at 20° and with a spacing of 8.5 mm.
- Pressed steel design.
- Finish - white epoxy painted steel RAL 9010 tint.
- Visible fixing, by screwing into the frame.

RANGE R10

Dimensions	Grille SR 377 Code	Grille SR 378 Code
100 x 100		11050272
200 x 100	11050260	
250 x 100	11050261	
300 x 100	11050262	
100 x 150		11050273
150 x 150		11050274
250 x 150		11050275
350 x 150	11050263	
400 x 150	11050264	
100 x 200		11050276
200 x 200		11050277
300 x 300	11050265	
600 x 300	11050266	
400 x 400	11050267	
500 x 500	11050268	
600 x 600	11050269	
750 x 750	11050270	
900 x 900	11050271	

DIMENSIONS



Grille SR 377

Grille SR 378

Comfort airflow levels for $Lw < NR 30$ and dimensions

L (mm)	H (mm)	Airflow (m ³ /h)
100	100	60
200	100	120
250	100	150
300	100	180
100	150	90
150	150	100
250	150	150
350	150	300
400	150	350
100	200	120
200	200	240
300	300	600
600	300	1200
400	400	1000
500	500	1800
600	600	2500
750	750	3000
900	900	3500

Indoor Grilles

Fixed blade grilles for ceiling tiles



AO 123 Z - AU 123 - AU 124
Aluminium or steel



AO 129



SC 370

Advantages

- Adapted for standard 600 x 600 mm suspended ceiling tiles.
- AU 123 and AU 124 series with a thin frame for even greater rigidity.

APPLICATION

- Air exhaust for all ventilation and air-conditioning applications.
- Ceiling mounted, replacing a 600 x 600 mm suspended ceiling tile.

DESCRIPTION

- AO 123 Z: frameless straight square mesh grille (15 x 15 mm).
- AU 123 Z: straight square mesh grille (15 x 15 mm) with thin 5 mm frame.
- AU 124 Z: square mesh grille (15 x 15 mm) – inclined at 45° with thin 5 mm frame. White epoxy painted aluminium finish, RAL 9010 tint.
- AO 129: grille with blades inclined at 45°. Anodized aluminium, natural tint or white epoxy painted aluminium, RAL 9010 tint (AO 129 Z model).
- SC 370: perforated sheet covering 45 % of free surface area without frame.
- Finish - white epoxy painted steel RAL 9010 tint.
- Gravity fixing using the T-branches of the suspended ceiling.

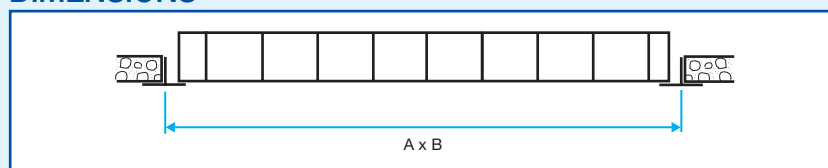
ACCESSORIES

- Connection plenum supplied (side connection) in galvanised steel.

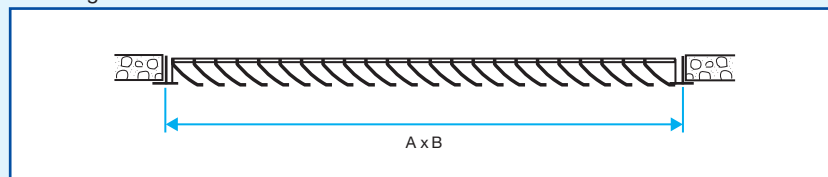
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please, consult us).
- Other dimensions available by request.

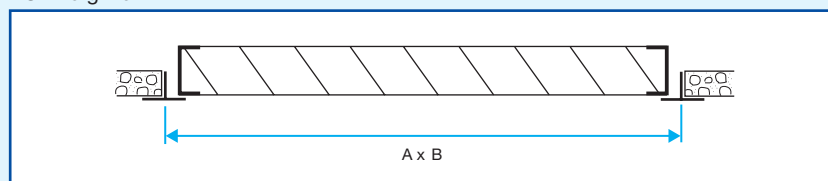
DIMENSIONS



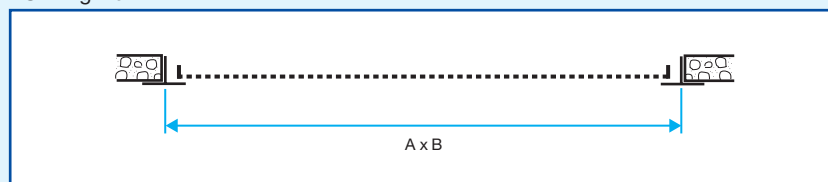
AO 123 grille



AO 129 grille



AU124 grille



SC 370 grille

Comfort airflow levels for $L_w < NR 25$ and dimensions

A (mm)	B (mm)	Ø D plenum (mm)	H plenum (mm)	airflow(m ³ /h)
600	600	250	300	1000
1200	600	-	-	2000

- See selection table on page 254.

RANGE R10

Dimensions	Grille anodised vanes AO 129 Code	Grille white vanes AO 129 Z Code	Grille with white mesh AO 123 Z Code	Grille with white mesh AU 124 Z Code	Plenum side connection RE 123 Code
600 x 600	11050663	11050665	11050661	11050727	11053694
1200 x 600	11050664	11050666	11050662		11053700

Dimensions	Grille with white mesh AU 123 Z Code	Plenum side connection RE 123 Code	Spare filter W Code	White perforated sheet + filter SC 370 W Code	White perforated sheet SC 370 Code
600 x 600	11050725	11053694	11053499	11050670	11050669

Indoor Grilles

Fixed blade grilles with filter for ceiling tiles



AG 637 WZ - Aluminium



AC174 WZ

Advantages

- Front face opening on hinges.
- Adapted for standard suspended ceiling tiles.
- Dimensions available for 675 x 675 mm tiles.
- Efficient and robust closing system.
- Can be fitted into fixed suspended ceilings.

APPLICATION

- Air exhaust for all ventilation and air-conditioning applications.
- Fitted into suspended ceiling tiles or wall-mounted.
- Special model for fixed suspended ceilings.

DESCRIPTION

- Front face opening on hinges.
- Aluminium construction.
- White epoxy painted, RAL 9010 tint.
- Gravity fixing using the 'T' pieces of the suspended ceiling (F0) or by visible screws (F1 - Designed for Staff ceilings).
- AG 637 WZ: front grille with fixed vanes inclined at 45° - with filter.
- AC 174 WZ: square mesh grille (15 x 15 mm) at 45° - with filter.

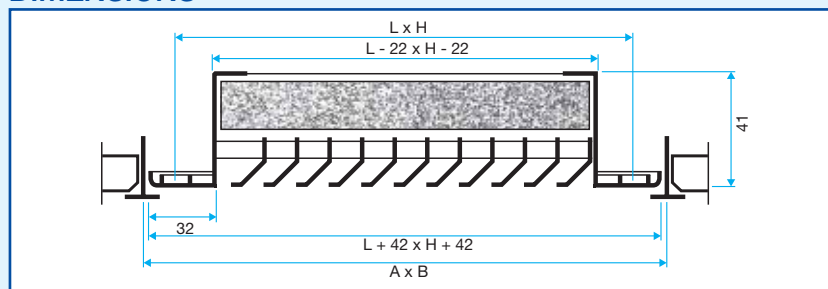
ACCESSORIES

- W filter 15 mm thick, M1 fire rating, G3 (supplied).
- Connection plenum in galvanised steel.

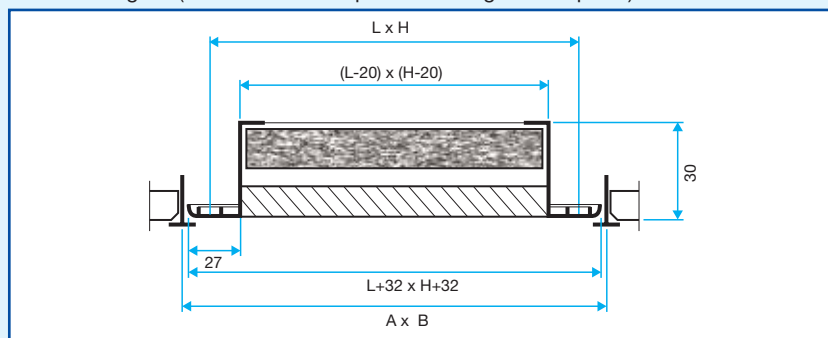
ADDITIONAL RANGE

- For other sizes, please consult us.
- Paint finish in accordance with the RAL colour chart (please, consult us).
- Other fitting methods (please, consult us).

DIMENSIONS



AG 637 WZ grille (for removable suspended ceilings with T-piece)



AC 174 WZ grille (for removable suspended ceilings with T-piece)

Comfort airflow levels for Lw < NR 30 and dimensions						
Model	A x B* (mm)	L (mm)	H (mm)	Plenum height (mm)	Ø Plenum connection (mm)	Airflow (m³/h)
AG 637 WZ	600 x 300	554*	254	360	250	800
	600 x 600	554*	554	360	250	1000
	675 x 675	628**	628	360	250	1000
AC 174 WZ	-	400	200	350	200	450
	-	500***	500	360	250	1000
	600 x 300	563*	263	360	250	1000
	600 x 600	563*	563	360	250	1000

* Special dimensions for suspended ceiling tiles 600 mm in length.

** Special dimensions for suspended ceiling tiles 675 mm in length.

*** Dimensions and fittings for non-removable (fixed) suspended ceilings.

RANGE for removable suspended ceilings R10

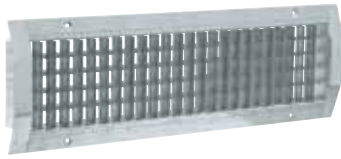
Dimensions	45° mesh grille AC 174 WZ F0 Code	Grille white vanes AG 637 WZ F0 Code	Side plenum RE 174 Code	Side plenum RE 637 Code	Spare filter W Code
600 x 300	11050742	11050682	11053572	11053575	11053515
600 x 600	11050743	11050681	11053570	11053577	11053514
675 x 675		11050683		11053576	11053516

RANGE for rigid suspended ceilings or walls R10

Dimensions	45° mesh grille AC 174 WZ F1 Code	Rear plenum MT F3 Code	Side plenum ME F3 Code	Side plenum RE174 Code	Spare filter W Code
500 x 500	11050741			11053578	11053518
400 x 200	11050740	11053648	11053678		11053517

Indoor Grilles

Grilles for circular ducts



GD 102 - GD 102 D series
Steel



N damper

Advantages

- Suitable for circular and oblong ducts – all standard diameters.

APPLICATION

- Air supply and air exhaust for all ventilation and air-conditioning applications.
- Can be mounted on cylindrical or oblong ductwork.

DESCRIPTION

- GD 102 F1: single deflection grille (air return) horizontal vanes, mobile, individually adjustable with a 20 mm spacing.
- GD 102 D F1: double deflection grille (air supply) horizontal vanes behind and vertical vanes in front, mobile, individually adjustable with a 20 mm spacing.
- Galvanised steel with natural tint.
- Visible fixing, by screwing into the frame.

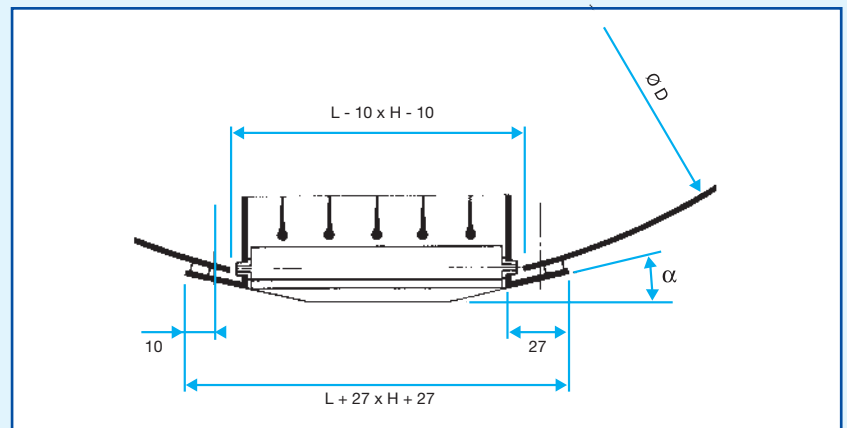
ACCESSORIES

- 'N' damper with inclined sliding rail, in black sheet steel with locking screws. Fitted to the grille using clips. Used for air supply.
- 'H' damper with straight sliding rail and in black sheet steel. Fitted to the grille using clips, with locking screws. Used for air exhaust.

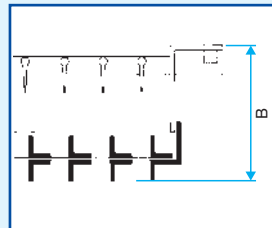
ADDITIONAL RANGE

- All sizes of up to 1225 x 225 mm.
- Finished with paint in accordance with RAL colour chart (please, consult us).

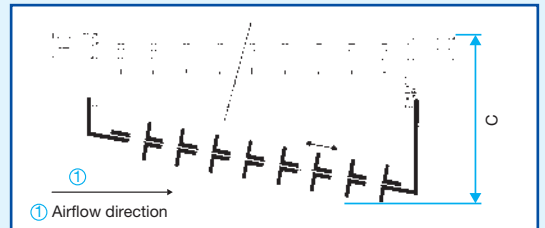
DIMENSIONS



GD 102 grille alone



GD 102 with H damper



GD 102 D with N damper

Comfort airflow levels for $L_w < NR 35$ (air supply with N damper 100% open) and dimensions

L (mm)	H (mm)	A (mm)	B (mm)	C (mm)	Min. duct $\varnothing D$ (mm)	Max. duct $\varnothing D$ (mm)	Airflow (m^3/h)
325	75	42	86	124	160	400	190
425	75	42	86	137	160	400	230
525	75	42	86	150	160	400	300
625	75	42	86	163	160	400	360
425	125	46	90	141	315	900	460
525	125	46	90	154	315	900	560
625	125	46	90	167	315	900	680
525	225	56	100	164	630	1600	1000
625	225	56	100	177	630	1600	1300
825	225	56	100	204	630	1600	1500

• See selection tables pages 253 and 254.

RANGE R10

Dimensions	Double deflection grille GD 102 D F1 Code	Inclined slide damper N Code	Single deflection grille GD 102 F1 Code	Straight slide damper H Code
325 x 75	11050148	11053969	11050108	11053959
425 x 75	11050140	11053960	11050100	11053950
525 x 75	11050141	11053961	11050101	11053951
625 x 75	11050142	11053962	11050102	11053952
425 x 125	11050143	11053963	11050103	11053953
525 x 125	11050144	11053964	11050104	11053954
625 x 125	11050145	11053965	11050105	11053955
525 x 225	11050146	11053966	11050106	11053956
625 x 225	11050147	11053967	11050107	11053957
825 x 225	11050148	11053968	11050114	11053958

Air Displacement Diffusers

SP 391 series

New


Diffuser SP 391 - Steel

Advantages

- Perfect for cooling installations.
- Low velocity air supply.

APPLICATION

- Low velocity air supply.
- Cooling or air-conditioning in industrial or commercial premises.
- Air supply covering 180°.
- Wall mounted or fitted centrally within the zone of occupation.
- Air distribution by means of integrated deflectors.

DESCRIPTION

- Diffusion surface – galvanised perforated sheet steel.
- Finish - white epoxy painted steel RAL 9010 tint.
- Floor mounting.

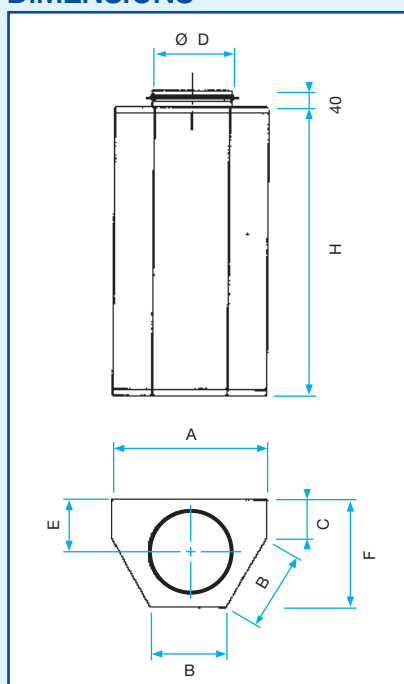
ACCESSORIES

- Floor base plate.
- Silencer.
- Duct fittings.
- Regulator and air-flow measurement device.

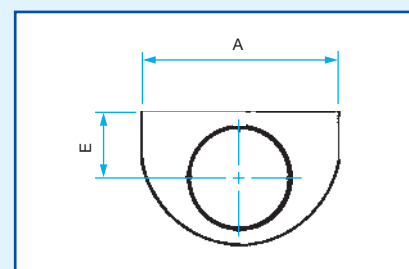
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

DIMENSIONS



Diffuser SP 391



Diffuser SP 391 R

Comfort airflow levels for Lw < NR 25 and dimensions

Model	A (mm)	B (mm)	C (mm)	Ø D (mm)	E (mm)	F (mm)	H (mm)	L** (mm)	Airflow (m ³ /h)
100	200	100	70	98	80	155	400	300	175
125	250	125	75	123	93	185	500	300	275
160	300	150	80	168	110	250	700	400	400
200	380	190	90	198	130	260	800	400	600
250	480	240	102	248	155	315	900	500	900
315	600	300	125	313	198	390	1000	600	1500
400	760	380	151	398	230	480	1250	700	2400
500	950	475	179	498	280	600	1500	800	4000
630	950	475	309	628	345	730	1800	900	6000

**L = height of the sound attenuator

RANGE

Dimensions	SP 391 R	SP 391	Fixings	Regulator	Silencer	Socket
Ø 100	11003141	11003121	•	•	•	•
Ø 125	11003142	11003122	•	•	•	•
Ø 160	11003143	11003123	•	•	•	•
Ø 200	11003144	11003124	•	•	•	•
Ø 250	11003145	11003125	•	•	•	•
Ø 315	11003146	11003126	•	•	•	•
Ø 400	11003147	11003127	•	•	•	•
Ø 500	11003148	11003128	•	•	•	•
Ø 630	11003149	11003129	•	•	•	•

Air Displacement Diffusers

SP 392 series

New



Diffuser SP 392 - Steel

Advantages

- Perfect for cooling installations.
- Low velocity air supply.

APPLICATION

- Low velocity air supply.
- Cooling or air-conditioning in industrial or commercial premises.
- Air supply covering 90°.
- Wall mounted or fitted centrally within the zone of occupation.
- Air distribution by means of integrated deflectors.

DESCRIPTION

- Diffusion surface – galvanised perforated sheet steel.
- Finish - white epoxy painted steel RAL 9010 tint.
- Floor mounting.

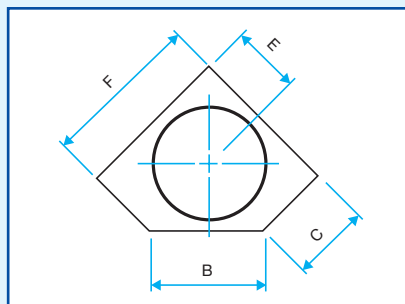
ACCESSORIES

- Floor base plate.
- Silencer.
- Duct fittings.
- Regulator and air-flow measurement device.

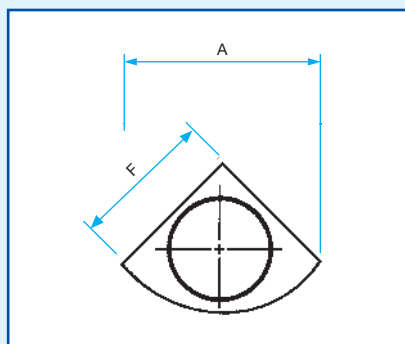
ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

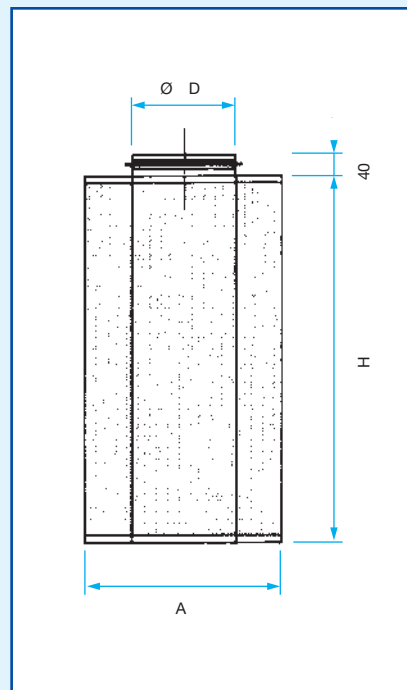
DIMENSIONS



Diffuser SP 392



Diffuser SP 392 R



Comfort airflow levels for Lw < NR 25 and dimensions

Dimension (mm)	A (mm)	B (mm)	C (mm)	Ø D (mm)	E (mm)	F (mm)	H (mm)	L** (mm)	Airflow (m ³ /h)
100	240	126	81	98	70	170	400	300	100
125	286	151	96	123	85	203	500	300	175
160	341	181	114	158	100	242	700	400	350
200	406	216	135	198	120	288	800	400	450
250	480	252	162	248	145	340	900	500	700
315	609	320	206	313	185	432	1000	600	1100
400	740	389	250	398	230	525	1250	700	1700
500	902	474	305	498	280	640	1500	800	2500

**L = height of the sound attenuator

RANGE

Dimensions	SP 392 R	SP 392	Fixings	Regulator	Silencer	Socket
Ø 100	11003151	11003131	•	•	•	•
Ø 125	11003152	11003132	•	•	•	•
Ø 160	11003153	11003133	•	•	•	•
Ø 200	11003154	11003134	•	•	•	•
Ø 250	11003155	11003135	•	•	•	•
Ø 315	11003156	11003136	•	•	•	•
Ø 400	11003157	11003137	•	•	•	•
Ø 500	11003158	11003138	•	•	•	•
Ø 630	11003159	11003139	•	•	•	•

Air Displacement Diffusers

SP 393 series

New



Diffusers SP 393 - Steel

Advantages

- Perfect for cooling installations.
- Low velocity air supply.

APPLICATION

- Low velocity air supply.
- Cooling or air-conditioning in industrial or commercial premises.
- Air supply covering 180°.
- Wall mounting.
- Air distribution by means of integrated deflectors.

DESCRIPTION

- Diffusion surface – galvanised perforated sheet steel.
- Finish - white epoxy painted steel RAL 9010 tint.
- Floor mounting.

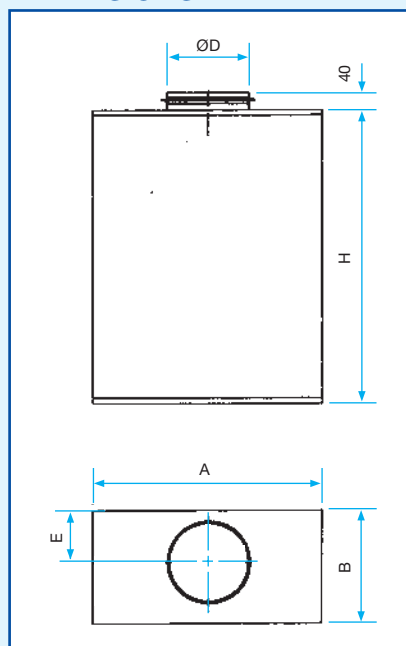
ACCESSORIES

- Floor base plate.
- Silencer.
- Duct fittings.
- Regulator and air-flow measurement device.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

DIMENSIONS



Diffuser SP 393

Comfort airflow levels for Lw < NR 25 and dimensions.

Dimensions (mm)	A (mm)	B (mm)	Ø D (mm)	H (mm)	L** (mm)	Airflow (m³/h)
100	350	155	98	400	300	100
125	400	180	123	500	300	160
160	500	250	158	700	400	240
200	600	300	198	800	400	400
250	700	350	248	900	500	700
315	850	425	313	1000	600	1000
400	1000	500	398	1250	700	1500
500	1200	600	498	1500	800	2400

**L = height of the sound attenuator

RANGE

Dimensions	SP 393 Code	Fixings	Regulator	Silencer	Socket
Ø 100	11003161	•	•	•	•
Ø 125	11003162	•	•	•	•
Ø 160	11003163	•	•	•	•
Ø 200	11003164	•	•	•	•
Ø 250	11003165	•	•	•	•
Ø 315	11003166	•	•	•	•
Ø 400	11003167	•	•	•	•
Ø 500	11003168	•	•	•	•

Air Displacement Diffusers

SP 394 series

New



Diffusers SP 394 - Steel

Advantages

- Perfect for cooling installations.
- Low velocity air supply.

APPLICATION

- Low velocity air supply.
- Cooling or air-conditioning in industrial or commercial premises.
- Air supply covering 360°.
- Wall mounted or fitted centrally within the zone of occupation.
- Air distribution by means of integrated deflectors.

DESCRIPTION

- Diffusion surface – galvanised perforated sheet steel.
- Finish - white epoxy painted steel RAL 9010 tint.
- Floor mounting.

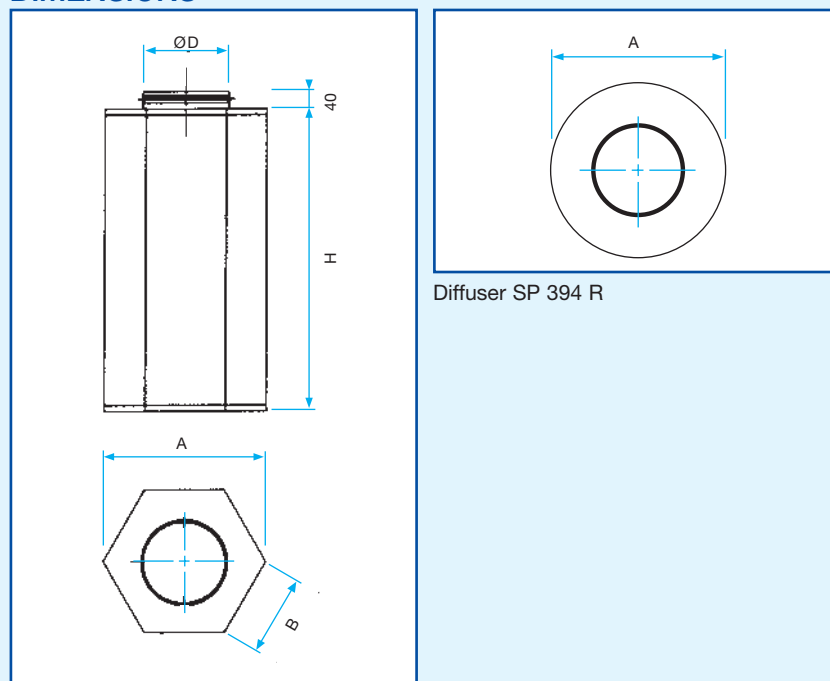
ACCESSORIES

- Floor base plate.
- Silencer.
- Duct fittings.
- Regulator and air-flow measurement device.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).

DIMENSIONS



Diffuser SP 394 R

Diffuser SP 394

Comfort airflow levels for Lw < NR 25 and dimensions.						
Dimensions (mm)	A (mm)	B (mm)	Ø D (mm)	H (mm)	L** (mm)	Airflow (m³/h)
315	600	300	313	1000	600	1500
400	760	380	398	1250	700	2900
500	950	475	498	1500	800	4000
630	950	475	628	1800	900	6000

**L = height of the sound attenuator

RANGE

Dimensions	SP 394 R Code	SP 394 Code	Fixings	Regulator	Silencer	Socket
Ø 315	11003186	11003181	•	•	•	•
Ø 400	11003187	11003177	•	•	•	•
Ø 500	11003188	11003178	•	•	•	•
Ø 630	11003189	11003179	•	•	•	•

Louvres

Fresh air rectangular louvres - fixed blades



AG 638A - Aluminium

Advantages

- Protection against rain water and weather.
- AMCA Certified performances.

DESCRIPTION

- Designed for both intake and exhaust air service in commercial and industrial application.
- Total structure is weather proof and blades inclined downwards to protect against rain water.

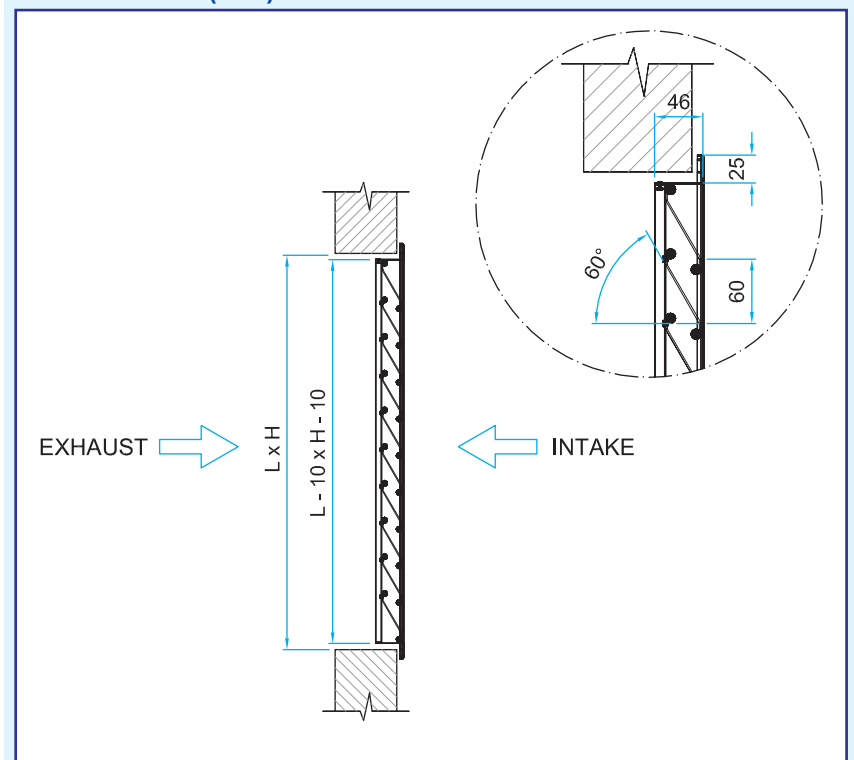
CONSTRUCTION

- Casing / frame manufactured from 1.2 mm extruded aluminium as standard.
- Blades manufactured from 1.2 mm extruded aluminium and are inclined at 60° on 60 mm blade pitch centre to minimize water ingress.
- Minimum single section size : 300 x 300 mm mm
- Maximum single section size : 2000 x 2450 mm
- Larger sizes manufactured in multiple section for assembly at site.

AVAILABLE OPTIONS

- Insect mesh in galvanized steel, code I.
- Insect mesh in stainless steel code IS.
- Bird mesh in galvanized steel, code T.
- Bird mesh in stainless steel, code TS.
- Powder coated to RAL colour, code Z.
- PVC coated bird mesh - PT.
- Filter - FT.

DIMENSIONS (mm)



AG 638A louvre

RANGE

Type	Description	Code
AG 638A	Fresh air louvre, casing and blades made from aluminium	
SG 638A	Fresh air louvre, casing and blades made from GI	
EG 638A	Fresh air louvre, casing and blades made from SS (grade 304)	

Louvres

Fresh air rectangular louvres - fixed blades - robust construction



AG 639A - Aluminium

Advantages

- Protection against rain water and weather.
- Robust construction.
- AMCA Certified performances.

DESCRIPTION

- Designed for both intake and exhaust air service in commercial and industrial application.
- Total structure is weather proof and blades inclined downwards to protect against rain water.

CONSTRUCTION

- Casing manufactured from 3.0 mm heavy duty extruded aluminium. Other gauges available upon request.
- Blades manufactured from 1.2 mm inclined at 60° on 60 mm blade pitch centre to minimize water ingress.
- Minimum single section size : 300 x 300 mm
- Maximum single section size : 2000 x 2450 mm
- Larger sizes manufactured in multiple section for assembly at site.

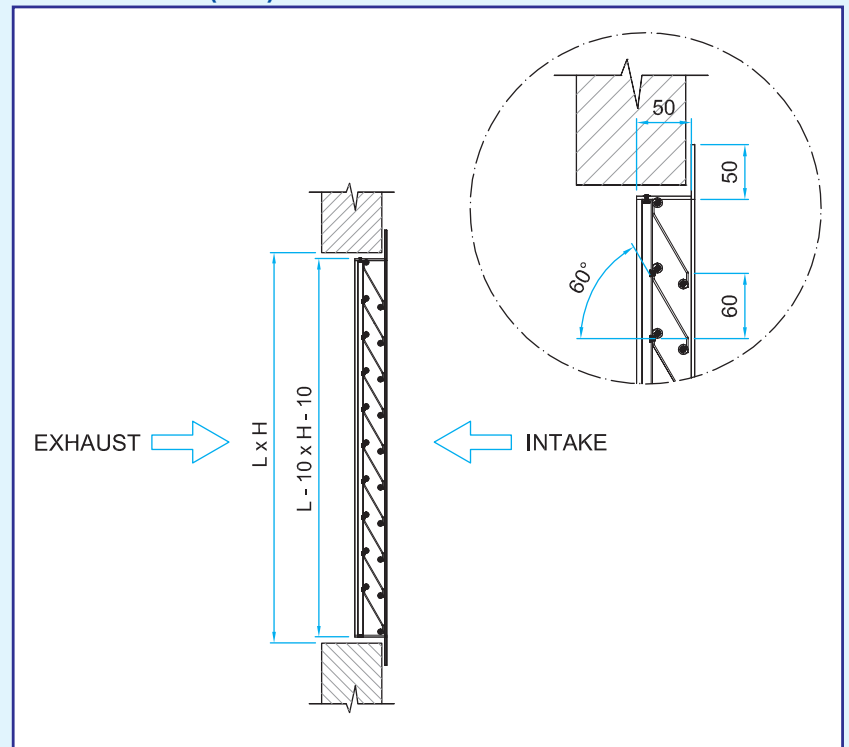
AVAILABLE OPTIONS

- Insect mesh in galvanized steel, code I.
- Insect mesh in stainless steel, code IS.
- Bird mesh in galvanised steel, code T
- Bird mesh in stainless steel, code TS.
- Powder coated to RAL colour, code Z.
- PVC coated bird mesh - PT.
- Filter - FT.

RANGE

Type	Description	Code
AG 639A	Robust construction FAL, casing and blades made from aluminium	
EG 639A	Robust construction FAL, casing and blades made from SS (grade 304)	

DIMENSIONS (mm)



AG 639A louvre

Louvres

Fresh air circular louvres - fixed blades

New



Louvre AR 637 - up to Ø 315 - Aluminium



Louvre AR 637 - from Ø 400 - Aluminium

Advantages

- Circular connection.
- Ideal for ventilation type airflows.

APPLICATION

- Circular external louvres designed for fresh air intake and air exhaust in commercial and industrial application.

DESCRIPTION

Diameters from 125 to 315 mm:

- "Rain hood" type vanes, with a spacing of 20mm.
- Manufactured in aluminium.
- Finish – anodised aluminium, natural satin finish.
- Invisible fixings – screws through the inner collar.

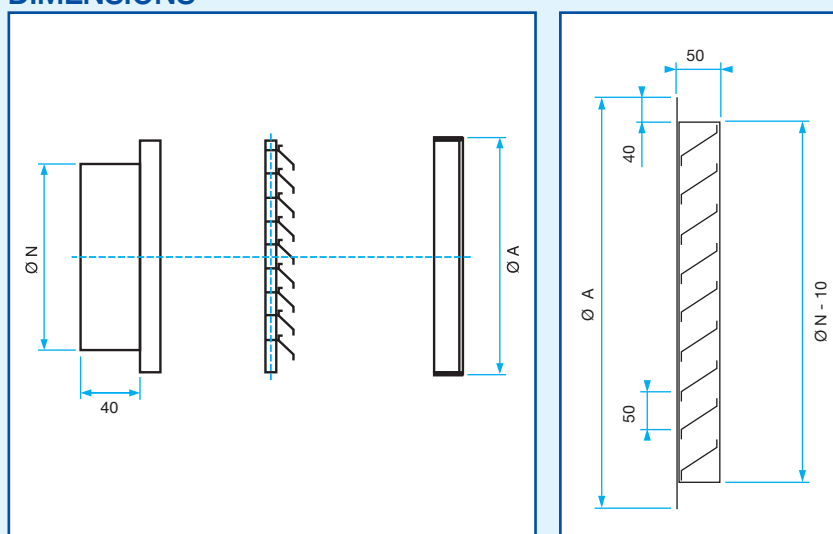
Diameters from 400 to 630 mm:

- "Rain hood" type vanes, with a spacing of 50 mm.
- Manufactured in aluminium.
- Raw aluminium finish.
- Visible fixing, by screwing into the frame.
- Internally fitted with a protection grille (anti-bird mesh) 12 x 12, Ø 1.2 mm in galvanised steel.

ADDITIONAL RANGE

- All diameters up to 1250 mm (consult us).
- On request: anti-insect mesh in galvanised steel.
- Paint finish in accordance with the RAL colour chart (please consult us).

DIMENSIONS



Louvre AR 637 - from Ø 125 to Ø 315

Louvre AR 637 - from Ø 400 to Ø 630

Comfort airflow for $L_w < NR 35$ and $DP < 45$ Pa.

Ø N (mm)	Ø A (mm)	Airflow (m ³ /h)
125	160	150
160	200	200
200	250	300
250	315	500
315	385	800
400	450	1400
450	500	1750
500	550	2280
630	680	3560

See selection table on page 256.

RANGE R10

Dimensions	Circular louvre AR 637 Code
Ø 125	11052240
Ø 160	11052241
Ø 200	11052242
Ø 250	11052243
Ø 315	11052244
Ø 400	11052260
Ø 450	11052261
Ø 500	11052262
Ø 560	11052263
Ø 630	11052264

Louvres

Small outdoor grilles



AWA 251 - Aluminium

Advantages

- Lightweight grille suitable for ventilation airflows.

APPLICATION

- Fresh air supply or rejected polluted air.
- Wall mounted.

DESCRIPTION

- Frame in extruded aluminium, horizontal rain-hood vanes in extruded aluminium.
- Centre distance of 25 mm between the vanes.
- Internally fitted with a protection grille (diamond shaped) 10 x 30, diameter 0.8 mm.
- Finish – anodised aluminium, natural satin finish.
- Visible fixing, by screwing into the frame.

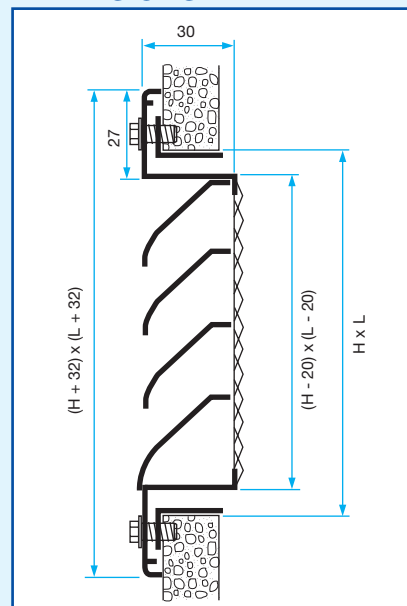
ACCESSORIES

- F4 fitting frame in galvanised sheet steel.
- Rear connection plenum up to 600 x 600 mm.

ADDITIONAL RANGE

- Paint finish in accordance with the RAL colour chart (please consult us).
- All sizes available up to 1200 x 1200 mm (please consult us).

DIMENSIONS



AWA 251 grille with mounting frame

See selection table on page 255.

RANGE R10

H	L 200 Code	L 250 Code	L 300 Code	L 350 Code	L 400 Code	L 450 Code
100	11152023	11052069	11052024	11052070	11152025	11052071
150	11052027	11052077	11052028	11052078	11052029	11052079
200	11052032	11052084	11052033	11052085	11052034	11052086
250	11052089	11052090	11052091	11052092	11052093	11052094
300	11052126	11052127	11052039	11052128	11052040	11052129
350	11052132	11052133	11052134	11052135	11052136	11052137
400	11052144	11052145	11052146	11052147	11052045	11052148
450	11052149	11052150	11052151	11052152	11052153	11052154

H	L 500 Code	L 600 Code	L 700 Code	L 800 Code	L 900 Code	L 1000 Code
100	11152026	11052072	11052073	11052074	11052075	11052076
150	11052030	11052031	11052080	11052081	11052082	11052083
200	11052035	11052036	11052037	11052038	11052087	11052088
250	11052095	11052096	11052097	11052098	11052099	11052125
300	11052041	11052042	11052043	11052044	11052130	11052131
350	11052138	11052139	11052140	11052141	11052142	11052143
400	11052046	11052047	11052048	11052049	11052050	11052051
450	11052155	11052156	11052157	11052158	11052159	11052160
500	11052052	11052064	11052065	11052066	11052067	11052068
600		11052167	11052168	11052169	11052170	11052171
700		11052172	11052173	11052174	11052175	11052176
800		11052177	11052178	11052179	11052180	11052181

Louvres

Fresh air rectangular louvres - movable blades

New



AG 645 - Aluminium

Advantages

- Movable blades allowing the louvre to close completely.
- Manual or motorised control.

APPLICATION

- Fresh air supply or rejected polluted air.
- Closing possibility.
- Wall mounted.

DESCRIPTION

- Frame in extruded aluminium, horizontal rain-hood blades in extruded aluminium.
- Blades spaced out 100 mm apart, movable and coupled by an exterior linkage allowing the louvre to close completely.
- Manual control with a handle or motorised.
- Internally fitted with a square mesh shape protection grille 12 x 12, Ø 1.2 mm in galvanised steel.
- Raw aluminium finish.
- Fixing with a F11-645 mounting frame. Pre-drilling of the frame by request (F1 fixing).

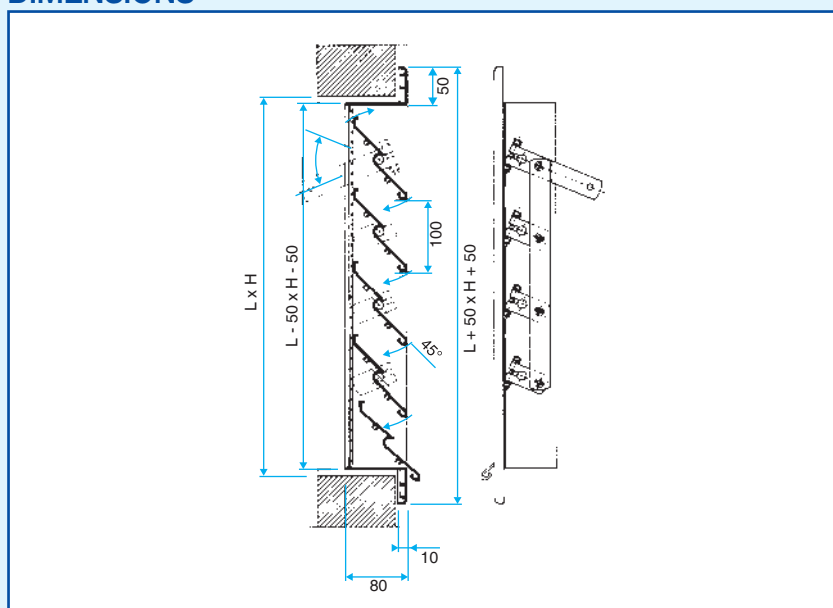
ACCESSORIES

- F11-645 fitting frame in galvanised sheet steel, supplied with grouting lugs (code 11002520)
- Operating handle.
- On/off motor 24 V or 230 V.

ADDITIONAL RANGE

- Lengths from 200 mm to 1600 mm in 25 mm steps.
- Heights from 200 to 2000 mm in 100 mm steps.
- Paint finish in accordance with the RAL colour chart (please consult us).
- Version with frame in "U" shape width 38 mm.

DIMENSIONS



AG 645 louvre with manual control
Selection Table see page 256.

RANGE R10

H	Grille AG 645 code 11002483									
	400	500	600	800	1000	1200	1400	1600	1800	2000
400	•	•	•	•	•	•	•	•	•	•
500	•	•	•	•	•	•	•	•	•	•
600	•	•	•	•	•	•	•	•	•	•
800	•	•	•	•	•	•	•	•	•	•
1000	•	•	•	•	•	•	•	•	•	•
1200	•	•	•	•	•	•	•	•	•	•
1400	•	•	•	•	•	•	•	•	•	•
1600	•	•	•	•	•	•	•	•	•	•
1800	•	•	•	•	•	•	•	•	•	•
2000	•	•	•	•	•	•	•	•	•	•

AVAILABLE OPTIONS

Fixing	Screen	Closing control
F1 fixing by visible screws	Bird mesh in stainless steel	Manual control
	Insect mesh in galvanised steel or stainless steel	AF230* single speed motor
		AF24* single speed motor

*Motor delivered fitted: specify the position (on the right or left facing the grille).

Louvres

Sand trap louvres



AG 644 - Aluminium

Advantages

- Separates dust and sand from air.
- AMCA Certified performances.

DESCRIPTION

- Used as prefilter for the protection of air-conditioning plants in areas exposed to extreme levels of industrial pollution.
- High degree of separation of sand and large dust concentrations.
- The vertically arranged sections and holes for sand drainage ensure that the sand trap louver is self cleaning and maintenance free.

CONSTRUCTION

- Sand trap louvres with vertical slots designed to separate dust and sand from air stream.
- Extruded aluminium frame (16 ga. or 14 ga.) and blade (16 ga.), code AG 644.
- Minimum single section size: 300 x 300 mm
- Maximum single section size: 2450 x 2000 mm
- Larger sizes manufactured in multiple section for assembly at site.

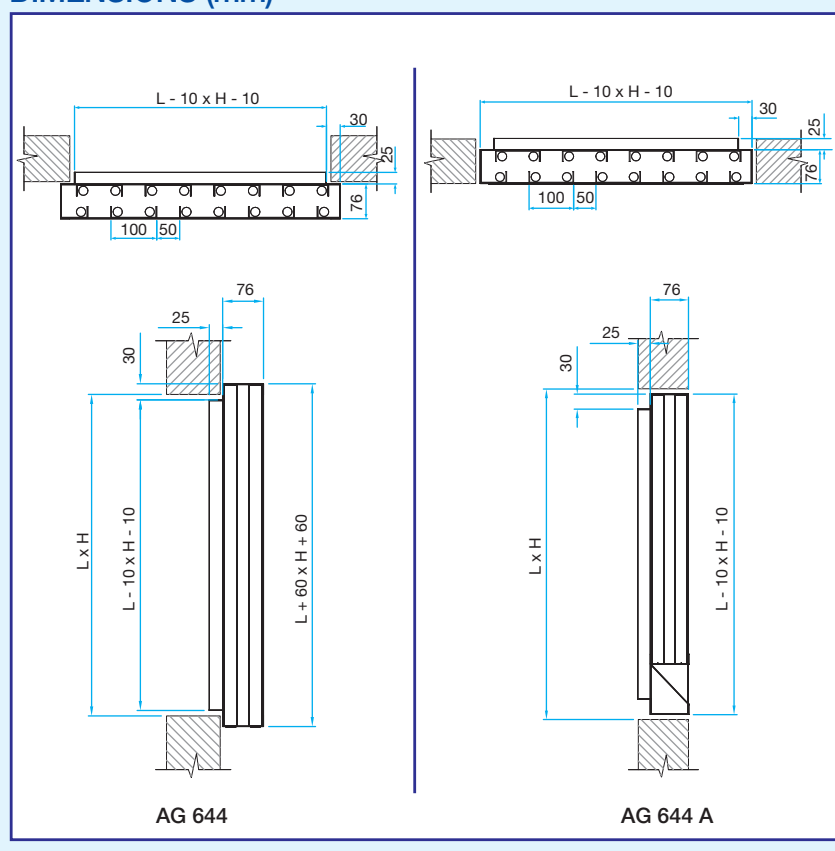
AVAILABLE OPTIONS

- Flush mounted sand trap louver, code AG 644A.
- Frame and baffles are made from 18 ga. galvanized steel, code SG 644
- Insect mesh in galvanized steel, code I.
- Insect mesh in stainless steel, code IS.
- Bird mesh in galvanized steel, code T
- Bird mesh in stainless steel, code TS.
- Powder coated to RAL colour, code Z.
- PVC coated bird mesh - PT.
- Filter - FT.

RANGE

Type	Description	Code
AG 644	Sand trap louver with frame and baffles made from aluminium	
SG 644	Sand trap louver with frame and baffles made from GI	
EG 644	Sand trap louver with frame and baffles made from SS (grade 304)	
AG 644A	Sand trap louver with sand chute - aluminium construction	
SG 644A	Sand trap louver with sand chute - GI construction	
EG 644A	Sand trap louver with sand chute - SS (grade 304) construction	

DIMENSIONS (mm)



Louvres

Acoustic Louvres



SU 631 - Galvanized steel
AU 631 - Aluminium

APPLICATION

- Mostly used for air exhaust but can also be used for air intake
- Acoustic louvers are well-adapted to commercial and industrial applications
- It can also be installed in a generator room.

DESCRIPTION

- Acoustic louvres designed to provide optimal acoustic performance (noise reduction) with minimal airflow restrictions (low pressure drop).

CONSTRUCTION

- SU 631: blades with 300 mm pitch centers provide a resistance to water ingress with acoustic properties. Infill material is inert, incombustible, non-hygroscopic and vermin proof. Enclosed and covered on the under side with a perforated sheet suitable for velocities up to 20 m/s.
- SU 632: combination of two SU 631 back to back to achieve 610 mm depth.
- Minimum single section size : 300 x 600mm
- Maximum single section size : 2450 x 2450mm
- Larger sizes manufactured in multiple sections for assembly at site.

AVAILABLE OPTIONS

- Natural anodized aluminium, code A.
- Insect mesh in galvanized steel (6 x 6 x Ø 0.8 mm).
- Bird mesh in galvanized steel as standard (12 x 12 x Ø 1 mm).

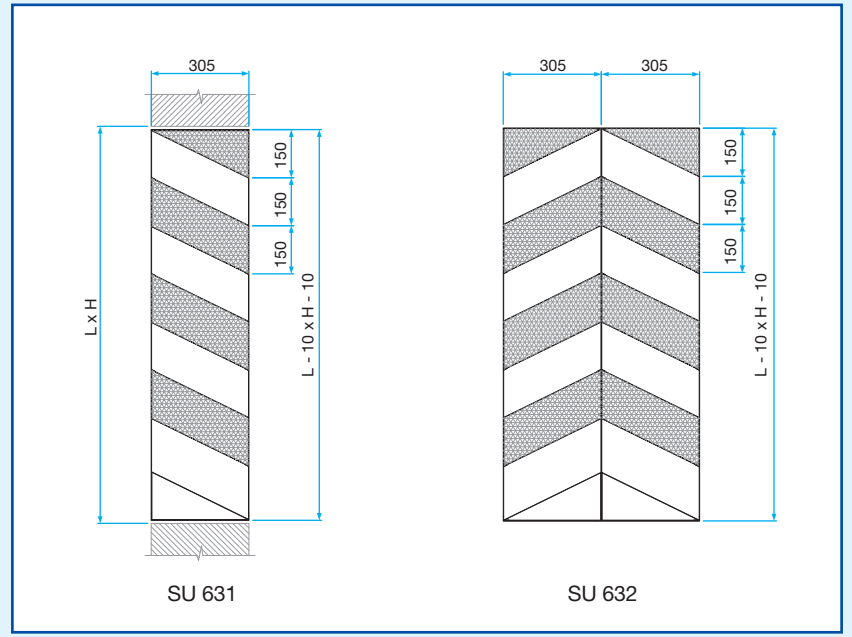
RANGE

Type	Description	Code
SU 631	Construction in galvanized steel	
AU 631	Construction in aluminium	
EU 631	Construction in stainless steel (grade 304)	
SU 632	Combination of two SU 631 back to back	
AU 632	Combination of two AU 631 back to back	
EU 632	Combination of two EU 631 back to back	

Advantages

- Noise reduction with minimal airflow restrictions.
- AMCA Certified performances.

DIMENSIONS (mm)



Selection Tables



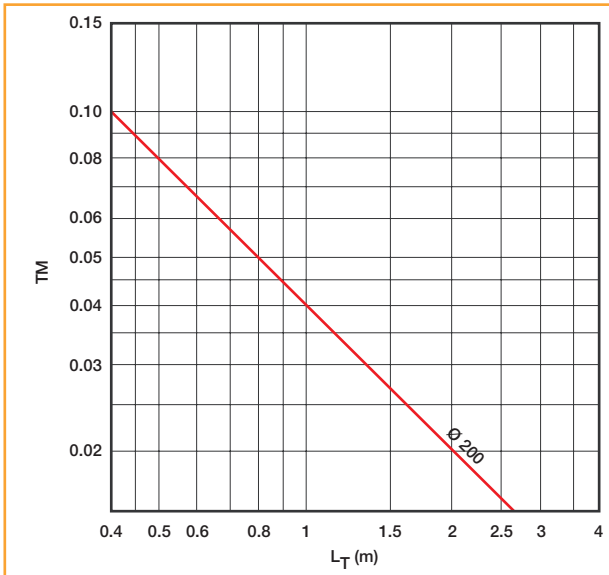
Twisted 850 series

Air supply with ceiling effect

Ak (m ²)	Dimensions	qv (m ³ /h)																					
		150		200		250		300		350		400		450		500		550		600		650	
0.022	Ø 200	19	0.30	20	0.39	21	0.52	23	0.59	24	0.65	26	0.71	30	0.85	32	0.91	34	0.96	35	1.02	38	1.10
		2.0	2	2.6	3	3.3	4	3.9	6	4.6	8	5.2	11	5.9	13	6.5	17	7.2	20	7.8	24	8.5	28
		Lw	Lt																			Lw	Lt
		Vk	Pa																			Vk	Pa

The values Lw (NR) do not take any account of the attenuation in the premises. Tests carried out with a standard plenum.

Vt = 0.37 m/s.



Mixing rate (TM)

Lt (m)	Throw in m
ΔTL (°C)	Difference between the temperature at the end of throw and room temperature (in °C)
ΔTS (°C)	Difference between the air supply temperature and room temperature (in °C)
TM = ΔTL / ΔTS	Temperature quotient. This value is significant capacity to mixing "fast" air supply to the room temperature.

Example

Example with 15°C supply and 25°C in the room	Air jet temperature at 1 m (Lt = 1m) of the diffuser = [25 - 10 x 0.04] (°C) = 24.6° C
--	--

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5
Lt	x 1.5	x 1	x 0.75



Twisted 850 series

Exhaust without filter

Ak (m ²)	Dimensions	qv (m ³ /h)																							
		150		200		250		300		350		400		450		500		550		600		650			
0.029	Ø 200	19	-	19	-	20	-	21	-	22	-	25	-	28	-	31	-	33	-	35	-	37	-		
		1.4	2	1.9	3	2.4	5	2.9	7	4.6	10	3.8	13	4.3	16	4.8	20	5.3	24	5.7	29	6.2	34		
		-	Pa2	-	4	-	7	-	11	-	16	-	21	-	28	-	35	-	44	-	53	-	63	-	74
		Lw	-																			Lw	-		
		Vk	Pa																			Vk	Pa		

The values Lw (NR) do not take any account of the attenuation in the premises. Tests carried out without plenum and with a standard plenum (Pa2).

Exhaust G2 filter only

Ak (m ²)	Dimensions	qv (m ³ /h)																					
		150		200		250		300		350		400		450		500		550		600		650	
	Ø 200	-	1	-	2	-	3	-	4	-	6	-	8	-	10	-	12	-	14	-	17	-	20
			Pa																				Pa

Selection Tables



AR 883 Series - AR883 Thermo series

Air supply with ceiling effect - Heating Position - $\Delta T +10^{\circ} C - \alpha 90^{\circ}$

Ak (m ²)	Ø D (mm)	qv (m ³ /hr)												Lw	Lt										
		500		750		1000		1200		1600		2000				3000		4000		5000		6500		8000	
0.03665	250	38	5.9	48	9.0																		Lw	Lt	
		3.8	27	5.8	63																				
0.07355	315			27	4.5	37	6.5	41	7.6	49	10.3												Lw	Lt	
				2.7	14	3.8	27	4.4	35	6.4	76														
0.10970	400							29	5.2	37	7.3	43	9.0											Lw	Lt
								2.9	15.8	4.0	29	5.2	47												
0.16293	500									25	5.1	31	6.3	42	10	50	14							Lw	Lt
										2.5	11.4	3.3	19.5	5	45	6.9	86								
0.30157	630	Lw	Lt											25	5.8	37	7.8	37	10	44	12.7	52	16	Lw	Lt
		Vk	Pa											2.5	11.4	3.5	23	4.6	37	5.8	64	7.3	99		

The values Lw (NR) do not take the attenuation in the premises into account.

Vt = 0.25 m/s.

Corrections for other angles of air diffusion

α	LtM	Vk	ΔPt	Lw	Ak
45°	x 0.35	x 1.59	x 1.42	+ 10	x 0.63
60°	x 0.66	x 1.13	x 1.12	+ 3	x 0.88

α = angle of the blades. LtM = vertical reach.



AR 883 Series - AR883 Thermo series

Air supply with ceiling effect - Cooling Position - $\Delta T -10^{\circ} C - \alpha 30^{\circ}$

Ak (m ²)	Ø D (mm)	qv (m ³ /hr)												Lw	Lt										
		200		300		400		500		600		800				1000		1400		1800		2000		2500	
0.01705	250	20	0.62	30	0.9	37	1.25	42	1.5														Lw	Lt	
		3.4	8.1	5.0	16.5	7.0	30	8.7	44																Vk
0.03090	315			18	0.7	25	0.87	30	1.15	35	1.35	42	1.8	47	2.3								Lw	Lt	
				2.7	5.3	8.5	3.5	4.6	15	5.8	21	7.2	33	9.5	53										Vk
0.03810	400							26	1.0	31	1.25	38	1.65	43	2	52	2.8							Lw	Lt
								3.6	8.7	4.5	14	6	23	7.5	35	10.5	65								
0.06700	500									26	1.2	32	1.5	38	2.1	46	2.8	48	3.1					Lw	Lt
										3.2	7.4	4.0	11	5.7	20	7.5	35	8.1	40						
0.07720	630	Lw	Lt											28	1.4	37	1.9	43	2.5	45	2.7	51	3.5	Lw	Lt
		Vk	Pa											3.4	8.0	4.8	16	6.3	25	7.0	35	9.0	48		

The values Lw (NR) do not take the attenuation in the premises into account. α = angle of the blades.

Vt = 0.25 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63
Lt	x 1	x 0.67	x 0.5	x 0.4



SF 785 series

Supply air with ceiling effect

Ak (m ²)	L x H (mm)	150 (m ³ /h)		200 (m ³ /h)		300 (m ³ /h)		400 (m ³ /h)		500 (m ³ /h)		600 (m ³ /h)		800 (m ³ /h)			
0,0248	400 x 400	-	1,2	-	1,5	26	2,4	35	3,2					Lw	Lt		
		1,6	2,5	2,1	4,5	3,2	10,0	4,5	20,0							Vk	Pa
0,0392	500 x 500			-	1,3	-	2,0	25	2,5	30	3,2			Lw	Lt		
				1,4	1,9	2	4,0	2,8	8,0	3,5	13,0					Vk	Pa
0,0565	600 x 600					-	1,6	-	2,3	25	2,8	28	3,2	Lw	Lt		
						1,6	2,2	2	4,0	2,7	7,0	3,1	10,0			Vk	Pa
0,0938	825 x 825	Lw	Lt							-	2,3	20	2,8	28	3,6	Lw	Lt
		Vk	Pa							1,7	3,0	2	4,0	3	8,0		

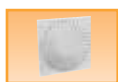
The values Lw (NR) do not take into account the attenuation in the premises.

Speed = 0,37 m/s.

Corrections for other terminal velocities

Vt (m/s)	0,25	0,37	0,5
Lt	x 1,5	x 1	x 0,75

Selection Tables



SF 786 series

Supply air with ceiling effect

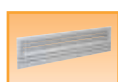
Ak (m ²)	L x H (mm)	150 (m ³ /h)		200 (m ³ /h)		300 (m ³ /h)		400 (m ³ /h)		500 (m ³ /h)		600 (m ³ /h)		800 (m ³ /h)	
		Lw	Lt	Vk	Pa	-	1,8	2,3	2,4	28	3,0	33	3,5	-	-
0,0478	600 x 600					1,8	9,0	2,5	18,0	3	26,0	3,9	40,0		

The values Lw (NR) do not take into account the attenuation in the premises.

Speed = 0,37 m/s.

Corrections for other terminal velocities

Vt (m/s)	0,25	0,37	0,5
Lt	x 1,5	x 1	x 0,75



AF 792 series

Air supply for a length of 1 m with ceiling effect

Ak (m ²)	Height (mm)	No. of slots	qv (m ³ /hr)														Lw	Lt					
			300		350		400		500		600		800		1100				1300				
0.025	75	2	25.0	3.7	28.0	4.7	32.0	5.1	35.0	6.1	40.0	7.2							Lw	Lt			
			3.3	6.0	4.0	9.6	4.5	12.0	5.5	19.0	6.5	26.0								Vk	Pa		
0.05	150	4									28.0	6.0	35.0	7.0	42.0	10.0	45.0	12.0					
													3.4	7.2	4.5	12.0	6.5	25.0	7.5	38.0			
0.05 0.037 + 0.013	150	4	3									28.0	4.7	35.0	6	42.0	7.7	45.0	9.3				
														3.4	7.2	4.5	12.0	6.5	25.0	7.5	4.2		
		4	1											-	1.6	-	3.5	-	4.9	-	5.3		
															3.4	-	4.5	-	6.5	-	7.5	-	
0.05 0.025 + 0.025	150	4	2									28.0	3.7	35.0	5.1	42.0	6.4	45.0	7.4				
														3.4	7.2	4.5	12.0	6.5	25.0	7.5	4.2		
		4	2											-	3.7	-	5.1	-	6.4	-	7.4		
															3.4	-	4.5	-	6.5	-	7.5	-	

The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.37 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63
Lt	x 1.5	x 1	x 0.75	x 0.6



SR 861 - SF 861 - SF 861 T series

Air supply with ceiling effect

Ak (m ²)	Ø D (mm)	qv (m ³ /hr)														Lw	Lt				
		50		70		100		150		250		350		500				600			
0.0039	125	-	1	26	1.8	33	3												Lw	Lt	
		2.5	4.5	5	17	8.5	45												Vk	Pa	
0.0071	160			-	1.4	24	2.3	33	3.2	42	4.0										
				2.6	5	4.5	13	6.5	26	8.5	45										
0.0124	200					-	19	24	2.9	35	3.6	42	5.0								
0.0199	250							-	2	27	2.7	35	3.6	42	5.0	46	6.0				
										2.7	5	3.5	9	4.9	16	6.5	26	8.5	45		
0.0358	315											-	2.5	26	3.2	33	4.5	37	5.5		
													3.0	7.0	4.0	11	5.5	20	7.0	30	

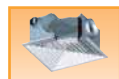
The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.25 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63
Lt	x 1	x 0.67	x 0.5	x 0.4

Selection Tables



Combined series

Air supply in 4 directions with ceiling effect - air supply + air exhaust

Air supply selection (at the periphery of the diffuser)

Type	Ak (m ²)	L x H (mm)	qv (m ³ /hr)													
			450		550		650		750		850		950		1100	
SF/AF	0.05	472 x 472	29	2.1	33	2.6	36	3.1	39	3.5					Lw	Lt
			2.5	21	3.1	32	3.61	45	4.2	60					Vk	Pa*
SN/AN	0.06	525 x 525			30	2.4	33	2.8	36	3.2	38	3.7				
					2.6	22	3	31	3.5	42	3.9	53				
SN/AN	0.09	600 x 600	Lw	Lt							31	3	33	3.4	36	4
			Vk	Pa*							2.6	24	3	29	3.4	40

* Pressure loss for the Combined assembly in air supply.

The values Lw (NR) do not take the attenuation in the premises into account and concern the Combined assembly in both air supply and air exhaust.

Speed = 0.5 m/s.

Air exhaust selection (at the centre of the diffuser)

Type	Ak (m ²)	L x H (mm)	L1 x H1 (mm)	qv (m ³ /hr)													
				450		550		650		750		850		950		1100	
SF/AF	0.07	472 x 472	323 x 323	1.8	16	2.2	24	2.6	34	3	45					Vk	Pa*
SN/AN	0.094	525 x 525	375 x 375			1.6	14	1.9	19	2.2	25	2.5	32				
SN/AN	0.094	600 x 600	375 x 375	Vk	Pa*							2.5	32	2.8	40	3.2	53

* Pressure loss for the Combined assembly in air exhaust.

Air exhaust filter selection

Type	Ak (m ²)	L x H (mm)	L1 x H1 (mm)	qv (m ³ /hr)													
				450		550		650		750		850		950		1100	
SF/AF	0.07	472 x 472	323 x 323			21		25		29		33					Pa
SN/AN	0.094	525 x 525	375 x 375				19		22		25		29				
SN/AN	0.094	600 x 600	375 x 375			Pa							29	34		42	

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63	0.75
Lt	x 2	x 1.33	x 1	x 0.8	x 0.67



AG / AN 280 D and Techlined 280 D series

Air supply for a length of 1 m with ceiling effect

Ak (m ²)	Number of slots	qv (m ³ /hr)																	
		60		100		150		200		250		300		400		500		600	
0.007	1	-	1.9	24	3.1	35	4.7											Lw	Lt
		2.4	5.1	4.0	14	6.0	32											Vk	Pa
0.014	2			-	2.2	20	3.3	27	4.4	33	5.5	38	6.6						
				2.0	3.5	3.0	8.0	4.0	14	5.0	22	6.0	32						
0.021	3					-	2.7	18	3.6	24	4.5	29	5.4	37	7.2				
						2.0	3.5	2.6	6.3	3.3	10	4.0	14	5.3	25				
0.028	4	Lw	Lt					-	3.1	18	3.9	23	4.7	30	6.2	36	7.8	41	9.3
		Vk	Pa					2.0	3.5	2.5	5.5	3.0	8.0	4.0	14	5.0	22	6.0	32

The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.37 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63
Lt	x 2	x 1	x 0.75	x 0.6

Corrections for the vertical through with ceiling effects.

ΔT (°C)	- 10	0	+ 15	Vk	ΔP	Lw
Lt	x 0.8	x 0.5	x 0.3	x 0.45	x 0.8	- 3

Selection Tables



AG / AN 290 D and Techlined 290 D series

Supply for a 1 m length with ceiling effect

Ak (m ²)	L x H (mm)	qv (m ³ /h)																Lw	Lt			
		60		100		150		200		250		300		400		500				600		
0.009	1	-	1,6	0	2,7	30	4														Lw	Lt
		1,9	4	3	8	4,9	20														Vk	Pa
0.018	2					-	3	21	3,7	28	4,7	33	6									
						2,4	5	3,1	9	4	14	4,8	20									
0.027	3					-	3	-	4	23	4,7	30	6	35	7,7							
						2	4	2,5	6	3	8	4	14	5	22							
0.036	4	Lw	Lt																			
		Vk	Pa					-	3,4	-	4	24	5,4	30	6,7	33	8					
								1,8	3	2,3	6	3	8	3,9	14	4,5	20					

The values Lw (NR) do not take into account the attenuation in the premises.

Vt = 0,37 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63
Lt	x 2	x 1	x 0.75	x 0.6

Corrections for the vertical through with ceiling effects.

ΔT (°C)	- 10	0	+ 15	Vk	ΔP	Lw
Lt	x 0.8	x 0.5	x 0.3	x 0.45	x 0.8	- 3



AG / AN 280 and Techlined 280 series

Exhaust for a 1 m length

Ak (m ²)	L x H (mm)	qv (m ³ /h)																Lw	Pa2				
		60		100		150		200		250		300		400		500				600			
0,016	1	-	-	-	-	25	-															Lw	Pa2
		1,1	3,3	1,8	9,1	2,7	20,8																Vk
0,031	2			-	-	-	-	-	-	23	-	28	-										
				0,9	2,3	1,4	5,2	1,8	9,1	2,3	14,3	2,7	20,8										
0,047	3			-	-	-	-	-	-	-	-	-	-	27	-								
				0,9	2,3	1,2	4,1	1,5	6,5	1,8	9,1	2,4	16,3										
0,062	4					-	3,0	-	4,7	-	6,8	20	12,0	26	18,8	31	27,3						
				0,9	2,3	1,1	3,6	1,4	5,2	1,8	9,1	2,3	14,3	2,7	20,8								
0,078	5							-	3,7		5,2		8,2	22	13,6	27	19,5						
				0,9	2,6	1,1	3,6	1,40	5,3	1,8	9,1	2,2	13,0										
0,093	6	Lw	Pa2																				
		Vk	Pa					-	4,2	-	7,1	-	11,7	-	15,6								
								0,9	2,6	1,2	4,2	1,5	7,2	1,8	9,1								

The values Lw (NR) do not take into account the attenuation in the premises. Pa2 = with G3 filter included.



AG/ AN 290 and Techlined 290 series

Exhaust for a 1 m length with ceiling effect

Ak (m ²)	L x H (mm)	qv (m ³ /h)																Lw	Pa2				
		60		100		150		200		250		300		400		500				600			
0,02	1	-	-	-	-	20	-															Lw	Pa2
		0,9	2,6	1,4	5,2	2,2	13,0																Vk
0,04	2			-	-	-	-	20	-	23	-												
				1,1	3,3	1,40	5,9	1,8	9,1	2,2	13,0												
0,06	3			-	-	-	-	-	-	-	-	20	-	25	-								
				0,9	2,6	1,1	3,9	1,4	5,2	1,8	9,1	2,3	14,3										
0,08	4					-	3,1	-	5,5		8,1	20	13,6	23	19,5								
				0,8	2,0	1	3,9	1,4	5,2	1,8	9,1	2	13,0										
0,10	5									3,9		6,7		9,7	20	14,3							
				0,8	2,3	1,1	3,8	1,4	5,2	1,7	7,8												
0,12	6	Lw	Pa2																				
		Vk	Pa					-	5,5	-	8,4	-	11,7										
								0,9	2,6	1,1	3,9	1,4	5,2										

The values Lw (NR) do not take into account the attenuation in the premises. Pa2 = with G3 filter included.

Selection Tables



ALD 610 K Combined series

Air supply with ceiling effect

Ak (m ²)	Dimensions	qv (m ³ /h)												Lw	Lt												
		150		200		250		300		400		500				600		800		1000		1200		1400			
0.016	600-1 slot	20	2.3	27	2.7	32	3	34	3.4	41	4													Vk	Pa*		
		2.4	5	3.3	9	4	13	4.9	20	6.5	35																
0.018	675-1 slot	17	2	24	2.6	29	2.9	33	3.3	39	3.9	43	4.6														
		2.3	4	2.9	7	3.8	12	4.5	17	6	30	7.5	46														
0.030	600-2 slots					21	2.5	24	2.9	30	3.4	35	3.9	38	4.5	45	5.4										
						2.3	4	2.7	6	3.6	11	4.5	17	5.5	25	7.1	42										
0.034	675-2 slots					19	2.6	22	2.8	28	3.3	34	3.8	37	4.2	43	5.2										
						2	3	2.4	5	3.2	8	4	13	4.9	19	6.5	35										
0.045	600-3 slots									23	2.9	28	3.4	32	3.8	37	4.6	42	5.4	46	6.3						
										2.3	4	2.9	7	3.4	9	4.6	17	5.9	29	6.9	39						
0.051	675-3 slots									21	2.8	26	3.3	29	3.7	36	4.4	41	5.2	44	6						
										2	3	2.6	5	3	7	4	13	5.1	22	6.2	33						
0.060	600-4 slots									23	3.1	27	3.5	33	4.2	38	5	42	5.7	44	6.6						
										2.2	4	2.6	5	3.5	10	4.5	16	5.2	22	6.2	31						
0.068	675-4 slots	Lw	Lt											24	3.4	31	4	36	4.7	39	5.4	43	6.2				
		Vk	Pa*											2.4	4	3	7	3.9	12	4.6	17	5.5	25				

* Pressure loss of the combined assembly in supply mode. Tests carried out with a standard plenum.

Vt = 0.37 m/s

Lw (NR) values are based without room absorption and related to the combined assembly in supply and extraction mode.

Selection - Air exhaust without filter

Dimensions	qv (m ³ /h)											
	150	200	250	300	400	500	600	800	1000	1200	1400	
600-1 slot	1	1	2	3	5							Pa*
675-1 slot	1	1	1	1	3							
600-2 slots			3	4	6	10	14					
675-2 slots			2	2	4	6	9	15				
600-3 slots					9	14	20	36	56			
675-3 slots					4	7	10	18	28	40		
600-4 slots						19	27	49				
675-4 slots	Pa*						13	23	36	52		

* Pressure loss of the combined assembly in supply mode. Tests carried out with a standard plenum.

■ Dp > 70 Pa

Selection - Air exhaust with G2 filter

Dimensions	qv (m ³ /h)											
	150	200	250	300	400	500	600	800	1000	1200	1400	
600-1 slot	2	2	3	5	8							Pa*
675-1 slot	1	1	2	3	5							
600-2 slots			4	6	10	16	23					
675-2 slots			2	3	6	9	14	24				
600-3 slots					15	23	33	58				
675-3 slots					7	11	17	30	46	66		
600-4 slots						31	45					
675-4 slots	Pa*						20	46	60			

* Pressure loss of the combined assembly in supply mode. Tests carried out with a standard plenum.

■ Dp > 70 Pa

Selection Tables



DGH - DGH2 series

Air supply without ceiling effect

Ak (m ²)	Ø N (mm)	qv (m ³ /hr)										Lw Lt Vk Pa							
		25		50		75		100		125				150		200		300	
0.002	100	-	3.2	-	6.1	24	8.9	33	11.7	40	14.5	45	17.3						
		4.1	11	8.3	43	12.4	96	16.5	170	20.6	266	24.8	383						
0.004	150	-	1.9	-	3.5	-	5.0	20	6.5	17	8.0	22	9.5	31	12.5	43	18.6		
		1.8	2	3.6	8	5.4	18	7.2	33	9.0	51	10.8	73	14.4	130	21.6	293		
0.007	200	-	2.3	-	3.3	-	4.2	20	5.1	20	6.1	-	8.0	27	11.8	36	15.5		
				1.9	2	2.9	5	3.8	9	4.8	14	5.8	21	7.7	37	11.5	83	15.4	147
0.020	300	-	3.1	-	3.9	-	5.7	<20	7.4										
		3.1	3	2.8	5	4.1	11	5.5	19										
0.039	400	Lw	Lt																
		Vk	Pa	-	3.6	<20	4.6	2.1	3	2.8	5								

• With ceiling effect :
throw multiplication (Lt)
by 1.4.

Ak (m ²)	Ø N (mm)	qv (m ³ /hr)										Lw Lt Vk Pa							
		500		600		700		800		1000				1500		2000		2500	
0.007	200	43	19.3																
		19.2	230																
0.020	300	-	9.2	21	11	26	12.7	30	14.5	37	18								
		6.9	30	8.3	43	9.7	58	11.1	76	13.8	119								
0.039	400	-	5.7	-	6.7	-	7.8	-	8.8	-	10.9	31	16.2	40	21.5	48	27.5	52	34.1
		3.5	8	4.2	11	4.9	15	5.6	20	7.0	31	10.5	69	14	122	17.8	200	21.4	265

The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.5 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63	0.75
Lt	x 2	x 1.33	x 1	x 0.8	x 0.67

Corrections to the vertical throw depending on the air supply temperature

ΔT (°C)	-20	-15	-10	-5	0	5	10	15	20
Lt	x 2.5	x 2	x 1.7	x 1.3	x 1	x 0.7	x 0.5	x 0.4	x 0.33



AR 190 Thermo series

Supply air without ceiling effect

Ak (m ²)	Size	qv (m ³ /h)										Lw Lt Vk Pa													
		150		200		300		400		600				800		1100		1500		2000		2500			
0,0179	150	-	3	20	3,6	23	5,6	28	7,5	33	9,8														
		1,9	2	2,5	4	3,8	8	5	14	7,6	32														
0,0308	200					-	4,2	20	6,2	24	9	30	9,8	35	13,0	45	22,7								
						2,7	3,7	3,6	6	5,4	14	7,2	25	10	49	14	99								
0,0401	230	Lw	Lt																						
		Vk	Pa	20	6,8	24	9,8	30	13,7	35	17,1	45	23,9	52	30	4	7	5,5	14	8	29	10	46	14	93

The values Lw (NR) do not take into account the attenuation in the premises.

Vt = 0.5 m/s.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5	0.63	0.75
Lt	x 2	x 1,33	x 1	x 0,8	x 0,67

Corrections to the vertical throw depending on the air supply temperature

ΔT (°C)	-20	-15	-10	-5	0	5	10	15	20
Lt	x 2,5	x 2	x 1,7	x 1,3	x 1	x 0,7	x 0,5	x 0,4	x 0,33



SR 151 S series

Air supply without ceiling effect

Ak (m ²)	Ø N (mm)	qv (m ³ /hr)										Lw Lt Vk Pa													
		500		750		1000		1500		2000				2500		3000		3500		4000		5000			
0.031	200	30	7.0	42	10																				
		4.5	25	7.0	58																				
0.049	250			32	8	38	10	51	16	58	21														
				4.2	23	5.8	40	8.5	40	11.5	150														
0.071	315					31	9	43	13	51	17	57	21	63	26										
						3.9	17	6.0	42	8.0	76	9.8	110	12	167										
0.096	350							36	9	45	15	50	17	56	22	61	26	65	30						
								4.2	23	5.9	41	7.2	60	8.5	90	10.2	130	12	165						
0.125	400	Lw	Lt																						
		Vk	Pa	38	12	45	15	50	17	55	20	58	24	65	28	4.5	25	5.5	37	6.8	52	7.8	70	9.3	100

The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.37 m/s.

With ceiling effect: multiply the throw (Lt) by 1.4.

Corrections for other terminal velocities

Vt (m/s)	0.25	0.37	0.5
Lt	x 1.5	x 1	x 0.75

Corrections to the vertical throw depending on the air supply temperature

ΔT (°C)	-20	-15	-10	-5	0	5	10	15	20
Lt	x 2.5	x 2	x 1.7	x 1.3	x 1	x 0.7	x 0.5	x 0.4	x 0.33

Selection Tables



ALD 610 K series

Air supply with ceiling effect

Ak (m ²)	Dimensions	qv (m ³ /h)																							
		150		200		250		300		400		500		600		800		1000		1200		1400			
0.016	600-1 slot	18	2.3	25	2.7	30	3	33	3.4	39	4											Lw	Lt		
		2.4	5	3.3	9	4	13	4.9	20	6.5	35											Vk	Pa		
0.018	675-1 slot	16	2	23	2.6	28	2.9	32	3.3	38	3.9	43	4.6												
		2.3	4	2.9	7	3.8	12	4.5	17	6	30	7.5	46												
0.030	600-2 slots					20	2.5	24	2.9	29	3.4	35	3.9	38	4.5	44	5.4								
						2.3	4	2.7	6	3.6	11	4.5	17	5.5	25	7.1	42								
0.034	675-2 slots					18	2.6	22	2.8	27	3.3	33	3.8	36	4.2	42	5.2								
						2	3	2.4	5	3.2	8	4	13	4.9	19	6.5	35								
0.045	600-3 slots							22	2.9	27	3.4	30	3.8	36	4.6	41	5.4	45	6.3						
								2.3	4	2.9	7	3.4	9	4.6	17	5.9	29	6.9	39						
0.051	675-3 slots							20	2.8	25	3.3	28	3.7	35	4.4	39	5.2	43	6						
								2	3	2.6	5	3	7	4	13	5.1	22	6.2	33						
0.060	600-4 slots									22	3.1	26	3.5	32	4.2	37	5	41	5.7	44	6.6				
										2.2	4	2.6	5	3.5	10	4.5	16	5.2	22	6.2	31				
0.068	675-4 slots	Lw	Lt									23	3.4	29	4	35	4.7	38	5.4	42	6.2				
		Vk	Pa									2.4	4	3	7	3.9	12	4.6	17	5.5	25				

The values Lw (NR) do not take the attenuation in the premises into account. Tests carried out with a standard plenum. Vt = 0.37 m/s



ALD 610 K series

Air exhaust without filter

Ak (m ²)	Dimensions	qv (m ³ /h)																							
		150		200		250		300		400		500		600		800		1000		1200		1400			
0.012	600-1 slot	13		20		25		28		34											Lw	Lt			
		3.1	8	4.3	15	5.2	22	6.4	50	8.5	59											Vk	Pa		
0.014	675-1 slot	11		18		23		27		33															
		3.0	7	3.8	12	4.9	20	5.9	29	7.8	47														
0.023	600-2 slots					15		19		24		30		33											
						3.0	7	3.5	10	4.7	17	5.9	29	7.2	43										
0.026	675-2 slots					13		17		22		28		31		37									
						2.6	5	3.1	8	4.2	14	5.2	22	6.4	32	8.4	59								
0.035	600-3 slots							17		22		25		31		36									
								3.0	7	3.8	12	4.4	15	6.0	29	7.7	49								
0.039	675-3 slots							15		20		23		30		34		38							
								2.6	5	3.4	8	3.9	12	5.2	22	6.6	37	8.1	56						
0.046	600-4 slots									17		21		27		32		36		39					
										2.9	7	3.4	8	4.6	17	5.9	27	6.8	37	8.1	53				
0.052	675-4 slots	Lw										18		24		30		33		27					
		Vk	Pa									3.1	7	3.9	12	5.1	20	6.0	29	7.2	43				

The values Lw (NR) do not take the attenuation in the premises into account. Tests carried out with a standard plenum.



ALD 610 K series

Air exhaust with G2 filter

Ak (m ²)	Dimensions	qv (m ³ /h)																							
		150		200		250		300		400		500		600		800		1000		1200		1400			
0.012	600-1 slot	13		20		25		28		34											Lw	Lt			
		3.1	8	4.3	15	5.2	23	6.4	52	8.5	63											Vk	Pa		
0.014	675-1 slot	11		18		23		27		33															
		3.0	7	3.8	12	4.9	21	5.9	31	7.8	55														
0.023	600-2 slots					15		19		24		30		33											
						3.0	8	3.5	12	4.7	23	5.9	34	7.2	50										
0.026	675-2 slots					13		17		22		28		31		37									
						2.6	6	3.1	10	4.2	18	5.2	27	6.4	39	8.4									
0.035	600-3 slots							17		22		25		31		36									
								3.0	11	3.8	17	4.4	22	6.0	40	7.7	68								
0.039	675-3 slots							15		20		23		30		34		38							
								2.6	9	3.4	13	3.9	19	5.2	33	6.6	56	8.1							
0.046	600-4 slots									17		21		27		32		36		39					
										2.9	12	3.4	15	4.6	28	5.9	46	6.8	62	8.1					
0.052	675-4 slots	Lw										18		24		30		33		27					
		Vk	Pa									3.1	14	3.9	23	5.1	39	6.0	54	7.2	68				

The values Lw (NR) do not take the attenuation in the premises into account. Tests carried out with a standard plenum. Dp > 70 Pa

Selection Tables



AC 440D - AC 441D - AG 450D/ 450 AD - AG 470D series

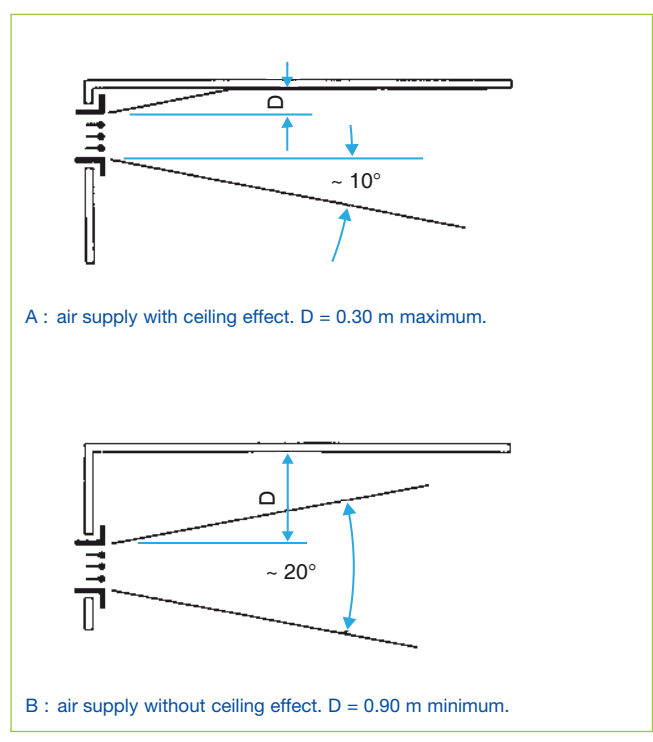
Air supply with ceiling effect

Ak (m ²)	L x H (mm)		qv (m ³ /hr)												Lw Vk		Lt Pa	
			100	200	300	400	600	800	1000	1500	2000	2500	3000					
0.008	300 x 75	200 x 100	15	4	25	9												
			3.5	8.6	7.0	35												
0.012	400 x 75 200 x 150	300 x 100	-	3	20	8	25	12										
			2.3	4	4.8	16	7.0	35										
0.018	600 x 75 300 x 150	400 x 100 200 x 200	15	6	20	9.0	25	12										
			3.0	6.3	4.5	15	6.0	25										
0.022	800 x 75	500 x 100	15	6.0	20	9.0	25	12	30	17								
			2.5	4.4	3.7	10	5.0	17	7.5	40								
0.029	1000 x 75 400 x 150	600 x 100 300 x 200	16	7.0	20	10	25	15	30	17								
			2.8	6.0	3.7	10	5.8	23	6.0	25								
0.036	1200 x 75 500 x 150	800 x 100 400 x 400	20	9.0	25	13	25	16										
			3.0	6.3	4.5	15	5.0	17										
0.044	1000 x 100 500 x 200	600 x 150 300 x 300	15	8.0	20	12	20	14	30	20								
			2.5	4.4	3.7	10	3.7	10	6.3	28								
0.057	1200 x 100 600 x 200	800 x 150 400 x 300	15	10	15	12	25	18										
			2.9	6.1	3.0	6.3	4.8	16										
0.077	1000 x 150 500 x 300	800 x 200 400 x 400	-	9.0	-	11	20	15	31	17								
			2.2	3.5	2.3	4.0	3.7	10	5.5	22								
0.097	1200 x 150 600 x 300	1000 x 200 500 x 400	15	13	27	16	30	27										
			2.8	6	4.2	14	5.8	23										
0.117	1200 x 200 600 x 400	800 x 200	15	13	23	14	30	19	34	23								
			2.3	4.0	3.5	8.8	4.8	16	5.9	25								
0.154	1000 x 300	800 x 400	18	12	25	16	29	20	30	33								
			2.7	5.0	3.7	10	4.5	15	5.5	22								
0.205	1200 x 300	1000 x 400	Lw	Lt														
			Vk	Pa														
			19	14	24	18	27	21										
			2.7	5.0	3.4	8.0	4.0	11.3										

The values Lw (NR) do not take the attenuation in the premises into account. Speed = 0.25 m/s.

Corrections for other terminal velocities

Vt (m/s)		0.25	0.37	0.5	0.63
Lt	A	x 1	x 0.67	x 0.5	x 0.4
Lt	B	x 0.7	x 0.47	x 0.36	x 0.28



Selection Tables



GD 102 D series

Air supply with ceiling effect - Damper 100% open

Ak (m ²)	L x H (mm)	qv (m ³ /hr)												Lw	Lt										
		100		150		200		300		400		600				800		1200		1800		2500		3500	
0.011	325 x 75	17	2.8	28	4.1	35	5.5	45	8.3															Lw	Lt
		2.5	16	3.8	35	5.1	62	7.6	140															Vk	Pa
0.015	425 x 75	-	2.4	20	3.6	28	4.7	38	7.1	46	9.5														
		1.9	8.4	2.8	19	3.7	33	5.5	75	7.4	134														
0.019	525 x 75			15	3.2	23	4.2	33	6.3	41	8.4	55	15												
				2.2	12	2.9	21	4.4	47	5.8	83	9	200												
0.023	625 x 75	325 x 125			18	3.8	29	5.7	37	7.6	47	11													
					2.4	14	3.6	32	4.8	47	7.2	128													
0.030	825 x 75	425 x 125			23	5.0	31	6.7	41	10															
					2.8	19	3.7	33	5.1	75															
0.037	1025 x 75 325 x 175	525 x 125			19	4.5	26	6.0	37	9.0	44	12													
					2.2	15	3.0	22	4.5	49	6.0	88													
0.045	1225 x 75 4245 x 175	625 x 125 325 x 225			22	5.5	32	8.2	40	11	44	14													
					2.5	15	3.7	33	4.9	59	5.5	75													
0.060	825 x 125 425 x 225	525 x 175			26	7.1	34	9.5	39	13															
					2.8	19	3.7	33	4.4	47															
0.075	1025 x 125 525 x 225	625 x 175			21	6.4	29	8.5	36	13	50	21													
					2.2	12	3.0	22	3.7	35	7.0	118													
0.090	1225 x 125 625 x 225	825 x 175			26	8.6	29	11	46	20															
					2.5	15	2.8	20	5.8	80															
0.120	1025 x 175	825 x 225			25	10	40	17	55	27															
					2.3	12.5	4.2	42	7.8	155															
0.150	1225 x 175	1025 x 225			35	15	43	21	52	10															
					3.3	28	4.5	50	6.5	105															
0.180	1225 x 225		Lw	Lt																					
			Vk	Pa																					

Corrections for grille without damper
 ΔPt Lw
x 0.5 - 4

The values Lw (NR) do not take the attenuation in the premises into account.

Speed = 0.37 m/s.

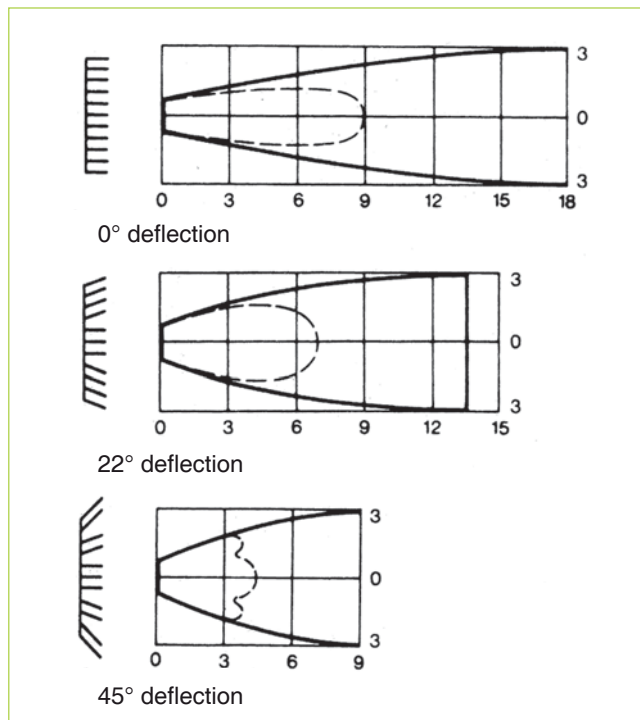
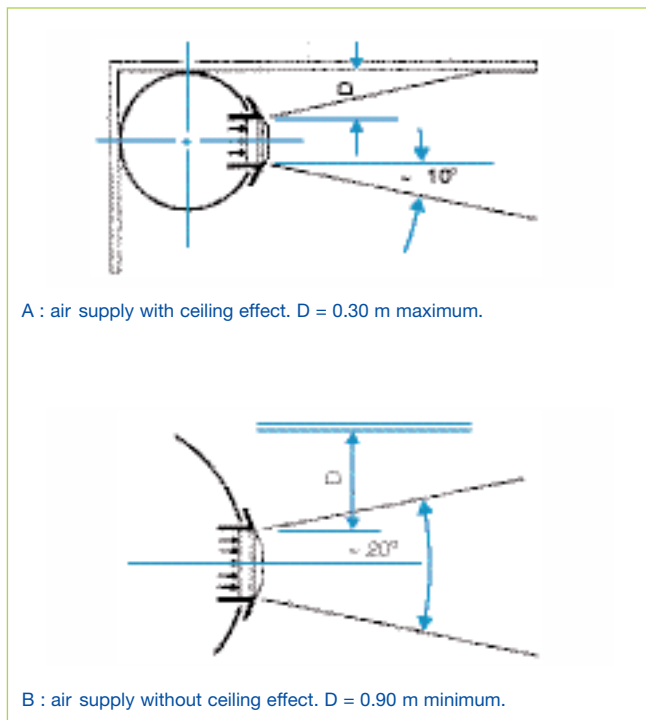
Corrections for other terminal velocities

Vt (m/s)		0.25	0.37	0.5	0.63
Lt	A	x 1.5	x 1	x 0.75	x 0.6
Lt	B	x 1.05	x 0.7	x 0.53	x 0.42

Corrections for deflection

α	β	Lt	Vk	ΔPt	Lw
22°	35°	x 0.77	x 1.15	x 1.30	+ 3
45°	60°	x 0.55	x 1.25	x 1.60	+ 6

α = angle of the vanes - β = angle of the air jet



Selection Tables



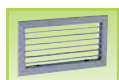
GD 102 series

Air exhaust - Damper 100% open

Ak (m²)	L x H (mm)		qv (m³/hr)												Lw	Lt										
			100		150		200		300		400		600				800		1200		1800		2500		3500	
0.014	325 x 75		-	-	-	-	25	-																	Lw	Lt
			2	4	3	18	4	31																	Vk	Pa
0.019	425 x 75				-	-	-	-	28	-																
					2.3	12	3	18	4.8	40																
0.023	525 x 75								-	-	25	-	31	-												
									2.5	12	3.8	30	5	49												
0.028	625 x 75	325 x 125							-	-	20	-	27	-												
									2	8	3	18	4	32												
0.037	825 x 75	425 x 125							-	-	22	-	32	-												
									2.3	12	3	18	4.9	45												
0.046	1025 x 75 325 x 175	525 x 125							-	-	-	-	26	-	34	-										
									1.8	6	2.5	12	3.6	25	5	49										
0.055	1225 x 75 4245 x 175	625 x 125 325 x 225											-	-	23	-	30	-								
											2	8	3	18	4	32										
0.074	825 x 125 425 x 225	525 x 175											-	-	24	-	34	-								
													2.3	10	3	18	4.6	42								
0.092	1025 x 125 525 x 225	625 x 175											-	-	20	-	29	-								
													1.8	5	2.5	12	3.5	24								
0.110	1225 x 125 625 x 225	825 x 175											-	-	23	-	36	-								
													2	8	3	18	4.2	37								
0.138	1025 x 175	825 x 225													22	-	32	-	40	-						
															2.4	10	3.7	27	5	49						
0.166	1225 x 175	1025 x 225															27	-	35	-						
																	3	18	4	31						
0.220	1225 x 225																									
			Lw	Lt																						
			Vk	Pa																						
																	2.3	10	3.2	20	4.2	37				

Corrections for grille without damper
 ΔPt Lw
x 0.45 - 6

The values Lw (NR) do not take the attenuation in the premises into account.



AC 101 - SC 101 - AC 102 - SC 102 - AC 440 - AC 441 - AG 450 / 450 A - AG 470 AC 121 - SC 121 - AC 123 - SC 125 - AC 161 - AC 163 - AO 123 - AO 129 - SC 370 series

Air exhaust

Ak (m²)	L x H (mm)		qv (m³/h)												Lw	Lt											
			200		300		400		500		750		1000				1500		2000		3000		4000		5000		
0.013	200 x 100		25	-																						Lw	Lt
			4.2	35																						Vk	Pa
0.020	300 x 100 200 x 100		16	-	27	-																					
			2.8	15	4.2	35																					
0.030	400 x 100 300 x 150	200 x 200	-	-	19	-	26	-																			
			1.9	7	2.9	16	3.7	27																			
0.045	600 x 100 400 x 150	300 x 200			-	-	18	-	23	-																	
					1.9	7	2.5	12	3.1	20																	
0.060	800 x 100 500 x 150	400 x 200							17	-	27	-															
									2.3	10	3.5	24															
0.075	1000 x 100 600 x 150	500 x 200 300 x 300							-	-	22	-	30	-													
									1.8	6.5	2.7	15	3.8	28													
0.093	1200 x 100 800 x 150	600 x 200 400 x 300							18	-	25	-	35	-													
									2.2	10	3.0	18	4.5	40													
0.125	1000 x 150 800 x 200	500 x 300 400 x 400							-	-	19	-	29	-													
									1.6	5	2.2	10	3.4	22													
0.150	1200 x 150 800 x 300												-	-	25	-	32	-									
													1.8	7	2.7	15	3.7	26									
0.175	1000 x 200 500 x 400												-	-	21	-	29	-									
													1.6	5	2.4	11	3.2	20									
0.200	1200 x 200 1000 x 300	600 x 400 500 x 400											19	-	26	-	36	-									
													2.1	9	2.8	15	4.1	33									
0.260	1000 x 300 800 x 400	600 x 400 500 x 500											-	-	21	-	31	-	37	-							
													1.6	5	2.2	10	3.2	20	4.1	33							
0.350	1000 x 400 800 x 500	600 x 500															28	-	35	-							
																	2.8	14	3.7	26							
0.420	1200 x 400 1000 x 400																										
0.530	1200 x 400																										
			Lw	Lt																							
			Vk	Pa																							
																	1.6	5	2.1	9	3.3	22					

Corrections depending on type of grille
TYPE ΔPt Lw
A 121. S 121 x 1.00 + 0
A 161. A 129 x 0.35 - 8
S 101. 102 / A 101. 102 x 0.35 - 8
S 125. S 370 x 1.20 + 1
A 123. A 163 x 0.30 - 9
A 440. 450. 470 x 0.90 - 1

The values Lw (NR) do not take the attenuation in the premises into account.

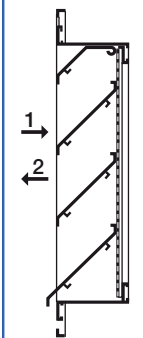
Selection Tables



AWA 251 series

Air intake and discharge

Af (m ²)	L x H (mm)	qv (m ³ /hr)												Lw	Pa1	Vf	Pa2		
		250	500	750	1000	1500	2000	2500	3000	3500	4000	5000	6000					7000	8000
0,010	200 x 100	33	88																
		7	68																
0,015	300 x 100	20	36	44	156														
0,017	200 x 150	4,6	30	9,2	120														
0,020	400 x 100	-	22	35	80														
	200 x 200	3,5	17	6,9	60														
0,025	500 x 100	-	14	26	51	42	115												
	300 x 150	2,8	11	5,5	38	8,3	86												
0,033	400 x 150	-	10	21	39	37	90												
	300 x 200	2,4	8	4,6	29	7,1	70												
0,040	500 x 150	-	22	26	51	38	91												
	400 x 200		3,5	16	5,3	39	7,1	69											
0,050	600 x 150 - 500 x 200	-	13	-	34	33	65	44	120										
	300 x 300		2,7	10	4,3	25	6	50	8,1	90									
0,070	600 x 200			-	19	25	37	36	68										
	400 x 300			3,2	14	4,5	28	6,1	51										
0,080	700 x 200			-	13	-	26	33	55	43	118								
				2,7	18	3,7	20	5,6	43	7,5	89								
0,090	800 x 200 - 500 x 300			20	10	-	20	29	42	39	80	46	125	52	160				
	400 x 400			2,4	8	3,2	15	4,9	33	6,6	60	8,3	94	9,5	130				
0,100	600 x 300			-	16	27	33	36	63	45	98	49	126						
				2,8	12	4,4	26	5,9	47	7,4	73	8,4	102						
0,120	500 x 400			-	10	23	27	33	51	39	80	45	102						
				2,6	8	3,9	21	5,3	38	6,6	59	7,6	83						
0,125	700 x 300							22	24	30	46	38	72	44	93				
								3,7	19	5	35	6,3	55	7,3	76				
0,140	600 x 400					-	16	23	29	30	45	37	65	41	89	46	116		
	800 x 300					3	12	4	22	5	34	5,7	43	6,7	59	7,7	77		
0,150	500 x 500					-	15	22	27	29	42	34	60	39	82	44	107		
						2,9	11	3,8	20	4,8	31	5,5	40	6,4	54	7,3	71		
0,160	700 x 400							21	16	25	25	31	48	36	65	39	85		
								3,4	14	4,3	22	4,9	32	5,7	44	6,5	58		
0,180	600 x 500							21	14	24	22	29	42	34	57	38	74	48	116
								3,2	12	4	19	4,6	28	5,4	38	6,2	50	7,8	78
0,190	800 x 400					-	12	23	17	27	32	31	44	37	58	44	91		
						3	11	3,8	15	4,3	21	5	29	5,7	38	7,1	59		
0,210	900 x 400					-	11	-	16	24	26	30	35	34	46	42	72		
	700 x 500					2,8	10	3,5	15	4	19	4,7	26	5,4	34	6,8	53		
0,220	600 x 600					-	10	-	15	25	26	27	30	27	33	34	52		
						2,5	9	3,2	13	3,8	19	4,0	21	4,2	24	5,3	38		
0,240	1000 x 400					-	11	-	15	-	23	27	31	33	41	41	70		
	800 x 500					2,5	9	3,1	12	3,6	17	4,2	23	4,8	30	6,2	50		
0,260	700 x 600					-	9	-	14	-	22	25	30	33	40	41	70		
	600 x 700					2,1	8	2,7	11	3,2	15	3,9	21	4,3	29	5,3	50		
0,270	900 x 500							-	12	-	18	-	25	24	25	30	36		
						2,8	10	3,2	13	3,7	18	3,8	18	4,5	28				
0,295	600 x 800 - 800 x 600							-	11	-	16	-	23	25	28	37	44		
	700 x 700					2,4	10	2,9	11	3,3	16	3,8	20	4,8	31				
0,300	1000 x 500									-	14	-	19	35	46	43	72		
								2,8	10	3,3	14	5,1	34	6,3	53				
0,340	700 x 800 - 800 x 700									-	11	-	16	-	20	35	35	39	45
	900 x 600									2,5	8	2,9	11	3,3	15	4,3	25	5	35
0,360	1000 x 600									-	12	-	14	-	18	31	30	35	40
										2,4	9	2,7	10	3,2	14	4	23	4,8	31
0,390	900 x 700											-	15	27	22	33	35	38	45
	800 x 800											2,9	8	3,5	17	4,4	27	5	35
0,440	1000 x 700												-	13	23	20	30	30	34
	900 x 800												2,6	10	3,4	15	4	23	4,5
0,480	1000 x 800													-	9	-	15	28	23
														2,3	7	2,9	12	3,5	18



The values Lw (NR) do not take into account the attenuation in the premises.

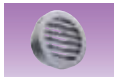
Pa1 (Pa) = pressure loss on air intake.

Pa2 (Pa) = pressure loss on exhaust discharge.

Af (m²) = front surface.

Vf (m/s) = front velocity.

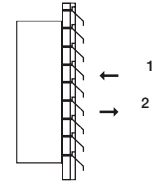
Selection Tables



AR 637 series

Air intake and discharge

Af (m ²)	D (mm)	50 (m ³ /h)		100 (m ³ /h)		150 (m ³ /h)		200 (m ³ /h)		300 (m ³ /h)		500 (m ³ /h)		800 (m ³ /h)		1000 (m ³ /h)		1500 (m ³ /h)		2000 (m ³ /h)		2500 (m ³ /h)		3000 (m ³ /h)			
0,007	125	-	8	20	32	27	64																			Lw	Pa1
		2,0	6	4,0	26	5,9	51																			Vf	Pa2
0,012	160			-	10	-	22	21	40	36	90																
				2,3	8	3,4	17	4,6	32	6,9	72																
0,019	200					-	9	-	16	28	36	44	97														
						2,2	7	2,9	13	4,4	28	7,3	77														
0,029	250							-	7	-	16	22	42	44	107												
						1,9	6	2,9	13	4,7	33	7,5	86														
0,047	315									-	6	-	18	23	42	38	65										
								1,8	5	3	14	4,7	33	5,9	53												
0,070	400									-	16	22	41	28	64												
										2	13	3,2	33	4	51												
0,090	450											-	25	23	39	35	88										
										2,5	20	3,1	31	4,6	70												
0,120	500													-	21	26	47	38	83								
												2,3	17	3,5	38	4,6	67										
0,150	560															-	31	34	55	40	86						
												2,8	25	3,7	44	4,6	68										
0,200	630	Lw	Pa1															2,0	31	26	48	32	69				
		Vf	Pa2															2,8	25	3,5	38	4,2	55				



The values Lw (NR) do not take into account the attenuation in the premises.

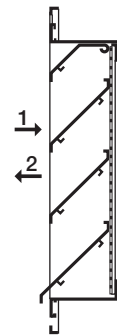
Pa1 (Pa) = pressure loss on air intake. Af (m²) = front surface.
Pa2 (Pa) = pressure loss on exhaust discharge. Vf (m/s) = front velocity.



AG 645 series

Exhaust

Af (m ²)	L x H (mm)	qv (m ³ /h)		1500	2000	3000	5000	7000	9000	12000	15000	Lw	Pa1
		1000	1500										
0,10	400 x 400	41	46										
		2,8	35										
0,16	600 x 400	30	17	42	39								
		1,7	13	2,6	30								
0,27	600 x 600			29	13	37	26						
				1,5	10	2,1	20						
0,37	800 x 600			29	13	41	31						
				1,5	10	2,3	24						
0,46	1000 x 600					36	19						
						1,8	14						
0,53	800 x 800					35	15	47	39				
						1,6	11	2,6	30				
0,66	1000 x 800					42	26						
						2,1	20						
0,80	1200 x 800					37	17	47	33				
						1,7	13	2,4	26				
0,86	1000 x 1000					35	15	45	31				
						1,6	11	2,3	24				
0,93	1400 x 800					33	11	43	26				
						1,4	8	2,1	19				
1,03	1200 x 1000					40	21	48	33				
						1,9	16	2,4	26				
1,21	1400 x 1000					37	15	44	26				
						1,6	11	2,1	20				
1,27	1200 x 1200					43	23						
						2,0	18						
1,38	1600 x 1000					41	19	50	33				
						1,8	14	2,4	26				
1,70	1600 x 1200	Lw	Pa1			35	11	44	23	49	42		
		Vf	Pa2			1,4	9	2,0	18	2,7	33		



The values Lw (NR) do not take into account the attenuation in the premises.

Pa1 (Pa) = pressure loss on air intake. Af (m²) = front surface.
Pa2 (Pa) = pressure loss on exhaust discharge. Vf (m/s) = front velocity.

Project Reference List

Below are some of our prestigious project references.

S. No.	Project	Consultant/Client	Contractor	Location
1	30 Villa compound	W S Atkins	Verger	Abu Dhabi
2	96 Villas	Mario	ETTS	Abu Dhabi
3	Doha Bank	Northcorp General	Northcorp General	Abu Dhabi
4	Emirates Centre for Strategic studies	DMW	ALGECO	Abu Dhabi
5	Indian Embassy	Dustoor	Universal Voltas	Abu Dhabi
6	Marina Mall	Meinhardt	ETA	Abu Dhabi
7	Qasr Al Sarab	Halcrow Yolles	ALEC	Abu Dhabi
8	Ruwais Housing Complex	ADNOC	Square General	Abu Dhabi
9	Spinney's Shopping Complex	Archon	Elemec	Abu Dhabi
6	Al Jeemi Mall Extension	GHD	ACECO	Al Ain
11	Al Ghurg Project	Al Ghurg Engineering	Unicorn E/M	Dubai
12	Al Mas Tower	W. S. Atkins	ETA	Dubai
13	Children's Museum	GEMAC	A & P partners	Dubai
14	City Bank	Kennedy & Donkin	Sensaire	Dubai
15	DIFC - District Cooling North Plant Cons.	Ellerbe Becket/Tebodin	Voltas Limited	Dubai
16	Dubai Airport	Dar al Handasah	Al Tamanir	Dubai
17	Dubai Arch Tower	Art Consultants	Al Ahmadiyah Aktor	Dubai
18	Dubai Mall	Meinhardt	Juma Al Majid	Dubai
19	Dubotech	Kling Consult	Macair	Dubai
20	DWTC	RMJM	Transgulf	Dubai
21	IBIS Hotel	SEED	BK Gulf	Dubai
22	Mall of the Emirates	WSP watson	Khansaheb	Dubai
23	Marina Scape	Archgroup	Trinity	Dubai
24	Muraqqabad Police Station	Arenco	Bilt ME	Dubai
25	Novotel Hotel	SEED	BK Gulf	Dubai
26	Pedestrian Link (Metro Station - Dubai Mall)	Khatib & Al Alami	BK Gulf	Dubai
27	Taj Grandeuer	Archgroup	ETA	Dubai
28	Twin Tower at Marina	Adnan Saffarini	Transgulf	Dubai
29	Fujairah Secondary School	MOPW	GIBCA	Fujairah
31	QLNG Headquarters	Atkins	Al Ansari	Oman
31	Al Gharrafa Mall	AEB	Arabian A/c	Qatar
32	Al Nakheel Tower	Diwan Al Emara	Almoayyed	Qatar
33	Al Wosail Tower	KEO	Man Enterprises	Qatar
34	Barzan Camp	MZ & Partners	QEMG	Qatar
35	Businesspark & hotel facilities	AEB	QEMG	Qatar
36	Commercial Bank of Qatar	AEB	QEMG	Qatar
37	Diwan Ameri Building	Shaker Consultancy	Voltas Limited	Qatar
38	Qatar Equestrian Racing & Breeding Club	ACE	QEMG	Qatar
39	Qatar Faculty Islamic Studies	ASTAD / QP	Trags	Qatar
40	Qatar Petroleum Fire Station	QP	Arabian A/c	Qatar
41	Ras Laffan Project	TEBODIN / QP	Blue Star	Qatar
42	Regent Hotel	KEO	Samko	Qatar
43	SER Building @ NDIA	QP	Blue Star	Qatar
44	Sidra Medical Research Centre	KEO	Voltas Limited	Qatar
45	Texas A & M College	KEO	Midmac Cont.	Qatar
46	The Gate Development	Maunsell Consultancy	Man Enterprises	Qatar
47	Woqod Tower	Romatre	Diplomat	Qatar
48	Al Naeem Mall	Dynamic Engg	Strabag	Ras Al Khaimah
49	Hilton Hotel	W. S. Atkins	EMI	Ras Al Khaimah
50	Sheikh Khalifa Hospital	Bayaty Architect	ETA	Ras Al Khaimah
51	Residential Units @ Diplomatic Quarters	Al Raid Co.	Specialized Cont. Co.	Saudi Arabia
52	STC Offices	STC Engineering	Saudi Aircon	Saudi Arabia
53	Centro Hotel, Sharjah	G.H.D	Al Bonian	Sharjah
54	Palm Tower & Beach Tower	Consultair	ETA	Sharjah
55	Petrofac Tower II	Khatib & Alami	Al Shirawi	Sharjah
56	Police Head Quarter	Sharjah Police	Fawaz A/C	Sharjah
57	Umm al Quwain Hospital	HDP	Bpower	Umm Al Quwain

Ventilation

Selection Guide p.262-263

- Aldes, leader in manufacturing self-balanced CMEV: standard system with minimum space requirement that provides an excellent indoor air quality in residential premises.
- A complete range of fans designed in accordance with eco-friendly design requirements on energy savings, raw materials choice, recycling management and life expectancy.

Low Energy Consumption Fans



- "Micro-watt" range of fans with low energy consumption to meet green building criteria:
 - CVEC micro-watt - p. 283
 - inoVEC micro-watt - p. 288
 - VIK micro-watt - p. 306
 - TVEC GII micro-watt - p.314
- Up to 60% reduction on energy consumption.
- Minimum maintenance and easy installation.
- Noise reduction on air outlets.



Fans - Supply & Exhaust

Small Axial Exhaust Fans



Window mounted
XW 100 A
p. 264



Wall/window mounted
XW 150 A
p. 265

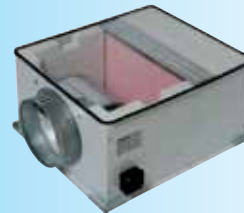
Axial Fans



Wall mounted fans
HELICA
p. 272



In-line fans
HELIONE
p. 273



Supply/exhaust fans with acoustic insulation - TVEC SILENCE
p. 295



Supply/exhaust, double skin fans - VEKITA SILENCE
p. 298



Smoke exhaust fans
CYCLONE F400
p. 320

Accessories



Electrical accessories
p. 359 - 365



Ductwork accessories
p.366

Green Product



Wall/window mounted
XW 230 A
p. 266



Wall/ceiling mounted
DESIGN
p. 267



Wall/ceiling mounted
DECO
p. 268

In-line Duct Fans

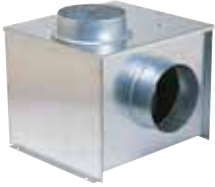


Supply/exhaust fans
IN LINE
p. 270



Supply/exhaust fans
VC
p. 271

Cabinet Fans



Exhaust fans
MINI-VEC
p. 280



Exhaust fans
C.VEC
p. 281



Exhaust fans
VEC
p. 285



Supply/exhaust fans
VEKITA+
p. 291



Supply/exhaust, double skin fans
for kitchens - VEKITA SILENCE-O
p. 301



Supply/exhaust fans
VIK
p. 304



Exhaust fans
TVEC GII
p. 309



Supply fans
ALIZONE
p. 318

Roof Fans



Exhaust fans
VDA
p. 338














Exhaust fans
THELIA
p. 341

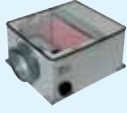





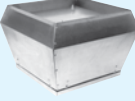



Smoke exhaust fans
VELONE
p. 343

Selection Guide

Category	Model	Description	Axial	Centrifugal		Kitchen fan	High temperature	Energy saving	Max airflow (m³/h)
			Direct driven	Direct driven	Belt driven				
Small Axial Exhaust Fans	WINDOW 	Wall/window mounted axial fans • 4" (window mounting only) • 6" & 8" (wall/window mounting) • Auto shutter version • Timer controlled (optional)	✓			✓			85 220 550
	DESIGN 	Wall/ceiling mounted axial fans • Sizes : 4", 5", 6" • Possible operation modes : - manual, timer (T), humidity (H) presence (P)	✓						70 115 235
	DECO 	Wall/ceiling mounted axial fans • Sizes : 4", 5" • Removable back-draft damper • Possible operation modes : - manual, timer (T), humidity (H)	✓						70 115
In-line Duct Fans	IN LINE 	In-line duct fans - axial • Air supply and air exhaust • Silent operation • Material : ABS	✓						250
	VC 	In-line duct fans - centrifugal • Air supply and air exhaust • High airflow • Metallic construction • Thermally protected motor winding		✓					1500
Axial Fans	HELICA 	Wall mounted axial fans • Protection grille on motorside • Variable-speed control (optional)	✓						3600
	HELIONE 	In-line axial fans • Staircase pressurisation • Smoke extraction • Civil Defence approved • Car park ventilation • 1 or 2-speed	✓				200°C (2h) or 400°C (2h)		72000
Cabinet Fans	MINI-VEC 	Cabinet fans • Air exhaust • Perpendicular inlet and outlet		✓			400°C (½h)		650
	C.VEC 	Cabinet fans • Air exhaust • Low energy consumption version (optional)		✓			400°C (½h)	✓	2500
	VEC 	Cabinet fans • Air exhaust • Low energy consumption version (optional)			✓		400°C (½h)	✓	12000
	VEKITA+ 	In-line cabinet fans • Air supply and air exhaust • Acoustically insulated version (optional) • 1 or 2-speed		✓					3200

Selection Guide

Category	Model	Description	Axial	Centrifugal		Kitchen fan	High temperature	Energy saving	Max airflow (m³/h)
			Direct driven	Direct driven	Belt driven				
Cabinet Fans	 TVEC SILENCE	In-line cabinet fans <ul style="list-style-type: none"> Air supply and air exhaust Acoustically insulated 		✓					1800
	 VEKITA SILENCE	In-line cabinet fans <ul style="list-style-type: none"> Air supply and air exhaust Double skin fan 1 or 2-speed 		✓					7400
	 VEKITA SILENCE-O	In-line cabinet fans for kitchen <ul style="list-style-type: none"> Air supply and air exhaust Double skin fan Motor outside air stream 1 or 2-speed 		✓		✓			6700
	 VIK	In-line cabinet fans <ul style="list-style-type: none"> Air supply and air exhaust Low energy consumption version (optional) Pre-filter (optional) 			✓			✓	12000
	 TVEC GII	In-line cabinet fans <ul style="list-style-type: none"> Air exhaust Low energy consumption version (optional) 			✓		400°C (½h)	✓	20000
	 ALIZONE	Cabinet fans <ul style="list-style-type: none"> Air supply Staircase pressurisation Easy access 			✓				10000
	 CYCLONE	Cabinet fans <ul style="list-style-type: none"> Smoke extraction Civil defence approved F400 (2h) 1 or 2-speed Easy access 			✓		400°C (2h)		32000
Roof Fans	 VDA	Roof fans <ul style="list-style-type: none"> Air exhaust Vertical air discharge 1 or 2-speed 		✓					12000
	 THELIA	Roof fans <ul style="list-style-type: none"> Air exhaust Vertical or horizontal air discharge 1 or 2-speed 	✓						40000
	 VELONE	Roof fans <ul style="list-style-type: none"> Smoke extraction Civil defence approved F400 (2h) 1 or 2-speed Horizontal or vertical air discharge (kit optional) 		✓		✓	400°C (2h)		27000

Small Axial Exhaust Fans

Window mounted



WINDOW - XW 100 A (4")

Compliance

- CE electrical safety.

Advantages

- Induction motor with long maintenance free life.
- Double insulated.
- Strong, durable with glossy finish.
- Auto shutter.

APPLICATION

- Intermittent ventilation suitable for bathrooms / toilets.
- Forced and intermittent air exhaust.

DESCRIPTION

- Automatic model with thermo-activated internal shutters.
- Grille in impact resistant high gloss ABS material.
- 1-phase, 220 - 240V ~ A.C. 50 Hz induction motor, protected by thermal fuse.
- A double pole isolating switch, having a contact separation of at least 3 mm in all poles, must be used with a 3 amp fuse fitted.
- Integrated backdraft damper.
- Rated to IP 44.

INSTALLATION

- Fitting by 4 screws.
- Designed for window mounting through a standard 115 - 155 mm Ø hole.

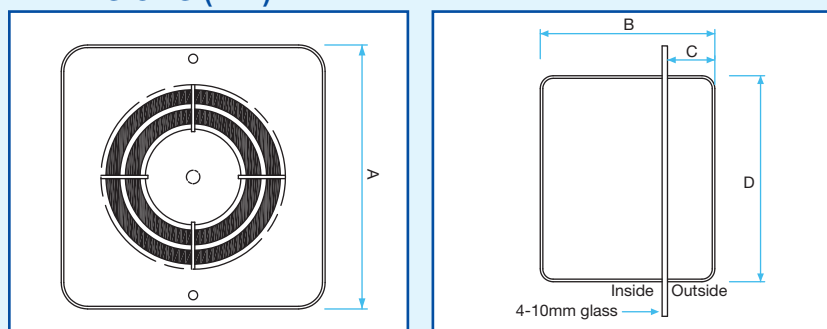
AVAILABLE OPTIONS

- With pullcord switch.
- Timer model (adjustable electronic timer 1 - 20 mins).

RANGE

Description	Code
WINDOW - XW 100 A	

DIMENSIONS (mm)



Model	A	B	C	D
XW100A	163	115	53	163

TECHNICAL DETAILS

Model	Maximum airflow (m³/h)	Power consumption (W)
XW 100 A	85	20

ADDITIONAL DATA

- Maximum pressure: 20 Pa.
- Fan speed: 2400 r.p.m.
- Noise level: 41 dB(A).

Small Axial Exhaust Fans

Wall / window mounted



WINDOW - XW 150 A (6")

Compliance

- CE electrical safety.

Advantages

- Induction motor with long maintenance free life.
- Double insulated.
- Strong, durable with glossy finish.
- Auto shutter.

APPLICATION

- Intermittent ventilation suitable for kitchens, utility rooms, restaurants, offices and shops.
- Forced and intermittent air exhaust.
- For residential and commercial buildings.

DESCRIPTION

- Automatic model with thermo-activated internal shutters.
- Grille in impact resistant high gloss ABS material.
- Single phase, 220-240V ~ A.C. 50Hz induction motor, protected by thermal fuse.
- A double pole isolating switch, having a contact separation of at least 3 mm in all poles, must be used with a 3 amp fuse fitted.

INSTALLATION

- Fitting by 4 screws.
- Designed to be fitted in either a window or wall through a standard 184 mm (7 1/4") hole. A wall fixing kit is available upon request.

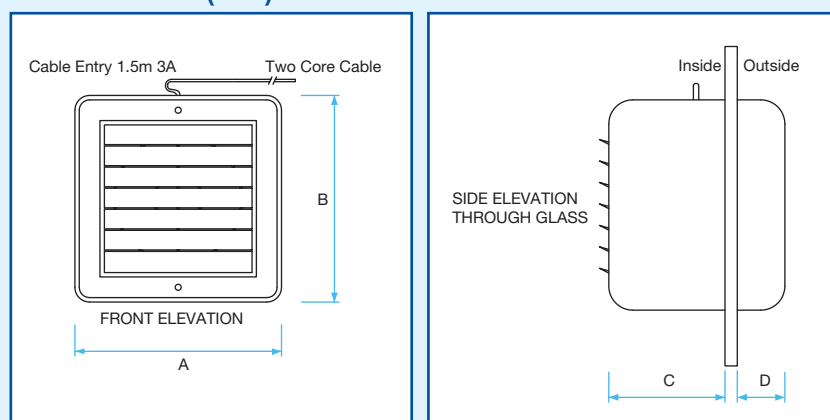
AVAILABLE OPTIONS

- With pullcord switch.
- Timer model complete with pullcord.
- Humidity control complete with pullcord.

RANGE

Description	Code
WINDOW - XW 150 A	

DIMENSIONS (mm)



Model	A	B	C	D
XW 150A	203	203	95	23

TECHNICAL DETAILS

Model	Maximum airflow (m³/h)	Power consumption (W)
XW 150 A	220	45

ADDITIONAL DATA

- Maximum pressure: 50 Pa.
- Fan speed: 2400 r.p.m.
- Noise level: 40 dB(A).

Small Axial Exhaust Fans

Wall / window mounted



WINDOW - XW 230 A (9")

Compliance

- CE electrical safety.

Advantages

- Induction motor with long maintenance free life.
- Double insulated.
- Strong, durable with glossy finish.
- Auto shutter.

APPLICATION

- Intermittent ventilation suitable for kitchens, utility rooms, pubs, restaurants, offices, shops and factories.
- Forced and intermittent air exhaust.
- For residential and commercial buildings.

DESCRIPTION

- Automatic model with thermo-activated internal shutters.
- Grille in impact resistant high gloss ABS material.
- 4 pole, 1-phase, 220 - 240V ~ A.C. 50 Hz induction motor, protected by thermal fuse.
- A double pole isolating switch, having a contact separation of at least 3 mm in all poles, must be used with a 3 amp fuse fitted.
- Totally enclosed for protection against dust and dirt.
- Motors are continually rated.

INSTALLATION

- Fitting by 4 screws.
- Window mounted through a standard 260 mm Ø hole.
- A wall fixing kit is also available upon request for through wall mounting.

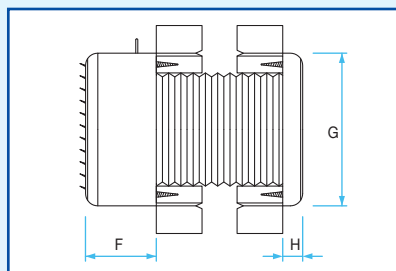
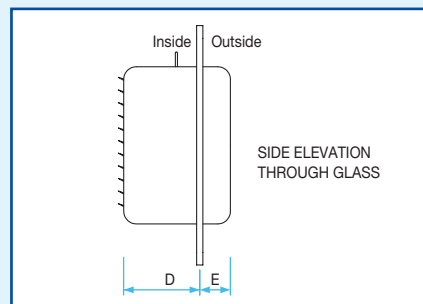
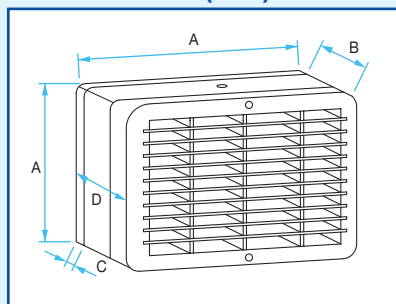
AVAILABLE OPTIONS

- With pullcord switch.
- Timer model complete with pullcord.
- Humidity control complete with pullcord.

RANGE

Description	Code
WINDOW - XW 230 A	

DIMENSIONS (mm)



Model	A	B	C	D	E	F	G	H
XW 230 A	286	286	4-32	112	25	112	286	25

TECHNICAL DETAILS

Model	Maximum airflow (m³/h)	Power consumption (W)
XW 230 A	550	80

ADDITIONAL DATA

- Maximum pressure: 50 Pa.
- Fan speed: 1250 r.p.m.
- Noise level: 50 dB(A).

Small Axial Exhaust Fans

Wall / ceiling mounted

New



DESIGN

Compliances

- CE electrical safety.
- WEEE electrical recycling capability.

Advantages

- New ultra-flat design.
- Silent : starting at 26 dB(A)
- Very low power consumption: starting at 5.6W.
- Available with occupancy detection..
- Exists in Ø 100, 125 and 150 mm.

APPLICATION

- Room by room extract ventilation.
- Intermittent air exhaust.

DESCRIPTION

- Materials: Outer grille and body made of ABS.
- Silent motor.
- Removable back-draft damper at the back of the fan
- Possible operating modes:
 - manual, timer T, humidity H, presence P.

OPERATION

- Manual operation:
 - Instant shut down
 - Timer operation T :
 - Delayed shut down
 - Programmable delay from 2 to 30 minutes
- Humidity operation H:
 - Delayed shut down according to a preset humidity level.
 - Programmable operating time from 2 to 30 minutes
 - Programmable humidity level from 60% to 90%.
- Presence operation P :
 - Start operated by presence detection and delayed shut down
 - Sensor detection distance: 1 to 4 metres
 - Sensor detection angle: 100°
 - Programmable operating time from 2 to 30 minutes

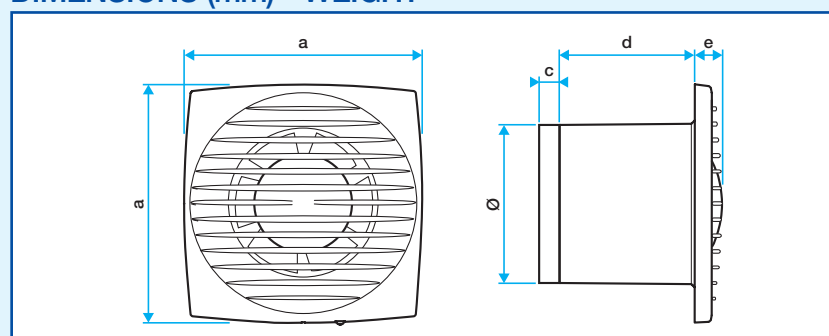
INSTALLATION

- Fitted using 4 screws (supplied).
- Wall or ceiling mounted.
- Provision necessary for fresh air supply grille or undercut under connecting door.
- Maximum temperature of exhaust air: 40°C

RANGE R18

Description	Code
DESIGN 100	11022300
DESIGN 100 T	11022301
DESIGN 100 H	11022302
DESIGN 100 P	11022303
DESIGN 125	11022304
DESIGN 125 T	11022305
DESIGN 125 H	11022306
DESIGN 125 P	11022307
DESIGN 150	11022308
DESIGN 150 T	11022309
DESIGN 150 H	11022310
DESIGN 150 P	11022311

DIMENSIONS (mm) - WEIGHT



Model	Ø	a	c	d	e	Weight (g)
DESIGN 100	100	150	13.5	85	17	560
DESIGN 125	125	176	13.5	87	17	730
DESIGN 150	150	205	13.5	105	19	900

TECHNICAL DETAILS

- Power Supply: 230 V - 50 Hz single phase.
- Device protection rating: IPX4.
- Electrical insulation: class II.
- Integrated thermal protection.

Model	Maximum airflow (m ³ /h)	Power Consumption (W)	Sound pressure level at 3m in dB(A).
DESIGN 100	70	5.6	26
DESIGN 125	115	9.3	31
DESIGN 150	235	20	33

Small Axial Exhaust Fans

Wall / ceiling mounted

New



DECO

Compliances

- CE electrical safety.
- WEEE electrical recycling capability.

Advantages

- Aesthetic and discrete
- Silent : starting at 26 dB(A)
- Very low power consumption: starting at 5.6W.
- White or aluminium finish.

APPLICATION

- Room by room extract ventilation.
- Forced and intermittent air exhaust.

DESCRIPTION

- Material: ABS body, ABS front cover with aluminium trim (for aluminium finish).
- Silent motor.
- Removable back-draft damper at the back of the fan.
- White colour or aluminium finish.
- Possible operating modes:
 - manual, timer T, humidity H.

OPERATION

- Manual operation:
 - Instant shut down
- Timer operation T :
 - Delayed shut down
 - Programmable delay from 2 to 30 minutes
- Humidity operation H:
 - Delayed shut down according to a preset humidity level.
 - Programmable operating time from 2 to 30 minutes
 - Programmable humidity level from 60% to 90%.

INSTALLATION

- Fitted using 4 screws (supplied).
- Wall or ceiling mounted.
- Provision necessary for fresh air supply grille or undercut under connecting door.
- Maximum temperature of exhaust air: 40°C

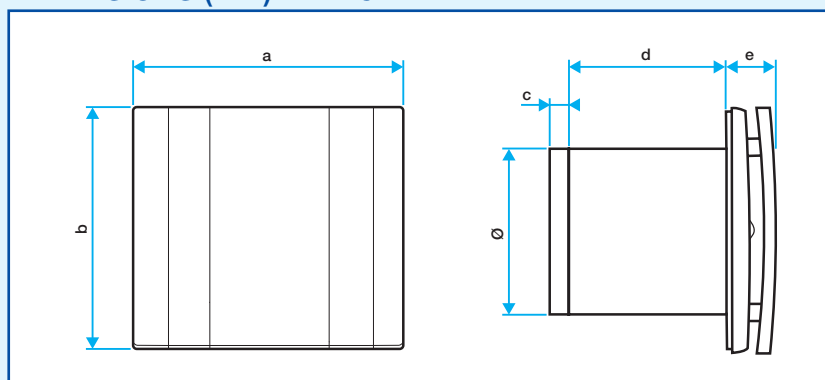
WHITE FINISH RANGE R18

Description	Code
DECO 100	11022312
DESIGN 100 T	11022313
DESIGN 100 H	11022314
DECO 125	11022318
DESIGN 125 T	11022319
DESIGN 125 H	11022320

ALUMINIUM FINISH RANGE R18

Description	Code
DECO ALU 100	11022315
DECO ALU 100 T	11022316
DECO ALU 100 H	11022317
DECO ALU 125	11022321
DECO ALU 125 T	11022322
DECO ALU 125 H	11022323

DIMENSIONS (mm) - WEIGHT



Model	Ø	a	b	c	d	e	Weight (g)
DECO 100	100	171	151	13.5	96	32	560
DECO 125	125	201	178	13.5	101	35	730

TECHNICAL DETAILS

- Power Supply: 230 V - 50 Hz single phase.
- Device protection rating: IPX4.
- Electrical insulation: class II.
- Integrated thermal protection.

Model	Maximum airflow (m ³ /h)	Power Consumption (W)	Sound pressure level at 3m in dB(A).
DECO 100	70	5.6	26
DECO 120	115	9.3	31

Notes

In-line Duct Fans

New

Duct mounted axial fans



IN LINE

APPLICATION

- Occasional ventilation in a room.
- Used for exhaust or air supply.
- Forced and intermittent operation.

DESCRIPTION

- Material: ABS.
- Low-noise motor.

INSTALLATION

- Installation inside a duct.
- Provision necessary for fresh air supply grille or undercut under connecting door.

RANGE R18

Description	Code
IN LINE 100	11022326
IN LINE 125	11022327
IN LINE 150	11022328

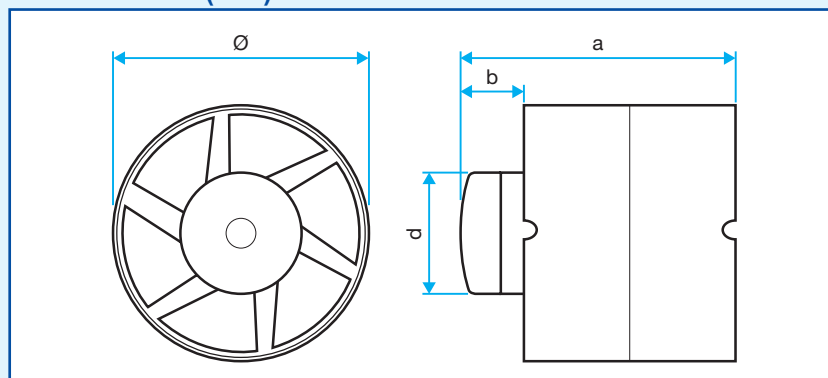
Compliances

- CE electrical safety.
- WEEE electrical recycling capability.

Advantages

- Silent.
- Air exhaust or air supply.
- No fan in the room (fitted in the duct).

DIMENSIONS (mm) - WEIGHT



Model	Ø	a	b	d	Weight (g)
INLINE 100	100	113	28	59	410
INLINE 125	125	118	28	59	430
INLINE 150	150	128	28	59	800

TECHNICAL DETAILS

- Power Supply: 230 V - 50 Hz single phase.
- Device protection rating: IPX4.
- Integrated thermal protection.
- Electrical insulation: class II.

Model	Maximum airflow (m ³ /h)	Power Consumption (W)	Sound pressure level at 3m in dB(A).
INLINE 100	75	5.6	27
INLINE 125	135	9.3	32
INLINE 150	250	20	34

In-line Duct Fans

Duct mounted centrifugal fans



VC

APPLICATION

- Air exhaust / air supply in circular ductworks.
- Intermittent ventilation suitable for commercial and industrial premises.

DESCRIPTION

- 6 models, up to 1500 m³/h in Ø 315 mm.
- Body made of galvanised sheet with in-line connections.
- Centrifugal impeller.
- Motor with exterior rotor single-phase 230 V - 50 hz - IP 44.
- Thermal protection incorporated in the motor winding.

INSTALLATION

- Horizontal / vertical.
- Suspended ceilings / technical areas.
- Installation recommended with anti-vibration collars to prevent transmission of vibrations and facilitate maintenance.

RANGE R6

Description	Code
VC 100	11032005
VC 125	11032004
VC 160	11032001
VC 200	11032002
VC 250	11032003
VC 315	11032006

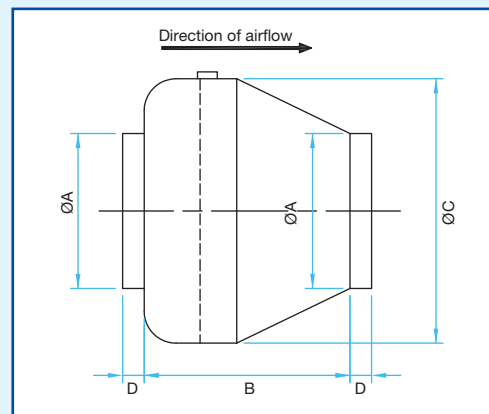
ACCESSORIES R6

Description	Code
Connection	
Anti-vibration collar Ø 100 mm	11032105
Anti-vibration collar Ø 125 mm	11032104
Anti-vibration collar Ø 160 mm	11032101
Anti-vibration collar Ø 200 mm	11032102
Anti-vibration collar Ø 250 mm	11032103
Anti-vibration collar Ø 315 mm	11032107
Electrical	
1.5 A voltage regulator	11086572
1-phase electronic controller 5 A	11057080

Advantages

- "Flat" airflow curves.
- Design.
- Air exhaust or air supply.
- Thermally protected motor winding.

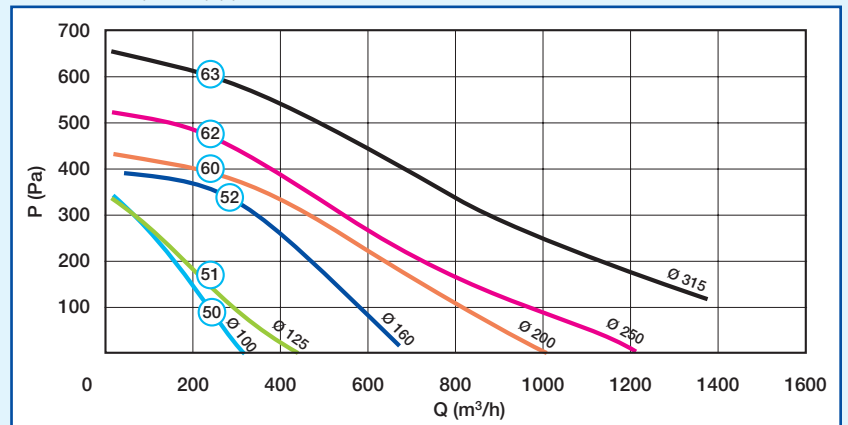
DIMENSIONS - WEIGHT



Type	A (mm)	B (mm)	C (mm)	D (mm)	Weight (Kg)
Ø 100	100	188	288	30	2.1
Ø 125	125	188	288	30	2.1
Ø 160	160	170	379	30	2.5
Ø 200	200	198	379	30	4.1
Ø 250	250	195	379	30	4.2
Ø 315	315	218	453	30	4.5

AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with the Standard NF-E 51.705.
- Acoustic pressure levels measured 3 m from the fan with suction and fan outlet connected (in dB (A)).



ELECTRICAL DETAILS

Type	N° of poles	Max. power cons. (W)	Max. current cons. (A)	Capacitor (F)
Ø 100	2	56	0.24	2
Ø 125	2	59	0.25	2
Ø 160	2	99	0.44	2
Ø 200	2	140	0.60	5
Ø 250	2	193	0.84	5
Ø 315	2	274	1.21	5

Axial Fans

Wall mounted fans



HELICA

Advantages

- Airflow between 100 and 3000 m³/h.
- Variable speed control is possible.
- Installation savings.
- Protective grille on motor side included.

APPLICATION

- Ventilation for industrial, agricultural, commercial or residential buildings (car parks), without the necessity for a fire protection rating, as a complement to the HELIONE range.

DESCRIPTION

- Axial fan with a galvanised fan blade, painted in black.
- Protective grille on suction side included.
- Ambient temperature: - 20° C at + 50°C.
- IP 44, class F, external rotor with the possibility of variable speed control.
- Single phase 230 V - 50 Hz supply (60 Hz possible if capacitor is changed).
- Used for exhaust purposes.

ROUND SHELL RANGE R8

Description	Code
HELICA 200 - 1.500 rpm VR	11032201
HELICA 200 - 2.800 rpm VR	11032202
HELICA 250 - 1.500 rpm VR	11032203
HELICA 250 - 2.800 rpm VR	11032204
HELICA 300 - 1.500 rpm VR	11032205
HELICA 300 - 2.800 rpm VR	11032206
HELICA 350 - 1.500 rpm VR	11032207
HELICA 400 - 1.500 rpm VR	11032208

SQUARE PLATE RANGE R8

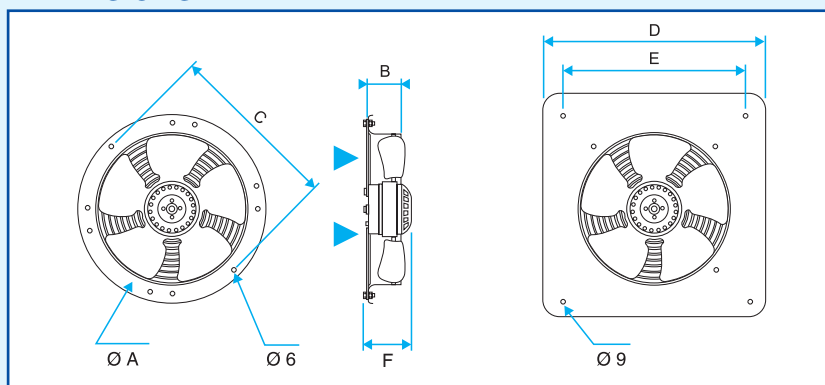
Description	Code
HELICA 200 - 1.500 rpm PC	11032211
HELICA 200 - 2.800 rpm PC	11032212
HELICA 250 - 1.500 rpm PC	11032213
HELICA 250 - 2.800 rpm PC	11032214
HELICA 300 - 1.500 rpm PC	11032215
HELICA 300 - 2.800 rpm PC	11032216
HELICA 350 - 1.500 rpm PC	11032217
HELICA 400 - 1.500 rpm PC	11032218

ACCESSORIES R7

Description	Code
Protective grille - HELICA 200/ 250/ 300/ 350	11032222
HELICA 400 protection grille	11032223
Automatic shutter HELICA 200/250/300	11032231
HELICA 350 automatic shutter	11032232
HELICA 400 automatic shutter	11032233
1.5 A voltage regulator	11086572

- The protection grille or the automatic shutter are positioned on the axial fan blade side.

DIMENSIONS



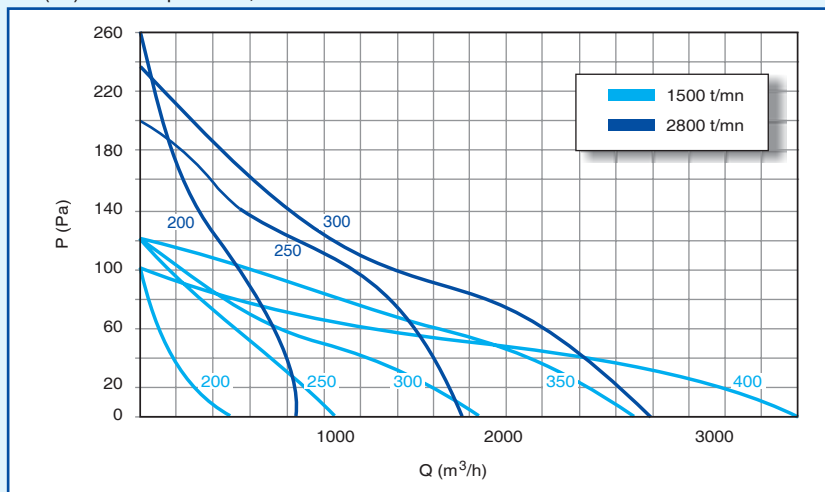
Description	Opening Ø (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
HELICA 200	230	280	52	250	312	260	115
HELICA 250	280	320	55	295	370	320	115
HELICA 300	330	397	82	380	430	380	138
HELICA 350	380	460	86	442	495	435	142
HELICA 400	430	528	100	504	540	490	142

AIRFLOW DETAILS

Description	I max (A)	P max. cons. (W)	Lp at 1 m (dB (A))	Weight VR (Kg)	Weight PC (Kg)
HELICA 200 - 1.500 rpm	0.14	31	50	2.2	2.6
HELICA 200 - 2.800 rpm	0.30	59	63	1.8	2.6
HELICA 250 - 1.500 rpm	0.25	55	55	3.0	3.7
HELICA 250 - 2.800 rpm	0.46	101	71	3.0	3.7
HELICA 300 - 1.500 rpm	0.41	88	61	4.5	5.2
HELICA 300 - 2.800 rpm	0.81	181	77	4.8	5.6
HELICA 350 - 1.500 rpm	0.54	120	64	5.8	6.6
HELICA 400 - 1.500 rpm	0.63	141	69	6.7	7.6

AIRFLOW CURVES

• P (Pa) = Static pressure, Q = Airflow.



Axial Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Helione Short Shell

CIVIL DEFENCE APPROVED

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- With its F200°C/2h and F400°C/2h fire resistance classifications, the new HELIONE range meets the needs for ventilation and smoke exhaust in multi-family housing (car parks, stairwells), commercial premises (car parks, shops) and in industry, just anywhere that high airflows with low pressures are required.
- HELIONE operates just as well for air exhaust as for fresh air supply in premises where acoustic requirements are not predominant or for occasional smoke exhaust.

DESCRIPTION

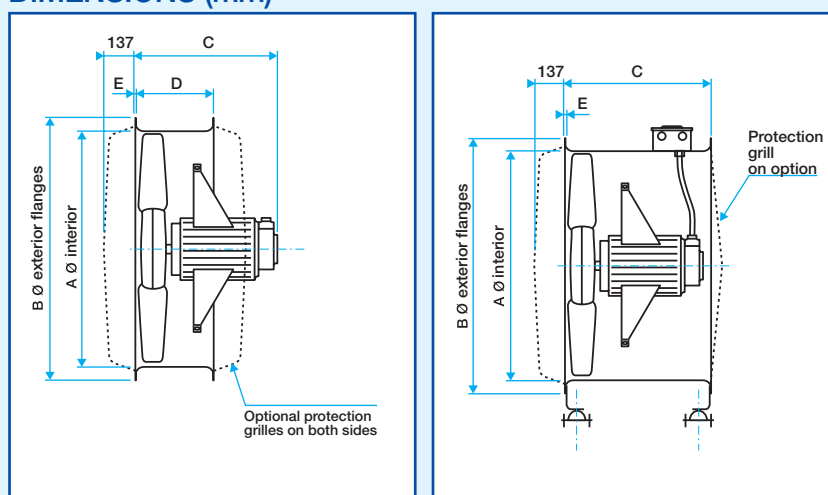
- The standard Helione range varies from Ø 500 to Ø 1,000 mm for standard airflows of 5000 to 72,000 m³/h for pressures of 100 to 500 Pa.
- The new Helione range can meet the requirements for numerous other cases, like different airflows and pressure levels for example: Please feel free to contact us.
- Propellers comprised of several blades in aluminium, mounted on an aluminium hub. The angle adjustment is determined depending on the operating point.
- Each blade is radiographically X-rayed before assembly in order to check the high quality of the material.
- The shells are formed from tubular metal plate, with integrated folded edges drilled for connections, continuous welded and hot galvanised following fabrication for a longer service life. Standard = short shell, long shell on option.
- The motor's fixing arms are hot galvanised for better corrosion resistance.
- 4 pole or 4/8 pole boss type motor, IP 55 tropicalised, class F as standard. Operating temperature range - 20/ 50°C.

60 Hz motor: please consult us. All motors are calculated to bear the input power throughout the length of the curve.

AVAILABLE OPTIONS

- Long shell: comprises a pre-wired external terminal box.

DIMENSIONS (mm)



Short shell

Long shell

Your ALDES agency also is available for you, the detailed technical data sheets for each model.

Short shell				
A	B	C	D	E
560	654	348	225	2,5
630	724	348	225	3
710	804	348	225	3
800	894	459	225	3
900	1006	459	225	3
		445	300	5
		575	300	5
1000	1106	459	225	3
		445	300	5
		575	300	5
Long shell				
A	B	C	D	E
560	654	375	368	2,5
630	724	375	403	3
710	804	375	443	3
800	894	520	488	3
900	1006	520	538	3
		520	575	5
		625	575	5
1000	1106	520	588	3
		520	625	5
		625	625	5

Axial Fans

Presentation of the HELIONE CE range of helicoid air pattern axial fans



Long shell

**CIVIL
DEFENCE
APPROVED**

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

ACCESSORIES

- Protective mesh comes in both motor side and propeller side.
- Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
- Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
- Square plate in galvanised steel to fix Helione in a wall mounting configuration.
- Feet supports (x2) in galvanised steel to fix Helione to the floor.
- Anti-vibration mountings (x4) are fixed under the feet supports.
- Backdraft damper: circular, with 2 galvanised steel blades.
- Passive circular noise trap/silencer.
- Electrical Accessories:
 - Proximity switch,
 - Pressure switch,
 - Relay box ☒ see AXONE micro II.
 - Emergency stop button.

INSTALLATION

A (MH) OR B (HM) MOUNTING:

Horizontal on the ground and wall mounted against a wall:

- Indispensable options: economic square plate, feet and anti-vibration mountings, mating flange and flexible sleeves or grille if not connected up.

Horizontal on the ground between two ducts:

- Indispensable options: feet and anti-vibration mountings, mating flanges and flexible sleeves on both sides, long shell for motor access through the inspection hatch.

Horizontal fixed by wall mounting against a wall:

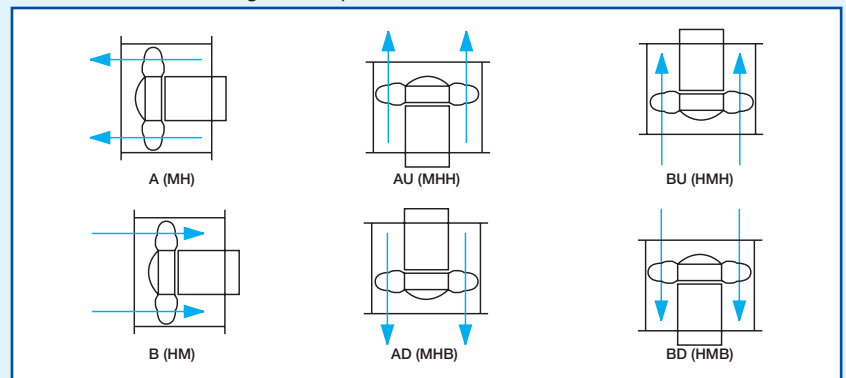
- Indispensable options: reinforced square plate for wall mounting, mating flange and flexible sleeve or grille if not connected up.

AU (MHH), BU (HMH), AD (MHB), BD (HMB) MOUNTING

Vertical, suspended under a ceiling tile or duct

The tubular casing must be bolted using all of the holes in its flange.

- Indispensable options: protective grille if access remains possible or if there are any risks of waste being sucked in, if connected from both sides: long shell tubular casing for motor access through the inspection hatch.



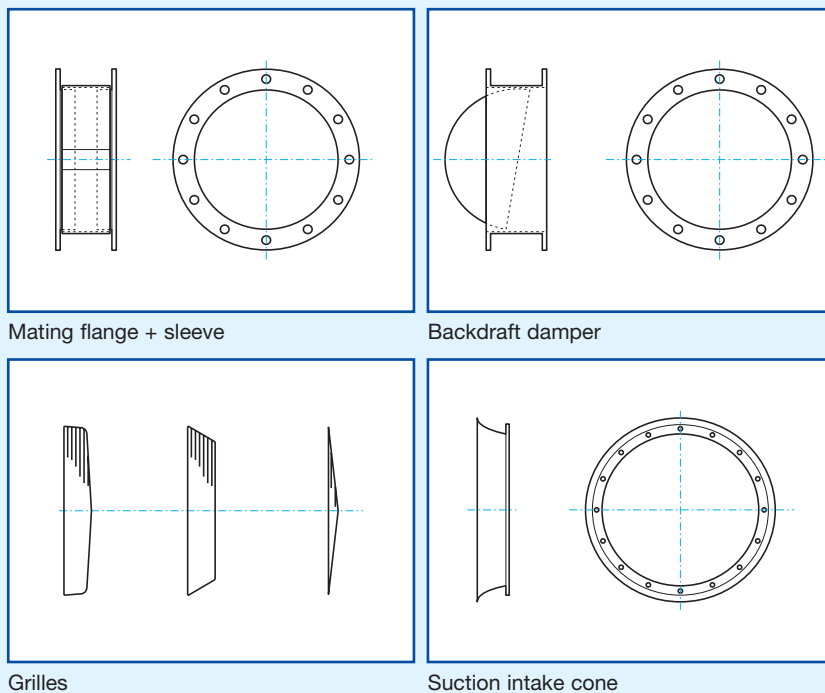
Axial Fans

HELIONE Accessories

DESCRIPTION

- Protective mesh comes in both motor side and propeller side.
 - Flexible sleeve is fitted between the mating flange and the circular duct. Incombustible fabric (M0).
 - Mating flange in galvanised steel. It enables Helione to be connected to a circular duct. Necessary connection for the flexible sleeve.
 - Square plate in galvanised steel to fix Helione in a wall mounting configuration.
 - Feet supports (x2) in galvanised steel to fix Helione to the floor.
 - Anti-vibration mountings (x4) are fixed under the feet supports.
 - Backdraft damper: circular, with 2 galvanised steel blades.
 - Passive circular noise trap/ silencer: please consult us.
- Electrical accessories not connected:
- Proximity disconnecting switch, pressure switch, emergency stop button => see ELECTRICAL ACCESSORIES .
 - Relay box => see AXONE micro II.

PRINCIPLE DIAGRAMS



ACCESSORIES R8

Description	560 Code	630 Code	710 Code	800 Code
"Economic" square plate	11090456	11090457	11090458	11090459
"Reinforced" square plate	11090464	11090465	11090466	11090467
Flexible sleeve	11090400	11090401	11090402	11090403
Horizontal backdraft damper	11090448	11090449	11090450	11090451
Mating flange	11090408	11090409	11090410	11090411
Motor grille for long Shells	11090424	11090425	11090426	11090427
Motor grille for short Shells	11090472	11090473	11090474	11090475
Propeller mesh	11090416	11090417	11090418	11090419
set of 2 feet	11090480	11090481	11090482	11090483
Suction intake cone	11090432	11090433	11090434	11090435
Vertical backdraft damper	11090440	11090441	11090442	11090443

Description	0900 Code	1000 Code	1120 Code	1250 Code
"Economic" square plate	11090460	11090461	11090462	11090463
"Reinforced" square plate	11090468	11090469	11090470	11090471
Flexible sleeve	11090404	11090405	11090406	11090407
Horizontal backdraft damper	11090452	11090453	11090454	11090455
Mating flange	11090412	11090413	11090414	11090415
Motor grille for long Shells	11090428	11090429	11090430	11090431
Motor grille for short Shells	11090476	11090477	11090478	11090479
Propeller mesh	11090420	11090421	11090422	11090423
set of 2 feet	11090484	11090485	11090486	11090487
Suction intake cone	11090436	11090437	11090438	11090439
Vertical backdraft damper	11090444	11090445		

Description	Code
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F200	
Set of 4 HELIONE F200-560-630-710 mountings	11090490
Set of 4 HELIONE F200-800-900 mountings	11090492
Set of 4 HELIONE F200-1000-1120-1250 mountings	11090495
SET OF 4 ANTI-VIBRATIONS MOUNTINGS FOR HELIONE F400	
Set of 4 HELIONE F400-560-630-710 mountings	11090496
Set of 4 HELIONE F400-800-900-1000 mountings	11090497
Set of 4 HELIONE F400-1120-1250 mountings	11090498

Axial Fans

HELIONE Unclassified F200 - 1 SPEED



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

CIVIL DEFENCE APPROVED

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 1 SPEED ^{R8}

Description	Code
HELIONE F200-560/20/4/6 - 0,66 kW	11090299
HELIONE F200-560/20/4/6 - 1,15 kW	11090300
HELIONE F200-710/20/4/3 - 1,4 kW	11090302
HELIONE F200-710/20/4/3 - 1,6 kW	11090303
HELIONE F200-710/25/4/92,7 kW	11090304
HELIONE F200-710/20/4/6 - 3,2 kW	11090306
HELIONE F200-900/25/4/3 - 3,2 kW	11090307
HELIONE F200-900/25/4/6 - 3,2 kW	11090308
HELIONE F200-900/25/4/6 - 4,4 kW	11090309
HELIONE F200-900/25/4/6 - 6,6 kW	11090310
HELIONE F200-900/25/4/9 - 6,6 kW	11090311
HELIONE F200-1000/25/4/3 - 4,4 kW	11090312
HELIONE F200-1000/25/4/3 - 6,6 kW	11090313
HELIONE F200-1000/25/4/6 - 4,4 kW	11090314
HELIONE F200-1000/25/4/6 - 9 kW	11090315
HELIONE F200-1000/25/4/6 - 13,2 kW	11090316
HELIONE F200-1000/25/4/9 - 9 kW	11090295
HELIONE F200-1000/25/4/9 - 13,2 kW	11090296
HELIONE F200-1000/25/4/9 - 18 kW	11090317
HELIONE F200-1000/31/4/9 - 22,2 kW	11090318
HELIONE F200-1000/31/4/9 - 27 kW	11090319

AVAILABLE OPTIONS ^{R8}

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE Unclassified/ F200 (120) -1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	299	299						
7200	299	300						
9000	300	300						
10800	302	302						
11400	302	302	306	306	304	308	308	
12000	302	302	306	306	304	308	309	
12600	302	303	306	306	304	308	309	314
13200	302	303	306	306	304	308	309	314
13800	302	303	306	306	308	308	309	314
14400	303	306	306	306	308	308	309	314
15000	303	306	306	306	308	309	309	314
15600	303	306	306	306	308	309	309	311
16200	306	306	306	306	308	309	309	311
16800	306	306	306	306	308	309	314	311
17400	306	306	306	306	309	309	314	311
18000	306	306	306	308	309	309	311	311
21000	306	307	307	309	309	309	311	311
24000	307	307	309	309	309	310	311	311
27000	307	312	312	310	310	310	311	295
30000	312	312	312	310	310	315	315	296
33000	312	312	313	310	315	315	315	296
36000	312	312	313	315	315	315	315	316
39000	312	313	315	315	315	315	316	296
42000	313	313	315	315	315	316	316	296
45000	313	315	315	316	316	316	296	317
48000	315	315	316	316	316	317	317	317
54000	316	316	316	316	317	317	317	318
60000	316	317	317	317	318	318	318	319
66000	317	318	318	319	319			
72000	319	319						

ELECTRICAL DETAILS F400

F200 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,9	6,4
1,15	3,2	11
1,4	3,8	13,5
1,6	3,9	19
2,7	5,8	30
3,2	6,8	35
4,4	9,3	55
6,6	12,6	84
9	17	114
13,2	25,4	127
18	34,8	171
22,2	41	242
27	49,8	284

Axial Fans

HELIONE F200 and Unclassified - 2 SPEEDS



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

CIVIL
DEFENCE
APPROVED

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

UNCLASSIFIED RANGE / F200 (120) - 2 SPEEDS ^{R8}

Description	Code
HELIONE F200-560/20/4-8/6 -0,92/0,23 kW	11090320
HELIONE F200-630/20/4-8/3 -1,84/0,46 kW	11090321
HELIONE F200-710/20/4-8/3 -1,84/0,46 kW	11090322
HELIONE F200-800/20/4-8/3 -3,22/0,8 kW	11090323
HELIONE F200-710/20/4-8/6 -3,22/0,8 kW	11090324
HELIONE F200-900/25/4-8/3 -3,22/0,8 kW	11090325
HELIONE F200-900/25/4-8/6 -3,22/0,8 kW	11090326
HELIONE F200-900/25/4-8/6 -4,37/1,15 kW	11090327
HELIONE F200-900/25/4-8/3 -5,75/1,5 kW	11090328
HELIONE F200-1000/25/4-8/3 -4,37/1,15 kW	11090329
HELIONE F200-1000/25/4-8/3 -5,75/1,5 kW	11090330
HELIONE F200-1000/25/4-8/6 -4,37/1,15 kW	11090331
HELIONE F200-1000/25/4-8/6 -5,75/1,5 kW	11090332
HELIONE F200-1000/25/4-8/6 -7,2/1,8 kW	11090333
HELIONE F200-1000/25/4-8/6 -12,7/3,45 kW	11090334
HELIONE F200-1000/25/4-8/9 -16,1/4,03 kW	11090335
HELIONE F200-1000/31/4-8/9 -19,6/4,95 kW	11090336
HELIONE F200-1000/31/4-8/9 -23,5/5,75 kW	11090337

AVAILABLE OPTIONS ^{R8}

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 273

SELECTION HELIONE Unclassified/ F200 (120) - 2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	20	20						
7200	20	20						
9000	20	22						
10800	21	22						
11400	21	22	24	24				
12000	21	22	24	24	26	26	27	31
12600	21	22	24	24	26	26	27	31
13200	22	22	24	24	26	26	27	31
13800	22	22	24	24	26	26	27	31
14400	22	22	24	24	26	26	27	31
15000	22	22	24	24	26	27	27	31
15600	22	23	24	24	26	27	27	32
16200	22	23	24	24	26	27	31	32
16800	22	23	24	24	26	27	31	32
17400	23	23	24	24	27	27	31	32
18000	23	23	24	24	27	27	31	32
21000	23	23	25	27	27	27	32	32
24000	23	25	27	27	27	28	32	33
27000	25	27	27	28	28	32	33	35
30000	27	27	29	28	32	33	33	35
33000	29	29	32	33	33	33	33	35
36000	29	29	30	33	33	33	34	34
39000	29	30	33	34	34	34	34	35
42000	30	33	34	34	34	34	35	35
45000	33	34	34	34	34	34	35	35
48000	34	34	34	34	34	35	35	35
54000	34	34	34	35	35	35	36	36
60000	35	35	36	36	36	36	37	37
66000	36	36	37	37	37			
72000	37	37						

ELECTRICAL DETAILS F200

F200 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	55,4/10,8
5,75/1,5	11,8/3,78	88,5/21,5
7,2/1,8	13,8/4,24	89,7/22
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23,5/5,75	43,4/15,1	339/72,5

Axial Fans

HELIONE F400 - 1 SPEED



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.



APPLICATION

- Smoke exhaust in public assembly and high rise buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) - 1 SPEED R8

Description	Code
HELIONE F400-560/16/4/5 - 0,9 kW	11090340
HELIONE F400-630/20/4/6 - 0,9 kW	11090341
HELIONE F400-630/20/4/6 - 1,27 kW	11090342
HELIONE F400-630/20/4/6 - 1,8 kW	11090343
HELIONE F400-710/25/4/6 - 1,8 kW	11090345
HELIONE F400-800/25/4/3 - 1,8 kW	11090346
HELIONE F400-800/25/4/3 - 2,64 kW	11090347
HELIONE F400-800/25/4/6 - 2,64 kW	11090348
HELIONE F400-800/25/4/6 - 3,6 kW	11090349
HELIONE F400-900/25/4/3 - 3,6 kW	11090350
HELIONE F400-900/25/4/6 - 3,6 kW	11090351
HELIONE F400-900/25/4/6 - 4,8 kW	11090352
HELIONE F400-900/25/4/6 - 6,6 kW	11090353
HELIONE F400-900/25/4/9 - 4,8 kW	11090355
HELIONE F400-900/25/4/9 - 6,6 kW	11090356
HELIONE F400-900/25/4/9 - 9 kW	11090357
HELIONE F400-900/25/4/9 - 11 kW	11090358
HELIONE F400-1000/31/4/6 - 6,6 kW	11090359
HELIONE F400-1000/31/4/6 - 9 kW	11090360
HELIONE F400-1000/31/4/6 - 11 kW	11090361
HELIONE F400-1000/31/4/6 - 13,2 kW	11090362
HELIONE F400-1000/31/4/9 - 11 kW	11090363
HELIONE F400-1000/31/4/9 - 13,2 kW	11090364
HELIONE F400-1000/31/4/9 - 18 kW	11090365
HELIONE F400-1000/31/4/9 - 20,4 kW	11090366
HELIONE F400-1000/31/4/9 - 27 kW	11090367

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- For an installation with anti-vibration mountings, above Ø 800, and for > 4 kW motors, we recommend you to order the long shell option. If not, provide for stringers between the feet and the mountings to balance the weight.

SELECTION HELIONE F400 (120) - 1 SPEED

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m³/h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	40	41	45	45				
7200	40	42	45	48				
9000	42	42	45	48				
10800	42	43	45	48				
11400	43	43	48	48	51			
12000	43	43	48	48	51	51	55	55
12600	43	45	48	48	51	52	55	55
13200	43	46	48	51	51	52	55	55
13800	45	46	48	51	51	52	55	56
14400	46	47	48	48	51	55	55	56
15000	46	47	48	51	51	55	55	56
15600	46	48	48	51	51	55	55	56
16200	46	48	48	51	51	55	55	56
16800	46	48	48	51	52	55	56	56
17400	47	48	49	51	52	55	56	56
18000	47	48	49	51	52	55	56	59
21000	47	49	49	52	56	56	63	63
24000	49	50	52	52	56	56	63	63
27000	50	52	52	53	53	57	57	63
30000	52	52	53	53	57	57	63	
33000	53	53	53	57	57	57	63	63
36000	53	53	59	57	57	58	63	64
39000	59	57	57	58	58	61	64	64
42000	57	58	58	58	51	64	64	65
45000	58	58	61	61	62	64	65	65
48000	60	61	61	62	62	65	65	65
54000	61	62	62	65	65	65	66	67
60000	62	65	65	66	67	67		
66000	66	67	67	67				
72000	67							

ELECTRICAL DETAILS F400

F400 Motor - 1 speed - 4 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,66	1,56	8,2
0,9	2	9,4
1,27	3,08	14,2
1,8	3,75	19,8
2,64	5,42	30,9
3,6	7,03	38,6
4,8	9,23	57,2
6,6	12,6	84
9	17,1	114
11	21,4	107
13,2	24,3	165,3
18	34,7	170
20,4	41,4	242
27	49,8	284

Axial Fans

HELIONE F400 - 2 SPEEDS



Short shell



Long shell

Compliances

- F400°C-2h and F200°C-2h classification.
- Conforms with the CE marking in accordance with Standard EN 12101-3.

**CIVIL
DEFENCE
APPROVED**

Advantages

- Up to 70,000 m³/h.
- Wide range for car parks, commercial and industrial premises.
- A lot of accessories to facilitate installation.

APPLICATION

- Smoke exhaust in Public Assembly and High Rise Buildings.
- Ventilation and smoke extraction for covered car parks.
- Selection tables define the standard range, for more precise details, please consult us.

RANGE - F400 (120) -2 SPEEDS ^{R8}

Description	Code
HELIONE F400-560/16/4-8/5 - 0,92/23 KW	11090370
HELIONE F400-630/20/4-8/6 - 0,92/23 KW	11090371
HELIONE F400-630/20/4-8/6 - 1,84/0,46 KW	11090372
HELIONE F400-710/25/4-8/6 - 1,84/0,46 KW	11090373
HELIONE F400-800/25/4-8/3 - 1,84/0,46 KW	11090374
HELIONE F400-800/25/4-8/6 - 2,53/0,63 KW	11090376
HELIONE F400-800/25/4-8/6 - 3,22/0,8 KW	11090377
HELIONE F400-900/25/4-8/3 - 3,22/0,8 KW	11090378
HELIONE F400-900/25/4-8/6 - 4,37/1,15 KW	11090379
HELIONE F400-900/25/4-8/6 - 5,75/1,5 KW	11090380
HELIONE F400-900/25/4-8/6 - 7,92/1,98 KW	11090381
HELIONE F400-900/25/4-8/9 - 4,37/1,15 KW	11090382
HELIONE F400-900/25/4-8/9 - 5,75/1,5 KW	11090383
HELIONE F400-900/25/4-8/9 - 7,92/1,98 KW	11090384
HELIONE F400-900/25/4-8/9 - 12,7/3,47 KW	11090385
HELIONE F400-1000/31/4-8/6 - 7,92/1,98 KW	11090387
HELIONE F400-1000/31/4-8/6 - 12,7/3,45 KW	11090388
HELIONE F400-1000/31/4-8/9 - 7,92/1,98 KW	11090297
HELIONE F400-1000/31/4-8/9 - 12,7/3,45 KW	11090298
HELIONE F400-1000/31/4-8/9 - 16,1/4,03 KW	11090389
HELIONE F400-1000/31/4-8/9 - 19,6/4,95 KW	11090390
HELIONE F400-1000/31/4-8/9 - 23/5,75 KW	11090391

AVAILABLE OPTIONS

Description	Code
Long shell Ø 560	OPT90392
Long shell Ø 630	OPT90393
Long shell Ø 710	OPT90394
Long shell Ø 800	OPT90395
Long shell Ø 900	OPT90396
Long shell Ø 1000	OPT90397

RECOMMENDATION

- See page 273

SELECTION HELIONE F400 (120) -2 SPEEDS

The number of the boxes corresponds to the last figures of the ALDES code.

Q (m ³ /h)	Pression (Pa)							
	150	200	250	300	350	400	450	500
5400	70	71	73	73				
7200	70	71	73	76				
9000	72	72	73	76				
10800	72	72	73	76				
11400	72	72	73	76				
12000	72	72	76	76	79	79	82	83
12600	72	73	76	76	79	79	82	83
13200	72	74	76	79	79	79	82	83
13800	73	74	76	79	79	82	83	83
14400	73	74	76	79	79	82	83	83
15000	74	74	76	79	79	82	83	83
15600	74	76	77	79	79	83	83	83
16200	74	76	77	79	79	83	83	83
16800	74	76	77	79	79	83	83	83
17400	74	77	77	79	79	83	83	83
18000	74	77	77	79	79	83	83	83
21000	77	77	79	79	83	83	83	297
24000	78	79	79	79	83	84	83	298
27000	78	79	80	80	84	84	84	298
30000	79	80	80	81	84	85	85	
33000	80	81	81	81	85	85	298	
36000	81	81	81	87	87	85	298	298
39000	81	87	87	87	85	85	298	89
42000	87	87	85	85	85	88	89	89
45000	87	85	85	85	88	89	89	89
48000	88	88	88	88	89	89	89	89
54000	88	88	89	89	90	90	90	91
60000	89	90	90	90	91	91		
66000	90	91	91	91				
72000	91							

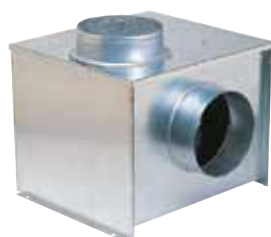
ELECTRICAL DETAILS F400

F400 Motor - 2 speeds - 4/8 poles		
Power (kW)	Rated Current (A)	Start-up Current (A)
0,92/0,23	2,21/0,94	9,3/2,4
1,84/0,46	4,23/1,77	21,6/5,5
2,53/0,63	5,46/2,07	33,4/7
3,22/0,8	6,8/2,54	36/8,6
4,37/1,15	9,23/3,02	57,8/11
5,75/1,5	11,8/3,78	88,5/21,5
7,92/1,98	16,3/4,83	117/28,5
12,7/3,45	24/7,81	146/30,5
16,1/4,03	30,4/9,41	192/35,8
19,6/4,95	37,9/14	269/50,4
23/5,75	43,4/15,1	339/72,5

Cabinet Fans

Exhaust Fans

New



MINI-VEC

Advantages

- Easy to install indoor/outdoor.
- Low sound level.

APPLICATION

- Air exhaust in self-balanced CMEV.
- C4 Fire approval rating (400°C for ½ hour) for housing CMEV systems.
- “Flat” airflow curves.

INSTALLATION

- Horizontal/ vertical.
- Attics/ technical areas.
- Indoor/ outdoor.

DESCRIPTION

- Casing in galvanised steel with perpendicular connections.
- Fan discharge outlet protection grille.
- Direct drive single inlet impeller.
- Two models: 160 and 180 up to 650 m³/h.
- Versions available:
 - Fixed mounted pressure switch (80 Pa),
 - 2-speed motor.

STANDARD RANGE R6

Description	Code
MINI-VEC 160	11056067
MINI-VEC 180	11056068
MINI-VEC 160 + pressure switch	11056069
MINI-VEC 180 + pressure switch	11056070
MINI-VEC 160 AB 2-speed	11056078
MINI-VEC 180 AB 2-speed	11056079

ACCESSORIES R6

Description	Code
Flexible sleeve (exhaust)	
MS Pro M0 Ø 160 mm	11094691
Flexible sleeve (discharge)	
MS REF. Kit M0 Ø 160 mm	11025063
Rain hood	11056110
Anti-vibration mountings (set of 4)	11034385

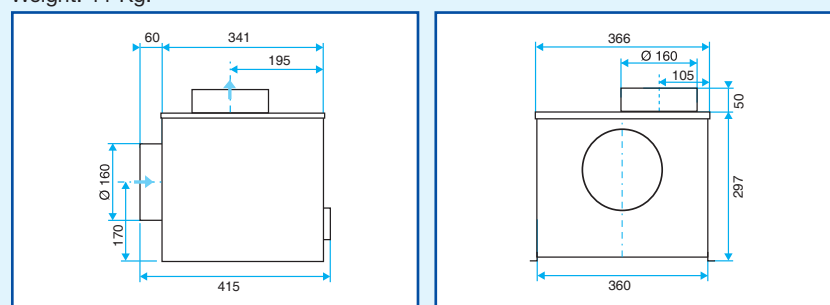
ELECTRICAL ACCESSORIES R7

(see p. 359 - 365)

Description	Code
Thermal overload relay 0.4 - 0.6 A	11056183
Thermal overload relay 0.63 to 1.0 A	11056109
1 Sp. single-phase proximity switch 0.9 kW	11056196
VEC adjustable pressure switch kit	11025009
Pressure switch timer (highly recommended in case of turbulent winds).	11025012

DIMENSIONS (mm) - WEIGHT

Weight: 11 Kg.



M0 FLEXIBLE SLEEVE

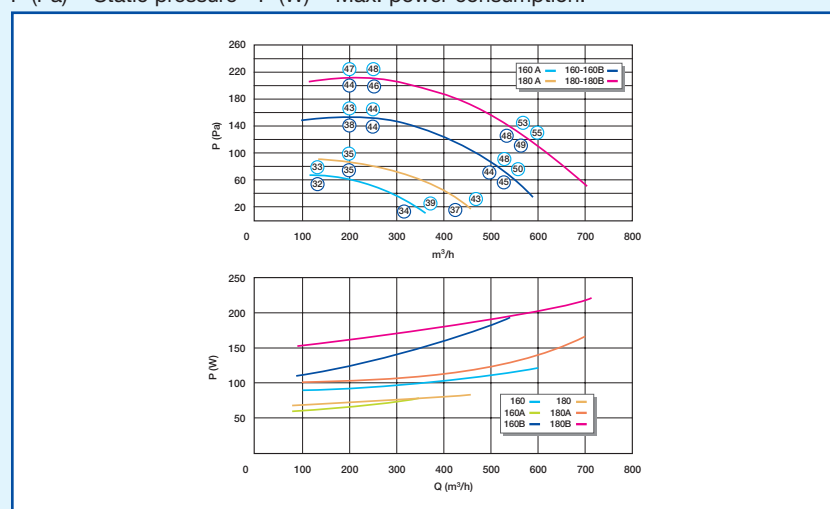
Type	Ø Aspi (mm)	Ø Rft (mm)
Mini-VEC 160 - 180	160	160

AIRFLOW AND ACOUSTIC DETAILS

Airflow curves drawn up in accordance with French Standard NF E 5801-705. Acoustic pressure level measured 4 m from the casing, in dB (A).

○ = free discharge values - ○ = connected discharge values.

P (Pa) = Static pressure - P (W) = Max. power consumption.



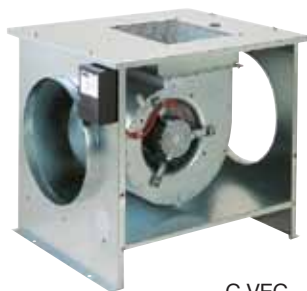
ELECTRICAL DETAILS

Type	FIRE class	Ø impeller (mm)	N° of poles	Max power cons. (W)	Max. current (A)
Mini-Vec 160	C4 - 400°C ½ h fire rating	160	4	125	0,5
Mini-Vec 180	C4 - 400°C ½ h fire rating	180	4	170	0,75
Mini-Vec 160AB	-	160	4/6	80 / 200	0,42 / 1
Mini-Vec 180 AB	-	180	4/6	90 / 240	0,45 / 1,2

- IP 44 asynchronous motor - Class F - 230 V/50 Hz single phase.
- Thermal Protection on Opening built into the motor in parallel with the automatic reset winding (thermal protection on opening with exposed wires).
- To conserve the fire resistance classification, do not connect the thermo-contact.

Cabinet Fans

Exhaust fans



C.VEC

Advantages

- External adjustment of the exclusive airflow (Aldes patent).

APPLICATION

- Exhaust fan for CMEV systems.
- New apartment buildings and renovation work.
- C4 Fire resistance approval rating: 400°C - ½ h.

DESCRIPTION

- Galvanised steel.
- Activated motorised fan.
- Direct drive*.
- 3 sizes of casing: 750 - 1500 - 2500.
- Connection box with switch*.

(* Except for C.VEC 240 H, see page 282.

INSTALLATION

- Attics / technical areas.
- Indoor / outdoor.

RANGE R6

Description	Code
Without pressure switch	
C.VEC 750 R	11056071
C.VEC 1500 R	11056072
C.VEC 2500 R	11056073
C.VEC 240 H (3-phase)	11025137
With pressure switch	
C.VEC 750 R + pressure	11056074
C.VEC 1500 R + pressure	11056075
C.VEC 2500 R + pressure	11056076
C.VEC 240 H + pressure (3-phase)	11056020

ACCESSORIES R6

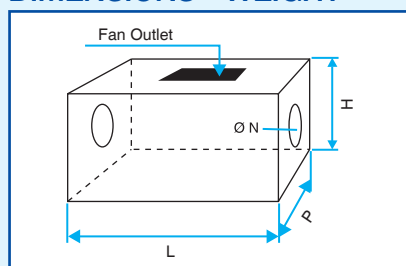
Description	Code
Flexible sleeve (exhaust)	
MS Pro M0 Ø 250 mm	11094693
MS Pro M0 Ø 315 mm	11094694
MS Pro M0 Ø 400 mm	11094696
Flexible sleeve (discharge)	
Flexible sleeve M0 Ø 260 mm	11056120
Flexible sleeve M0 + frame Ø 400 mm	11025075
Flexible sleeve M0 Ø 500 mm + frame	11025072
Anti-vibration mountings (set of 4)	11034385

ELECTRICAL ACCESSORIES R7

Description	Code
Thermal overload relay 1.0 to 1.6 A	11056184
Thermal overload relay 1.6 - 2.5 A	11057052
Thermal overload relay 2.5 - 4 A	11057053

- For more technical details, please consult us.

DIMENSIONS - WEIGHT



Type	L (mm)	H (mm)	D (mm)	Discharge (mm)	Ø N (mm)	N° of connections (suct.)	Weight (Kg)
C.VEC 750 R	505	500	487	128 x 150	250	2	22
C.VEC 1500 R	710	610	577	257 x 300	315	2	33
C.VEC 2500 R	780	685	657	278 x 343	400	2	57
C.VEC 240 H	780	685	657	250 x 300	315	2	51

M0 FLEXIBLE SLEEVE

Type	Vacuum cleaning Ø (mm)	Discharge Ø (mm)
C.VEC 750 R	250	Ø 260
C.VEC 1500 R	315	Ø 400 + frame
C.VEC 2500 R	400	Ø 520 + frame
C.VEC 240 H	315	Ø 400 + frame

ELECTRICAL DETAILS

- (1) IP 44 motor-Class B.
- (1) 1-phase power supply 230 V - 50 Hz.
- (1) Built-in thermal protection on opening (TPO) with exposed wires.
- (2) 230/400 V 3-phase power supply - Belt drive.
- (2) IP 55 motor - Class F.

BE CAREFUL: in the C4 classification - 400°C - ½ h - the thermo-switch must not be connected.

Type	Fire classification	No of poles	Motor power (W)	Max. current (A)
CVEC 750 R (1)	C4 - 400°C ½ h fire rating	4	210	0.95
CVEC 1500 R (1)	C4 - 400°C ½ h fire rating	6	325	2.00
CVEC 2500 R (1)	C4 - 400°C ½ h fire rating	6	460	3.20
CVEC 240 H (2)	C4 - 400°C ½ h fire rating	4	465	1.50

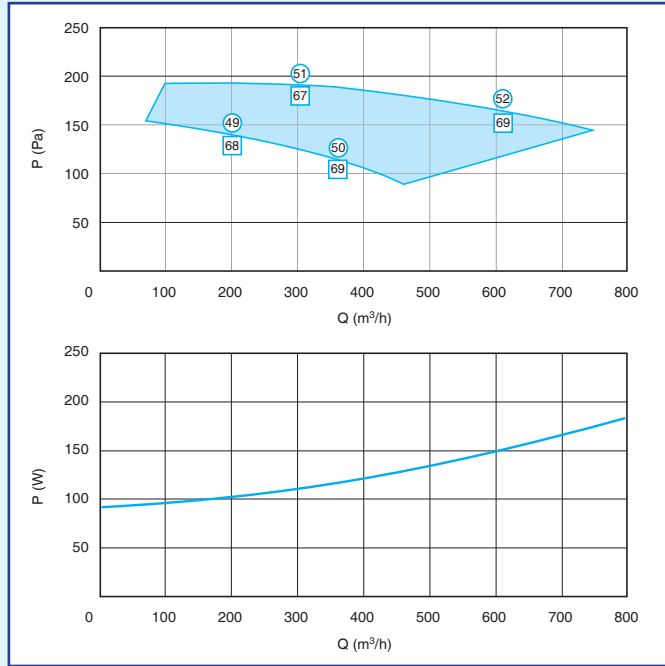
Cabinet Fans

C.VEC

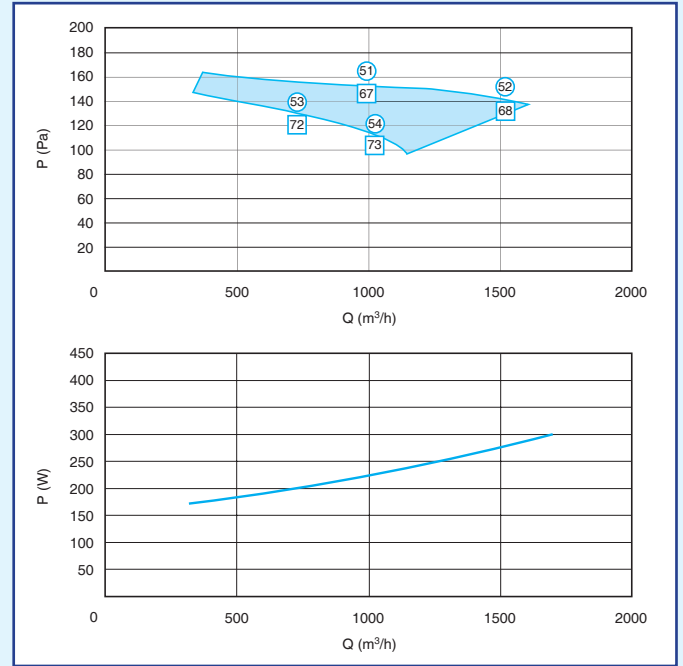
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Lp en dB (A) – Global acoustic pressure levels measured at 4 m from the casing with the air discharge disconnected.
- □ = Lw in dB (A) – Overall acoustic power levels measured in the duct.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

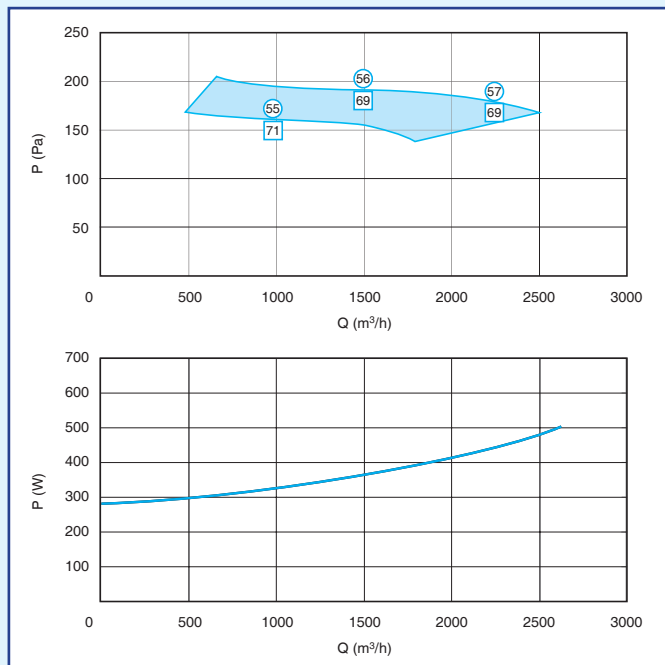
C.VEC 750 R



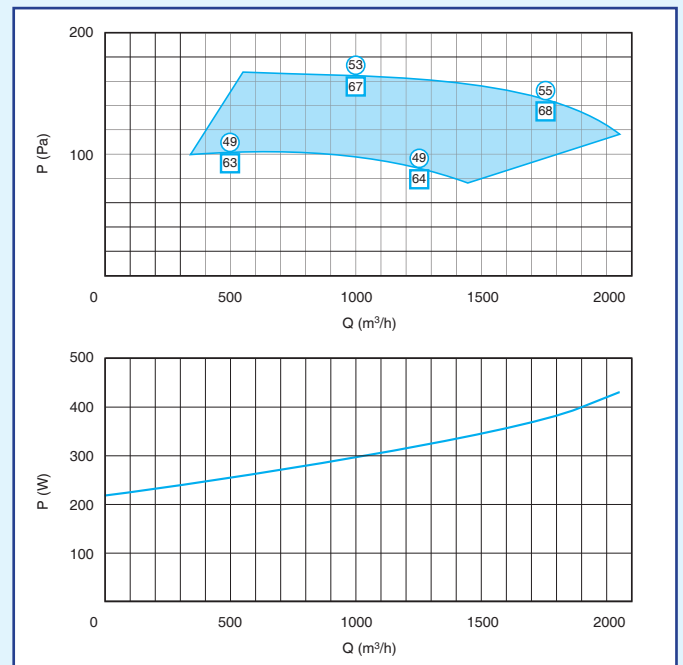
C.VEC 1500 R



C.VEC 2500 R



C.VEC 240 H



Cabinet Fans

Low energy consumption exhaust fans



C.VEC micro-watt +

Green Product



Advantages

- Increased energy savings.
- Rising curve (patented system).
- Airflow adjustment.
- Integrated overvoltage (400 V) and lightning protection.
- Expert level: programmable curve, casing history, and parameter change.

APPLICATION

- Exhaust fan for CMEV systems.
- New apartment buildings and renovation (C4 classification: 400°C/ ½h).

DESCRIPTION

- Galvanised steel casing with airflow separator.
- 1 or 2 circular suction connections depending on the configurations. RV version (vertical discharge) 2 suction connections, RH version (horizontal discharge) 1 suction connection.
- 1 rectangular in-line discharge (RH) or vertical (RV) with optional sleeve.
- Electronic switching motor mounted on a solid galvanised mounting base with a shock absorber device.
- Regulation PCB with a class B (residential) electromagnetic compatibility, pre-programmed and pre-wired.
- Direct drive single inlet impeller.
- Alarm pressure switch and proximity switch mounted.
- Adjustment and intuitive reading console.

INSTALLATION

- Attics / technical areas.
- Interior / exterior.

RANGE R17

Description	Code
C.VEC 1000 RV micro-watt +	11025121
C.VEC 1000 RH micro-watt +	11025122
C.VEC 2500 RV micro-watt +	11025123
C.VEC 2500 RH micro-watt +	11025124

ACCESSORIES R6

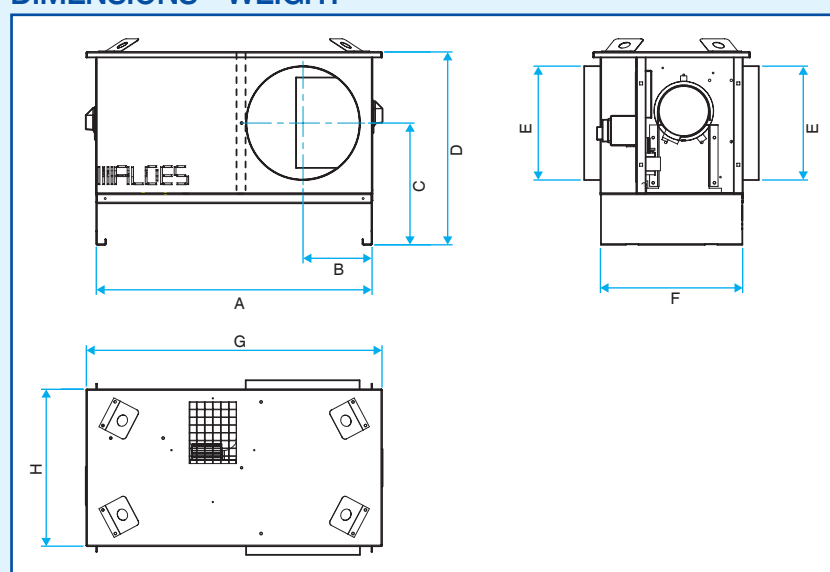
Description	Code
Flexible sleeve (suction)	
MS Pro M0 Ø 315 mm	11094694
MS Pro M0 Ø 400 mm	11094696
Flexible sleeve (discharge)	
Flexible sleeve M0 + frame Ø 315 mm	11025131
Flexible sleeve M0 + frame Ø 400 mm	11025075

ELECTRICAL ACCESSORIES R7

Description	Code
Thermal overload relay 1.6 - 2.5 A	11057052
Thermal overload relay 4 - 6.3 A	11057054

- For more technical details, please consult us.

DIMENSIONS - WEIGHT



TYPE	A (mm)	D (mm)	H (mm)	Discharge (mm)	Ø E (mm)	N° of connections (inlet)	Weight (kg)
C.VEC 1000 RV micro-watt +	763	534	434	171 X 131	315	2	30
C.VEC 1000 RH micro-watt +	763	534	434	182 X 131	315	1	30
C.VEC 2500 RV micro-watt +	901	629	529	196 X 213	400	2	52
C.VEC 2500 RH micro-watt +	901	629	529	215 X 213	400	1	52

M0 FLEXIBLE SLEEVE

Type	Suction Ø (mm)	Discharge Ø (mm)
C.VEC 1000 micro-watt +	315	315 + frame
C.VEC 2500 micro-watt +	400	400 + frame

ELECTRICAL DETAILS

- Electronic switching motor 230V, 50/60 Hz, class B, IP 44.

Type	Fire Classification	Motor speed (rpm)	Rated P (HP)	P max. cons. (W)	Protection current (A)
C.VEC 1000 micro-watt +	C4 - 400°C ½ h fire rating	1800	1/3	320	2
C.VEC 2500 micro-watt +	C4 - 400°C ½ h fire rating	1500	1	735	5

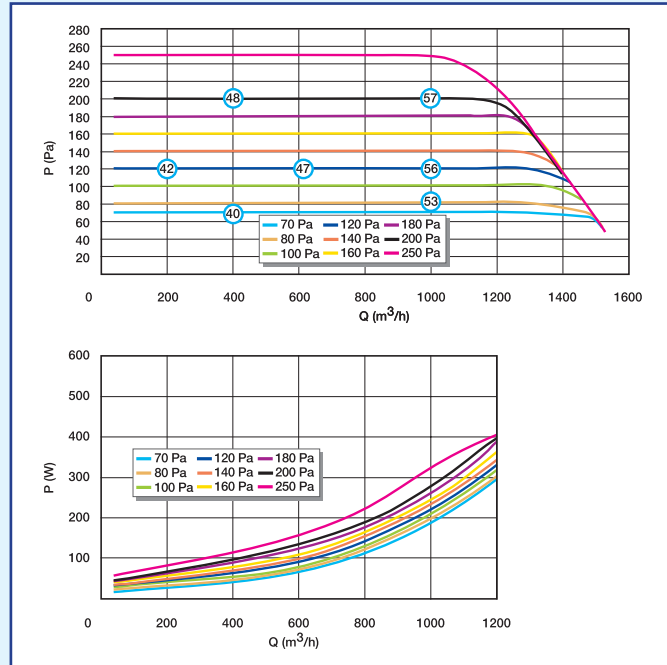
Cabinet Fans

C.VEC micro-watt +

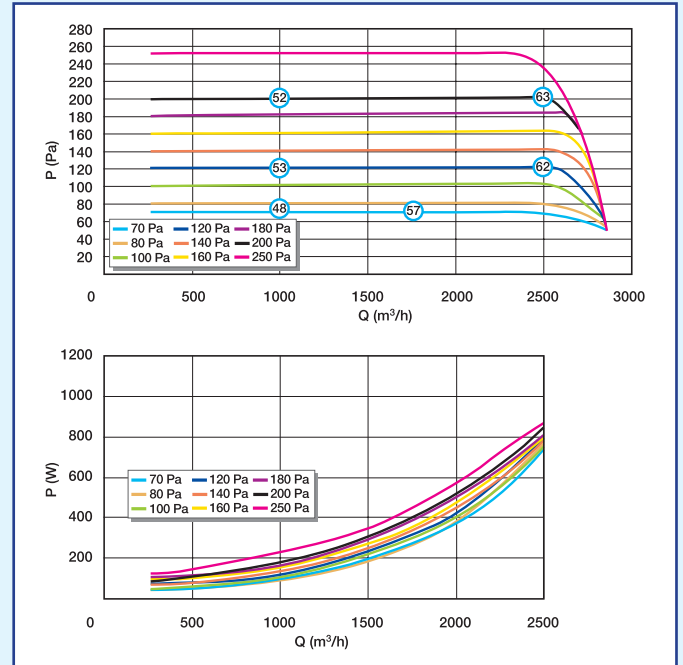
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Lp in dB (A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

C.VEC 1000 micro-watt +



C.VEC 2500 micro-watt +



Cabinet Fans

Exhaust fans



VEC

Advantages

- Easy maintenance.
- Reliable and robust.
- Padlockable proximity disconnecting switch is factory mounted.
- Numerous options for renovation work.

APPLICATION

- Exhaust fan for CMEV systems.
- New apartment buildings and renovation (C4: 400°C - ½ h).

DESCRIPTION

- Fan casing in galvanised steel, 2 suction connections on the sides and 1 discharge connection on the top.
- A forward curved motorised fan unit mounted on slide rails and separated from the casing by anti-vibration mountings, Except for C.VEC 240H = motor fan fixed to the lid a pulley-belt drive, with an adjustable drive pulley.
- IP 55 padlockable proximity disconnecting switch mounted in series.

INSTALLATION

- Attics / technical areas.
- Indoor / outdoor.

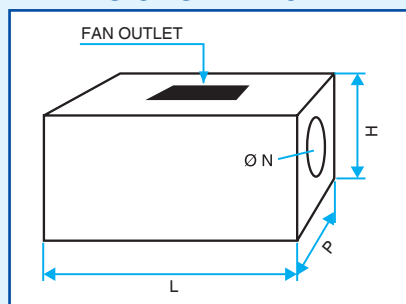
AVAILABLE OPTIONS

- NEW: range with choice of options (for details, please, consult us).
- Circuit breaker mounted, casing with screws, 60 Hz motorisation, 2-speed motorisation, etc. please, consult us.

RANGE R6

Description	Code
C.VEC 240 H (3-phase)	11025137
VEC 271 A	11025103
VEC 271 B	11025104
VEC 271 H	11025138
VEC 321 A	11025105
VEC 321 B	11025106
VEC 321 C	11025107
VEC 321 H	11025141
VEC 382 A	11025108
VEC 382 B	11025109
VEC 382 C	11025110
VEC 382 H	11025139
VEC 452 A	11025111
VEC 452 B	11025112
VEC 452 C	11025113
C.VEC 240 H + pressure (3-phase)	11056020
VEC 271 A + pressure switch	11056003
VEC 271 B + pressure switch	11056004
VEC 271 H + pressure switch	11056021
VEC 321 A + pressure switch	11056005
VEC 321 B + pressure switch	11056006
VEC 321 H + pressure switch	11056022
VEC 321 C + pressure switch	11056007
VEC 382 A + pressure switch	11056008
VEC 382 B + pressure switch	11056009
VEC 382 C + pressure switch	11056010
VEC 382 H + pressure switch	11056023
VEC 452 A + pressure switch	11056011
VEC 452 B + pressure switch	11056012
VEC 452 C + pressure switch	11056013

DIMENSIONS - WEIGHT



Type	L (mm)	H (mm)	D (mm)	Fan outlet (mm)	Ø N (mm)	N° of connections	Weight (Kg)
C.VEC 240 H	780	685	657	250 x 300	315	2	51
VEC 271	1180	675	737	270 x 336	400	2	75
VEC 271 H	1180	675	737	270 x 336	500	2	75
VEC 321	1180	675	737	322 x 400	400	2	80
VEC 321 H	1180	675	737	322 x 400	500	2	80
VEC 382	1411	943	941	455 x 535	500	2	150
VEC 382 H	1411	943	941	455 x 535	630	2	150
VEC 452	1411	943	941	455 x 535	500	2	170

M0 INCOMBUSTIBLE FLEXIBLE SLEEVES

Type	Vacuum cleaning Ø (mm)	Discharge Ø (mm)
CVEC 240 H	315	400 + frame
VEC 271 - 321	400	500
VEC 271 H - 321 H	500	630
VEC 382 - 452	500	630
VEC 382 H	630	800

ELECTRICAL DETAILS

- A 3-phase asynchronous motor, 230/400 V, F class, IP55.
- 50 Hz power supply (60 Hz possible as an option).

Type	Fire classification	No of poles	Rated motor power (kW)	Max. current (A)	Max. power cons. (W)
C.VEC 240 H	C4 - 400°C ½ h fire rating	4	0.37	1.50	425
271 A	C4 - 400°C ½ h fire rating	4	0.37	2.00	500
271 B	C4 - 400°C ½ h fire rating	4	0.55	2.00	775
271 H	C4 - 400°C ½ h fire rating	4	0.37	2.00	500
321 A	C4 - 400°C ½ h fire rating	4	0.37	1.80	650
321 B	C4 - 400°C ½ h fire rating	4	0.55	2.40	750
321 C	C4 - 400°C ½ h fire rating	4	0.75	2.40	1150
321 H	C4 - 400°C ½ h fire rating	4	0.37	1.80	650

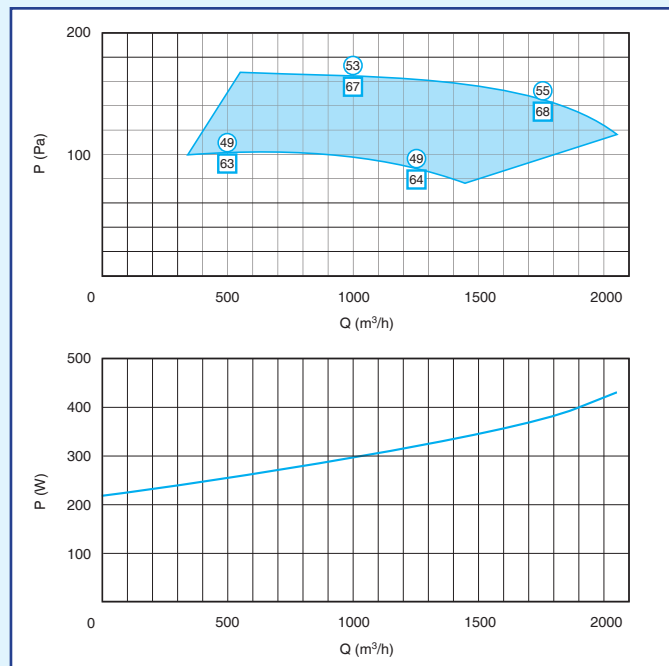
Cabinet Fans

VEC

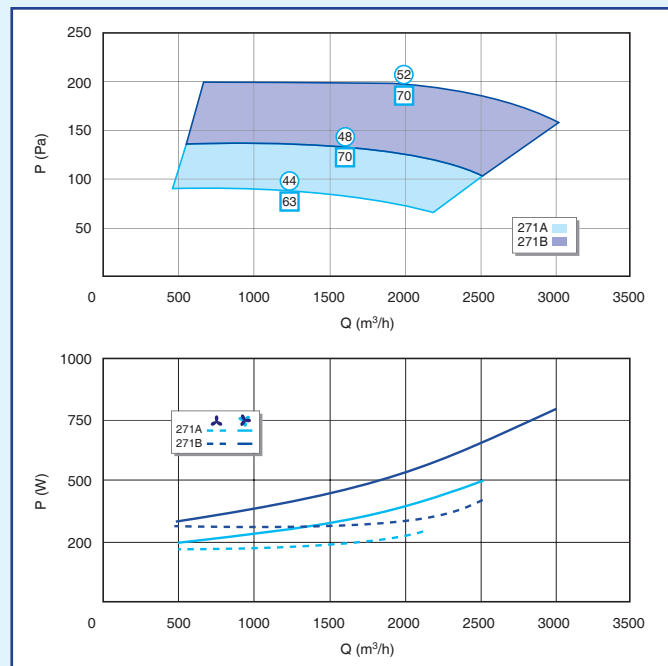
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Lp in dB (A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- □ = Lw in dB (A) – Overall acoustic power levels measured in the duct.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

CVEC 240H



VEC 271



ACCESSORIES R6

Description	Code
MS Pro M0 Ø 315 mm	11094694
MS Pro M0 Ø 400 mm	11094696
Flexible sleeve M0 + frame Ø 400 mm	11025075
Flexible sleeve M0 Ø 500 mm	11025076
Flexible sleeve M0 Ø 630 mm	11025077
Flexible sleeve M0 Ø 800 mm	11025078

ELECTRICAL ACCESSORIES R7 (see pages 359 - 365)

Description	Code
Fixed pressure switch kit - 80 Pa	11025018
VEC adjustable pressure switch kit	11025009
Pressure switch timer (highly recommended in case of turbulent winds)	11025012
Adjustable thermal overload relay in an IP 55 box	

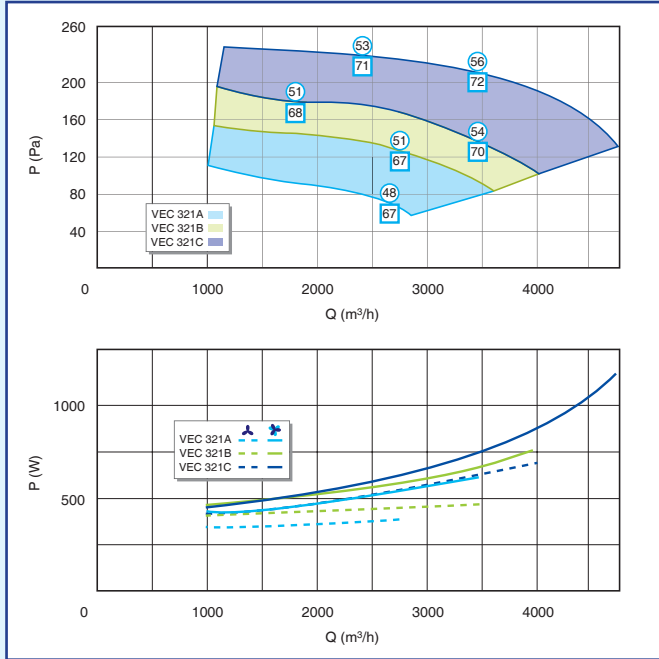
Cabinet Fans

VEC

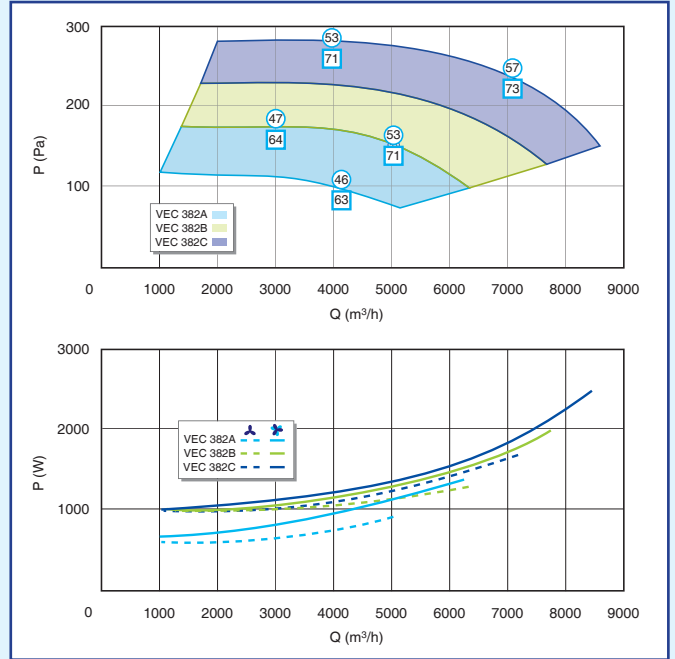
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Lp in dB (A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- □ = Lw in dB (A) – Overall acoustic power levels measured in the duct.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

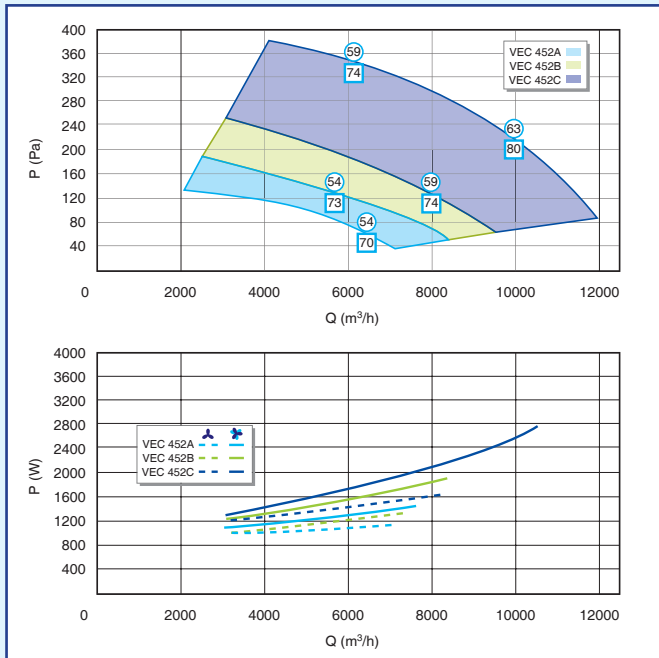
VEC 321



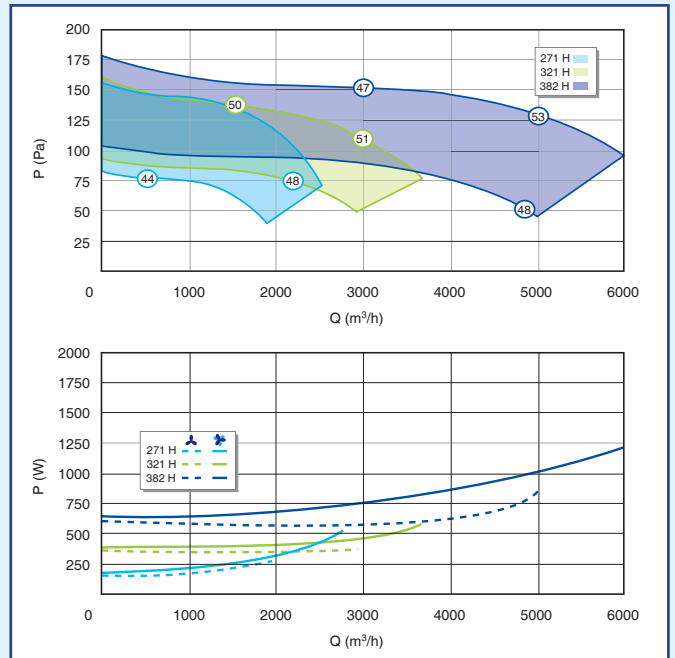
VEC 382



VEC 452



VEC HYGRO



Cabinet Fans

Low energy consumption exhaust fan units

New



Advantages

- ALDES patented system.
- built-in, pre-wired micro-watt unit
- Vertical or in-line exhaust
- C4 certification Ø 160.
- Simple to install and adjust

inoVEC micro-watt

APPLICATION

- Exhaust fan for Mechanical Extract Ventilation systems.
- Residential housing and Commercial premises.
- C4 certification Ø 160 (400°C/ 1/2h).

INSTALLATION

- Indoors/ outdoors.
- Attics/ technical rooms.

DESCRIPTION

- 7 inoVEC micro-watt models offering up to 12 000 m³/h.
- Galvanised metal casing, in versions with vertical discharges (RV) or horizontal, in-line discharges (RH).
- Single-block casing with built-in micro-watt unit, pre-wired and pre-programmed.
- Motor fan unit with belt-driven double inlet fans, fitted on sliding rails.
- Integrated proximity switch and alarm pressure switch.
- Wide, ergonomic doors.
- Anti-vibration mountings. Mounting pads.
- Available in 'screw-fit casing', 'epoxy coated' and '60 Hz' versions. Please consult us.

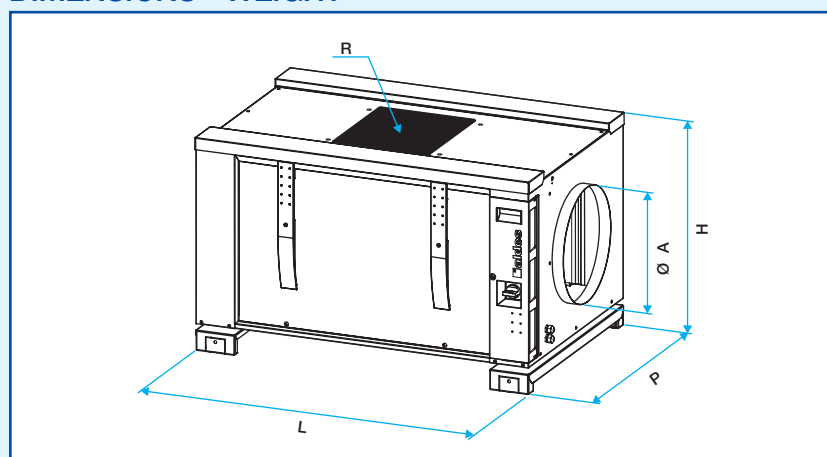
RANGE R6

Description	Code
Vertical discharge version	
inoVEC 3000 micro-watt RV	11059011
inoVEC 4000 micro-watt RV	11059012
inoVEC 5000 micro-watt RV	11059013
inoVEC 6500 micro-watt RV	11059014
inoVEC 8000 micro-watt RV	11059015
inoVEC 10000 micro-watt RV	11059016
inoVEC 12000 micro-watt RV	11059017
Horizontal discharge version	
inoVEC 3000 micro-watt RH	11059031
inoVEC 4000 micro-watt RH	11059032
inoVEC 5000 micro-watt RH	11059033
inoVEC 6500 micro-watt RH	11059034
inoVEC 8000 micro-watt RH	11059035
inoVEC 10000 micro-watt RH	11059036
inoVEC 12000 micro-watt RH	11059037

ACCESSORIES R6

Description	Code
Flexible suction duct sleeve	
MS Pro M0 Ø 400 mm	11094696
MS Pro M0 Ø 500 mm	11094698
Flexible air discharge duct sleeve	
MS Inlet/Outlet Kit M0 Ø 500 mm	11025076
MS Inlet/Outlet Kit M0 Ø 630 mm	11025077
MS Inlet/Outlet Kit M0 Ø 710 mm	11025080

DIMENSIONS - WEIGHT



Type	L (mm)	D (mm)	H (mm)	Discharge (mm)	Ø N (mm)	Weight (Kg)
InoVEC 3000 RV	1280	802	741	280x333 or Ø 500	400	72
InoVEC 4000 RV	1280	802	741	332x396 or Ø 500	400	78
InoVEC 5000 RV	1280	802	741	332x396 or Ø 500	400	77
InoVEC 6500 RV	1460	932	859	394x473 or Ø 630	500	103
InoVEC 8000 RV	1460	932	859	394x473 or Ø 630	500	97
InoVEC 10000 RV	1695	1102	936	467x557 or Ø 630	630	138
InoVEC 12000 RV	1695	1102	936	467x557 or Ø 630	630	144

M0 FLEXIBLE SLEEVE

Type	Suction Ø (mm)	Discharge Ø (mm)
inoVEC 3000 RV - 4000 RV - 5000 RV	400	500
inoVEC 3000 RH - 4000 RH - 5000 RH	500	500
inoVEC 6500 RV - 8000 RV	500	630
inoVEC 6500 RH - 8000 RH	630	630
inoVEC 10000 RV - 12000 RV	630	710
inoVEC 10000 RH - 12000 RH	710	710

ELECTRICAL DETAILS

- Three-phase asynchronous motor 230/400 V, Class F, IP 55 protection.
- Single-phase power supply 230 V - 50 Hz, (except InoVEC 12000, three-phase power supply 230/400 V).

Type	Fire Class.	Max. Airflow (m ³ /h)	Power Supply	Nb of poles	Rated motor power (kW)	Max. current (A)
inoVEC 3000	C4 Ø 160	3300	Single	4	0.55	6.7
inoVEC 4000	C4 Ø 160	4500	Single	4	0.75	7.2
inoVEC 5000	C4 Ø 160	5500	Single	4	1.1	9
inoVEC 6500	C4 Ø 160	7300	Single	4	1.1	9
inoVEC 8000	C4 Ø 160	8300	Single	4	2.2	16
inoVEC 10000	C4 Ø 160	10000	Single	4	2.2	16
inoVEC 12000	C4 Ø 160	13000	3 ph.	4	3	8.5

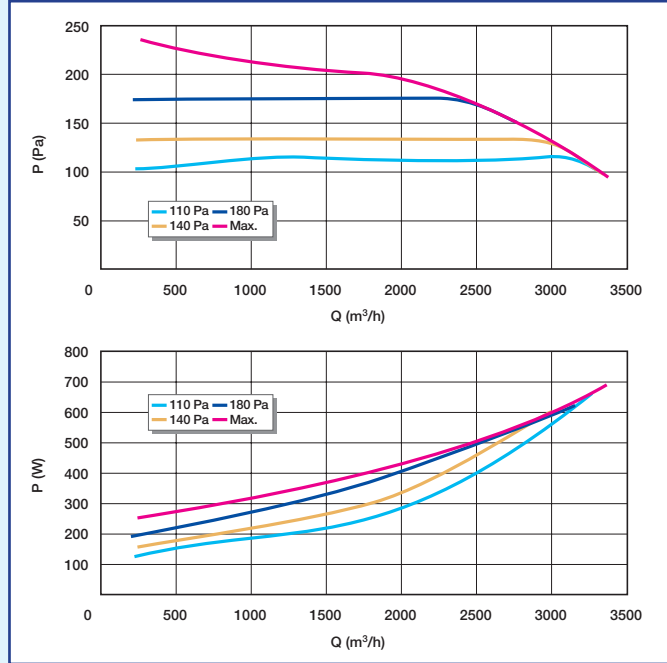
Cabinet Fans

inoVEC micro-watt

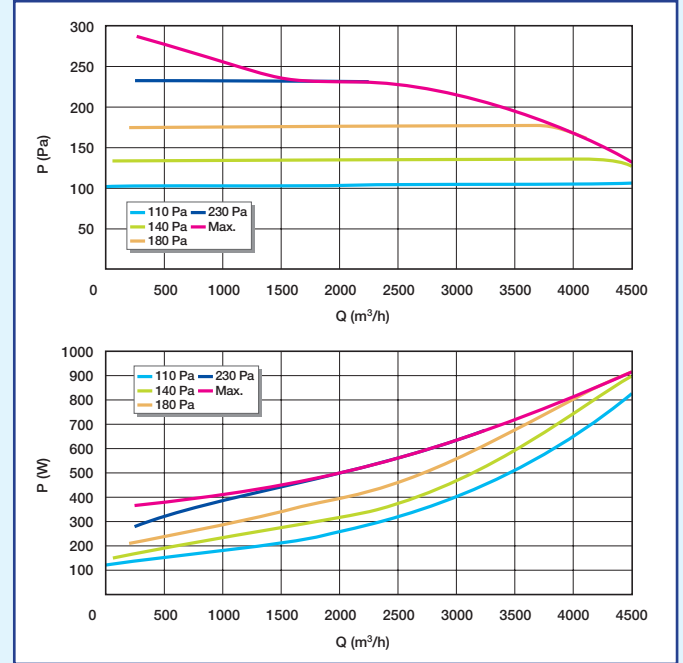
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves established in accordance with French Standard EN ISO 5801.
- ○ = Lp in dB(A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- □ = Lw in dB(A) – Overall acoustic power levels measured in duct.
- P (Pa) = static pressure - P (W) = power consumption.

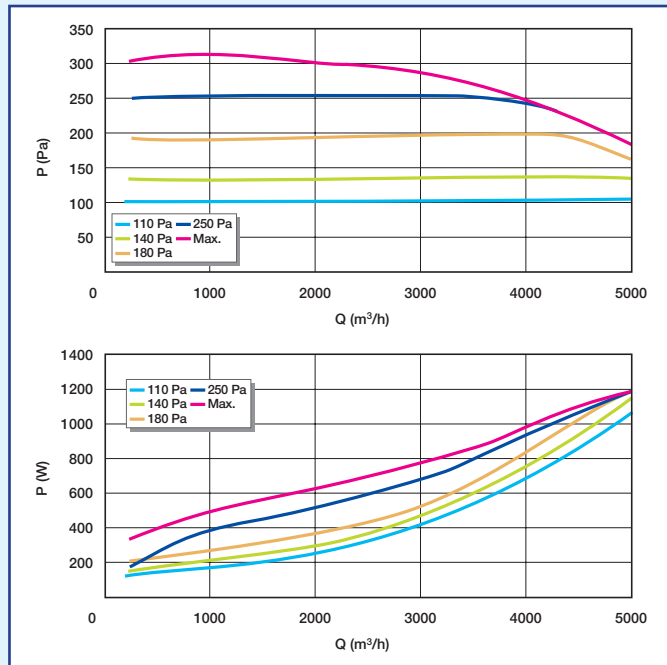
inoVEC 3000 micro-watt



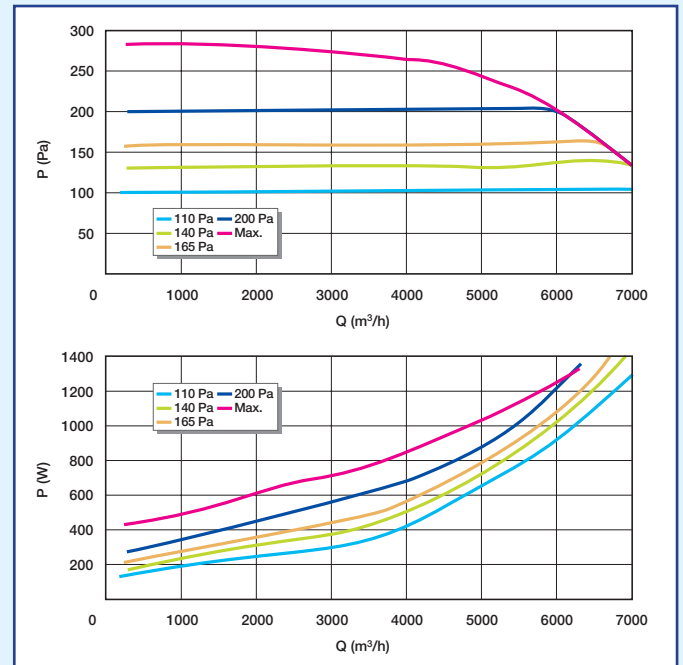
inoVEC 4000 micro-watt



inoVEC 5000 micro-watt



inoVEC 6500 micro-watt



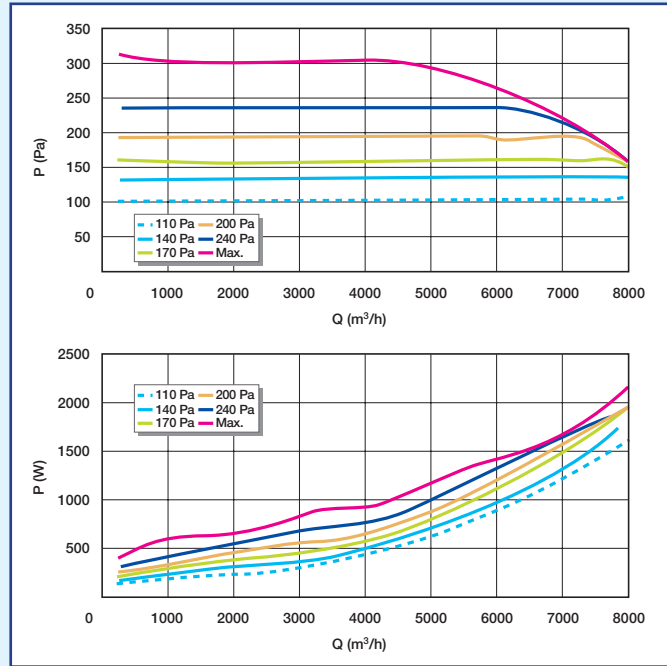
Cabinet Fans

inoVEC micro-watt

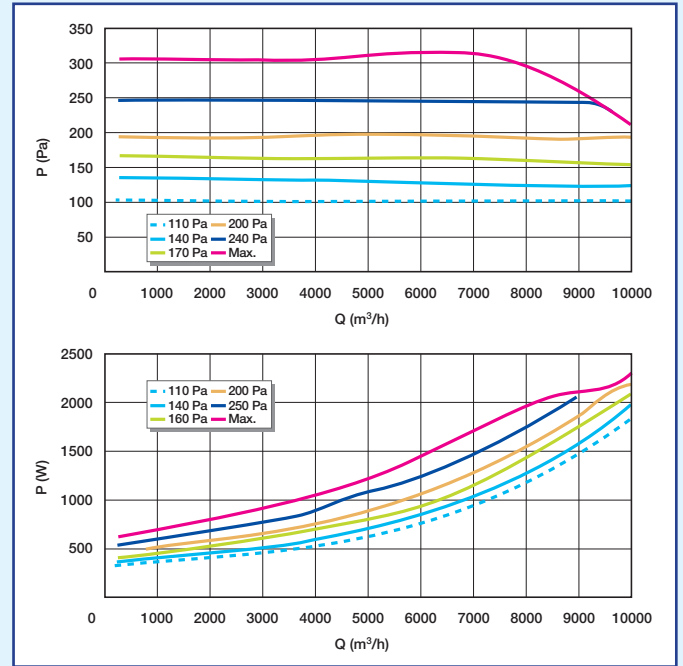
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves established in accordance with French Standard EN ISO 5801.
- ○ = Lp in dB(A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- □ = Lw in dB(A) – Overall acoustic power levels measured in duct.
- P (Pa) = static pressure - P (W) = power consumption.

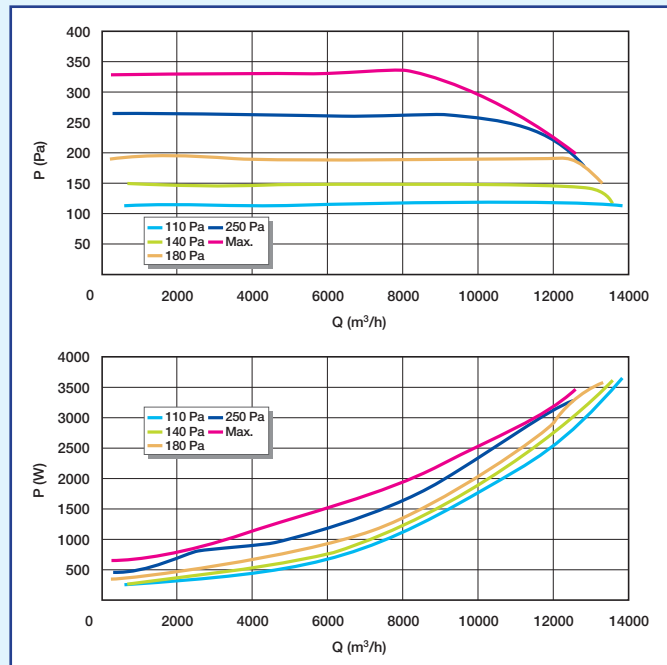
inoVEC 8000 micro-watt



inoVEC 10000 micro-watt



inoVEC 12000 micro-watt



Cabinet Fans

Supply / exhaust fans



VEKITA+



VEKITA+ 450 multi-insulated

Advantages

- Easy installation.
- Indoor/ outdoor.
- Acoustic insulation version.
- Variable speed control.
- Multi-connector version up to VEKITA+ 450.
- VEKITA+ 300 ultra-slim model.

APPLICATION

- Air exhaust / air supply.
- Small commercial premises.
- Variable speed control.

DESCRIPTION

- Casing in galvanised steel with two in-line circular connections. Multi-connector exhaust version up to model 450.
- 2-speed motor with speed control possible on high speed up to VEKITA+ 700.
- Direct drive single inlet impeller.
- Offset electrical connection terminal on the outside of the casing
- Insulated version: interior lining with 25 mm of M1 fire resistance rating acoustic insulation.

NOTE: for acoustic applications, it is highly recommended to use an auto-transformer.

INSTALLATION

- Horizontal / vertical.
- Suspended ceilings / attics / technical areas.
- Indoor / outdoor.

RANGE R6

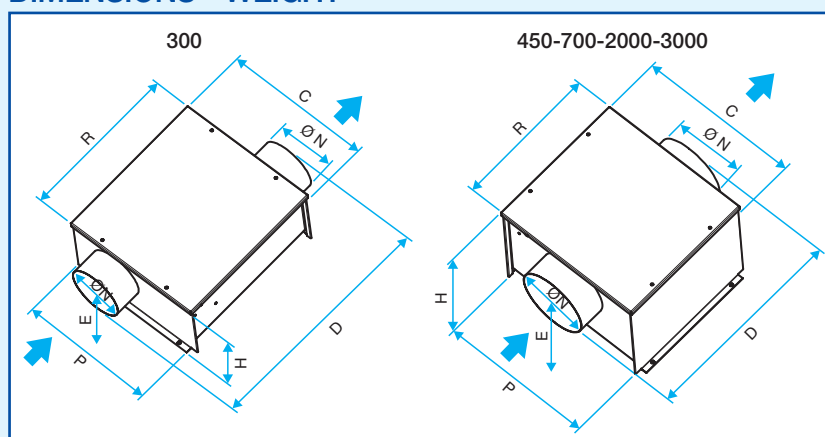
Description	Code
Non-insulated version	
VEKITA+ 300 single	11056014
VEKITA+ 300 multi	11056016
VEKITA+ 450 single	11056040
VEKITA+ 450 multi	11056018
VEKITA+ 700 single	11056042
VEKITA+ 2000 single	11056046
VEKITA+ 3000 single	11056048
Insulated version	
VEKITA+ 450 insulated	11056041
VEKITA+ 450 multi-insulated	11056019
VEKITA+ 700 insulated	11056043
VEKITA+ 2000 insulated	11056047
VEKITA+ 3000 insulated	11056049

VARIABLE SPEED CONTROLLER R7

Description	Code
1.5 A voltage regulator	11086572
3.0 A voltage regulator	11086024
5.0 A voltage regulator	11086013
1.5 A 1-phase autotransformer	11086100
3.5 A 1-phase autotransformer	11086418
5.0 A 1-phase autotransformer	11086417

• For more technical details, please see pages 359 - 365.

DIMENSIONS - WEIGHT



Type	H (mm)	D (mm)	C (mm)	D (mm)	E (mm)	Ø N Ø N1 (mm)	R (mm)	Weight (kg)
VEKITA+ 300	180	332	338	489	93	125	366	6
VEKITA+ 300 multi	267	332	338	489	149	125	366	6
VEKITA+ 450	267	360	347	362	165	160	341	8.5
VEKITA+ 450 multi	267	360	347	362	165	160 4 x 125	341	8.5
VEKITA+ 700	297	360	366	417	170	200	341	9.5
VEKITA+ 2000	400	545	605	597	216	315	535	25
VEKITA+ 3000	545	630	685	602	316	400	535	33

M0 FLEXIBLE SLEEVE

Type	Vacuum cleaning Ø (mm)	Discharge Ø (mm)
VEKITA+ 300	125	125
VEKITA+ 300 multi	4 x 125	125
VEKITA+ 450	160	160
VEKITA+ 450 multi	4 X 125 + 1 X 160	160
VEKITA+ 700	200	200
VEKITA+ 2000	315	315
VEKITA+ 3000	400	400

ELECTRICAL DETAILS

- 1-phase external rotor motor - 230 V /50-60 Hz with integrated thermal protection.
- Class B insulation.

Type	Impeller (mm)	No of poles	Max. power consumption (W)	I. protection (A)
VEKITA+ 300	Backward curve impeller 180	2	55	0.30
VEKITA+ 450	Forward curve impeller 133	2	121	0.63
VEKITA+ 700	Forward curve impeller 133	2	175	1.10
VEKITA+ 2000	Forward curve impeller 216	4	640	3.00
VEKITA+ 3000	Forward curve impeller 240	4	1000	5.00

Cabinet Fans

VEKITA+

ELECTRICAL ACCESSORIES **R7** (see pages 359 - 365)

Description	Code
VEC adjustable pressure switch kit	11025009
1-Speed single-phase proximity switch 0.9 kW	11056196
Thermal overload relay 0.63 to 1.0 A	11056109
Thermal overload relay 2.5 - 4 A	11057053
Thermal overload relay 4 - 6.3 A	11057054
230 V emission coil kit (for the TPO sensor)	11056114

ACCESSORIES **R6**

Description	Code
Air intake flexible sleeve	
MS Pro M0 Ø 125 mm	11094690
MS Pro M0 Ø 160 mm	11094691
MS Pro M0 Ø 200 mm	11094692
MS Pro M0 Ø 315 mm	11094694
MS Pro M0 Ø 400 mm	11094696
Air discharge flexible sleeve	
Flexible sleeve kit M0 Ø 125 mm	11096932
MS Ref. kit M0 Ø 160 mm	11025063
Flexible sleeve kit M0 Ø 200 mm	11025064
Flexible sleeve kit M0 Ø 315 mm	11025066
Flexible sleeve kit M0 Ø 400 mm	11025067
Anti-vibration mountings (set of 4)	11034385
Rain hood + grille Ø 125 mm	11094884
Rain hood + grille Ø 160 mm	11056101
Rain hood + grille Ø 200 mm	11056102
Rain hood + grille Ø 315 mm	11058205
Rain hood + grille Ø 400 mm	11056100

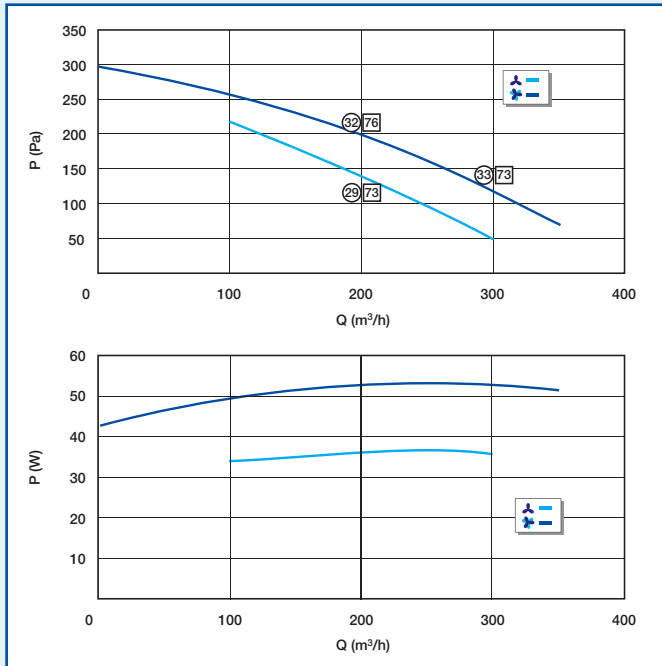
Cabinet Fans

VEKITA+

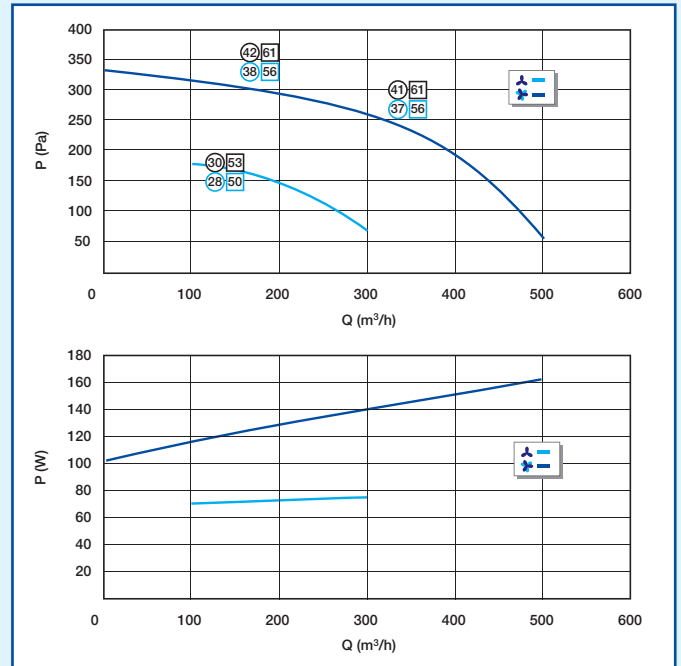
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- The minimum and maximum curves represent the 2-speed for the VEKITA+ 300, 450 and 700 and the lower and upper limits for the VEKITA 2000 and 3000 with speed controller.
- The values in black are those for the non-insulated version, the values in blue are those of the insulated version.
- \odot Lp (dB (A)) = sound pressure level measured at 4 m from the casing, with fan discharge connected.
- \square Lw (dB (A)) = level of acoustic power radiated in the duct under suction.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

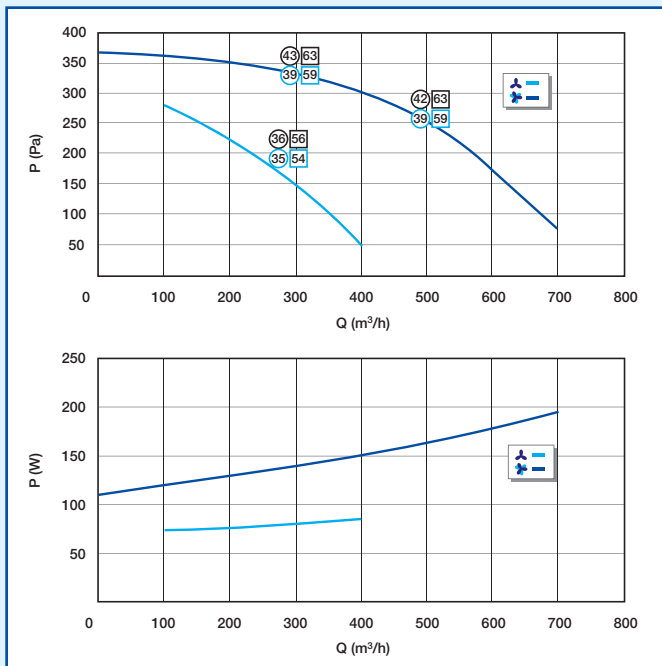
Vekita+ 300



Vekita+ 450



Vekita+ 700



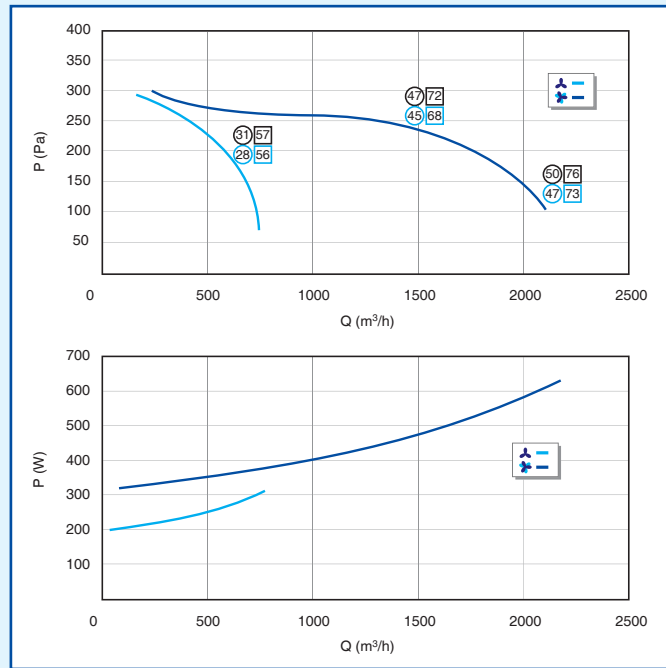
Cabinet Fans

VEKITA +

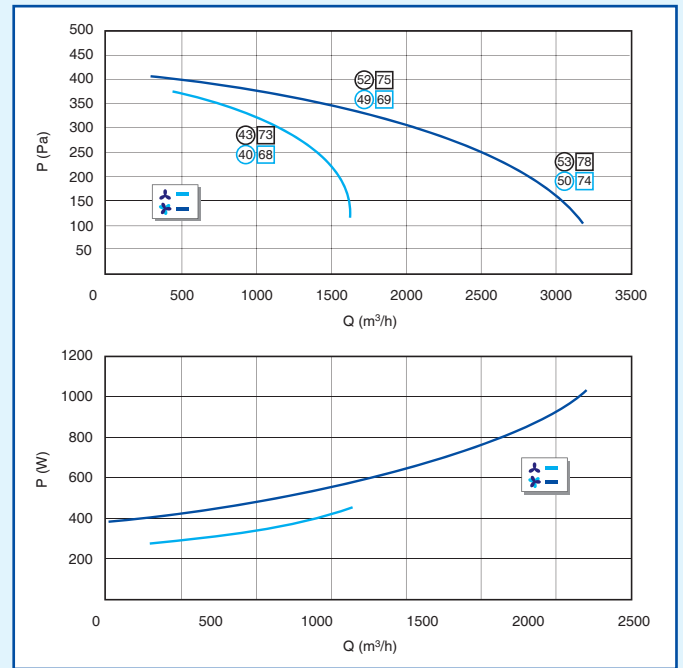
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- The minimum and maximum curves represent the 2-speed for the VEKITA+ 300, 450 and 700 and the lower and upper limits for the VEKITA 2000 and 3000 with speed controller.
- The values in black are those for the non-insulated version, the values in blue are those of the insulated version.
- ○ Lp (dB (A)) = sound pressure level measured at 4 m from the casing, with fan discharge connected.
- □ Lw (dB (A)) = level of acoustic power radiated in the duct under suction.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

Vekita+ 2000



Vekita+ 3000



Cabinet Fans

Supply / exhaust fans with acoustic insulation

New



TVEC Silence



Acoustic insulation, without mineral fibre

Advantages

- Low height modular casing or central unit.
- Very silent in operation.
- 2 speeds with speed control at High Speed.

APPLICATION

- Air exhaust/ air supply.
- Small commercial premises.
- Dry cleaners - funeral parlours.

INSTALLATION

- Horizontal/ vertical.
- Suspended ceilings/ walls.
- Interior/ exterior (without battery).

DESCRIPTION

- Fan in casing or acoustically insulated fan unit in white pre-lacquered sheet metal with Ø 250 mm connections.
- G4, F5, F7 filter with eco-design.
- 2 Sp. motor.
- TVEC 400,600,950: short body.
- TVEC 1800: long body.

STANDARD RANGE R7

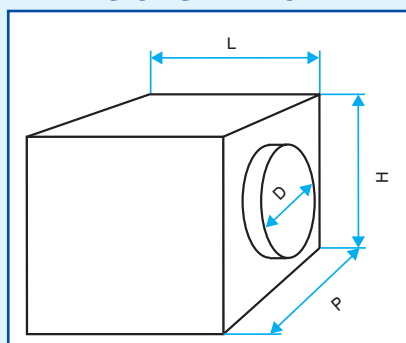
Description	Code
(B) CASING	
TVEC 400 Silence	11056263
TVEC 600 Silence	11056264
TVEC 950 Silence	11056265
TVEC 1800 Silence	11056294
(D) FAN UNIT WITH FILTER	
TVEC 400 Silence + G4	11056269
TVEC 600 Silence. + G4	11056270
TVEC 950 Silence + G4	11056271
TVEC 1800 Silence + G4	11056296

RANGE with a choice of options R7

Description	Code
(D) FAN UNIT	
TVEC Silence without MF	11056299
COMPULSORY EQUIPMENT	
MF 400	OPT57790
MF 600	OPT57788
MF 950	OPT57786
MF 1800	OPT56347
OPTIONS AVAILABLE	
G4 filter	OPT56340
F5 filter + G4 Prefilter (TVEC 400 - 600 - 950)	OPT56230
F5 filter + G4 Prefilter (TVEC 1800)	OPT56350
F7 filter + G4 Prefilter (TVEC 400 - 600 - 950)	OPT56232
F7 filter + G4 Prefilter (TVEC 1800)	OPT56345
Standard active carbon filter + G4 prefilter (except 1800)	OPT56348
Solvent active carbon filter + G4 prefilter (except 1800)	OPT56349
Fitted adjustable pressure switch	OPT56195
Fitted proximity switch	OPT56360

Note: The TVEC 400 and 600 accept the prefilter G4 with the F5 or F7 filter if necessary.

DIMENSIONS - WEIGHT



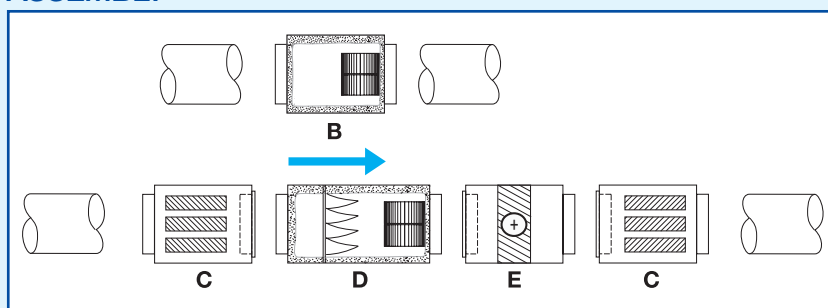
Type	L (mm)	H (mm)	D (mm)	Ø D (mm)	Weight (Kg)
TVEC 400 - 600 - 950 Silence	667	350	571	250	19
TVEC 1800 Silence	963				27
C: Silencer casing	550				15
E: Electrical heating coil	550				15

ELECTRICAL DETAILS

- Asynchronous motor - IP 44 - class F - 230 V Single-phase - 50/60 Hz.
- Thermal Protection on Opening built into the motor in parallel with the automatic reset winding (thermal protection on opening with exposed wires).

Type	Max. airflow (m ³ /h)	Impeller	Rated motor I. (A)	Max. I. (A)	Power cons. (W)
TVEC 400 Silence	400	Forward curved	0,7	0,7	150
TVEC 600 Silence	600		0,9	0,9	200
TVEC 950 Silence	950	Backward curved	1,55	1,6	360
TVEC 1800 Silence	1800		1,55	1,6	350

ASSEMBLY



Cabinet Fans

TVEC Silence

ELECTRICAL ACCESSORIES ^{R7} (see p. 359 - 365)

Description	Code
VARIABLE SPEED CONTROLLER	
1.5 A voltage regulator	11086572
3.0 A voltage regulator	11086024
1.5 A single-phase autotransformer	11086100
Single-phase electronic controller 5 A	11057080
GENERAL	
Thermal overload relay 0.63 to 1.0 A	11056109
Thermal overload relay 1.0 to 1.6 A	11056184
Auxiliary contact kit for thermal overload relay	11056171
230 V emission coil kit (for the TPO sensor)	11056114
ON/OFF switch for TVEC GI & Silence	11056156
ON/OFF switch + 2 Sp. for TVEC GI & Silence	11056157

ACCESSORIES ^{R7}

Description	Code
MS Pro M0 Ø 250 mm	11094693
Rain hood + grille Ø 250 ^{R6}	11056373
Short fixing cross member TVEC G1 (casing=2) & Silence (400-600-950 = 2 / 1800 = 3)	11056152
TVEC wall supplement (vertical wall mounting)	11056153
(E) HEATING COIL CASING MODULE	
SINGLE PHASE elec. heating coil 1.5 kW	11056301
Regulated SINGLE PHASE elec. heating coil 1.5 kW	11056353
SINGLE PHASE elec. heating coil 3 kW	11056321
Regulated SINGLE PHASE elec. heating coil 3 kW	11056400
SINGLE PHASE elec. heating coil 4.5 kW	11056358
Regulated SINGLE PHASE elec. heating coil 4.5 kW	11056300
SINGLE PHASE elec. heating coil 6 kW	11056322
Regulated SINGLE PHASE elec. heating coil 6 kW	11056297
SINGLE PHASE elec. heating coil 9 kW	11056323
Regulated SINGLE PHASE elec. heating coil 9 kW	11056356
3-Phase elec. heating coil 13.5 kW	11056352
3-Phase regulated elec. heating coil 13.5 kW	11056357
Hot water heating coil 3.8 kW	11056306
Hot water heating coil 8 kW	11056326
Hot water heating coil 16 kW	11056298
REGULATED ELECTRICAL COIL ACCESSORIES	
Duct sensor +25/+90°C	11090900
Duct sensor -10/+35°C	11090902
Room temperature control thermostat	11090903
Weekly prog. thermostat 230 V	11090904
(C) SILENCER CASING MODULE	
Silencer baffles for 181/201 and Silence	11056311

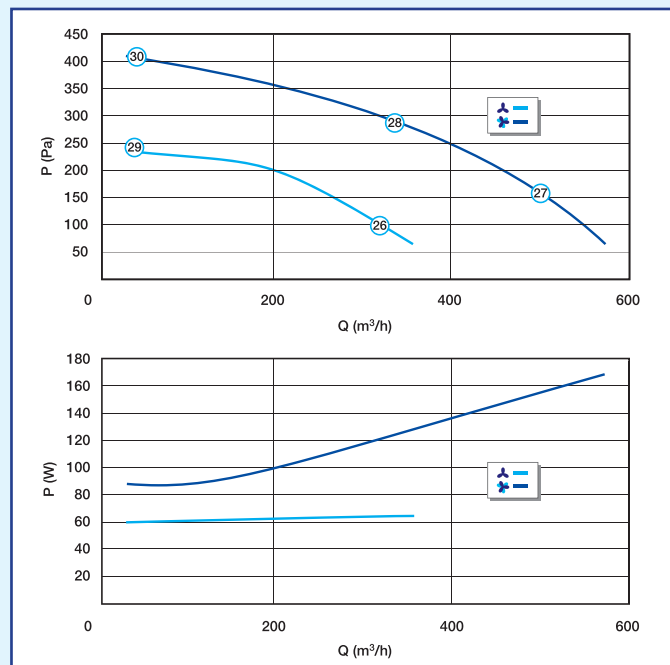
Cabinet Fans

TVEC Silence

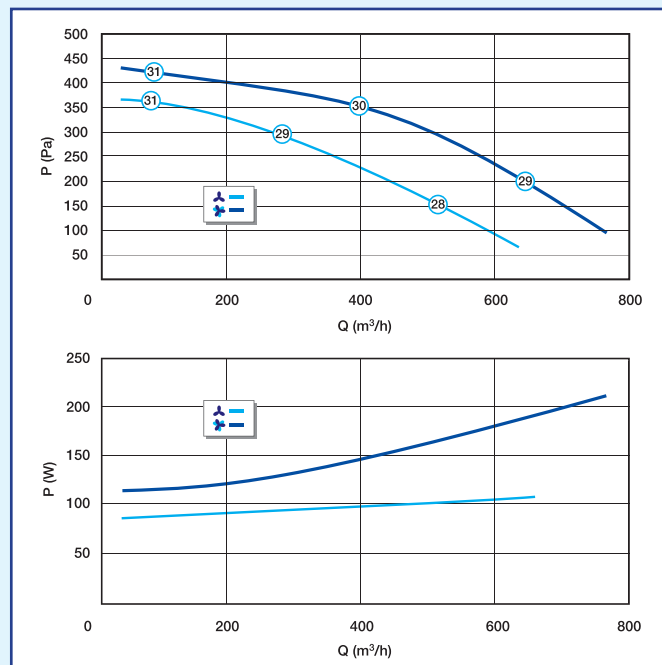
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Max. power consumption.

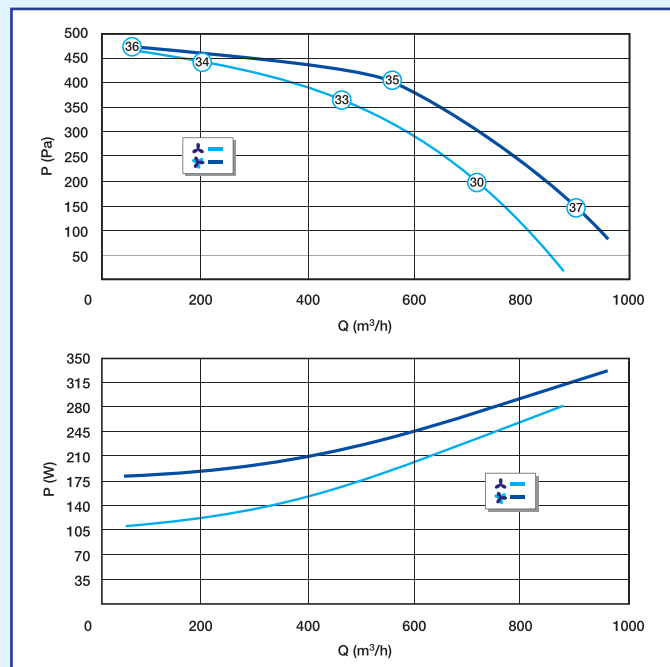
TVEC 400 Silence



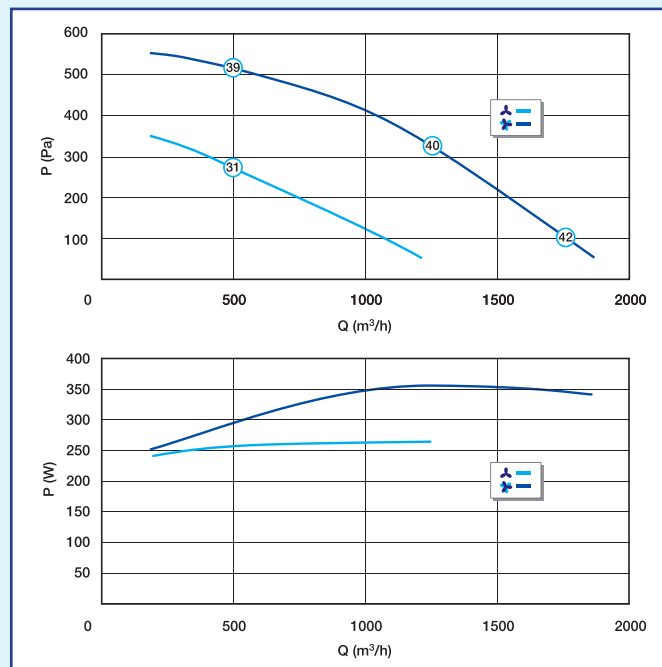
TVEC 600 Silence



TVEC 950 Silence



TVEC 1800 Silence



Cabinet Fans

Double skin supply / exhaust fans



VEKITA SILENCE

Advantages

- Double skin insulation.
- Aluminium impeller.
- Variable speed control.
- Maintenance-free.

APPLICATION

- Air exhaust / air supply.
- Residential / commercial premises.

INSTALLATION

- Horizontal / vertical.
- Suspended ceilings.
- Indoor / outdoor.

DESCRIPTION

- Backward curved centrifugal fan.
- Galvanized steel sheet housing designed to function as a grease pan.
- Aluminium impeller except galvanized steel impeller for VS 2300.
- 40 mm insulation, double skin.
- With bottom pan.
- Variable spigot (available upon request).
- Long-life ball bearings.
- IP 54.

RANGE

Description	Code
VS 2300 - 230 V	
VS 3400 - 230 V	
VS 3300 - 230 V	
VS 5400 - 230 V	
VS 7400 - 230 V	

ELECTRICAL ACCESSORIES

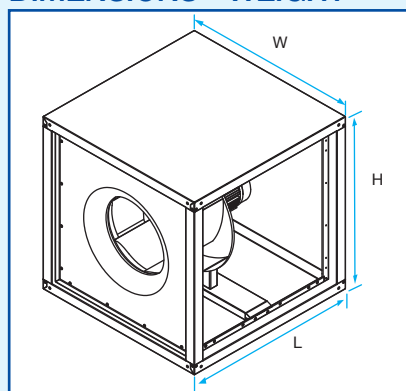
- 1-phase voltage regulator: please, see page 359.
- 1-phase electronic speed controller: please, see page 360.
- 1-phase autotransformer: please, see page 360.
- 3-phase autotransformer: please, see page 361.
- Frequency controller for 1-speed, 3-phase fans: please, see page 361.

PRE-SELECTION OF TYPE OF VEKITA SILENCE

- The airflows correspond to a pressure loss of 200 Pa.

VS 7400	7400m ³ /h		
VS 5400	5400m ³ /h		
VS 3400	3400m ³ /h		
VS 3300	3300m ³ /h		
VS 2300	2300m ³ /h		
q (m ³ /h)			

DIMENSIONS - WEIGHT



Type	L (mm)	W (mm)	H (mm)	Weight (kg)
VS 2300	500	500	500	36.0
VS 3400	500	500	500	38.0
VS 3300	700	700	700	65.0/61.0
VS 5400	700	700	700	60.5/58.0
VS 7400	700	700	700	70.5/71.0

ELECTRICAL DETAILS

Type	I (A)	U (V)	f (Hz)	P (W)	No. of Poles
VS 2300	3.1	230	50	660	2
VS 3400	4.2	230	50	960	2
VS 3300	3.0/1.2	230/400	50	570/500	4
VS 5400	4.1/1.8	230/400	50	870/840	4
VS 7400	5.7/3.7	230/400	50	1280/1610	4

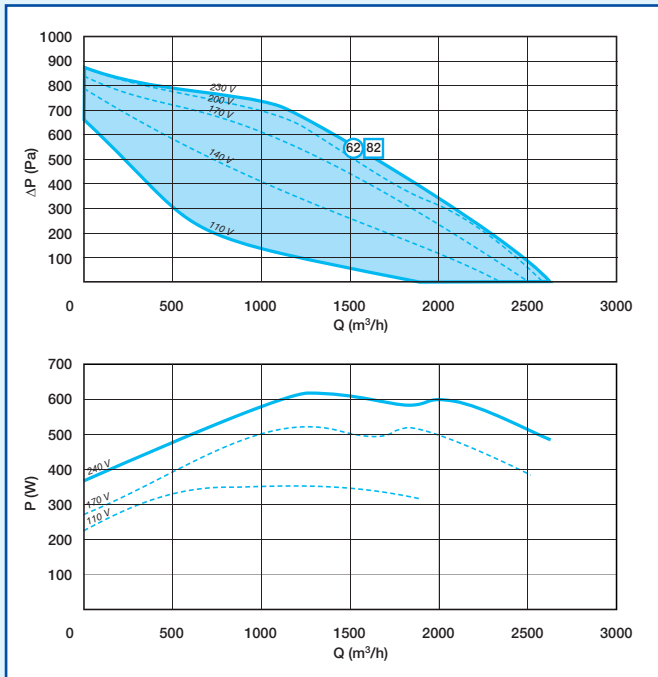
Cabinet Fans

VEKITA SILENCE

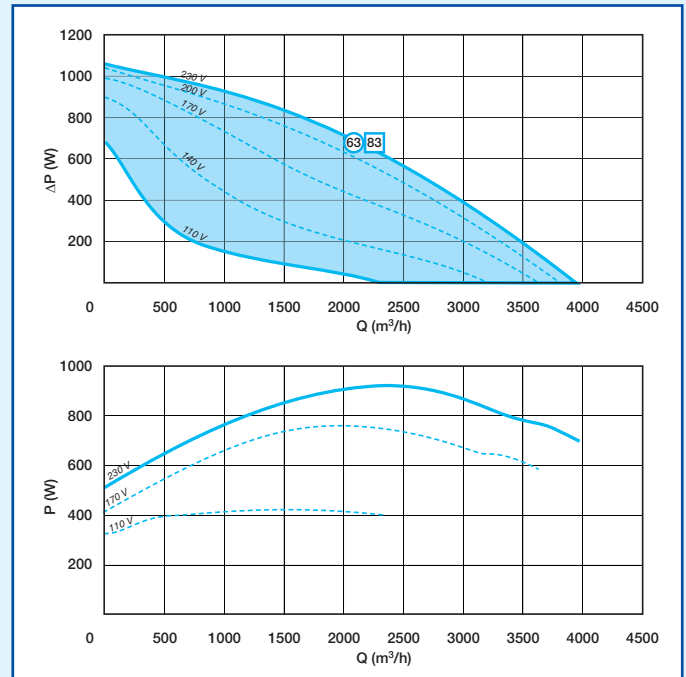
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- In Pressure vs. Flow graph, the minimum, maximum and intermediate curves represent the 5-speed for the VEKITA SILENCE 2300, 3400, 3300, 5400, 7400 and 9300 with the speed controller.
- \circ L_p (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- \square L_w (dB (A)) = Sound power level radiated in the duct under suction.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

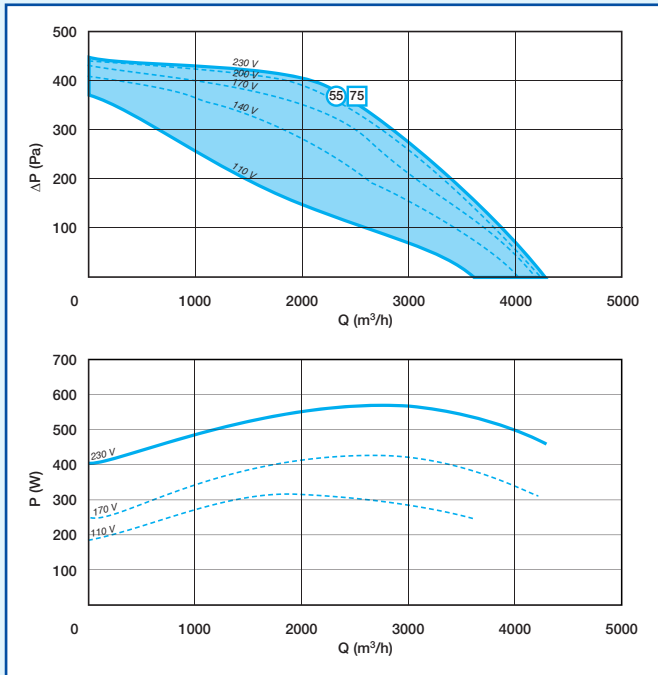
VS 2300 - 230V



VS 3400 - 230V



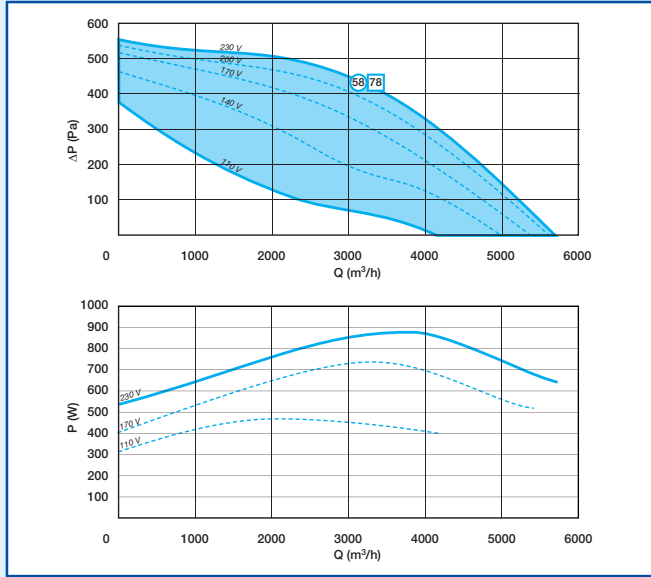
VS 3300 - 230V



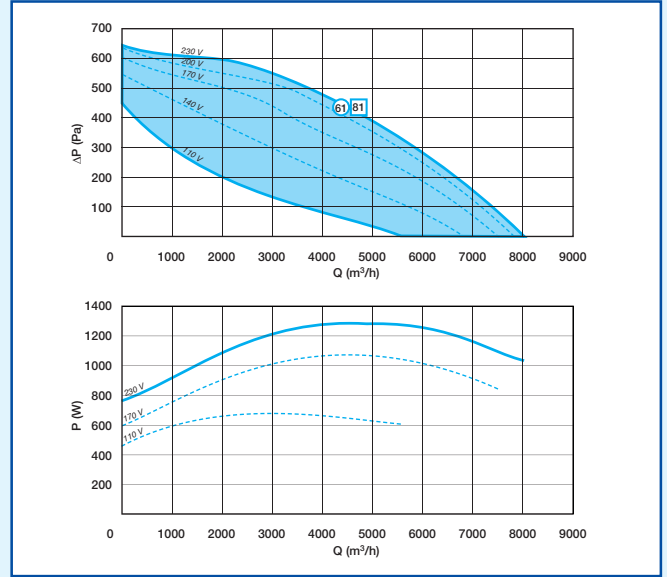
Cabinet Fans

VEKITA SILENCE

VS 5400 - 230V



VS 7400 - 230V



Cabinet Fans

Double skin supply / exhaust fans for kitchens



VEKITA SILENCE-O

APPLICATION

- Air exhaust / air supply.
- Ideal for kitchens.

DESCRIPTION

- Backward curved centrifugal fan.
- Galvanized steel sheet housing designed to function as a grease pan.
- Aluminium impeller.
- 40 mm insulation, double skin.
- With bottom pan.
- Motor separated from air stream through built-in bulhead.
- Outlet is right-angled to Inlet.
- Long-life ball bearings.
- IP 54.

INSTALLATION

- Horizontal / vertical.
- Suspended ceilings.
- Indoor / outdoor.

RANGE

Description	Code
VSO 2300 - 230 V	
VSO 3400 - 230 V	
VSO 3200 - 230 V	
VSO 4700 - 230 V	
VSO 6700 - 230 V	

ELECTRICAL ACCESSORIES

- 1-phase voltage regulator: please, see page 359.
- 1-phase electronic speed controller: please, see page 360.
- 1-phase autotransformer: please, see page 360.

Advantages

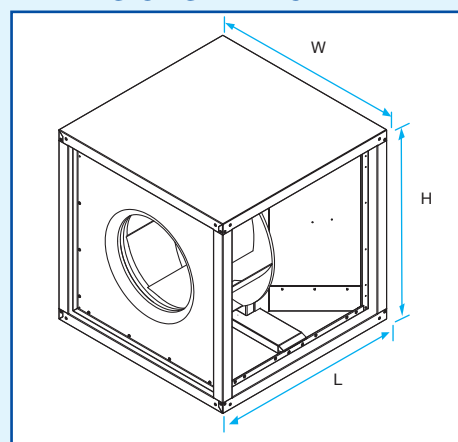
- Motor outside air stream.
- Ideal for kitchens.
- Double skin insulation.
- Aluminium impeller.
- Variable speed control.
- Maintenance-free.

PRE-SELECTION OF TYPE OF VEKITA SILENCE-O

The airflows correspond to a pressure loss of 200 Pa.

VSO 6700	6 700 m ³ /h		
VSO 4700	4 700 m ³ /h		
VSO 3400	3 400 m ³ /h		
VSO 3200	3 200 m ³ /h		
VSO 2300	2 300 m ³ /h		
Q (m ³ /h)			

DIMENSIONS - WEIGHT



Type	L (mm)	W (mm)	H (mm)	Weight (kg)
VSO 2300	500	500	500	35.5
VSO 3400	500	500	500	37.0
VSO 3200	700	700	700	58.5
VSO 4700	700	700	700	59.5
VSO 6700	700	700	700	71.5

ELECTRICAL DETAILS

Type	I (A)	U (V)	f (Hz)	Lwa5 (dB (A))	P (W)	No. of Poles
VSO 2300	3.1	230	50	78	660	2
VSO 3400	4.2	230	50	83	960	2
VSO 3200	3.0	230	50	72	570	4
VSO 4700	4.1	230	50	75	870	4
VSO 6700	5.7	230	50	80	1280	4

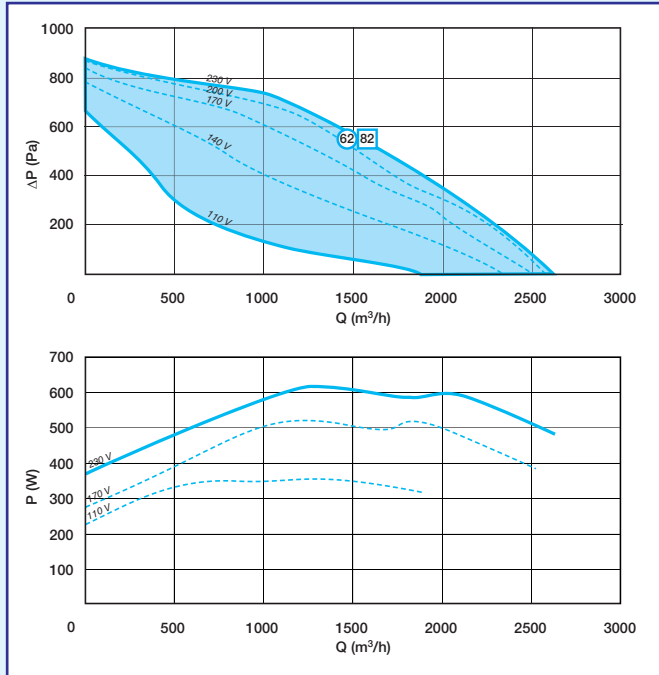
Cabinet Fans

VEKITA SILENCE-O

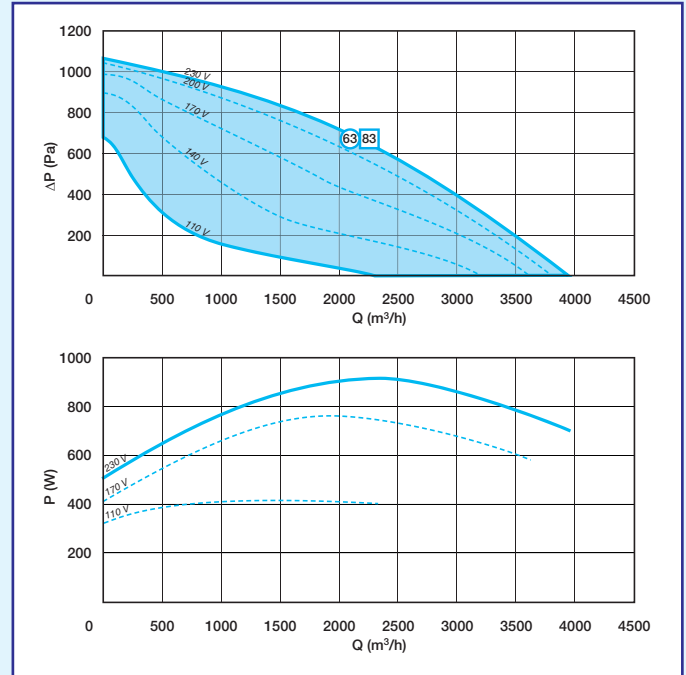
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- In Pressure vs. Flow graph, the minimum, maximum and intermediate curves represent the 5-speed for the VEKITA SILENCE-O 2300, 3400, 3200, 4700 and 6700 with the speed controller.
- ○ Lp (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- □ Lw (dB (A)) = Sound power level radiated in the duct under suction.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

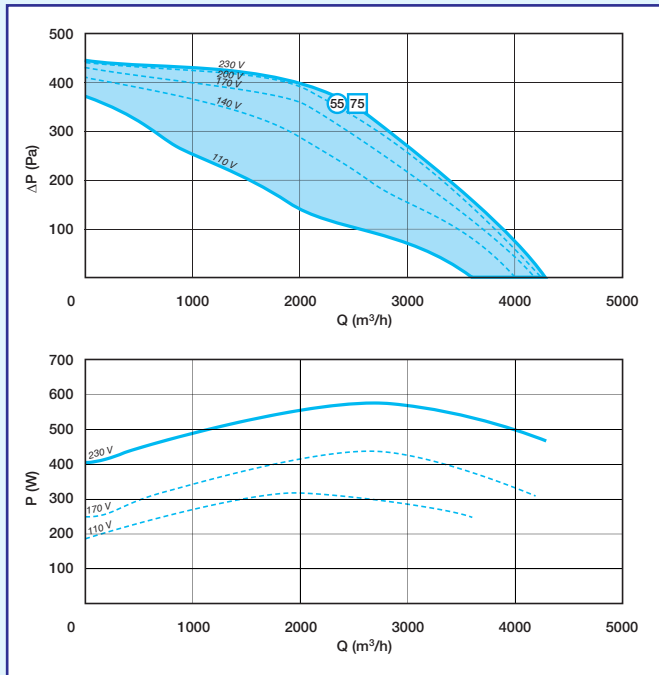
VSO 2300 - 230V



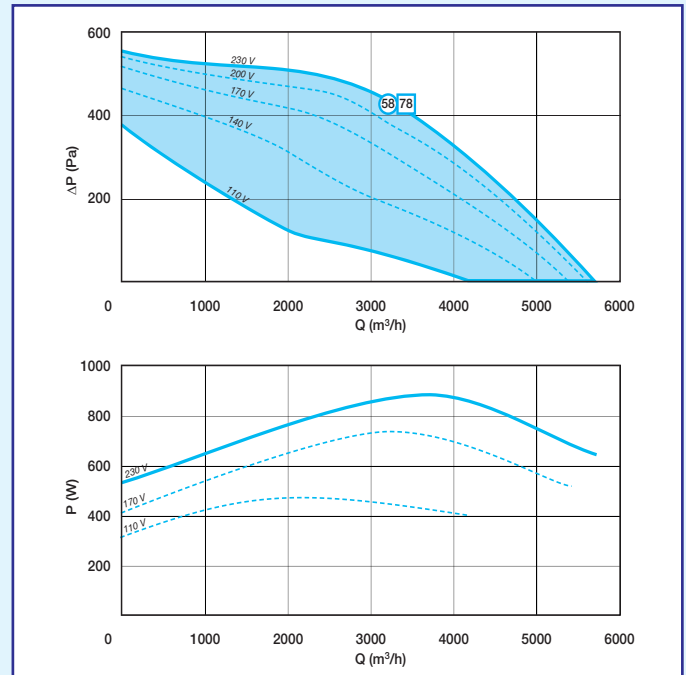
VSO 3400 - 230V



VSO 3200 - 230V



VSO 4700 - 230V



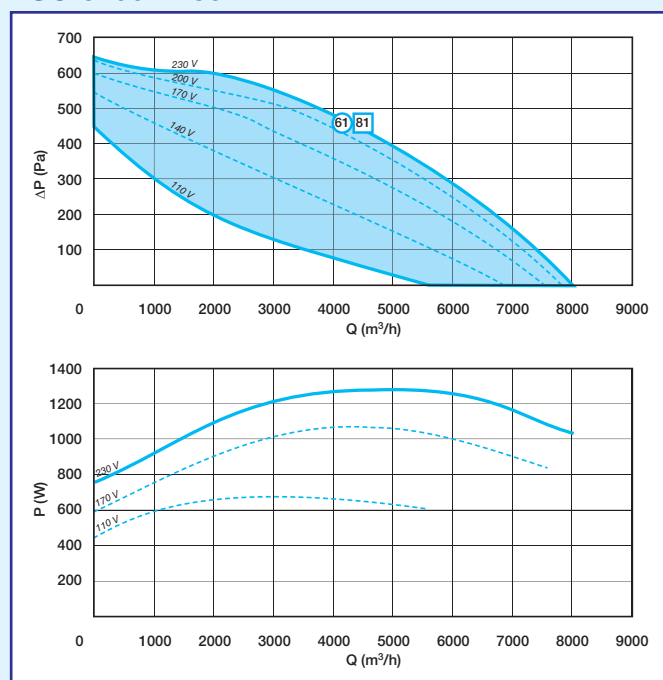
Cabinet Fans

VEKITA SILENCE-O

AIRFLOW AND ACOUSTIC DETAILS

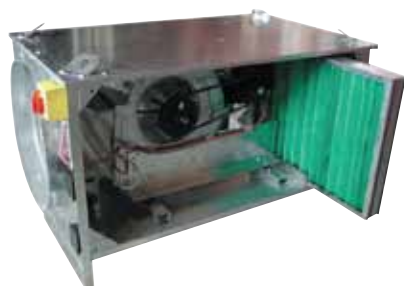
- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- In Pressure vs. Flow graph, the minimum, maximum and intermediate curves represent the 5-speed for the VEKITA SILENCE-O 2300, 3400, 3200, 4700 and 6700 with the speed controller.
- ○ Lp (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- □ Lw (dB (A)) = Sound power level radiated in the duct under suction.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

VSO 6700 - 230V



Cabinet Fans

Supply / exhaust fans



VIK

APPLICATION

- Air exhaust / air supply, up to 12000 m³/h.
- Medium to large commercial and industrial premises.
- Airflow adjustment.

DESCRIPTION

- Casing in galvanised steel with in-line circular connections.
- Forward curved fan mounted on slide rails and separated from the casing by anti-vibration mountings.
- Pulley-belt drive, with adjustable motorised pulley (adjustment of the fan speed).
- An inner filter rail (optional G4 or F5 filter).

INSTALLATION

- Indoor/ outdoor.
- New and renovation.

STANDARD RANGE **R6**

Description	Code
1-speed + fitted switch	
VIK 4000 - 1-speed + TPO + IP	11028031
VIK 5000 - 1-speed + TPO + IP	11028032
VIK 7000 - 1-speed + TPO + IP	11028033
VIK 8500 - 1-speed + TPO + IP	11028034
2-speed + fitted switch	
VIK 4000 - 2-speed + TPO + IP	11028035
VIK 5000 - 2-speed + TPO + IP	11028036
VIK 7000 - 2-speed + TPO + IP	11028037
VIK 8500 - 2-speed + TPO + IP	11028038

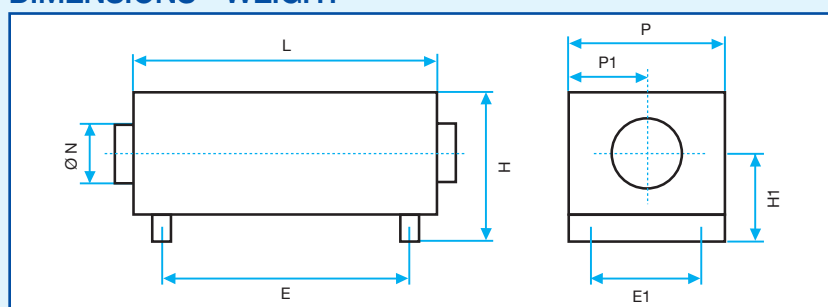
RANGE with a choice of options **R6**

Description	Code
Casing + motorised fan	
VIK n°1 without MF	11028005
MF 4000 1-speed 50/60 Hz	OPT28006
MF 4000 2-speed	OPT28007
MF 5000 1-speed 50/60 Hz	OPT28008
MF 5000 2-speed	OPT28009
VIK n°2 without MF	11028010
MF 7000 1-speed 50/60 Hz	OPT28011
MF 7000 2-speed	OPT28012
MF 8500 2-speed 50/60 Hz	OPT28013
MF 8500 2-speed	OPT28014
VIK n°3 without MF	11028060
MF 12000 2-speed 50/60 Hz	OPT28742
Aquilone N°4	OPT28741
Available options	
G4 Filter VIK n°1	OPT28015
G4 Filter VIK n°2 and 3	OPT28018
F5 Filter VIK n°1	OPT28016
F5 Filter VIK n°2 and 3	OPT28019
Insulation VIK n°1	OPT28749
Insulation VIK n°2 and 3	OPT28748

Advantages

- Connections in-line.
- Optional integrated filter.
- Airflow between 100 and 12000 m³/h.
- Motorised fan unit mounted on a slide rail.
- Adjustable drive pulley in series.

DIMENSIONS - WEIGHT



Type	L (mm)	D (mm)	H (mm)	E (mm)	P1 (mm)	H1 (mm)	E1 (mm)	Ø N (mm)	Weight (kg)
VIK 4000	1161	737	675	1131	304	387	600	500	77
VIK 5000	1161	737	675	1131	304	387	600	500	80
VIK 7000	1406	941	943	1378	471	522	717	630	121
VIK 8500	1406	941	943	1378	471	522	717	630	127
VIK 12000	1406	941	943	1378	471	522	717	630	150

M0 INCOMBUSTIBLE FLEXIBLE SLEEVES

Type	Vacuum cleaning Ø (mm)	Discharge Ø (mm)
VIK 4000 - 5000	500	500
VIK 7000 to 12000	630	630

ELECTRICAL DETAILS

- IP 55 asynchronous motor, Class F, 230/400 V 3-phase - 50 Hz.
- Thermal Protection on opening built into the motor in parallel with the automatic reset winding (TPO with exposed wires).
- For the connection of the TPO, use the proposed tripping coil accessory with the thermal overload relay disconnecting switches, please see page 359 - 361.
- For operating and protection of the 2-speed fans, please see pages 359 - 361.

Type	Rated motor power (kW)	No. of poles	Max. power consumption (W)	Max. I. cons. (A)
VIK 4000 - 1-speed	1.1	4	1400	2.7
VIK 5000 - 1-speed	1.5	4	2400	4.5
VIK 7000 - 1-speed	1.8	4	2800	5.0
VIK 8500 - 1-speed	3.0	4	4800	8.0
VIK 12000 - 1-speed	4.0	4	6020	10.7
VIK 4000 - 2-speed	1.1 / 0.18	4/8	1500	2.8 / 1.0
VIK 5000 - 2-speed	1.5 / 0.25	4/8	2600	4.5 / 1.7
VIK 7000 - 2-speed	2.2 / 0.37	4/8	3500	5.5 / 2.2
VIK 8500 - 2-speed	3.0 / 0.55	4/8	4800	8 / 3.0
VIK 12000 - 2-speed	4.0 / 0.75	4/8	6020	10.7 / 3.7

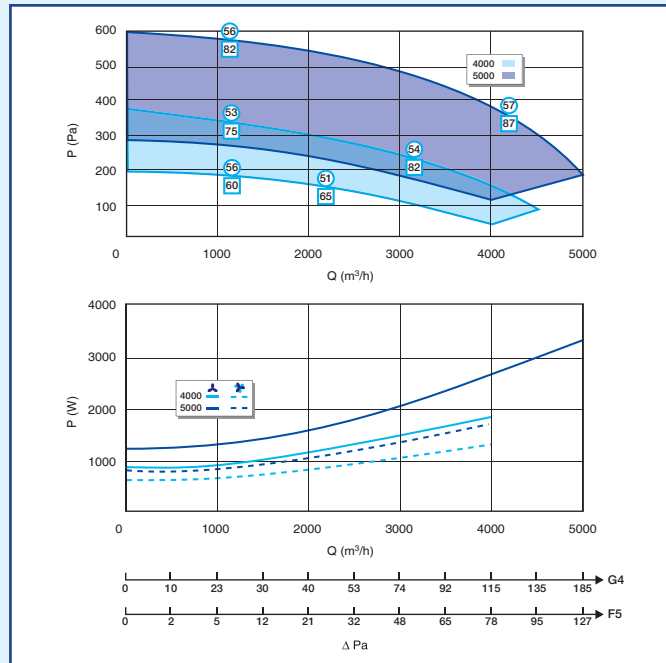
Cabinet Fans

VIK

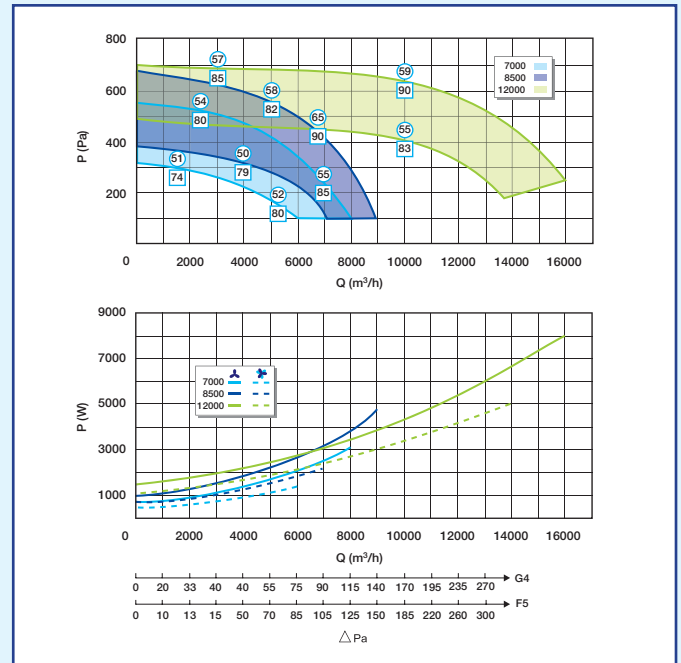
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- ○: Lp (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- □: Lw (dB (A)) = Level of acoustic power radiated in the duct during air discharge.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

VIK 4000 - 5000



VIK 7000 - 8500 - 12000



AVAILABLE OPTIONS (continued) R6

Description	Code
Electrical	
1-speed 7.5 kW proximity switch + aux. contacts	OPT28021
2-speed 7.5 kW proximity switch + aux. contacts	OPT28022
Pressure switch 40-300 Pa fitted	OPT28028
Pressure switch 100-1000 Pa connected/ fitted	OPT28029
Axone "All-in-One" 1-speed 4.7 A	OPT28025
Axone "All-in-One" 1-speed 16.7 A	OPT28027
VIK 4000 1-speed thermal overload relay	OPT28023
VIK 5000 - 7000 1-speed thermal overload relay	OPT28024
VIK 8500 1-speed thermal overload relay	OPT28026
VIK 12000 1-speed thermal overload relay	OPT28739
Filter clogging detection	OPT28030
Finish	
Epoxy Casing - VIK n°1	OPT28071
Epoxy Casing - VIK n°2	OPT28073
Epoxy Casing - VIK n°3	OPT28076
Epoxy Casing + MV VIK n°1	OPT28072
Epoxy Casing + MV VIK n°2	OPT28074
Epoxy Casing + MV VIK n°3	OPT28075
Screw-fit casing	OPTVISSE
Left hand side access	OPT58171
Standard opposite face access	OPT58172

ACCESSORIES R6

Description	Code
Flexible sleeve M0 Ø 500 mm	11025076
Flexible sleeve M0 Ø 630 mm	11025077
Rain hood + grille Ø 500 mm	11056374
Rain hood canopy + grille Ø 630 mm	11056375
G4 filter VIK 4000 - 5000	11028050
G4 filter VIK 7000 - 8500 - 12000	11028048
F5 filter VIK 4000 - 5000	11028049
F5 filter VIK 7000 - 8500 - 12000	11028047

Cabinet Fans

Low energy consumption supply / exhaust fans



VIK micro-watt

Green Product



Advantages

- Low energy consumption.
- Single-phase power supply.
- Connections in-line.
- Optional integrated filter.
- Optional integrated casing.

APPLICATION

- Air exhaust / air supply, up to 12000 m³/h.
- Medium to large commercial and industrial buildings.

DESCRIPTION

- Casing in sheet metal with circular connections supplied with an electronics box to be screwed on on-site, pre-wired and pre-programmed at the factory, adjustment potentiometer included.
- Forward curved fan mounted on slide rails and separated from the casing by anti-vibration mountings.
- Pulley-belt type drive.
- An inner filter rail (optional G4 or F5 filter).

NOTE: for heating of air, please consult us.

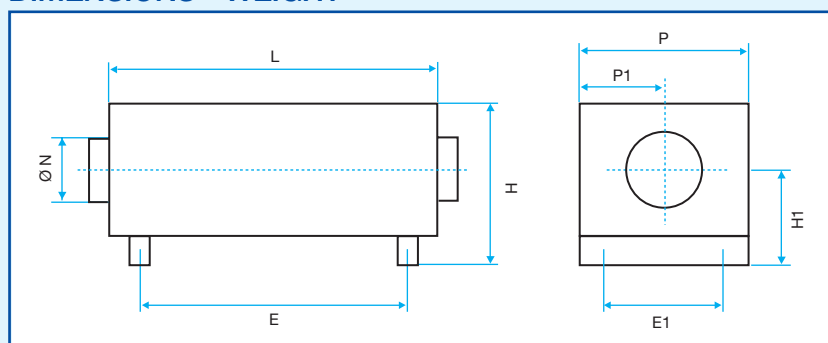
INSTALLATION

- Indoor / outdoor.
- New and renovation.

RANGE with a choice of options **R6**

Description	Code
Casing + motorised fan	
VIK n°1 without MF	11028005
MV 4000 micro-watt	OPT28085
MV 5000 micro-watt	OPT28086
VIK n°2 without MF	11028010
MV 7000 micro-watt	OPT28087
MV 8500 micro-watt	OPT28088
VIK N°3 without MF	11028060
MV 12000 micro-watt	OPT28089
Available options	
G4 filter VIK n°1	OPT28015
G4 filter VIK n°2 and 3	OPT28018
F5 filter VIK n°1	OPT28016
F5 filter VIK n°2 and 3	OPT28019
Insulation VIK n°1	OPT28749
Insulation VIK n°2 and 3	OPT28748

DIMENSIONS - WEIGHT



Type	L (mm)	D (mm)	H (mm)	E (mm)	P1 (mm)	H1 (mm)	E1 (mm)	Ø N (mm)	Weight (kg)
VIK 4000	1161	737	675	1131	304	387	600	500	77
VIK 5000	1161	737	675	1131	304	387	600	500	80
VIK 7000	1406	941	943	1378	471	522	717	630	121
VIK 8500	1406	941	943	1378	471	522	717	630	127
VIK 12000	1406	941	943	1378	471	522	717	630	150
Micro-watt unit	260	350	500						15

M0 INCOMBUSTIBLE FLEXIBLE SLEEVES

Type	Vacuum cleaning Ø (mm)	Discharge Ø (mm)
VIK 4000 - 5000	500	500
VIK 7000 to 12000	630	630

ELECTRICAL DETAILS

- Asynchronous motor - IP 55 - class F - 3-phase 230/400 V - 50 Hz.
- 230 V - 50/60 Hz 1-phase power supply (except VIK 8500, 230/400 V 3-phase power supply).
- Thermal protection on opening and with resetting automatically integrated into the motor (TPO with exposed wires) directly connectable to the micro-watt box (cf. *Assembly instructions*).

Type	Rated motor power (kW)	No. of poles	Max. power consumption (W)	Max. I. cons. (A)
VIK 4000 micro-watt	1.1	4	1400	9.0
VIK 5000 micro-watt	1.5	4	2400	15.0
VIK 7000 micro-watt	1.8	4	2800	16.0
VIK 8500 micro-watt	3.0	4	4800	8.0
VIK 12000 micro-watt	4.0	4	6020	10.7

Cabinet Fans

VIK micro-watt

OPTIONS AVAILABLE (continued) **R6**

Description	Code
Electrical	
Filter clogging detection	OPT28030
Finish	
Epoxy casing - VIK n°1	OPT28071
Epoxy casing - VIK n°2	OPT28073
Epoxy casing - VIK n°3	OPT28076
Epoxy casing + MV VIK n°1	OPT28072
Epoxy casing + MV VIK n°2	OPT28074
Epoxy casing + MV VIK n°3	OPT28075
Screw-fit casing	OPTVISSE
Left hand side access	OPT58171
Standard opposite face access	OPT58172

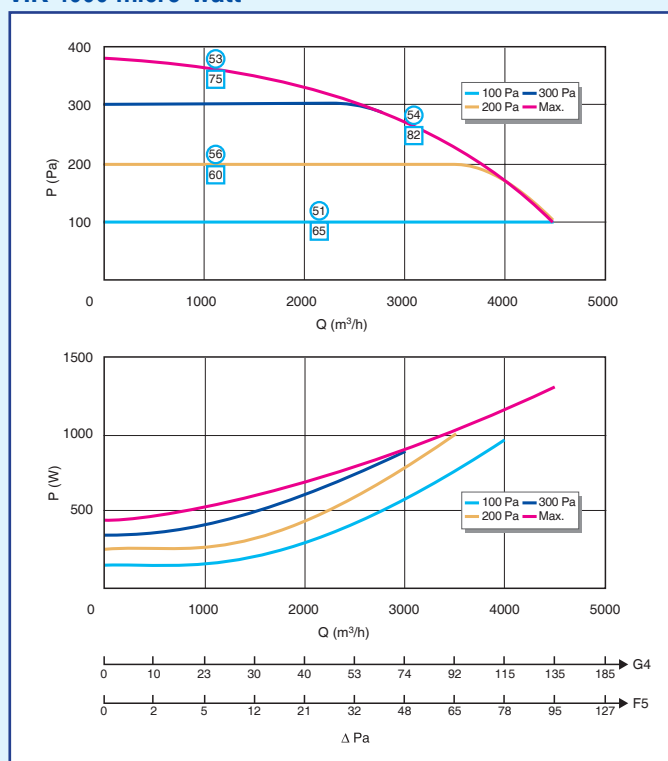
ACCESSORIES **R6**

Description	Code
Flexible sleeve M0 Ø 500 mm	11025076
Flexible sleeve M0 Ø 630 mm	11025077
Rain hood + grille Ø 500 mm	11056374
Rain hood canopy + grille Ø 630 mm	11056375
G4 filter VIK 4000 - 5000	11028050
G4 filter VIK 7000 - 8500 - 12000	11028048
F5 filter VIK 4000 - 5000	11028049
F5 filter VIK 7000 - 8500 - 12000	11028047
Electrical accessories (see pages 359 - 365)	
Offset control	11057084
IP55 offset control	11057085
Thermal overload relay 6.3 - 10 A	11057055
Thermal overload relay 11 - 16 A	11057056

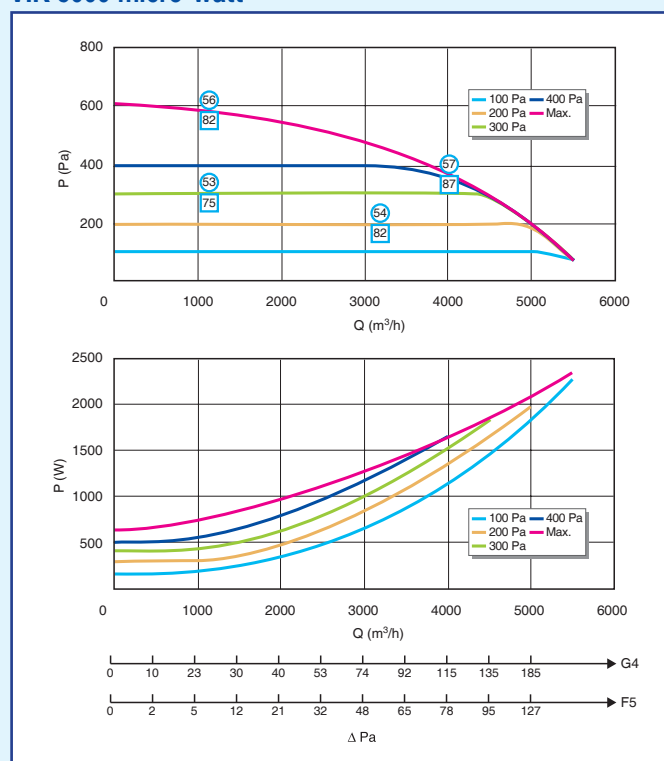
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- : Lp (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- : Lw (dB (A)) = Level of acoustic power radiated in the duct during air discharge.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

VIK 4000 micro-watt



VIK 5000 micro-watt



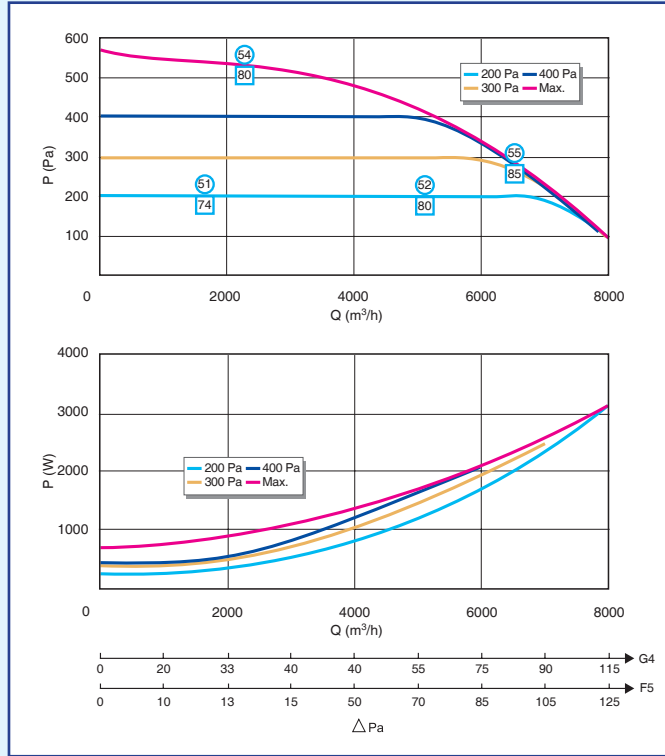
Cabinet Fans

VIK micro-watt

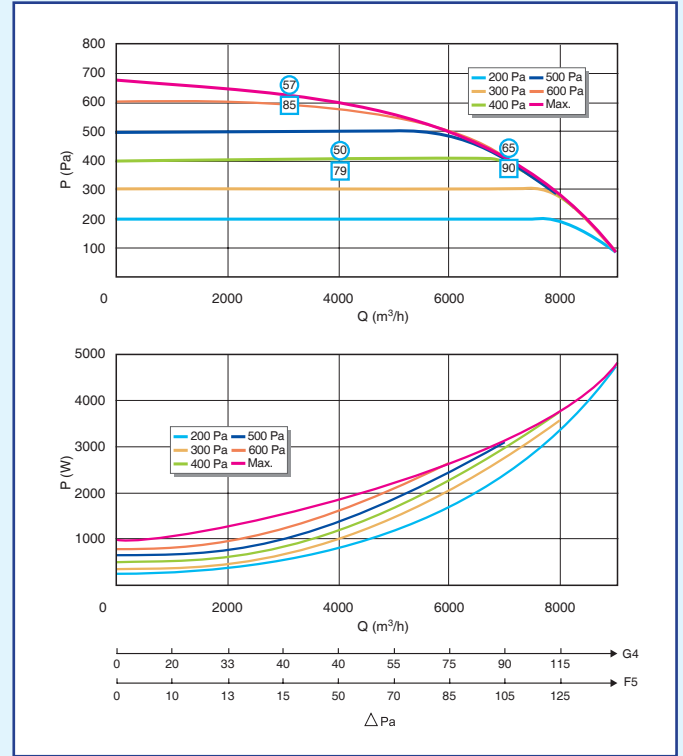
AIRFLOW AND ACOUSTIC DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- L_p (dB (A)) = Sound pressure level measured at 4 m from the casing, with fan discharge connected.
- L_w (dB (A)) = Level of acoustic power radiated in the duct during air discharge.
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

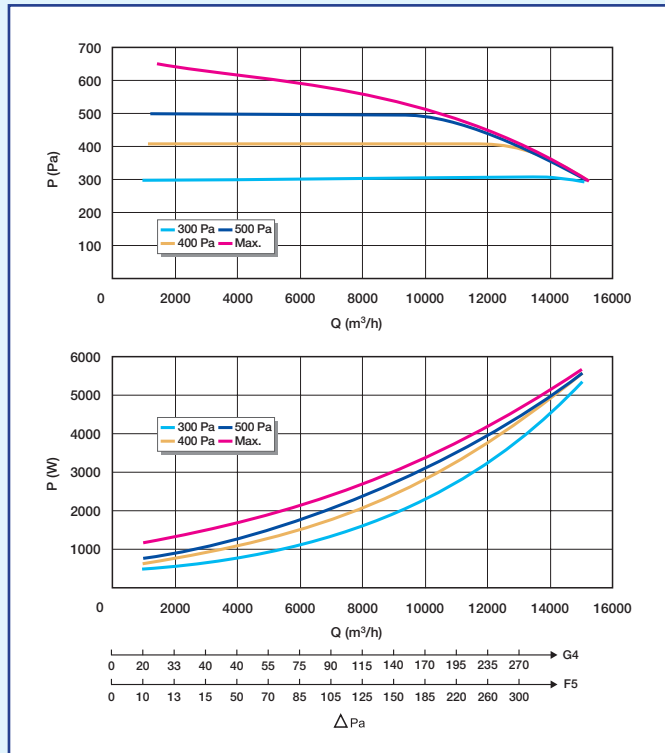
VIK 7000 micro-watt



VIK 8500 micro-watt

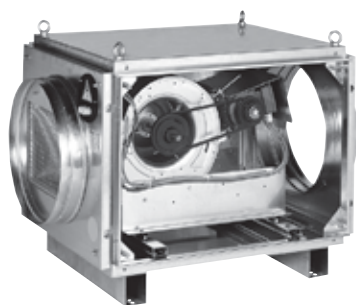


VIK 12000 micro-watt



Cabinet Fans

Exhaust fans



TVEC GII

Advantages

- In-line extractor fan, C4 - 400°C ½ h fire rating.
- Numerous factory mounted accessories.
- Reliable and robust fan.
- Available in micro-watt.

APPLICATION

- Air exhaust.
- Medium to large commercial premises.

DESCRIPTION

- Casing in galvanised sheet metal with 3 different connection arrangements for the fan casing (in-line or perpendicular).
- delivered with an electronic box in the micro-watt version.
- Adjustable feet that can adapt to all types of floor.
- Double inlet/outlet forward curved fan mounted on slide rails and separated from the casing by anti-vibration mountings. Pulley-belt drive, with adjustable motorised pulley.
- Range with a choice of options: 3 arrangements available, double skin insulation, fitted pressure switch, proximity switch.

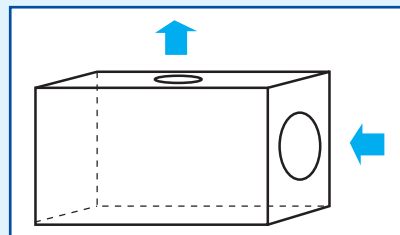
ARRANGEMENTS AVAILABLE

- 1: Suction connections and in-line discharge.
- 2: 1 suction connection, 1 perpendicular discharge connection.
- 3: 2 suction connections, 1 perpendicular discharge connection.

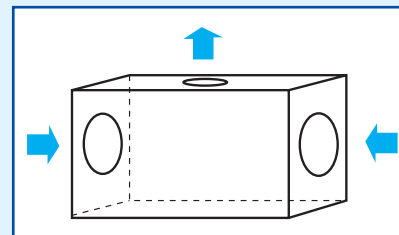
INSTALLATION



1 Fan casing, arrgt 1



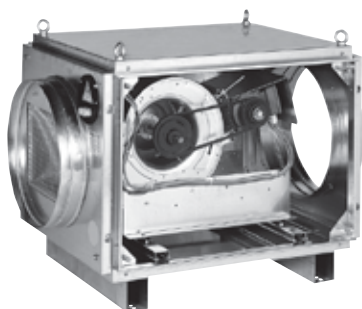
2 Arrgt 2, left-hand access side.



3 Arrgt 3, left-hand access side

Cabinet Fans

Exhaust fans



TVEC GII

Advantages

- Several arrangements available.
- Reliable and robust.

APPLICATION

- Air exhaust.
- Fan unit in casing C4 - 400°C ½ h fire rating.

DESCRIPTION

- Galvanised casing with three possible arrangements.
- Adjustable feet that can adapt to all types of floor.
- Double inlet / outlet forward curved fan mounted on slide rails and separated from the casing by anti-vibration mountings.
- Pulley-belt drive, with adjustable motorised pulley.

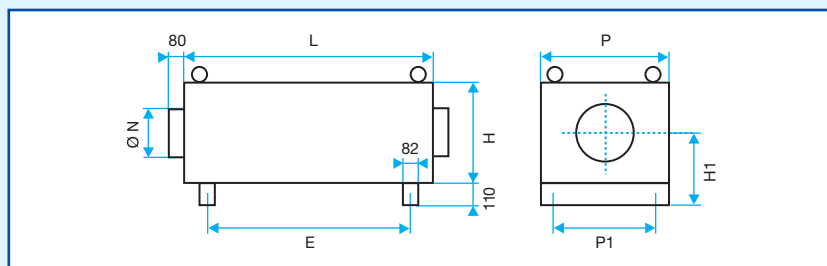
INSTALLATION

- Horizontal.
- Technical areas / terraces.
- Indoor / outdoor.

RANGE with a choice of options R7

Description	Code
TVEC 1	
TVEC 1 arrgt 1 without MV	11056401
TVEC 1 arrgt 2 without MV	11056402
TVEC 1 arrgt 3 without MV	11056403
MV A1 50/60 Hz	OPT56411
MV B1 50/60 Hz	OPT56412
MV C1 50/60 Hz	OPT56413
MV D1 50/60 Hz	OPT56414
MV A2 (Dahlander)	OPT56415
MV B2 (Dahlander)	OPT56416
MV C2 (Dahlander)	OPT56417
MV D2 (Dahlander)	OPT56418
TVEC 2	
TVEC 2 arrgt 1 without MV	11056404
TVEC 2 arrgt 2 without MV	11056405
TVEC 2 arrgt 3 without MV	11056406
MV A1 50/60 Hz	OPT56421
MV B1 50/60 Hz	OPT56422
MV C1 50/60 Hz	OPT56423
MV D1 50/60 Hz	OPT56424
MV A2 (Dahlander)	OPT56425
MV B2 (Dahlander)	OPT56426
MV C2 (Dahlander)	OPT56427
MV D2 (Dahlander)	OPT56428
TVEC 3	
TVEC 3 arrgt 1 without MV	11056407
TVEC 3 arrgt 2 without MV	11056408
TVEC 3 arrgt 3 without MV	11056409
MV A1 50/60 Hz	OPT56431
MV B1 50/60 Hz	OPT56432
MV C1 50/60 Hz	OPT56433
MV A2 (Dahlander)	OPT56435
MV B2 (Dahlander)	OPT56436
MV C2 (Dahlander)	OPT56437

DIMENSIONS - WEIGHT



Type	L (mm)	D (mm)	P1 (mm)	H (mm)	H1 (mm)	E (mm)	Ø N (mm)	Weight (kg)
TVEC 1	983	813	650	710	465	707	500	110/130
TVEC 2	1099	1099	940	770	495	828	630	150/180
TVEC 3	1398	1398	1239	1144	682	1122	800	235/285

ELECTRICAL DETAILS

- Asynchronous motor with IP 55 - class F - 3-phase 230/400V - 50/60 Hz (other than TVEC 3C, 400/660 V).
 - Thermal protection on opening built into the motor in parallel with the automatic reset winding (TPO with exposed wires).
- BE CAREFUL: the connection of the TPO is incompatible with the fire resistance classification C4-400° C ½ h.

Type	Motor.	Ø impeller (mm)	N° of poles	Rated power. (kW)	Max. power consumption (A)	Max. power consumption (W)
TVEC 1	A1	270	4	0.55	1.60	900
TVEC 1	B1	270	4	1.10	2.25	1250
TVEC 1	C1	270	4	1.50	3.55	2000
TVEC 1	D1	270	4	1.80	4.55	2500
TVEC 1	A2	270	4/8	0.55/0.09	1.60	900
TVEC 1	B2	270	4/8	1.10/0.18	2.80	1500
TVEC 1	C2	270	4/8	1.50/0.25	4.00	2200
TVEC 1	D2	270	4/8	2.20/0.37	5.50	3000
TVEC 2	A1	320	4	0.75	2.20	1200
TVEC 2	B1	320	4	1.10	3.30	1800
TVEC 2	C1	320	4	1.80	5.30	2900
TVEC 2	D1	320	4	3.00	8.20	4450
TVEC 2	A2	320	4/8	0.75/0.12	2.30	1250
TVEC 2	B2	320	4/8	1.10/0.18	3.30	1800
TVEC 2	C2	320	4/8	2.20/0.37	6.50	3500
TVEC 2	D2	320	4/8	3.00/0.55	8.20	4500
TVEC 3	A1	450	4	2.20	7.90	4300
TVEC 3	B1	450	4	4.00	12.00	6500
TVEC 3	C1	450	4	7.50	16.00	8700
TVEC 3	A2	450	4/8	2.20/0.37	7.90	4300
TVEC 3	B2	450	4/8	4.00/0.75	12.00	6500
TVEC 3	C2	450	4/8	7.50/1.50	16.00	8700

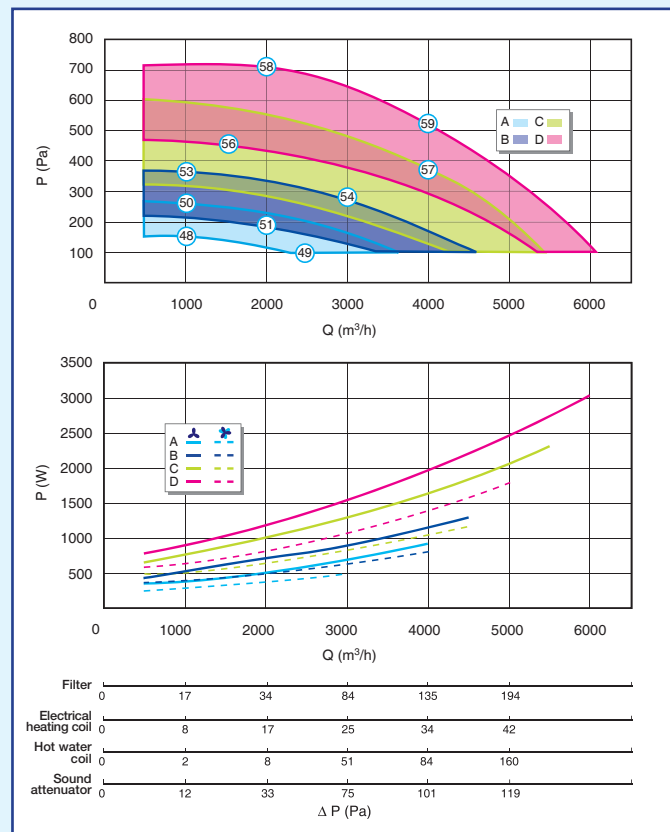
Cabinet Fans

TVEC GII

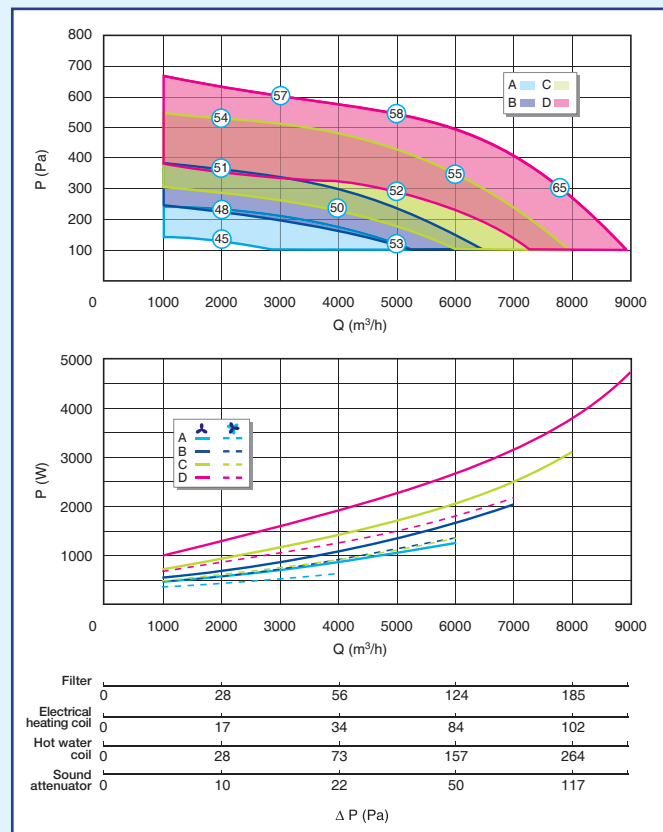
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Max. power consumption.

TVEC 1



TVEC 2



AVAILABLE OPTIONS R7

Description	Code
Double skin thermal insulation, TVEC 1	OPT56361
Double skin thermal insulation, TVEC 2	OPT56364
Double skin thermal insulation, TVEC 3	OPT56368
Adjustable pressure switch 40-300 Pa	OPT56397
1 Sp. 7.5 kW proximity switch + aux. contacts.	OPT28021
2 Sp. 7.5 kW proximity switch + aux. contacts.	OPT28022
Screw-fit casing	OPTVISSE

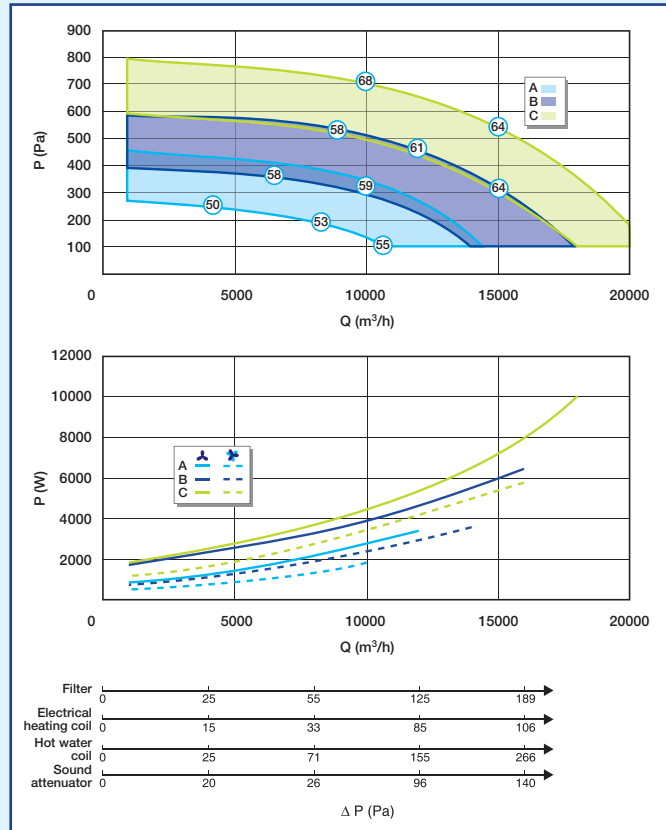
Cabinet Fans

TVEC GII

AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Max. power consumption.

TVEC 3



Cabinet Fans

Casing filter module for TVEC GII

APPLICATION

- TVEC GII accessory for filtering the air supply.

DESCRIPTION

- Double skin galvanised steel casing without connections.
- Adjustable feet that can adapt to all types of terrain.
- Pocket filter class F5, 40 to 60 % opacimetric efficiency, in accordance with standard EN 779, and M3 fire rating classification.

INSTALLATION

- Fits directly on to the fan casing, suction side, or on the heater casing, by a system of rails + screws (supplied).

RANGE with a choice of options **R7**

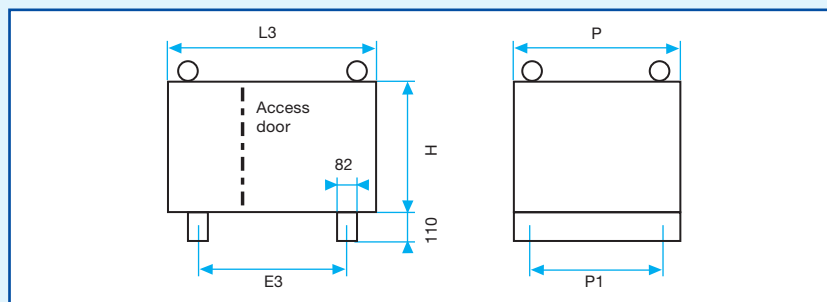
Description	Code	
Casing filter	TVEC 1	11056471
	TVEC 2	11056472
	TVEC 3	11056473

AVAILABLE OPTIONS **R7**

Description	Code
Filter clogging detection	OPT56378

- Filter clogging detection mounted on the filter casing.

DIMENSIONS - WEIGHT



Type	L3 (mm)	D (mm)	H (mm)	E3 (mm)	P1 (mm)	Weight (kg)
TVEC 1	980	813	710	707	650	70
TVEC 2	1096	1044	770	823	940	80
TVEC 3	1096	1398	1144	823	1239	110

CASSETTE FILTER

- F5 pocket filter, fitted on a metal frame.
- Dimensions of the frame: 594 x 287 mm.

Type	TVEC 1	TVEC 2	TVEC 3
No. of filter cassettes per casing	2	3	6

Filter extraction drawer for TVEC GII

APPLICATION

- TVEC GII accessory for filtering the air supply.

DESCRIPTION

- Double skin galvanised steel casing without connections.
- Pocket filter class G4, 40 to 90 % gravimetric efficiency, in accordance with standard EN 779, and M3 fire rating classification.

INSTALLATION

- Fits directly on to the fan casing, on its suction side.

RANGE with a choice of options **R7**

Description	Code	
Filter extraction drawer	TVEC 1	11057091
Filter extraction drawer	TVEC 2	11057092
Filter extraction drawer	TVEC 3	11057093

- Filter clogging detection mounted on the filter casing.

ACCESSORIES **R7**

Description	Code
G4 spare filter for TVEC 1	11057094
G4 spare filter for TVEC 2	11057095
G4 spare filter for TVEC 3	11057096

DIMENSIONS - WEIGHT

Type	L (mm)	D (mm)	H (mm)	Weight (kg)
TVEC 1	740	185	640	20
TVEC 2	1026	185	700	20
TVEC 3	1325	185	1074	20

CASSETTE FILTER

- G4 herringbone filter frame, fitted on a metal frame.
- Dimensions of the frame (mm): TVEC GI -> 592 x 510, TVEC GII -> 878 x 585, TVEC GIII -> 2 x (588 x 940).

Type	TVEC 1	TVEC 2	TVEC 3
No. of filter cassettes per casing	1	1	2

Cabinet Fans

Low energy consumption exhaust fans



Green Product



Advantages

- Low energy consumption unit.
- 1-phase power supply.
- Numerous modules (see TVEC GII fan unit).
- Multi arrangements.

TVEC GII micro-watt

APPLICATION

- Air exhaust.

DESCRIPTION

- Galvanised casing with three possible arrangements, supplied with an electronics box to be screwed on on-site, pre-wired and pre-programmed at the factory, adjustment potentiometer included.
- Adjustable feet that can adapt to all types of floor.
- Double inlet / outlet forward curved fan mounted on slide rails and separated from the casing by anti-vibration mountings.
- Standard factory mounted proximity disconnecting switch.
- Offset control available.

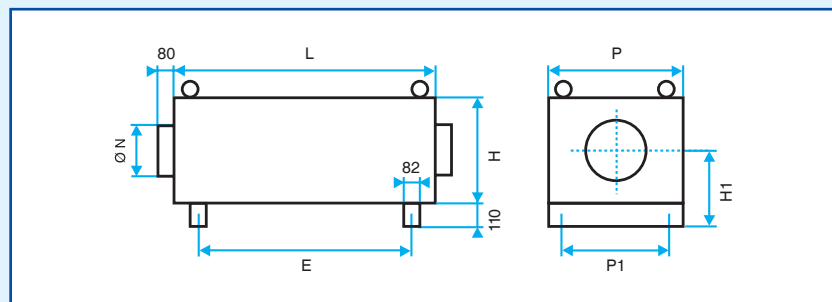
INSTALLATION

- Horizontal.
- Technical areas / terraces.
- Indoor / outdoor.

RANGE with a choice of options R7

Description	Code
TVEC 1	
TVEC 1 arrgt 1 without MV	11056401
TVEC 1 arrgt 2 without MV	11056402
TVEC 1 arrgt 3 without MV	11056403
A1 micro-watt MV	OPT57300
B1 micro-watt MV	OPT57301
C1 micro-watt MV	OPT57302
D1 micro-watt MV	OPT57303
TVEC 2	
TVEC 2 arrgt 1 without MV	11056404
TVEC 2 arrgt 2 without MV	11056405
TVEC 2 arrgt 3 without MV	11056406
A1 micro-watt MV	OPT57304
B1 micro-watt MV	OPT57305
C1 micro-watt MV	OPT57306
D1 micro-watt MV	OPT57307
TVEC 3	
TVEC 3 arrgt 1 without MV	11056407
TVEC 3 arrgt 2 without MV	11056408
TVEC 3 arrgt 3 without MV	11056409
A1 micro-watt MV	OPT57308
B1 micro-watt MV	OPT57309
Available options	
Double skin thermal insulation, TVEC 1	OPT56361
Double skin thermal insulation, TVEC 2	OPT56364
Double skin thermal insulation, TVEC 3	OPT56368
Screw-fit casing	OPTVISSE

DIMENSIONS - WEIGHT



Type	W (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	E (mm)	Ø N (mm)	Weight (kg)
TVEC 1	983	813	650	710	465	707	500	110/130
TVEC 2	1099	1099	940	770	495	828	630	150/180
TVEC 3	1398	1398	1239	1144	682	1122	800	235/285
Elec. Control box	161	231		591				15

ELECTRICAL DETAILS

- Asynchronous motor - IP 55 - class F - Three-phase 230/400 V - 50 Hz.
- 230 V - 50/60 Hz single-phase power supply (except TVEC 2D and 3B, 230/400 V three-phase power supply).
- Thermal protection on opening with automatic reset integrated into the motor (TPO with exposed wires) for directly connection to the micro-watt box (Cf. Assembly instructions).

Type	Motor.	Wheel Ø (mm)	Number of Poles	Rated power. (kW)	Max. power consumption (A)	Max. power consumption (W)
TVEC 1	A1 micro-watt	270	4	0.55	6	900
TVEC 1	B1 micro-watt	270	4	1.1	8	1250
TVEC 1	C1 micro-watt	270	4	1.5	12	2000
TVEC 1	D1 micro-watt	270	4	1.8	16	2500
TVEC 2	A1 micro-watt	320	4	0.75	8	1200
TVEC 2	B1 micro-watt	320	4	1.1	11	1800
TVEC 2	C1 micro-watt	320	4	1.8	17	2900
TVEC 2	D1 micro-watt	320	4	3.0	9	4450
TVEC 3	A1 micro-watt	450	4	2.2	8	4300
TVEC 3	B1 micro-watt	450	4	4	12	6500

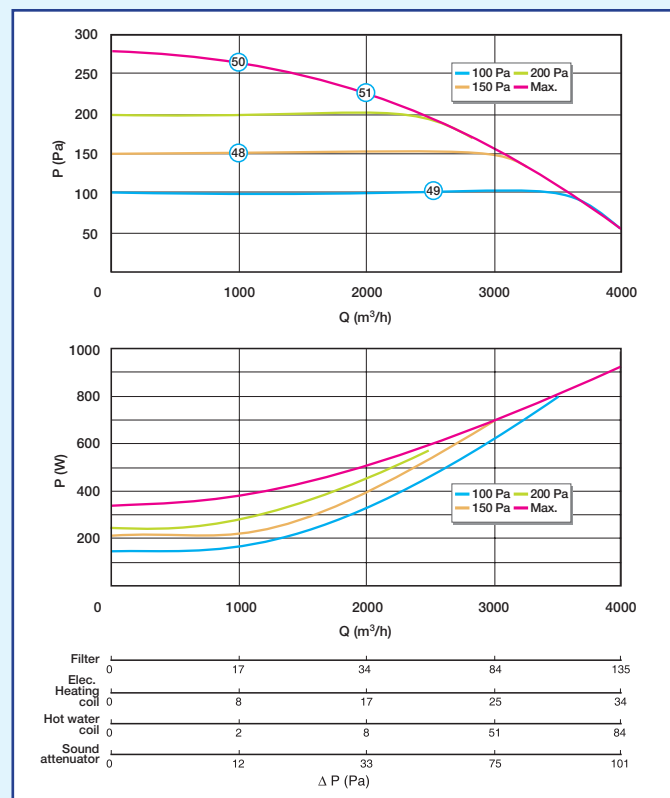
Cabinet Fans

TVEC GII micro-watt

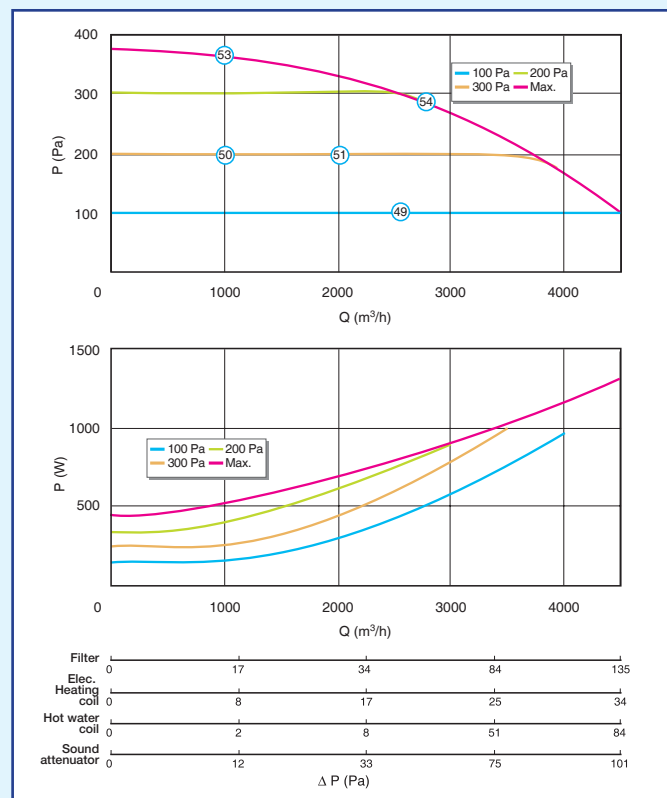
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

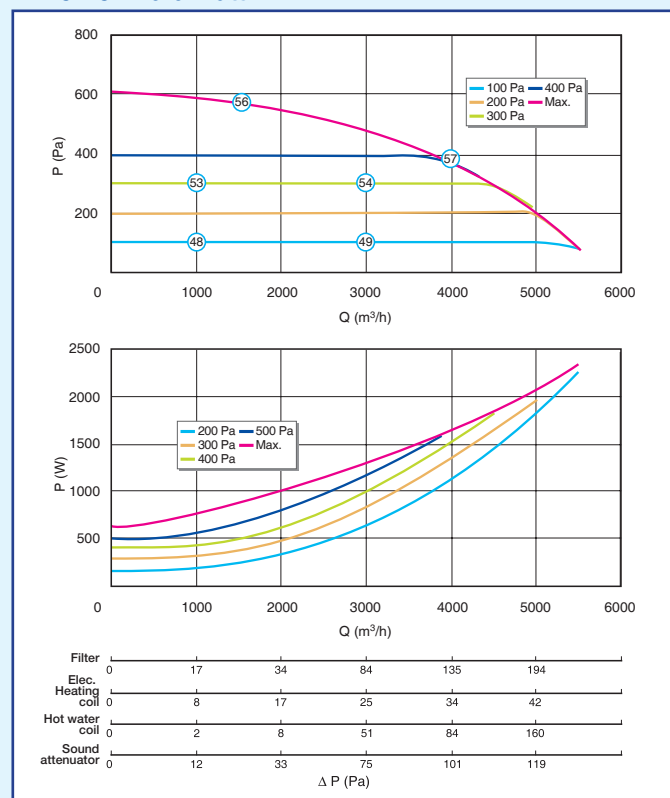
TVEC 1A micro-watt



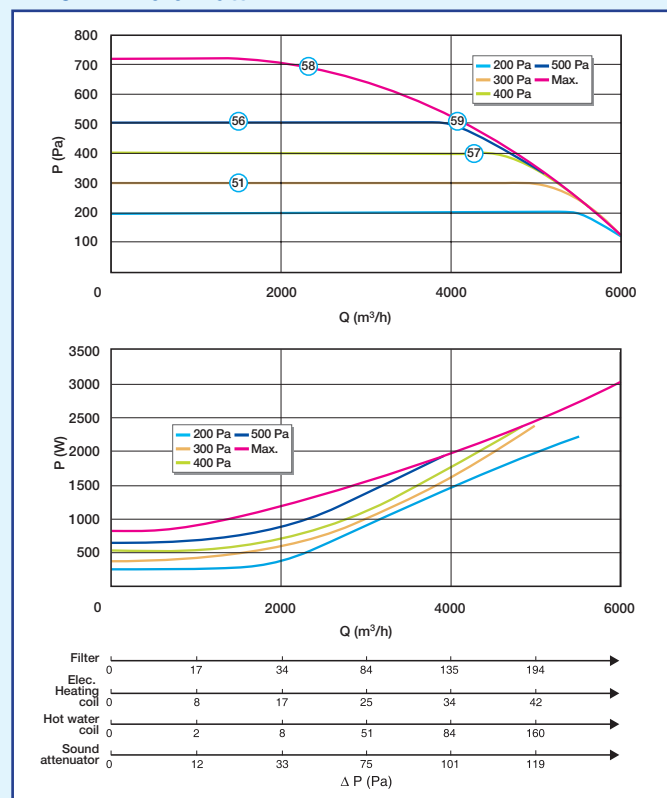
TVEC 1B micro-watt



TVEC 1C micro-watt



TVEC 1D micro-watt



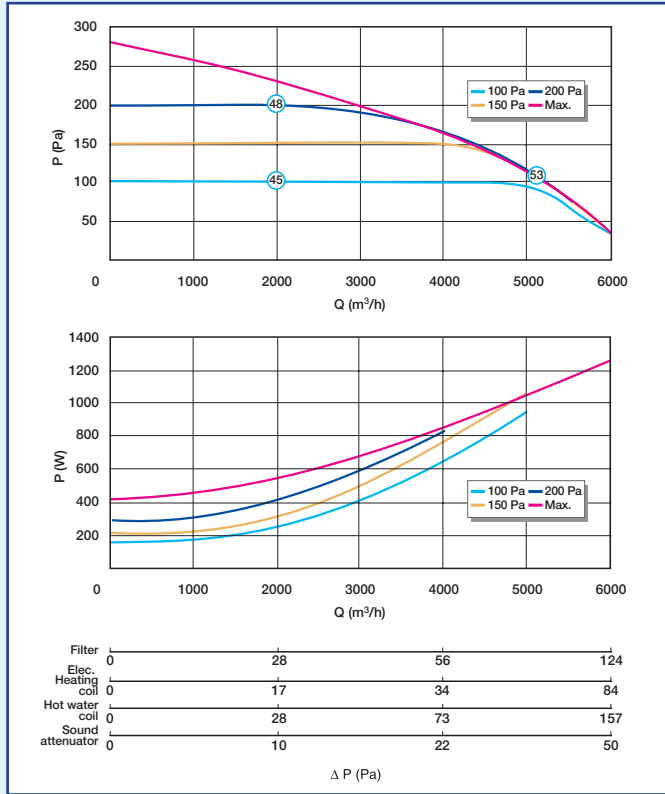
Cabinet Fans

TVEC GII micro-watt

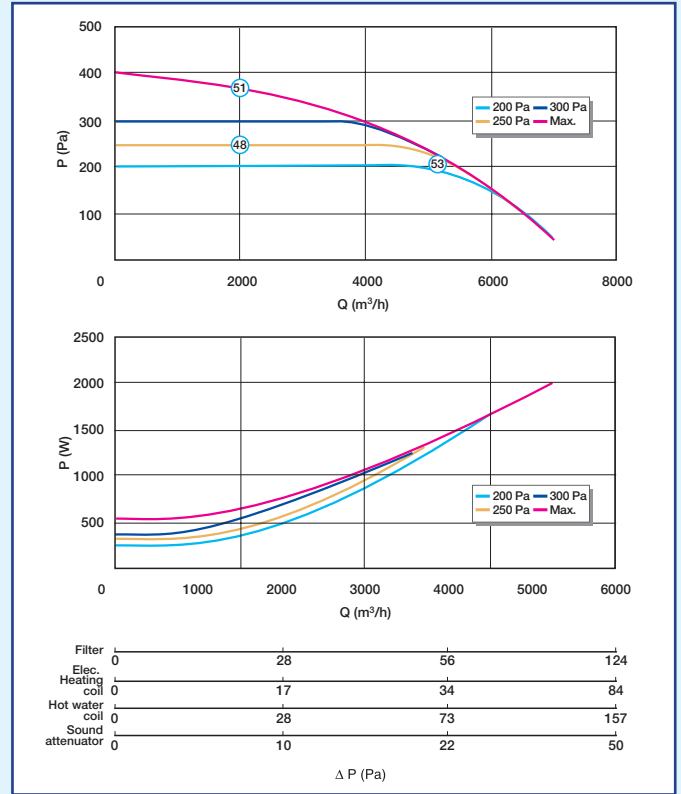
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

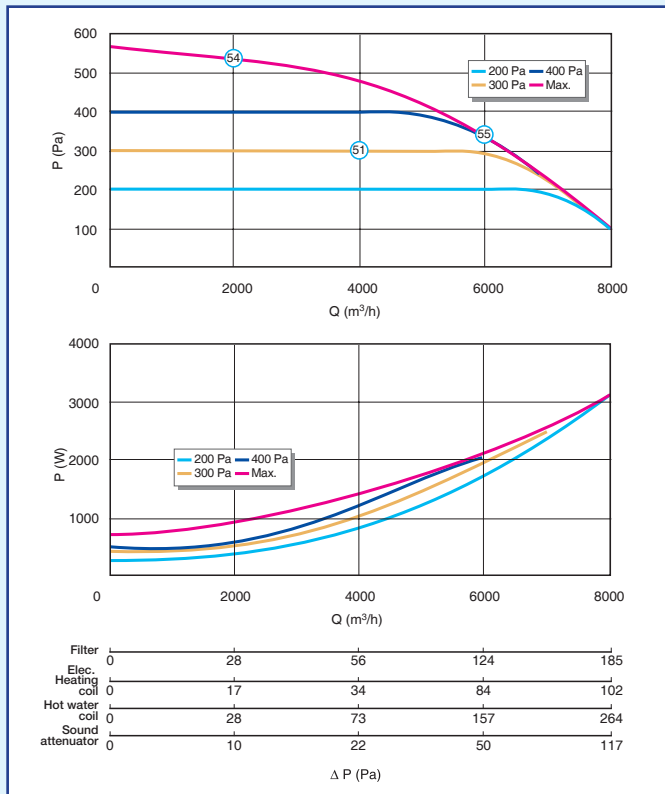
TVEC 2A micro-watt



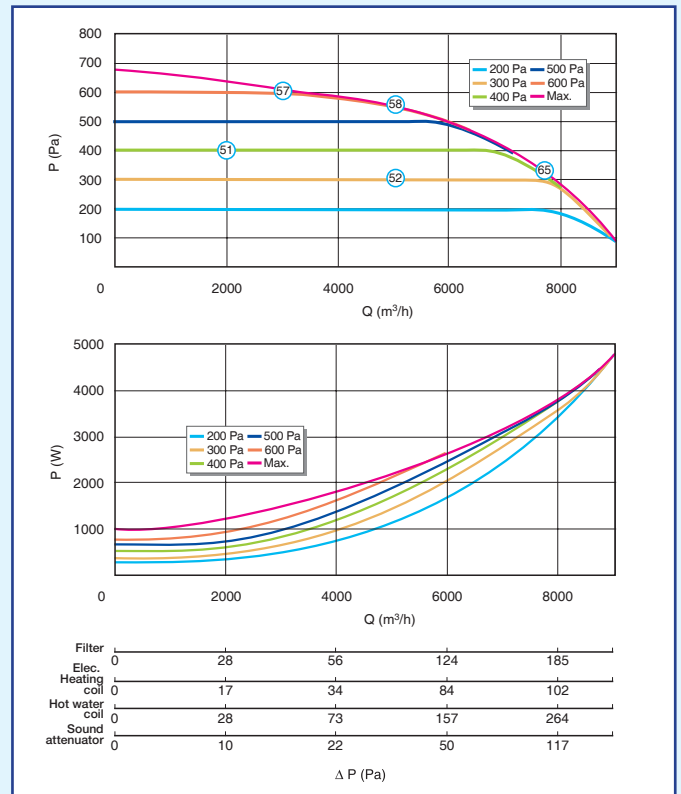
TVEC 2B micro-watt



TVEC 2C micro-watt



TVEC 2D micro-watt



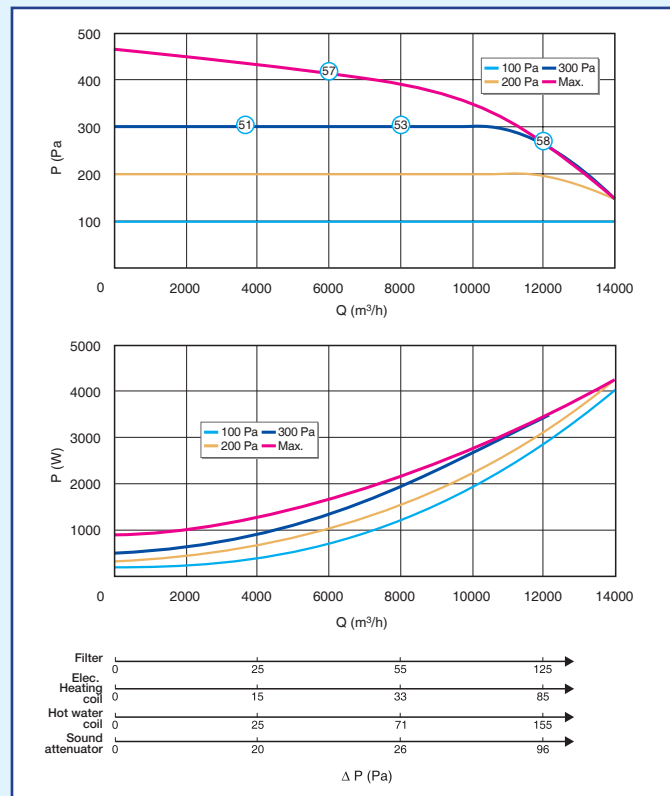
Cabinet Fans

TVEC GII micro-watt

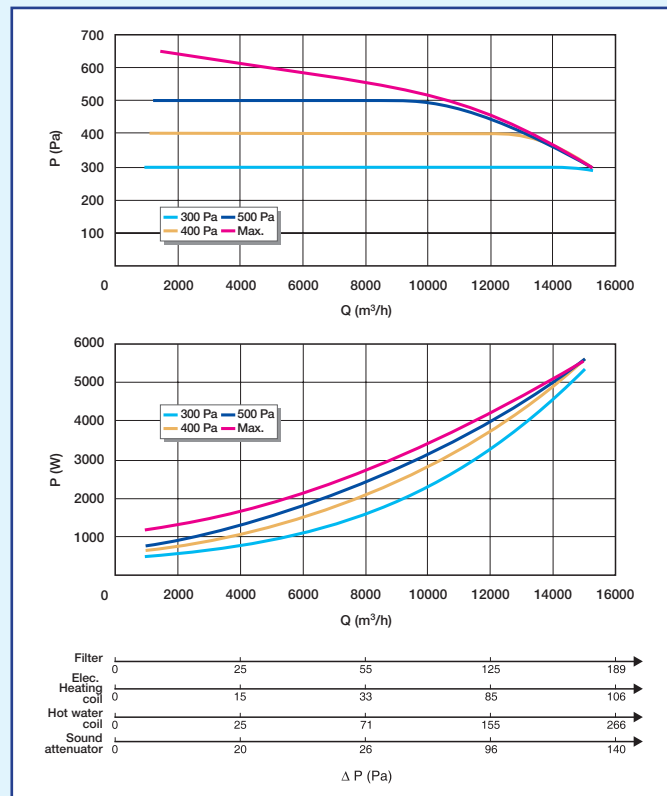
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Acoustic pressure level measured at 4 m from the casing, discharge connected in dB (A).
- P (Pa) = Static pressure - P (W) = Maximum power consumption.

TVEC 3A micro-watt



TVEC 3B micro-watt



Cabinet Fans

Supply fans



ALIZONE

APPLICATION

- Air supply up to 10,000 m³/h.
- Medium to large commercial and industrial premises.
- Airflow adjustment.

INSTALLATION

- Indoor/ outdoor.
- New and renovation.

DESCRIPTION

- Casing in galvanised steel with in-line circular connections.
- Forward curved fan rear mounted on rails.
- Pulley-belt drive, with adjustable motorised pulley (adjustment of the fan speed).
- The motorised fan unit slides into the body, and can be dismantled from the rear.
- Large door for easy access to motorised fan unit.

RANGE WITH CHOICE OF OPTIONS R8

Description	Code
CASING 1 Speed	
ALIZONE 4.2 - TRI 1,5 kW	11039060
ALIZONE 6.2 - TRI 2.2 kW	11039061
ALIZONE 8.4 - TRI 3kW	11039062
ALIZONE 10.0 - TRI 4kW	11039063
2 Speed BI 4/6 CASING	
ALIZONE 4.2 - 1.5/0.45 kW	11039065
ALIZONE 6.2 - 2.5/0.8 kW	11039066
ALIZONE 8.4 - 3/1 kW	11039067
ALIZONE 10.0 - 4.4/1.5 kW	11039068
2 Speed DAH 4/8 CASING	
ALIZONE 4.2 - 1.5/0.25 kW	11039070
ALIZONE 6.2 - 2.2/0.37 kW	11039071
ALIZONE 8.4 - 3/0.55 kW	11039072
ALIZONE 10.0 - 4/0.75 kW	11039073

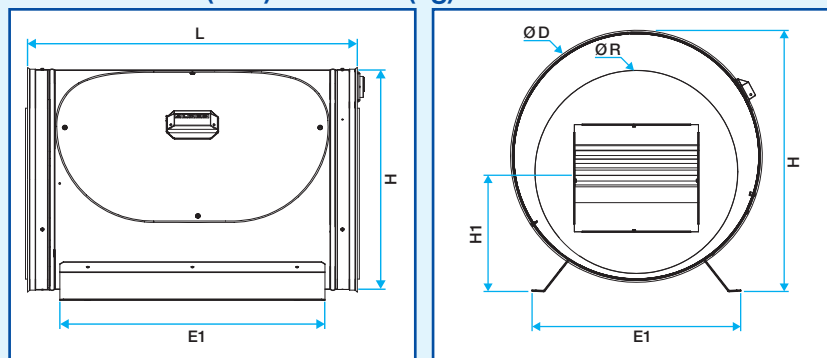
AVAILABLE OPTIONS R8

See following page.

Advantages

- Connections in-line.
- Adjustable drive pulley in series.
- Circular casing = discreet aesthetic design, minimum dimensions.

DIMENSIONS (mm) WEIGHT (kg)



Type	L	Ø D	H	E / E1	H1	Ø R	Weight
ALIZONE 4.2 and 6.2	950	630	670	760 / 540	320	500	70
ALIZONE 8.4 and 10.0	950	800	830	760 / 590	430	630	100

M0 INCOMBUSTIBLE FLEXIBLE SLEEVES

Type	Vacuum cleaning Ø R (mm)	Discharge Ø R (mm)
ALIZONE 4.2 and 6.2	500	500
ALIZONE 8.4 and 10.0	630	630

ELECTRICAL DETAILS

- IP 55 asynchronous motor, Class F, 230/400 V - 50 Hz.
- Thermal Protection on Opening built into the motor in parallel with the automatic reset winding (TPO with exposed wires). WARNING: do not use for smoke extraction
- For the connection of the TPO, use the proposed tripping coil accessory with the thermal overload relay disconnecting switches, see p. 359 - 361.

Type 1 speed	Rated power (kW)	No. of poles	Rated Current (A)	Max. I. cons. (A)	Id/ In
ALIZONE 4.2	1,5	4	3,6	3,6	5,7
ALIZONE 6.2	2,2	4	5,4	5,8	5,3
ALIZONE 8.4	3	4	6,8	7,5	4,6
ALIZONE 10.0	4	4	8,5	9,5	6,3

Type 2 speeds - BI	Rated power (kW)	No. of poles	Rated Current (A)	Max. I. cons. (A)	Id/ In
ALIZONE 4.2	1,5 / 0,37	4/6	3,6/1,6	3,6/1,5	5,5/4,5
ALIZONE 6.2	2,2 / 0,7	4/6	4,9/2,5	5,7/2,2	6/5,5
ALIZONE 8.4	3 / 1	4/6	6,8/3,9	7,3/3,3	7,6/6,2
ALIZONE 10.0	4,5 / 1,5	4/6	10,2/5,4	9,6/4,5	7,5/7

Type 2 speeds Dah	Rated motor power (kW)	No. of poles	Rated Current (A)	Max. I. cons. (A)	Id/ In
ALIZONE 4.2	1,6 / 0,4	4/8	3,8/2,3	3,8/1,9	5,5/3,2
ALIZONE 6.2	2,2 / 0,55	4/8	5,1/2,5	5,7/2	5,6/3,2
ALIZONE 8.4	2,8 / 0,7	4/8	5,6/2,9	7,1/2,1	5,5/4,1
ALIZONE 10.0	3,8 / 1	4/8	8,5/4	9,4/3,3	7,5/4,8

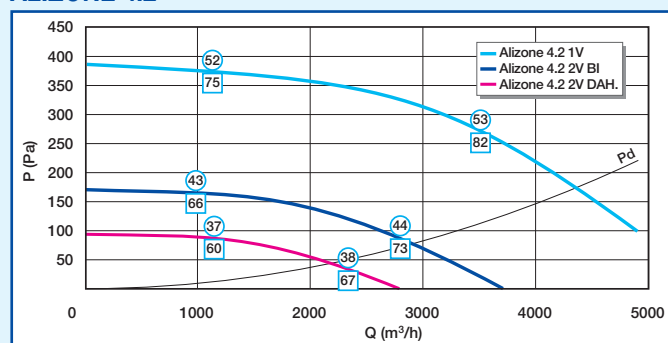
Cabinet Fans

ALIZONE

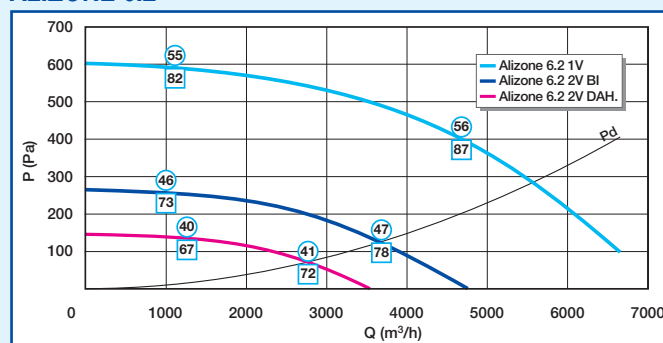
AIRFLOW DETAILS

- The following airflow curves were drawn up in accordance with Standard EN ISO 5801.
- ○: Lp (dB (A)) = sound pressure level measured at 4 meters from the casing, with fan discharge connected.
- □: Lw (dB (A)) = level of acoustic power radiated in the duct during air discharge.
- P (Pa) = static pressure, Pd = dynamic pressure in the air supply duct.

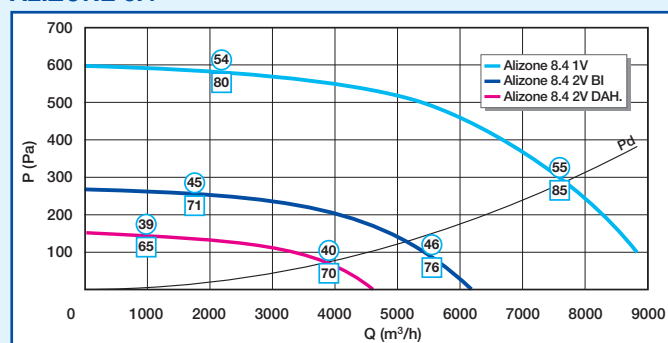
ALIZONE 4.2



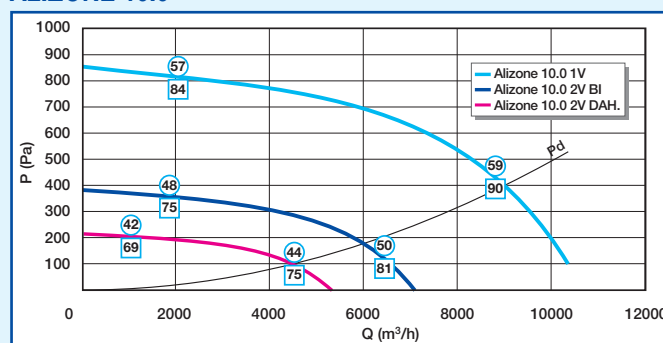
ALIZONE 6.2



ALIZONE 8.4



ALIZONE 10.0



AVAILABLE OPTIONS R8

Description	Code
Electrical	
1V max 6.5 kW proximity switch + contacts - connected / mounted	OPT39083
2V max 6.5 kW proximity switch + contacts - connected / mounted	OPT39084
Pressure switch 100-1,000 Pa connected/ fitted	OPT39085
Second pressure switch 100-1,000 Pa connected/ fitted	OPT39086
All in One 1V Des 4.7A - connected / fitted	OPT39079
All in One 1V Des 16.7A - connected / fitted	OPT39080
All in One 2V Des BI 16.7A - connected / fitted	OPT39081
All in One 2V Des Dah 16.7A - connected / fitted	OPT39082
Finish	
Standard opposite face access	OPT39078
Epoxy 4.2/6.2 casing	OPT39093
Epoxy casing + MV 4.2/6.2	OPT39094
Epoxy 8.4/10.0 casing	OPT39095
Epoxy casing + MV 8.4/10.0	OPT39096

ACCESSORIES R8

Description	Code
D 500 flexible sleeve	11096940
Flexible sleeve kit M0 Ø630	11096942
Mesh insert plug D 500 mm (= rain hood)	11093818
Mesh insert plug D 630 mm (= rain hood)	11093820
Type 280 flexible exhaust adapter - D500 mm	11039341
Type 355 flexible exhaust adapter - D630 mm	11039343
6 pieces of anti-vibration mountings	11039348
Flat roof support L=190mm	11021267
Flat roof support L=380mm	11021265
Wall fixing pads for flat roof support.	11021264

Cabinet Fans

Presentation of the CYCLONE F400°C range



CIVIL DEFENCE APPROVED

- Compliances**
- CE smoke exhaust casing - in accordance with EN 12101-3.
 - Classified F400°C (120).
 - Extension of the "thermally insulated" classification: complies with § 4.1 of Standard EN 12101-3.

- Advantages**
- Thermal insulation option: to avoid the CMEV system in attics.
 - Variable pulley option for on-site airflow adjustment.
 - Choice of access panel side possible depending on the various worksite configurations.
 - Easier to access thanks to the handles on the motor cover and access panel.

APPLICATION

- Smoke exhaust from commercial and industrial premises (public assembly, high-rise, commercial or industrial buildings, and multi-family housing (mainly 3rd family B and 4th family).
- Cyclone F400°C is a purely smoke exhaust fan in casing. Avoid using it for any professional kitchen type of application.

DESCRIPTION

- 8 sizes of casing: for airflows between 1000 and 35,000 m³/h.
- Casing in galvanised steel
- Forward curve impeller with aluminium hub.
- Pulley-belt type drive
- IP 55 Class F motor, fitted on a mounting designed for simple belt tension adjustment.
- Single speed or 2-speed motor (independent 4/6 pole windings and Dahlander coupling 4/8 poles).

OPTIONS AVAILABLE

- Thermal casing insulation. This option, with CE validation, allows for avoiding the CMEV system of the room receiving the smoke exhaust fan in casing (attics for example).
- Choice of the position of the exhaust (horizontal or vertical).
- Choice of the position of the transmission access panel.
- Rainproof cover (supplied with the casing but not fitted).
- Adjustable drive pulley (exc. model 500).
- Fitted and cabled proximity switch.
- Adjustable pressure switch, aerually connected (2 pressure switches for two smoke extraction speeds).

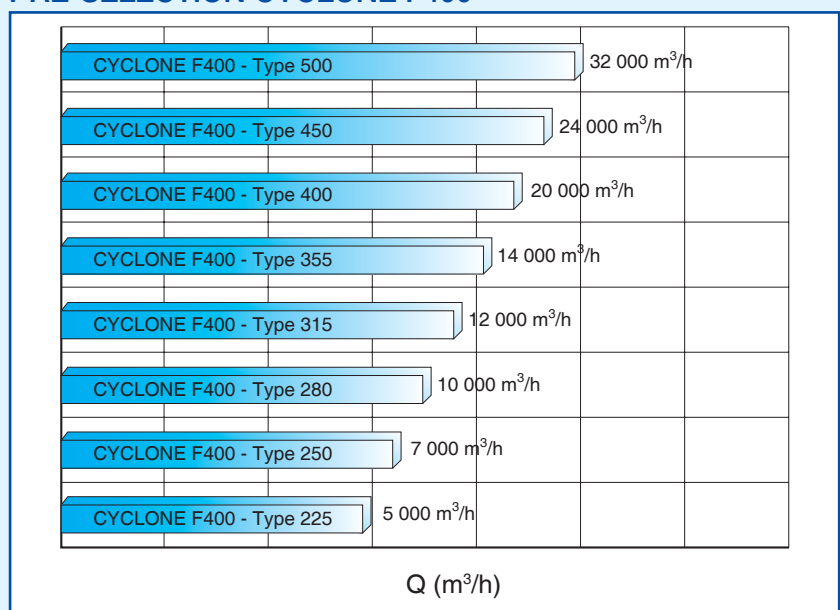
ACCESSORIES

- Flexible, circular suction sleeve.
- Flexible, rectangular, discharge sleeve.
- Flexible rectangular/ circular adapter component - exhaust.
- Anti-vibration mounting.

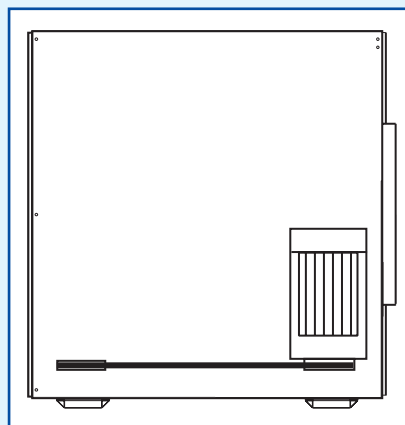
INSTALLATION

- Can be installed either indoors or outdoors:
- If used inside, the thermal insulation option should be chosen.
- If used outdoors, a rain hood should be fitted.
- It is recommended that the system be installed on an anti-vibration mounting base.

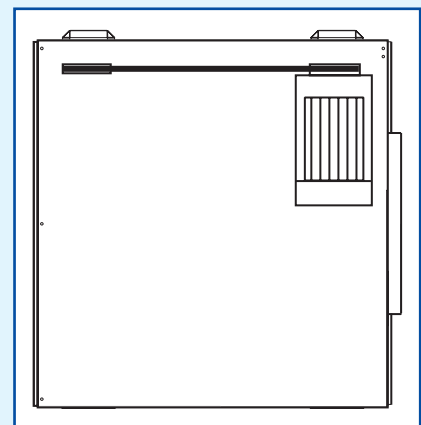
PRE-SELECTION CYCLONE F400



SELECTION OF ACCESS PANEL AND TRANSMISSION POSITIONS



Standard access panel face: Door and transmission to the left of the suction outlet.



Optional access panel face: Door and transmission to the right of the suction outlet.

Cabinet Fans

Presentation of the CYCLONE F400°C range



Cyclone F400°C with proximity switch option.



Compliances

- Thermal insulation option with CE certificate approval of Cyclone F400°C, with extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION OF OPTIONS

Electrical accessories options

- Proximity switch fitted and cabled, fixed on to a galvanised steel mounting.
- Adjustable pressure switch, aerally connected (2 pressure switches for two smoke exhaust speeds). Positioned on the top of the casing, beside the motor cover.
- The "All-in-One" option has been validated during fire resistance tests:
The wiring of the relay box is carried out at the factory.

The proximity switch is integrated.

The aerally connected pressure switch(es) is/are positioned on the top of the casing, beside the motor cover.

The box is attached to the casing, under a protective cover (rain and UV rays), made of galvanised steel.

The front panel of the casing pivots to give easy access to the Axone Micro II relay box.

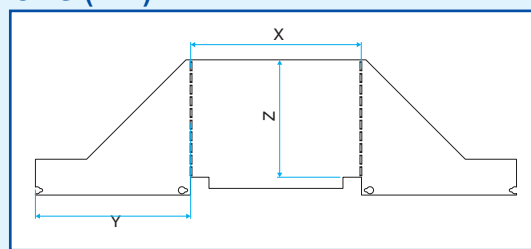
Casing configuration options

- Designed to be hand-fitted, the rain-hoods are supplied inside the casing. To install, fix them to the screws around the casing exhaust.
- Adjustable drive pulley (exc. model 500).
Adjustable in ¼ turn steps over 3 turns.
Factory setting: Max. rotational speed.
- Thermal insulation option:
The casing is insulated with a layer of rockwool on the inner surface of all four single-skin faces (the double-skinned compartment access faces will not propagate heat).
Adapted for indoor installations, this casing limits radiant heat from the casing caused by the high temperatures created by smoke.
- Your Aldes contact can help you to avoid the ventilation system in the room receiving the casing (attics for example).

DESCRIPTION OF ACCESSORIES

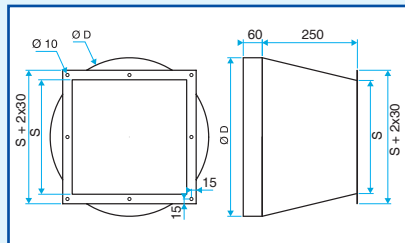
- Flexible, circular M0 suction sleeve: composed of a flexible sleeve and two fixing collars.
- Flexible, rectangular, exhaust sleeve: composed of a flexible sleeve, four fixing plates and one fixing collar.
- Flexible rectangular/circular adapter component - exhaust. composed of a flexible sleeve, four fixing plates and one fixing collar.
- Anti-vibration mounting in resilient material - size: L x W x Th = 100 x 100 x 10 (mm).
4 or 6 mountings are supplied - depending on the size of the casing.

RAIN HOOD DIMENSIONS (mm)

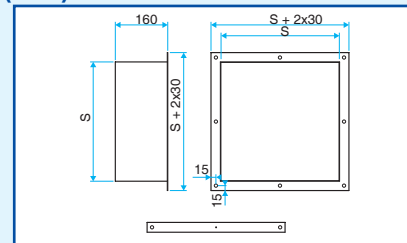


Type	225	250	280	315	355	400	450	500
X	388	422	461	504	553	607	699	738
Y	348	382	421	464	513	567	629	698
Z	247	276	320	356	405	459	521	590

ACCESSORIES DIMENSIONS (mm)



Transformation part



Flexible sleeve

Type	225	250	280	315	355	400	450	500
Ø D	400	450	500	560	630	710	800	800
S	288	322	361	404	453	507	569	638

Cabinet Fans

CYCLONE F400°C: type 225



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 1000 and 5000 m³/h.
- Variable pulley as standard.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 225 A 1.1 kW	11039000
Cyclone 225 A 1.5 kW	11039001
Cyclone 225 A 2.2 kW	11039002
Cyclone 225 B 1.1 kW	11039003
Cyclone 225 B 1.5 kW	11039004
Cyclone F400 2 speeds - Dahlander	
Cyclone 225 A - 2 speeds Dahlander 1.1 kW / 0.26 kW	11039100
Cyclone 225 A - 2 speeds Dahlander 1.7 kW / 0.36 kW	11039101
Cyclone 225 A - 2 speeds Dahlander 2.3 kW / 0.5 kW	11039102
Cyclone 225 B - 2 speeds Dahlander 1.1 kW / 0.26 kW	11039103
Cyclone 225 B - 2 speeds Dahlander 1.7 kW / 0.36 kW	11039104
Cyclone F400 2 speeds Independent Windings (BI)	
Cyclone 225 A - 2 Speeds BI - 1 kW / 0.3 kW	11039200
Cyclone 225 A - 2 Speeds BI - 1.5 kW / 0.45 kW	11039201
Cyclone 225 A - 2 Speeds BI - 2.5 kW / 0.8 kW	11039202
Cyclone 225 B - 2 Speeds BI - 1 kW / 0.3 kW	11039203
Cyclone 225 B - 2 Speeds BI - 1.5 kW / 0.45 kW	11039204

AVAILABLE OPTIONS **R8**

Options included

- Vertical or horizontal discharge.
- Choice of the position of the access door to the transmission.

Options supplied mounted and wired-up

- For 2 speed smoke exhaust use provide for 2 pressure switches.

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 870 x 1024 x 841mm.
- Ø Suction = 400.
- Exhaust cross section:
 - Vertical discharge R x R = 300 x 300,
 - Horizontal discharge R x R1 = 300 x 210.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
225 A	4	1,1	230/400	2,6	3,0	5,6	116
225 A	4	1,5	230/400	3,3	3,9	5,5	120
225 A	4	2,2	230/400	4,8	5,4	5,6	124
225 B	4	1,1	230/400	2,6	3,0	5,6	116
225 B	4	1,5	230/400	3,3	3,9	5,5	120
Cyclone F400 2 speeds - Dahlander							
225 A2 Dahl	4/8	1,2/0,3	400	2,9/1,3	3,1/1,4	5,5/3,1	119
225 A2 Dahl	4/8	1,6/0,4	400	3,8/2,3	4,4/2,5	5,5/3,2	122
225 A2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,7	5,6/3,2	126
225 B2 Dahl	4/8	1,2/0,3	400	2,9/1,3	3,1/1,4	5,5/3,1	119
225 B2 Dahl	4/8	1,6/0,4	400	3,8/2,3	4,4/2,5	5,5/3,2	122
Cyclone F400 2 Speeds - Independent Windings (BI)							
225 A2 BI	4/6	1,1/0,30	400	3/1,04	3,3/1,2	5,4/4	119
225 A2 BI	4/6	1,5/0,37	400	3,7/1,6	3,9/1,8	5,5/4,5	122
225 A2 BI	4/6	2,2/0,70	400	4,9/2,5	6,1/2,8	6/5,5	126
225 B2 BI	4/6	1,1/0,30	400	3/1,4	3,3/1,3	5,4/4	119
225 B2 BI	4/6	1,5/0,37	400	3,7/1,6	3,9/1,8	5,5/4,5	122

Cabinet Fans

CYCLONE F400°C: type 225

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example:

$Q = 3,600 \text{ m}^3/\text{h}$

Read on the graph the straight line Pd = 40 Pa and in the table C = 200 Pa.

System upstream pressure loss = 500 Pa

System downstream pressure loss = 150 Pa

=> System pressure loss (upstream + downstream) = 650 Pa.

Then calculate the corresponding Ps to select the appropriate casing unit:

$Sp = \text{System PL} + Dp - C = 650 + 40 - 200 = 490 \text{ Pa}$

☑ CYCLONE F400 225 A 1.5 kW.

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

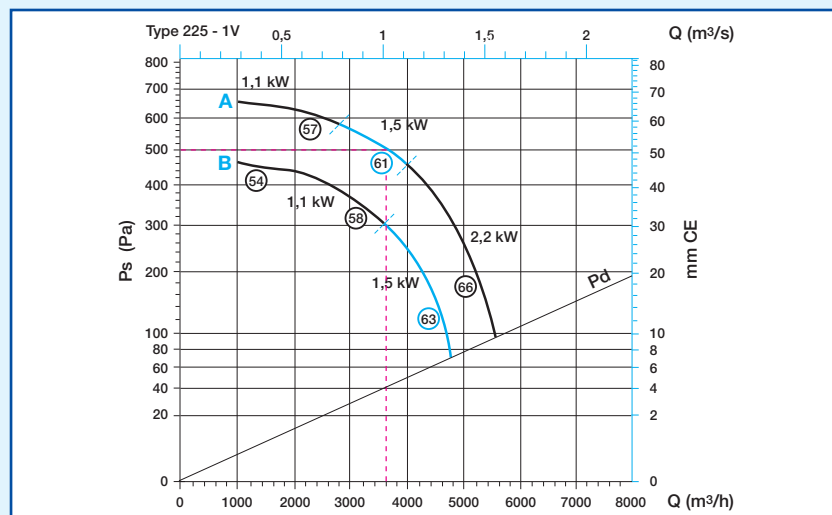
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
225 rain hood	OPT39323
Thermal insulation - 225	OPT39355
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 2 Speeds max 6.5 kW	OPT39318
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

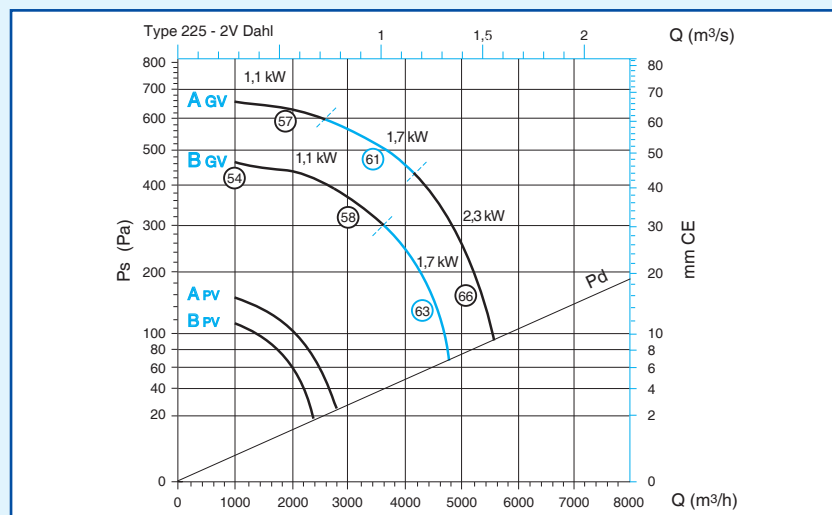
Description	Code
Flexible sleeve kit M0 Ø400	11096938
Type 225 flexible exhaust sleeve	11039331
Type 225 flexible exhaust adapter	11039339
4-piece anti-vibration support base	11039347

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

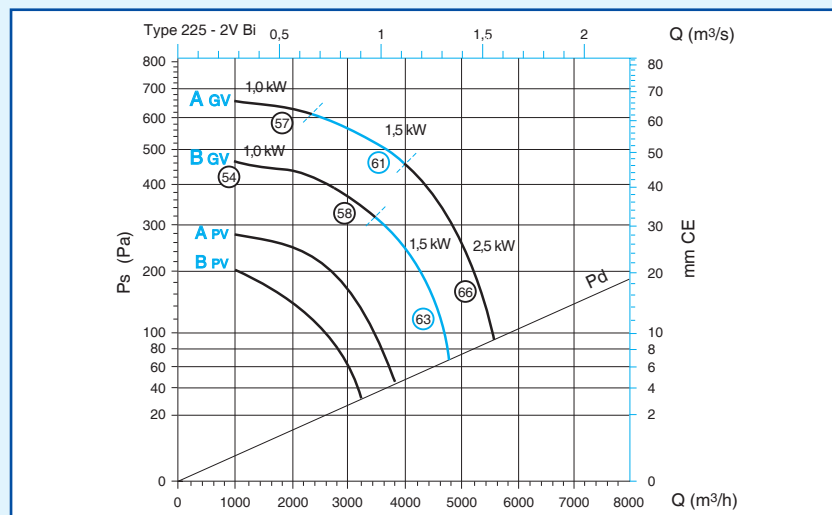
Q (m³/h)	2000	3000	3600	4000	5000
C (Pa)	59	132	200	235	367



Cyclone F 400 - 225 - 1 Speed



Cyclone F 400 - 225 -2 Speed - Dahlander



Cyclone F 400 - 225 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 250



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 1000 and 7,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 250 A 3.0 kW	11039005
Cyclone 250 A 4.0 kW	11039006
Cyclone 250 A 5.5 kW	11039007
Cyclone 250 B 2.2 kW	11039009
Cyclone 250 B 3.0 kW	11039010
Cyclone 250 C 1.5 kW	11039011
Cyclone 250 C 2.2 kW	11039012
Cyclone 250 C3.0 kW	11039013
Cyclone F400 2 speeds - Dahlander	
Cyclone 250 A - 2 Speeds Dahlander 3.0 kW/ 0.65 kW	11039105
Cyclone 250 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039107
Cyclone 250 B - 2 Speeds Dahlander 2.3 kW/ 0.5 kW	11039109
Cyclone 250 B - 2 Speeds Dahlander 3.0 kW/ 0.65 kW	11039110
Cyclone 250 C - 2 Speed Dahlander 1.7 kW/ 0.36 kW	11039111
Cyclone 250 C - 2 Speed Dahlander 2.3 kW/ 0.5 kW	11039112
Cyclone 250 C - 2 Speed Dahlander 3.0 kW/ 0.65 kW	11039113
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 250 A - 2 Speeds BI 3 kW/ 1 kW	11039205
Cyclone 250 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039206
Cyclone 250 A - 2 Speeds BI 6 kW/ 2 kW	11039207
Cyclone 250 B - 2 Speeds BI 2.5 kW/ 0.8 kW	11039209
Cyclone 250 B - 2 Speeds BI 3 kW/ 1 kW	11039210
Cyclone 250 C - 2 Speeds BI 1.5 kW/ 0.45 kW	11039211
Cyclone 250 C - 2 Speeds BI 2.5 kW/ 0.8 kW	11039212
Cyclone 250 C - 2 Speeds BI 3 kW/ 1 kW	11039213

DIMENSIONS (mm)

Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 915 x 1165 x 944.

- Ø Suction = 450.
- Exhaust cross section:
 - Vertical discharge R x R = 321 x 321,
 - Horizontal discharge R x R1 = 321 x 233.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	Imax (A)	Id/IN	Weight (kg)
250 A	4	3,0	230/400	6,5	7,3	6	154
250 A	4	4,0	230/400	8,2	9,2	6,2	157
250 A	4	5,5	230/400	11	12,7	6,5	170
250 B	4	2,2	230/400	4,8	5,4	5,6	150
250 B	4	3,0	230/400	6,5	7,3	6	154
250 C	4	1,5	230/400	3,4	3,9	5,5	157
250 C	4	2,2	230/400	4,8	5,4	5,6	150
250 C	4	3,0	230/400	6,5	7,3	6	154
Cyclone F400 2 speeds - Dahlander							
250 A2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
250 A2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11/3,8	8,5/6,2	182
250 B2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,8	5,6/3,2	152
250 B2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
250 C2 Dahl	4/8	1,6/0,4	400	3,8/2,2	4,4/2,4	5,5/3,2	148
250 C2 Dahl	4/8	2,2/0,55	400	5,1/2,5	5,7/2,8	5,6/3,2	152
250 C2 Dahl	4/8	2,8/0,7	400	5,6/2,9	6,5/3,2	5,5/4,1	158
Cyclone F400 2 Speeds - Independent Windings (BI)							
250 A2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158
250 A2 BI	4/6	4,5/1,50	400	10,2/5,4	11,1/5,8	7,5/7	182
250 A2 BI	4/6	6,0/2,2	400	13,7/7	14/7,7	7,8/7,4	193
250 B2 BI	4/6	2,2/0,70	400	4,9/2,5	5,4/2,8	6/5,5	152
250 B2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158
250 C2 BI	4/6	1,5/0,37	400	3,7/1,6	4/1,8	5,5/4,5	148
250 C2 BI	4/6	2,2/0,70	400	4,9/2,5	5,4/2,8	6/5,5	152
250 C2 BI	4/6	3,0/1,00	400	6,9/3,9	7,5/4,4	7,6/6,2	158

Cabinet Fans

CYCLONE F400°C: type 250

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

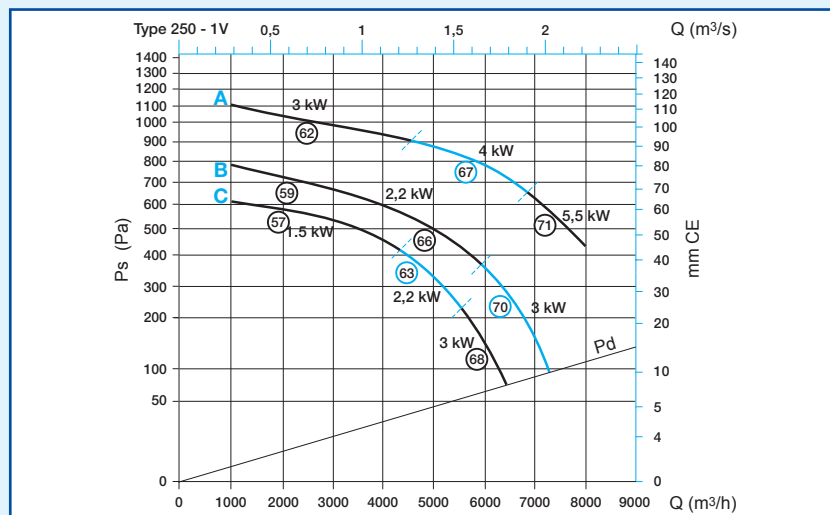
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
250 rain hood	OPT39324
Adjustable pulley 250-280	OPT39350
Thermal insulation - 250	OPT39356
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 2 Speeds max 6.5 kW	OPT39318
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

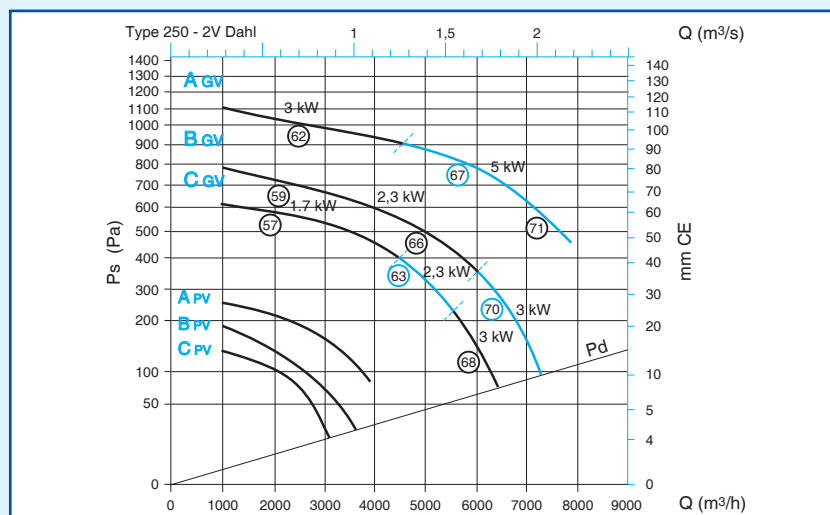
Description	Code
Flexible sleeve kit M0 Ø 450	11096939
Type 250 flexible exhaust sleeve	11039332
Type 250 flexible exhaust adapter	11039340
4-piece anti-vibration support base	11039347

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

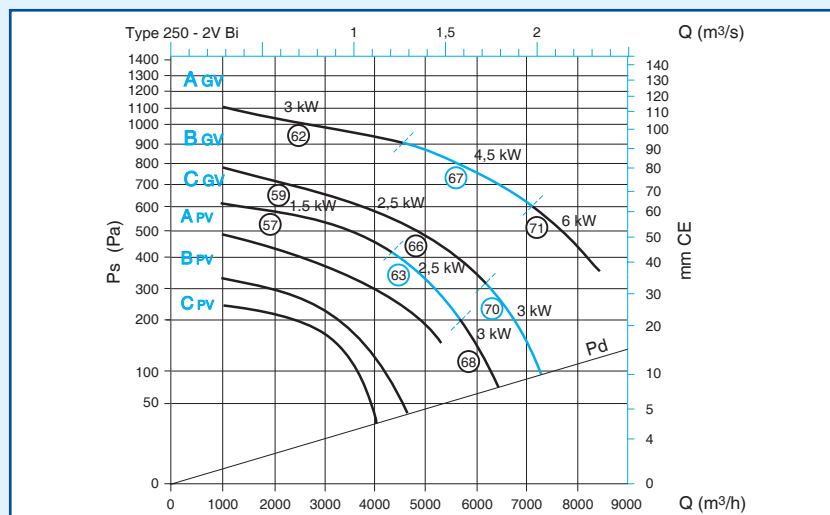
Q (m³/h)	2000	3000	4000	5000	6000	7000	8000
C (Pa)	39	89	157	246	354	482	630



Cyclone F 400 - 250 - 1 Speed



Cyclone F 400 - 250 - 2 Speed - Dahlander



Cyclone F 400 - 250 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 280



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 10,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 280 A 4.0 kW	11039014
Cyclone 280 A 5.5 kW	11039015
Cyclone 280 A 7.5 kW	11039016
Cyclone 280 B 3.0 kW	11039017
Cyclone 280 B 4.0 kW	11039018
Cyclone F400 2 speeds - Dahlander	
Cyclone 280 A - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039114
Cyclone 280 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039115
Cyclone 280 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039116
Cyclone 280 B - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039118
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 280 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039214
Cyclone 280 A - 2 Speeds BI 6 kW/ 2 kW	11039215
Cyclone 280 B - 2 Speeds BI 3 kW/ 1 kW	11039217
Cyclone 280 A - 2 Speeds BI 4.5 kW/ 1.5 kW	11039218

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 968 x 1225 x 1014.
- Ø Suction = 500.
- Exhaust cross section:
 - Vertical discharge R x R = 364 x 364,
 - Horizontal discharge R x R1 = 364 x 262.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
280 A	4	4,0	230/400	8,4	9,2	7	181
280 A	4	5,5	230/400	11,5	12,7	7,3	194
280 A	4	7,5	230/400	15,3	16,8	7,9	202
280 B	4	3,0	230/400	6,6	7,3	5,5	178
280 B	4	4,0	230/400	8,4	9,2	7	181
Cyclone F400 2 speeds - Dahlander							
280 A2 Dahl	4/8	3,5/0,7	400	7,0/2,5	7,7/2,8	6,8/4,4	164
280 A2 Dahl	4/8	5,0/1,0	400	9,9/3,3	10,9/3,6	6,4/3,6	182
280 A2 Dahl	4/8	6,8/1,4	400	13,7/5,1	15,1/5,6	7,6/3,6	193
280 B2 Dahl	4/8	3,5/0,7	400	7,0/2,5	7,7/2,8	6,8/4,4	164
Cyclone F400 2 Speeds - Independent Windings (BI)							
280 A2 BI	4/6	4,5/1,5	400	9,2/5,1	10,1/5,6	6,5/4,2	182
280 A2 BI	4/6	6,0/2,0	400	12,0/5,6	13,2/6,2	7,1/4,5	193
280 B2 BI	4/6	3,0/1,0	400	6,3/3,1	6,9/3,4	6/4	158
280 B2 BI	4/6	4,5/1,5	400	9,2/5,1	10,1/5,6	6,5/4,2	182

Cabinet Fans

CYCLONE F400°C: type 280

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

$$\text{System pressure loss (upstream+downstream)} = \text{Ps} - \text{Pd} + \text{C}$$

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

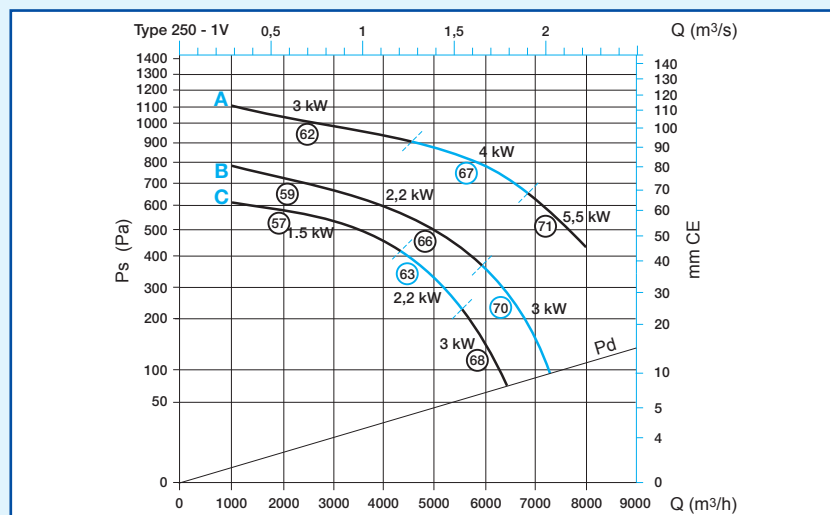
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
280 rain hood	OPT39325
Adjustable pulley 250-280	OPT39350
Thermal insulation - 280	OPT39357
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

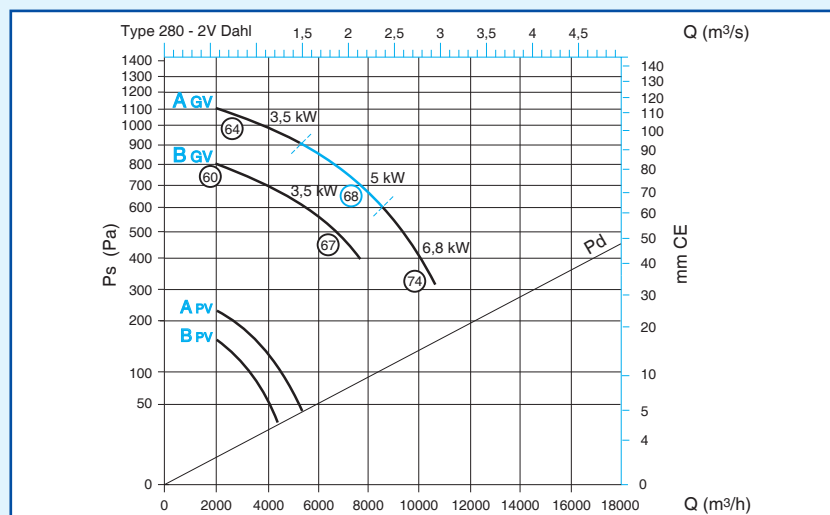
Description	Code
D 500 flexible sleeve	11096940
Type 280 flexible exhaust sleeve	11039333
Type 280 flexible exhaust adapter - D500 mm	11039341
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

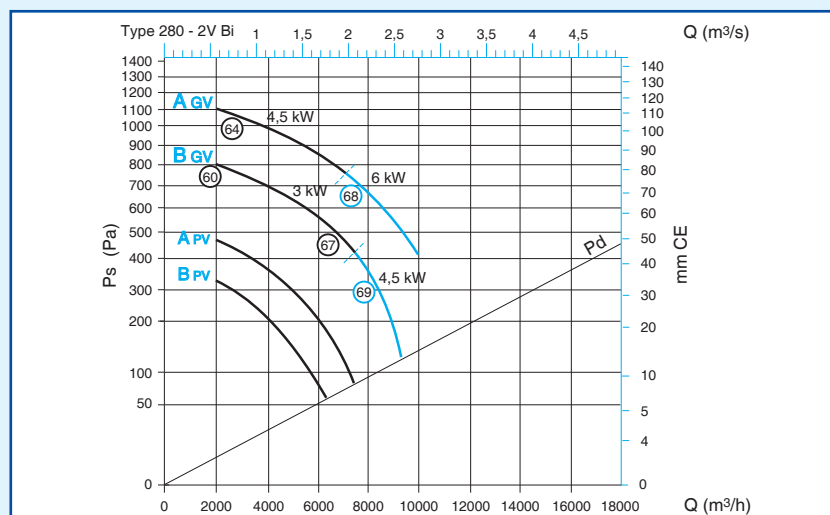
Q (m³/h)	4000	5000	6000	7000	8000	9000	10000	11000
C (Pa)	95	148	213	290	379	479	592	716



Cyclone F 400 - 280 - 1 Speed



Cyclone F 400 - 280 - 2 Speed - Dahlander



Cyclone F 400 - 280 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 315



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 12,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
CYCLONE F 400 1 speed	
Cyclone 315 A 5.5 kW	11039019
Cyclone 315 A 7.5 kW	11039020
Cyclone 315 A 11 kW	11039021
Cyclone 315 B 4.0 kW	11039022
Cyclone 315 B 5.5 kW	11039023
Cyclone 315 B 7.5 kW	11039024
Cyclone F400 2 speeds - Dahlander	
Cyclone 315 A - 2 Speeds Dahlander 5 kW/ 1 kW	11039119
Cyclone 315 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039120
Cyclone 315 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039121
Cyclone 315 B - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039122
Cyclone 315 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039123
Cyclone 315 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039124
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 315 A - 2 Speeds BI 6 kW/ 2 kW	11039219
Cyclone 315 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039221
Cyclone 315 B - 2 Speeds BI 4.5 kW/ 1.5 kW	11039222
Cyclone 315 B - 2 Speeds BI 6 kW/ 2 kW	11039223

DIMENSIONS (mm)

Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1070 x 1390 x 1162.

- Ø Suction = 560.
- Exhaust cross section:
 - Vertical discharge R x R = 407 x 407,
 - Horizontal discharge R x R1 = 407 x 288.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
315 A	4	5,5	230/400	11	12,7	6,5	232
315 A	4	7,5	230/400	14,8	16,8	6,7	240
315 A	4	11,0	230/400	22,1	23,7	6	367
315 B	4	4,0	230/400	8,2	9,2	6,2	219
315 B	4	5,5	230/400	11	12,7	6,5	232
315 B	4	7,5	230/400	14,8	16,8	6,7	240
Cyclone F400 2 speeds - Dahlander							
315 A2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	244
315 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	255
315 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	292
315 B2 Dahl	4/8	3,8/1	400	8,5/4	9,3/4,4	7,5/4,8	226
315 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	244
315 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	255
Cyclone F400 2 Speeds - Independent Windings (BI)							
315 A2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	255
315 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	292
315 B2 BI	4/6	4,5/1,5	400	10,2/5,4	11,1/5,9	7,5/7	244
315 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	255

Cabinet Fans

CYCLONE F400°C: type 315

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.

- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

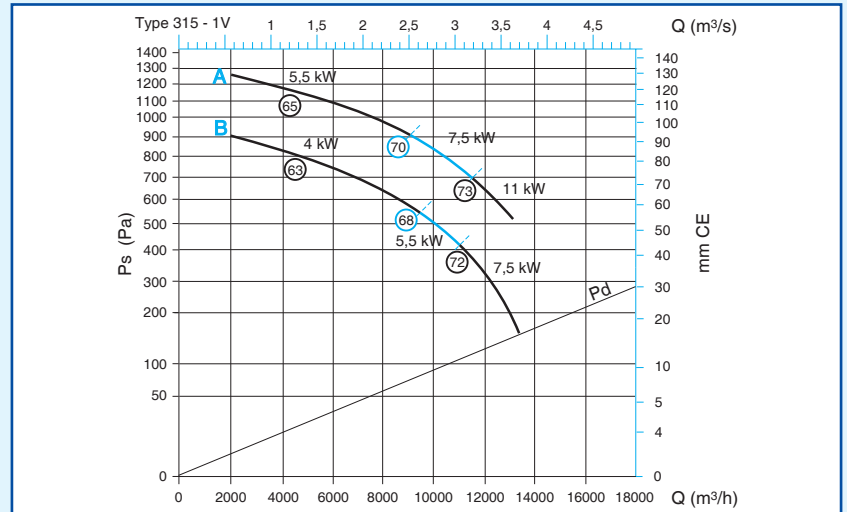
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
315 rain hood	OPT39326
Adjustable pulley 315-355	OPT39351
Thermal insulation - 315	OPT39358
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

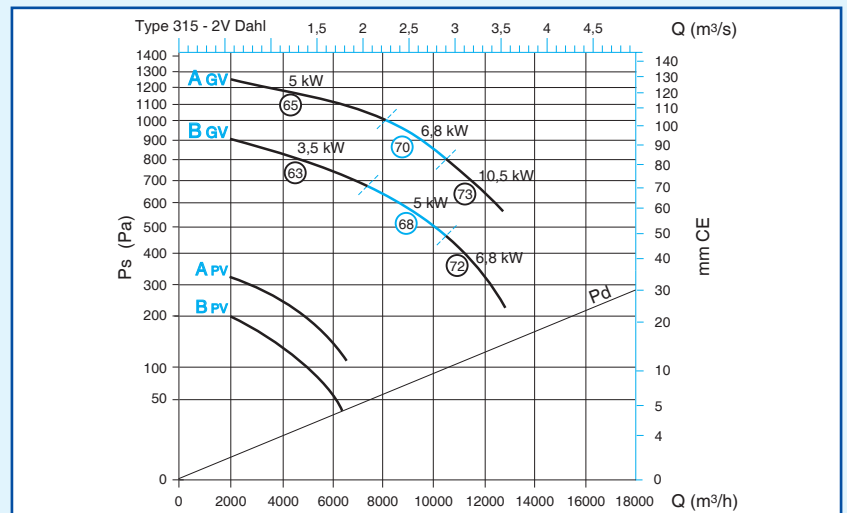
Description	Code
Flexible sleeve kit M0 Ø560	11096941
Type 315 flexible exhaust sleeve	11039334
Type 315 flexible exhaust adapter	11039342
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

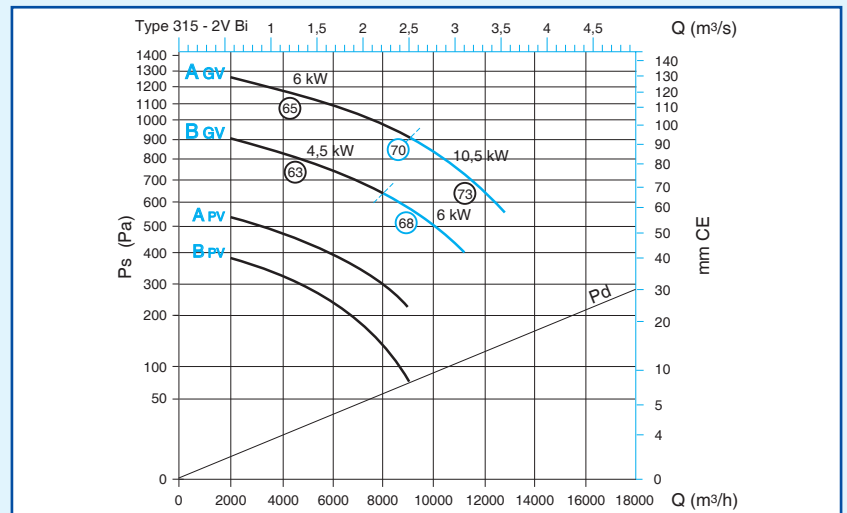
Q (m³/h)	4000	6000	8000	10000	12000
C (Pa)	61	137	244	381	548



Cyclone F 400 - 315 - 1 Speed



Cyclone F 400 - 315 - 2 Speed - Dahlander



Cyclone F 400 - 315 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 355



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 14,000 m³/h.

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1105 x 1480 x 1256.
- Ø Suction = 630.
- Exhaust cross section:
 - Vertical discharge R x R = 453 x 453,
 - Horizontal discharge R x R1 = 453 x 330.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 355 A 7.5 kW	11039025
Cyclone 355 A 11 kW	11039026
Cyclone 355 B 5.5 kW	11039027
Cyclone 355 B 7.5 kW	11039028
Cyclone 355 C 4.0 kW	11039029
Cyclone 355 C 5.5 kW	11039030
Cyclone 355 C 7.5 kW	11039031
Cyclone F400 2 speeds - Dahlander	
Cyclone 355 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039125
Cyclone 355 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039126
Cyclone 355 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039127
Cyclone 355 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039128
Cyclone 355 C - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039129
Cyclone 355 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039130
Cyclone 355 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039131
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 355 A - 2 speeds - BI 10.5 kW/ 3.5 kW	11039226
Cyclone 355 B - 2 speeds - BI 6 kW/ 2 kW	11039227
Cyclone 355 C - 2 speeds - BI 4.5 kW/ 1.5 kW	11039229
Cyclone 355 C - 2 speeds - BI 6 kW/ 2 kW	11039230

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
355 A	4	7,5	230/400	14,8	16,8	6,7	273
355 A	4	11,0	230/400	22,1	23,7	6	300
355 B	4	5,5	230/400	11	12,7	6,5	265
355 B	4	7,5	230/400	14,8	16,8	6,7	273
355 C	4	4,0	230/400	8,2	9,2	6,2	252
355 C	4	5,5	230/400	11	12,7	6,5	265
355 C	4	7,5	230/400	14,8	16,8	6,7	273
Cyclone F400 2 speeds - Dahlander							
355 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
355 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	325
355 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,4/3,9	8,5/6,2	277
355 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
355 C2 Dahl	4/8	3,8/1	400	8,5/4	9,3/4,4	7,5/4,8	259
355 C2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,4/3,9	8,5/6,2	277
355 C2 Dahl	4/8	7,2/1,8	400	16,5/5,1	17,5/5,6	7,9/4,2	288
Cyclone F400 2 Speeds - Independent Windings (BI)							
355 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	325
355 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	288
355 C2 BI	4/6	4,5/1,5	400	10,2/5,4	11,2/5,9	7,5/7	277
355 C2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	288

Cabinet Fans

CYCLONE F400°C: type 355

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) =
Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

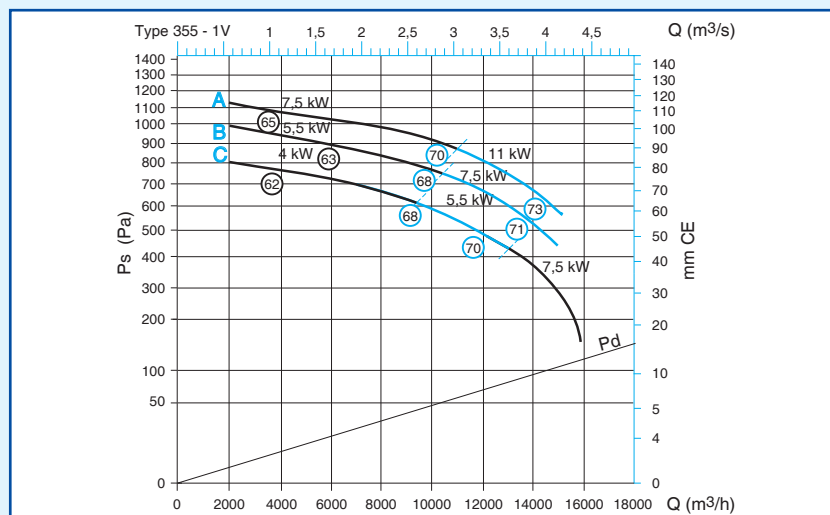
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
355 rain hood	OPT39327
Adjustable pulley 315-355	OPT39351
Thermal insulation - 355	OPT39359
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

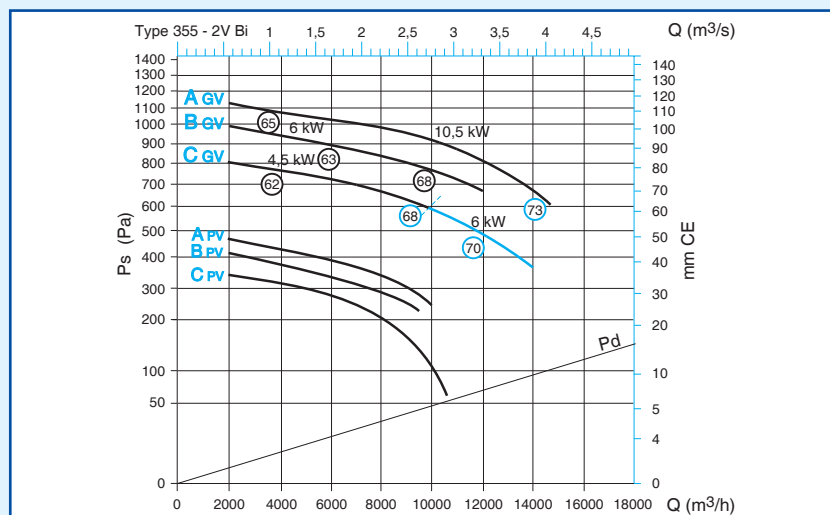
Description	Code
Flexible sleeve kit M0 Ø630	11096942
Flexible sleeve Exhaust - Type 355	11039335
Type 355 flexible exhaust adapter - D630 mm	11039343
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

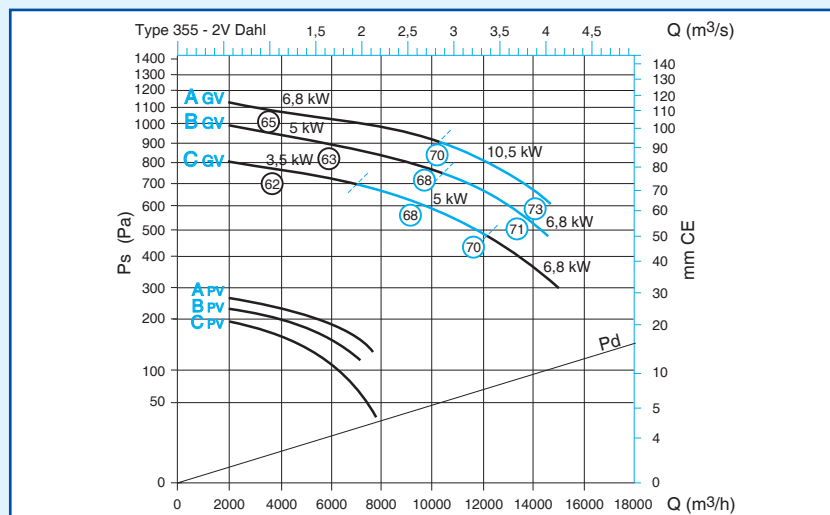
Q (m ³ /h)	4000	6000	8000	10000	12000	14000
C (Pa)	37	83	147	230	332	451



Cyclone F 400 - 355 - 1 Speed



Cyclone F 400 - 355 - 2 Speed - Dahlander



Cyclone F 400 - 355 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 400



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 2000 and 20,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 400 A - 7.5 kW	11039032
Cyclone 400 A - 11 kW	11039033
Cyclone 400 A - 15 kW	11039034
Cyclone 400 B - 5.5 kW	11039035
Cyclone 400 B - 7.5 kW	11039036
Cyclone 400 B - 11 kW	11039037
Cyclone 400 C - 4.0 kW	11039038
Cyclone 400 C - 5.5 kW	11039039
Cyclone 400 C - 7.5 kW	11039040
Cyclone F400 2 speeds - Dahlander	
Cyclone 400 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039132
Cyclone 400 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039133
Cyclone 400 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039134
Cyclone 400 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039135
Cyclone 400 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039136
Cyclone 400 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039137
Cyclone 400 C - 2 Speeds Dahlander 3.5 kW/ 0.7 kW	11039138
Cyclone 400 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039139
Cyclone 400 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039140
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 400 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039233
Cyclone 400 A - 2 Speeds BI 16 kW/ 5 kW	11039234
Cyclone 400 B - 2 Speeds BI 6 kW/ 2 kW	11039235
Cyclone 400 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039237
Cyclone 400 C - 2 Speeds BI 4.5 kW/ 1.5 kW	11039238
Cyclone 400 C - 2 Speeds BI 6 kW/ 2 kW	11039239

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1205 x 1600 x 1370.
- Ø Suction = 710.
- Exhaust cross section:
 - Vertical discharge R x R = 507 x 507,
 - Horizontal discharge R x R1 = 507 x 346.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
400 A	4	7.5	230/400	14,8	16.8	6,7	352
400 A	4	11.0	230/400	22,1	23.7	6	379
400 A	4	15.0	230/400	29,1	33.0	5,8	398
400 B	4	5.5	230/400	11	12.7	6,5	344
400 B	4	7.5	230/400	14,8	16.8	6,7	352
400 B	4	11.0	230/400	22,1	23.7	6	379
400 C	4	4.0	230/400	8,2	9.2	6,2	331
400 C	4	5.5	230/400	11	12.7	6,5	344
400 C	4	7.5	230/400	14,8	16.8	6,7	352
Cyclone F400 2 speeds - Dahlander							
400 A2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
400 A2 Dahl	4/8	11/3	400	21.0/7	23.1/7.7	7/4.3	404
400 A2 Dahl	4/8	14/3.5	400	26.5/8.5	30/9.4	7,2/4,2	427
400 B2 Dahl	4/8	5.0/1.3	400	10.4/3.5	11.4/3.8	8,5/6,2	356
400 B2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
400 B2 Dahl	4/8	11/3	400	21.0/7	23.1/7.7	7/4.3	404
400 C2 Dahl	4/8	3.8/1	400	8.5/4	9.3/4.4	7,5/4,8	338
400 C2 Dahl	4/8	5.0/1.3	400	10.4/3.5	11.4/3.8	8,5/6,2	356
400 C2 Dahl	4/8	7.2/1.8	400	16,5/5.1	18/5.6	7,9/4,2	367
Cyclone F400 2 Speeds - Independent Windings (BI)							
400 A2 BI	4/6	10/3.3	400	22/8.7	24/9.5	7/4	404
400 A2 BI	4/6	16.0/6.5	400	28.4/12.5	31/13.8	8,5/7,6	427
400 B2 BI	4/6	6.0/2.2	400	13.7/7	15/7.7	7,8/7,4	367
400 B2 BI	4/6	10/3.3	400	22/8.7	24/9.5	7/4	404
400 C2 BI	4/6	4.5/1.5	400	10.2/5.4	11.1/5.9	7,5/7	356
400 C2 BI	4/6	6.0/2.2	400	13.7/7	15/7.7	7,8/7,4	367

Cabinet Fans

CYCLONE F400°C: type 400

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

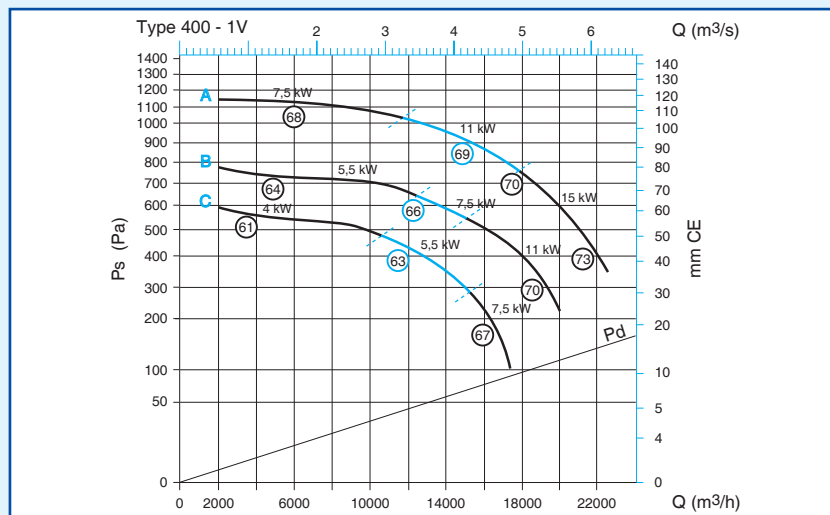
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
400 rain hood	OPT39328
Adjustable pulley - 400	OPT39352
Thermal insulation - 400	OPT39360
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

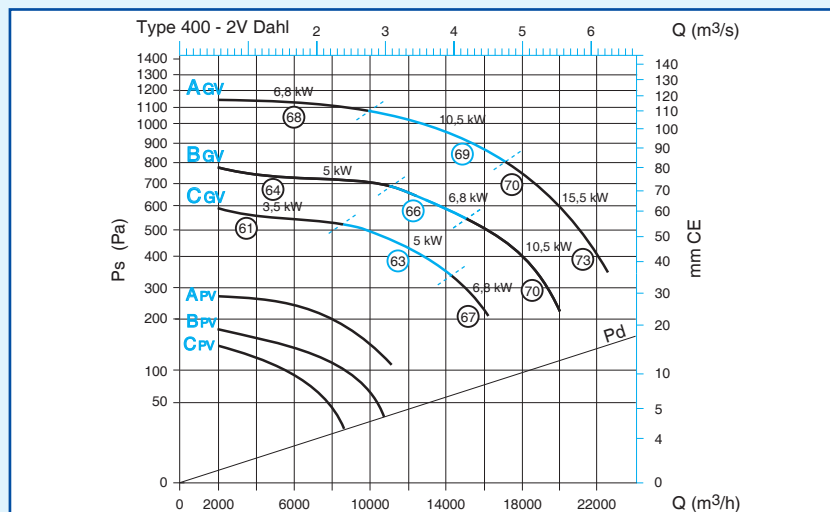
Description	Code
D 710 flexible sleeve	11096930
Type 400 flexible exhaust sleeve	11039336
Type 400 flexible exhaust adapter	11039344
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

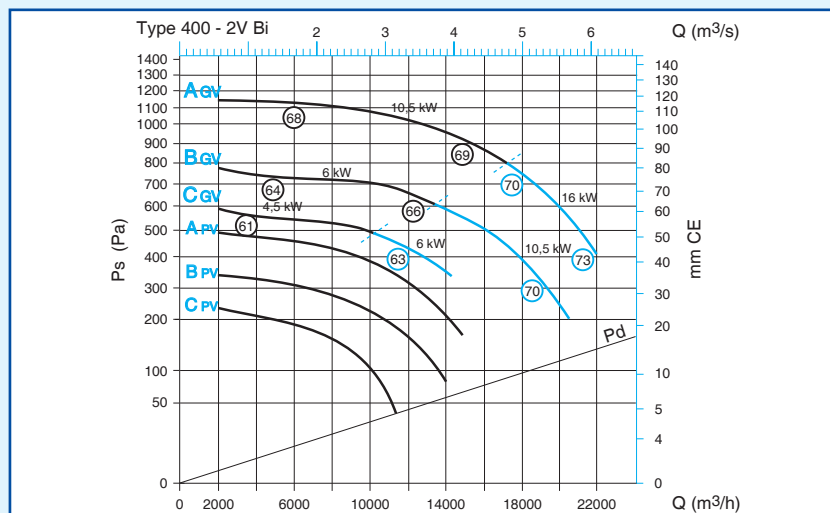
Q (m ³ /h)	6000	8000	10000	12000	14000	16000	18000	20000	22000
C (Pa)	53	94	147	212	288	376	476	588	712



Cyclone F 400 - 400 - 1 Speed



Cyclone F 400 - 400 - 2 Speed - Dahlander



Cyclone F 400 - 400 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 450



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 4000 and 24,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 450 A 7.5 kW	11039041
Cyclone 450 A 11 kW	11039042
Cyclone 450 A 15 kW	11039043
Cyclone 450 B 5.5 kW	11039044
Cyclone 450 B 7.5 kW	11039045
Cyclone 450 B 11 kW	11039046
Cyclone F400 2 speeds - Dahlander	
Cyclone 450 A - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039141
Cyclone 450 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039142
Cyclone 450 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039143
Cyclone 450 B - 2 Speeds Dahlander 5 kW/ 1 kW	11039144
Cyclone 450 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039145
Cyclone 450 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039146
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 450 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039242
Cyclone 450 A - 2 Speeds BI 16 kW/ 5 kW	11039243
Cyclone 450 B - 2 Speeds BI 6 kW/ 2 kW	11039244
Cyclone 450 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039246

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1357 x 1844 x 1492.
- Ø Suction = 800.
- Exhaust cross section:
 - Vertical discharge R x R = 569 x 569,
 - Horizontal discharge R x R1 = 569 x 392.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
450 A	4	7,5	230/400	14,8	16,8	6,7	458
450 A	4	11,0	230/400	22,1	23,7	6	485
450 A	4	15,0	230/400	29,1	33,0	5,8	504
450 B	4	5,5	230/400	11	12,7	6,5	450
450 B	4	7,5	230/400	14,8	16,8	6,7	458
450 B	4	11,0	230/400	22,1	23,7	6	485
Cyclone F400 2 speeds - Dahlander							
450 A2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	473
450 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	510
450 A2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	533
450 B2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	462
450 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	473
450 B2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	510
Cyclone F400 2 Speeds - Independent Windings (BI)							
450 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	510
450 A2 BI	4/6	16,0/6,5	400	28,4/12,5	31/13,8	8,5/7,6	533
450 B2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	473
450 B2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	510

Cabinet Fans

CYCLONE F400°C: type 450

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.
- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) = Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

- The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

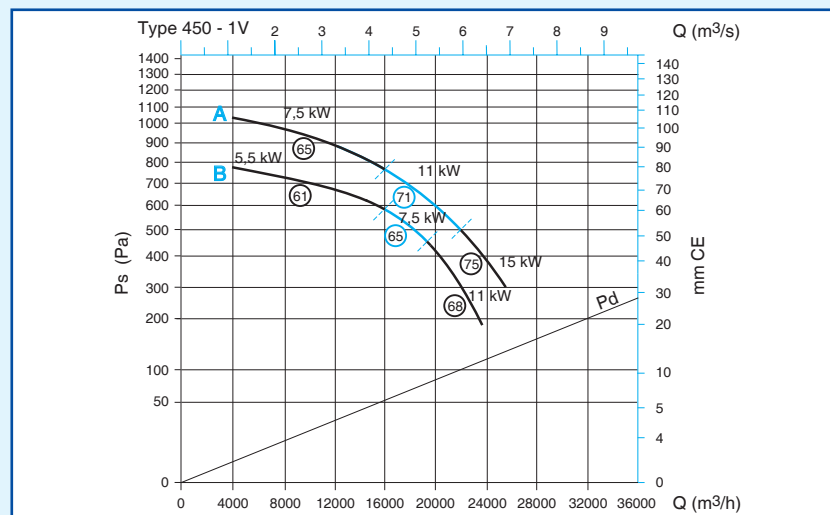
Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
450 rain hood	OPT39329
Adjustable pulley - 450	OPT39353
Thermal insulation - 450	OPT39361
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
Proximity switch 2 Speeds max 22 kW	OPT39320
100 - 1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

CONNECTION ACCESSORIES R8

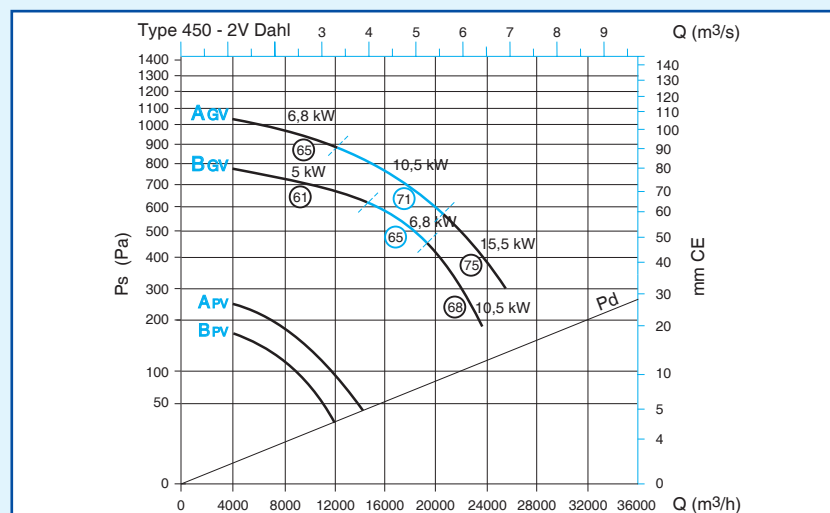
Description	Code
D 800 flexible sleeve	11096931
Flexible sleeve Exhaust - Type 450	11039337
Flexible adapter Exhaust - Type 450	11039345
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

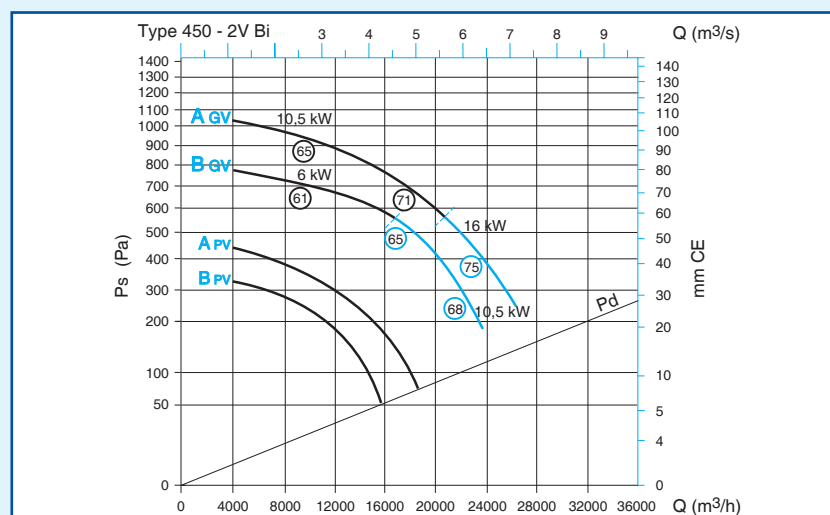
Q (m³/h)	8000	12000	16000	20000	24000
C (Pa)	61	137	244	382	550



Cyclone F 400 - 450 - 1 Speed



Cyclone F 400 - 450 - 2 Speed - Dahlander



Cyclone F 400 - 450 - 2 Speed - Independent windings

Cabinet Fans

CYCLONE F400°C: type 500



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2 hour fire rating: F400°C (120).
- Extension of the "thermally insulated" classification.

Advantages

- "Proximity switch" option: Simplified wiring to save time when fitting.
- "Thermal insulation" option: to avoid the CMEV system in attics.

DESCRIPTION

- Airflow between 4000 and 32,000 m³/h.

RANGE with a choice of options **R8**

Description	Code
Cyclone F400 1 speed	
Cyclone 500 A 11 kW	11039047
Cyclone 500 A 15 kW	11039048
Cyclone 500 A 22 kW	11039049
Cyclone 500 B 7.5 kW	11039050
Cyclone 500 B 11 kW	11039051
Cyclone 500 B 15 kW	11039052
Cyclone 500 C 5.5 kW	11039053
Cyclone 500 C 7.5 kW	11039054
Cyclone 500 C 11 kW	11039055
Cyclone F400 2 speeds - Dahlander	
Cyclone 500 A - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039147
Cyclone 500 A - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039148
Cyclone 500 A - 2 Speeds Dahlander 22.5 kW/ 4.4 kW	11039149
Cyclone 500 B - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039150
Cyclone 500 B - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039151
Cyclone 500 B - 2 Speeds Dahlander 15.5 kW/ 2.7 kW	11039152
Cyclone 500 C - 2 Speeds Dahlander 5 kW/ 1 kW	11039153
Cyclone 500 C - 2 Speeds Dahlander 6.8 kW/ 1.4 kW	11039154
Cyclone 500 C - 2 Speeds Dahlander 10.5 kW/ 2.2 kW	11039155
Cyclone F400 2 Speeds - Independent Windings (BI)	
Cyclone 500 A - 2 Speeds BI 10.5 kW/ 3.5 kW	11039247
Cyclone 500 A - 2 Speeds BI 16 kW/ 5 kW	11039248
Cyclone 500 A - 2 Speeds BI 23 kW/ 7.2 kW	11039249
Cyclone 500 B - 2 Speeds BI 10.5 kW/ 3.5 kW	11039251
Cyclone 500 B - 2 Speeds BI 16 kW/ 5 kW	11039252
Cyclone 500 C - 2 Speeds BI 6 kW/ 2 kW	11039253
Cyclone 500 C - 2 Speeds BI 10.5 kW/ 3.5 kW	11039255

DIMENSIONS (mm)

- Overall dimensions: Width (X) x Height (Z1) x Depth (Y) = 1495 x 1964 x 1621.
- Ø Suction = 800.
- Exhaust cross section:
 - Vertical discharge R x R = 638 x 638,
 - Horizontal discharge R x R1 = 638 x 460.

ELECTRICAL DETAILS - WEIGHT

Type	No of Poles	P (kW)	U (V)	Rated Current (A)	I _{max} (A)	Id/IN	Weight (kg)
500 A	4	11,0	230/400	22,1	23,7	6	549
500 A	4	15,0	230/400	29,1	33,0	5,8	568
500 A	4	22,0	230/400	41	45,1	7	615
500 B	4	7,5	230/400	14,8	16,8	6,7	522
500 B	4	11,0	230/400	22,1	23,7	6	549
500 B	4	15,0	230/400	29,1	33,0	5,8	568
500 C	4	5,5	230/400	11	12,7	6,5	514
500 C	4	7,5	230/400	14,8	16,8	6,7	522
500 C	4	11,0	230/400	22,1	23,7	6	549
Cyclone F400 2 speeds - Dahlander							
500 A2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
500 A2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	597
500 A2 Dahl	4/8	20/5	400	38,6/14,1	42/15,5	8,8/5,1	641
500 B2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	537
500 B2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
500 B2 Dahl	4/8	14/3,5	400	26,5/8,5	29/9,5	7,2/4,2	597
500 C2 Dahl	4/8	5,0/1,3	400	10,4/3,5	11,5/3,9	8,5/6,2	526
500 C2 Dahl	4/8	7,2/1,8	400	16,5/5,1	18/5,6	7,9/4,2	537
500 C2 Dahl	4/8	11/3	400	21,0/7	23,1/7,7	7/4,3	574
Cyclone F400 2 Speeds - Independent Windings (BI)							
500 A2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574
500 A2 BI	4/6	16/6,5	400	28,4/12,5	31/13,8	8,5/7,6	597
500 A2 BI	4/6	20/8,5	400	39,4/16,3	43/18	9/8,7	641
500 B2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574
500 B2 BI	4/6	16/6,5	400	28,4/12,5	31/13,8	8,5/7,6	597
500 C2 BI	4/6	6,0/2,2	400	13,7/7	15/7,7	7,8/7,4	537
500 C2 BI	4/6	10/3,3	400	22/8,7	24/9,5	7/4	574

Cabinet Fans

CYCLONE F400°C: type 500

AIRFLOW AND ACOUSTIC DETAILS

• Curves follow those of the French Standard NF EN ISO 5801, Installation C: connected suction - free exhaust.

- Ps: Static suction pressure.

- Pd: Dynamic duct suction pressure.

• For a casing with a connected exhaust (for example: in an attic space), select a casing so that:

System pressure loss (upstream+downstream) =

Ps - Pd + C

Note: do not forget the pressure loss in the ductwork downstream of the fan which may be high.

Example: see page CYCLONE type 225 (p. 322).

• The circled values correspond to the acoustic pressure measured at 6 m from the casing in dB (A).

AVAILABLE OPTIONS R8

Description	Code
Casing configuration options	
Horizontal discharge	OPT39300
Vertical discharge	OPT39301
Motor on opposite face	OPT39302
500 rain hood	OPT39330
Thermal insulation - 500	OPT39362
Electrical accessories options	
Proximity switch 1 Speed max 6.5 kW	OPT39315
Proximity switch 1 Speed max 15 kW	OPT39316
Proximity switch 1 Speed max 30 kW	OPT39317
Proximity switch 2 Speeds max 6.5 kW	OPT39318
Proximity switch 2 Speeds max 13 kW	OPT39319
Proximity switch 2 Speeds max 22 kW	OPT39320
100 -1,000 Pa pressure switch	OPT39321
2nd pressure switch 100-1000 Pa.	OPT39322

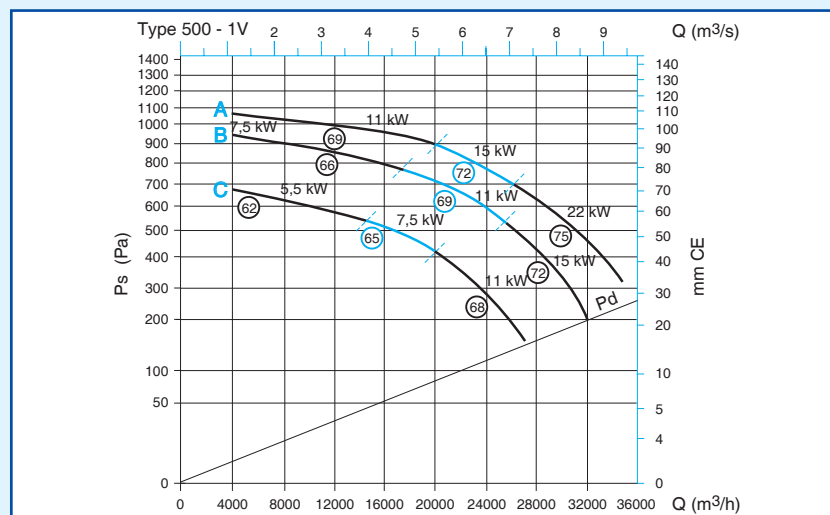
Note: The integrated "All-in-One" option includes the IP+DP.

CONNECTION ACCESSORIES R8

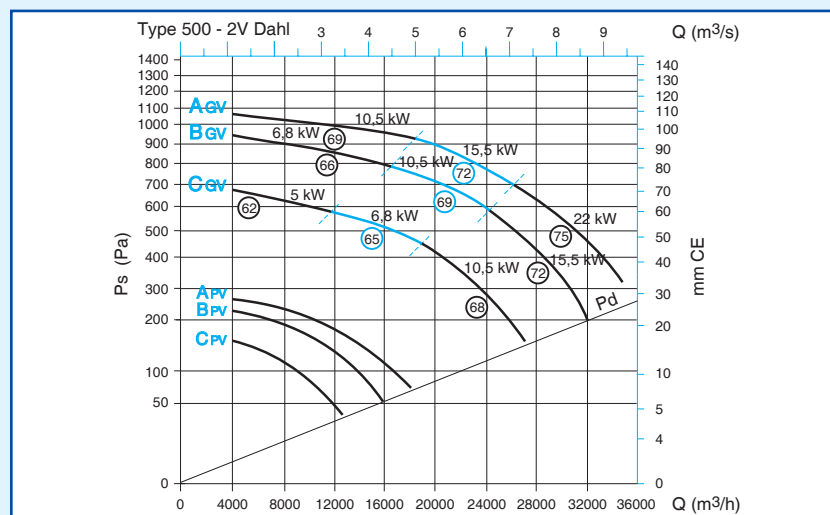
Description	Code
D 800 flexible sleeve	11096931
Flexible sleeve Exhaust - Type 500	11039338
Flexible adapter Exhaust - Type 500	11039346
6 pieces of anti-vibration mountings	11039348

C COEFFICIENT FOR THE CONNECTED EXHAUST CORRECTION

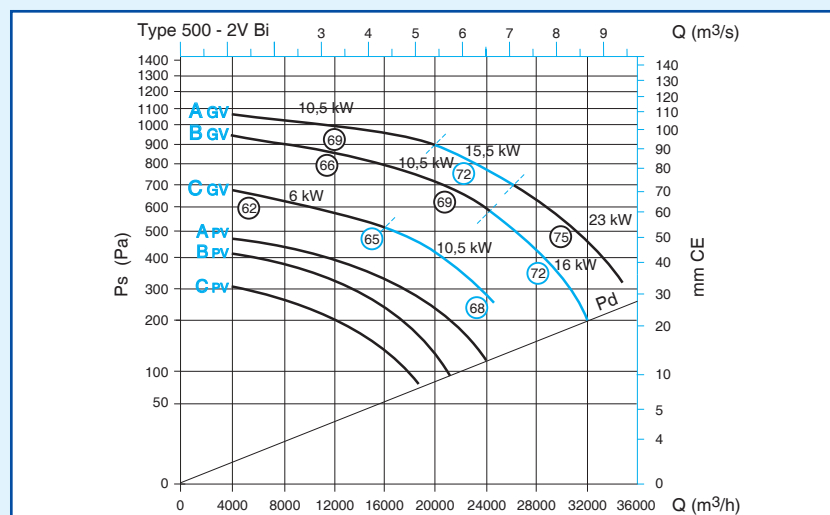
Q (m ³ /h)	8000	12000	16000	20000	24000	28000	32000
C (Pa)	45	102	182	284	409	557	728



Cyclone F 400 - 500 - 1 Speed



Cyclone F 400 - 500 - 2 Speed - Dahlander



Cyclone F 400 - 500 - 2 Speed - Independent windings

Roof Fans

Exhaust Fans



VDA

APPLICATION

- Air exhaust roof fan designed for CMEV systems in residential and commercial buildings.

DESCRIPTION

- 10 sizes, from 100 to 12000 m³/h.
- Vertical jet.
- Shell made from thermoformed fibre and resin.
- Bird and insect protection grille.
- Backward curved centrifugal impeller.

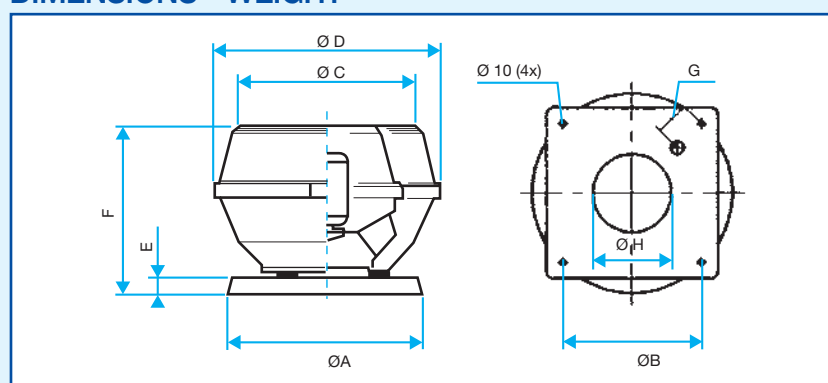
INSTALLATION

- Horizontal.
- Terrace or roof with assembly fixing base (accessory).

RANGE R8

Description	Code
1-speed 1-phase VDA	
VDA 160/4 M	11024001
VDA 180/4 M	11024002
VDA 200/4 M	11024003
VDA 225/4 M	11024005
VDA 250/6 M	11024007
VDA 280/6 M	11024013
VDA 355/6 M	11024020
1-speed 3-phase VDA	
VDA 200/4 T	11024004
VDA 225/4 T	11024006
VDA 250/6 T	11024008
VDA 280/6 T	11024014
VDA 355/6 T	11024021
VDA 450/8 T	11024027
VDA 450/6 T	11024028
VDA 500/8 T	11024033
VDA 500/6 T	11024034
VDA 560/8 T	11024040
VDA 560/6 T	11024041
2-speed 3-phase VDA	
VDA 250/6.8 T, 2-speed	11024047
VDA 280/6.8 T, 2-speed	11024048
VDA 355/6.8 T, 2-speed	11024049
VDA 450/6.12 T, 2-speed	11024030
VDA 500/6.12 T, 2-speed	11024037

DIMENSIONS - WEIGHT



Type VDA	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
160	300	245	320	390	30	215	40	146	4
180	300	245	320	390	30	245	40	146	4
200	435	330	404	500	40	400	68	190	11
225	435	330	434	550	40	445	68	212	12
250	560	450	525	630	40	438	100	245	14
280	560	450	571	700	40	487	91	270	18
355	644	535	622	770	40	563	91	303	23
450	710	590	718	900	50	642	100	350	27
500	917	750	890	1060	50	709	100	412	51
560	917	750	988	1200	50	801	100	475	79

ELECTRICAL DETAILS

- IP 54 asynchronous motor, class B (except VDA 160 and 180: IP 44).
- Speed control is possible only with an auto-transformer or frequency regulator (3-phase).
- 2-speed motor, use a 2-speed switch ; see *Electrical Accessories* page 364.

Type	No. of poles	Max. power consumption mono 230V (kW)	Max. power consumption 3-phase 400V (kW)	I. max. consumption 1-phase 230V (A)	I. max. consumption 3-phase 400V (A)
VDA 160	4	0.038	-	0.18	-
VDA 180	4	0.065	-	0.35	-
VDA 200	4	0.080	0.08	0.44	0.25
VDA 225	4	0.140	0.16	0.76	0.39
VDA 250	6	0.100	0.10	0.60	0.33
VDA 280	6	0.140	0.17	0.85	0.45
VDA 350	6	0.280	0.31	1.39	0.67
VDA 450	8	0.280	0.32	1.50	0.86
VDA 450	6	0.500	0.44	2.50	1.10
VDA 500	8	-	0.49	-	1.37
VDA 500	6	-	0.98	-	2.30
VDA 560	8	-	0.96	-	2.20
VDA 560	6	-	1.82	-	4.15
VDA 2502 Sp.	8/6	-	0.11/0.12	-	0.31/0.27
VDA 2802 Sp.	8/6	-	0.12/0.17	-	0.31/0.30
VDA 3502 Sp.	8/6	-	0.24/0.42	-	0.70/1.03
VDA 4502 Sp.	12/6	-	0.15/0.60	-	0.46/1.25
VDA 5002 Sp.	12/6	-	0.28/1.14	-	0.89/2.35

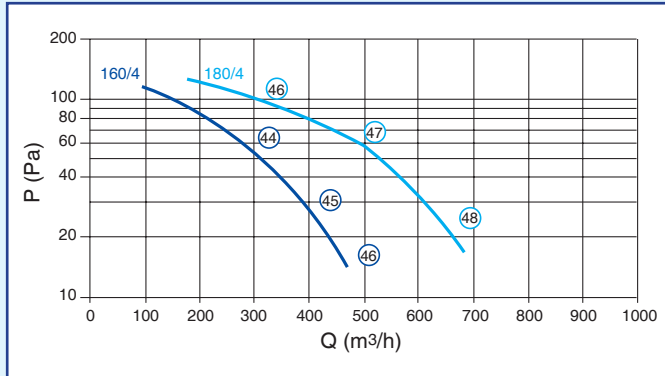
Roof Fans

VDA

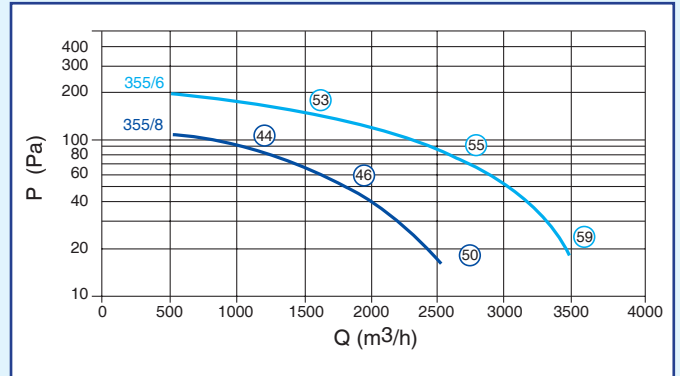
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = Acoustic pressure levels measured 4 m from the casing, with fan outlet connected in dB (A).
- P (Pa) = Static pressure.

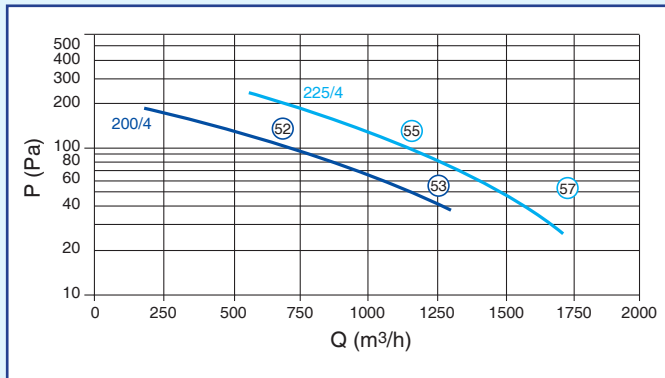
VDA 160



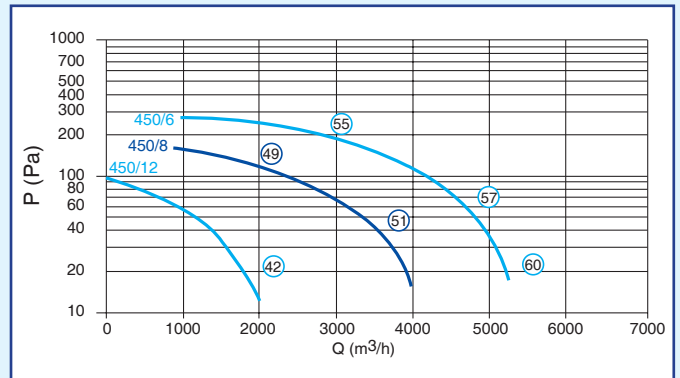
VDA 355



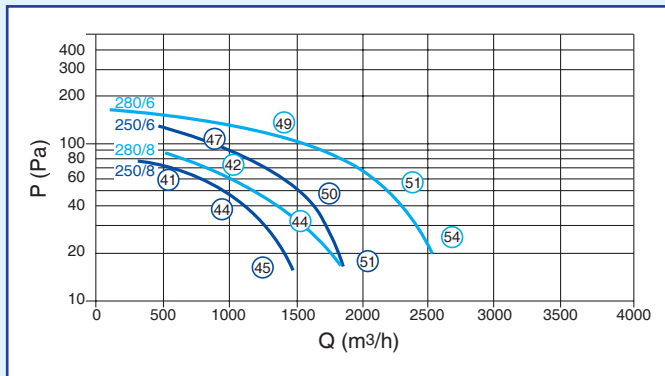
VDA 200



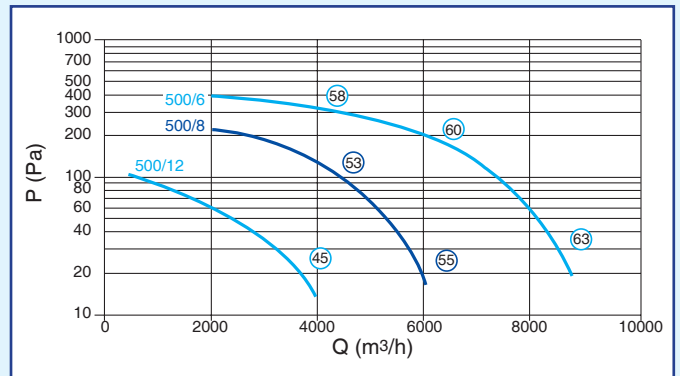
VDA 450



VDA 250



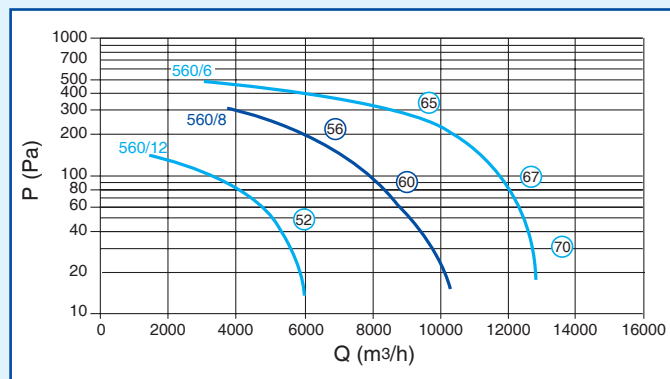
VDA 500



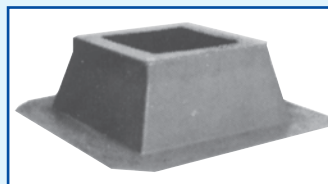
Roof Fans

VDA

VDA 560



Embase DOS



ACCESSORIES R8

Type	DOS Base Code	DVK backdraft damper Code	DVS Adjustable sleeve Code	GDB embedded silencer Code	GDH Protruding silencer Code	PV Leak-tight joint Code
VDA 160-180	11024201	11024221	11024241	11024301	11024261	11024321
VDA 200-225	11024203	11024223	11024243	11024303	11024263	11024323
VDA 250-280	11024205	11024225	11024245	11024305	11024265	11024325
VDA 355	11024207	11024227	11024247	11024307	11024267	11024327
VDA 450	11024208	11024228	11024248	11024308	11024268	11024328
VDA 500-560	11024209	11024229	11024249	11024309	11024269	11024329

ELECTRICAL ACCESSORIES R7 (see pages 359 - 365)

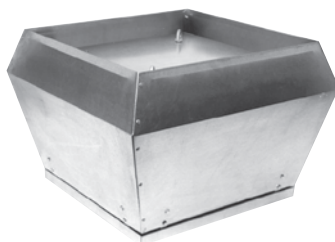
Description
Proximity switch
Thermal overload circuit breaker
Three-phase autotransformer
1 or 2-speed selector switch
Other electrical accessories

Roof Fans

Exhaust Fans



THELIA - Horizontal discharge



THELIA - Vertical discharge

Advantages

- Horizontal or vertical discharge versions.

APPLICATION

- Air exhaust roof fan intended for ventilation of commercial and industrial premises, with a low pressure loss network.
- Temperature range for continual operations: -20°C to +50°C.
- Version for variable speed controller 0-100 %.
- Flame-proof version available: please, consult us.
- "Air Introduction" version available in a horizontal jet: please, consult us.

DESCRIPTION

- 8 sizes, from 500 to 40000 m³/h.
- Axial impeller.
- Cap in aluminium sheet (horizontal jet) or galvanised steel (vertical jet).

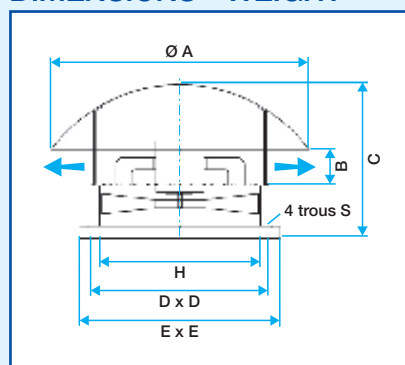
RANGE

- Please, see page 342.

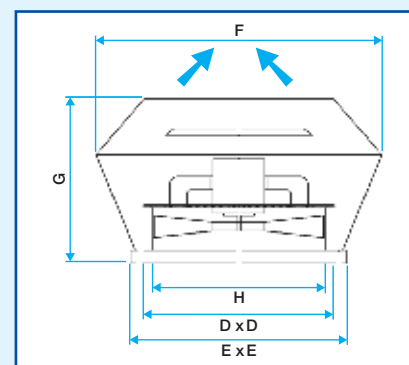
ACCESSORIES R8

Type	Code
Grouting frame	
THELIA 500	11021476
THELIA 550	11021477
THELIA 600	11021478
THELIA 700	11021479
THELIA 800	11021480
THELIA 850	11021481
THELIA 1000	11021482
THELIA 1100	11021483
Backdraft damper	
THELIA 500	11021484
THELIA 550	11021485
THELIA 600	11021486
THELIA 700	11021487
THELIA 800	11021488
THELIA 850	11021489
THELIA 1000	11021490
THELIA 1100	11021491
Flat roof stack	
THELIA 500	11021468
THELIA 550	11021469
THELIA 600	11021470
THELIA 700	11021471
THELIA 800	11021472
THELIA 850	11021473
THELIA 1000	11021474
THELIA 1100	11021475

DIMENSIONS - WEIGHT



THELIA horizontal jet



THELIA vertical jet

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	S (mm)	Weight (Kg)
500	690	64	465	450	500	812	465	404	9	20
550	690	72	470	500	550	880	470	455	9	25
600	960	80	525	550	600	960	525	505	11	30
700	960	96	581	650	700	1110	575	606	11	40
800	1220	112	730	750	800	1340	738	707	11	60
850	1220	128	774	800	850	1420	780	770	13	65
1000	1400	144	734	950	1100	1790	900	909	13	120
1100	1500	160	750	1050	1200	1990	1010	1010	13	170

ELECTRICAL DETAILS

Version	Type	N° of poles	Rated power. (kW)	Rated I. (A)
1-phase 1-speed	500	4	0.180	1.4
	550	4	0.370	3.2
3-phase 1-speed	500	4	0.180	0.6
	500	6	0.075	0.4
	550	4	0.370	1.1
	550	6	0.125	0.7
	600	4	0.750	1.8
	600	6	0.370	1.2
	700	4	1.100	2.7
	700	6	0.550	1.6
	800	4	3.00	7.2
	800	6	1.10	3.2
	850	6	1.10	3.2
3-phase 2-speed Dahlander	1000	6	3.00	7.1
	1100	6	5.50	12.9
	500	4/8	0.55/0.09	1.6/0.6
	550	4/8	0.55/0.09	1.6/0.6
	600	4/8	0.75/0.12	2.3/0.9
	700	4/8	1.5/0.25	3.6/1.3
	800	4/8	3.00/0.55	7.3/2.7
3-phase 2-speed Independent Windings	500	6/8	0.37/0.15	1.2/0.8
	550	6/8	0.37/0.15	1.2/0.8
	600	6/8	0.37/0.15	1.2/0.8
	700	6/8	0.60/0.24	1.6/1.0
	800	6/8	1.5/0.48	3.8/1.6
	850	6/8	1.5/0.48	3.8/1.6

Roof Fans

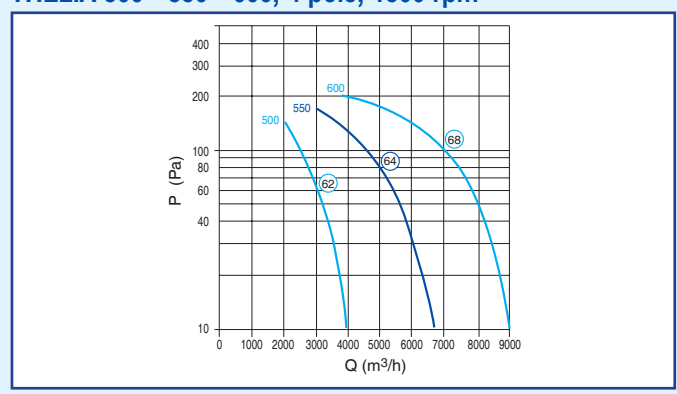
THELIA

AIRFLOW AND ACOUSTIC DETAILS

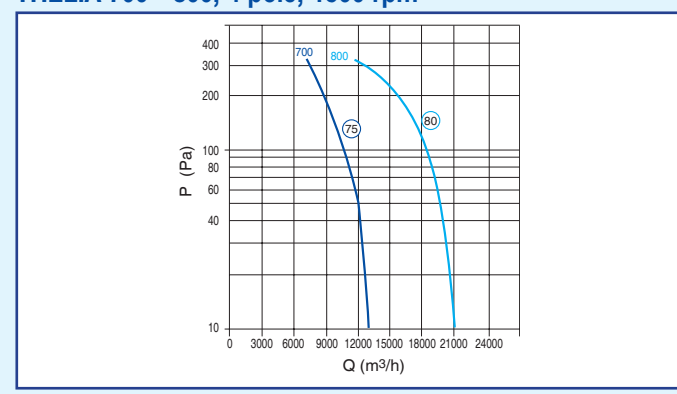
- Airflow curves drawn up in accordance with French Standard ISO 5801.
- Acoustic pressure levels measured 3 m from the fan in dB (A).
- P (Pa) = static pressure.

NOTE: for better acoustics quality, choose the 6 pole or 2-speed versions.

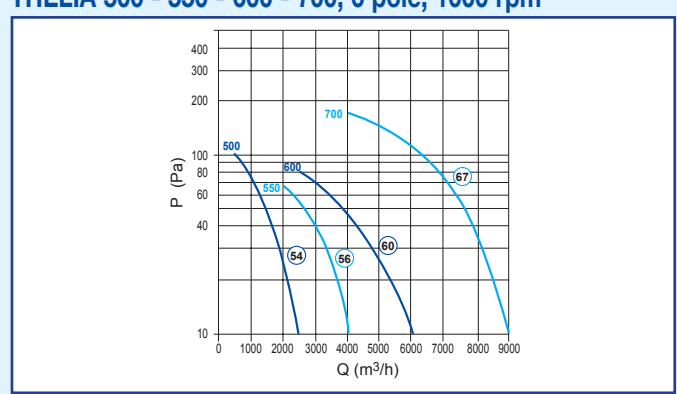
THELIA 500 - 550 - 600, 4 pole, 1500 rpm



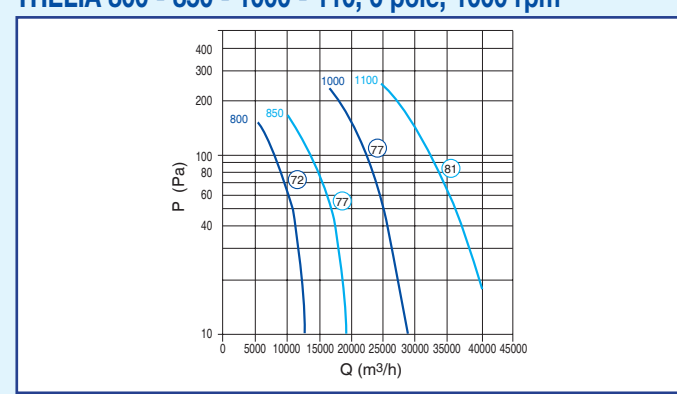
THELIA 700 - 800, 4 pole, 1500 rpm



THELIA 500 - 550 - 600 - 700, 6 pole, 1000 rpm



THELIA 800 - 850 - 1000 - 110, 6 pole, 1000 rpm



RANGE HORIZONTAL JET R8

Description	1-speed / 4 pole 3-phase Code	1-speed / 4 pole 1-phase - VAR Code	1-speed / 4 pole 1-phase Code	1-speed / 6 pole 3-phase Code	2-speed - Dahl. 4/8 pole - 3-phase Code	2-speed - Ind. Wind. 6/8 pole - 3-phase Code
THELIA 1000				11021420		
THELIA 1100				11021421		
THELIA 500	11021404	11021452	11021400	11021414	11021430	11021440
THELIA 550	11021405	11021453	11021401	11021415	11021431	11021441
THELIA 600	11021406			11021416	11021432	11021442
THELIA 700	11021407			11021417	11021433	11021443
THELIA 800	11021408			11021418	11021434	11021444
THELIA 850				11021419		11021445

RANGE VERTICAL JET R8

Description	1-speed / 4 pole 3-phase Code	1-speed / 4 pole 1-phase - VAR Code	1-speed / 4 pole 1-phase Code	1-speed / 6 pole 3-phase Code	2-speed - Dahl. 4/8 pole - 3-phase Code	2-speed - Ind. Wind. 6/8 pole - 3-phase Code
THELIA 1000				11021428		
THELIA 1100				11021429		
THELIA 500	11021409	11021454	11021402	11021422	11021435	11021446
THELIA 550	11021410	11021455	11021403	11021423	11021436	11021447
THELIA 600	11021411			11021424	11021437	11021448
THELIA 700	11021412			11021425	11021438	11021449
THELIA 800	11021413			11021426	11021439	11021450
THELIA 850				11021427		11021451

Roof Fans

Presentation of the VELONE F400°C range - 2h



VELONE without option.



With the "All-in-One" option

CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking.
- F400°C-(2h) min classification in accordance with Standard EN 12101-3.
- All-in-One option, backdraft damper and rain hood kit accessories in compliance with EN 12101-3.

Advantages

- Up to 27000 m³/h.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Aeraulics connection of the pressure switch made at the factory.
- IP x4 validated rain hood kit.
- Pivot pin = Easy cleaning.

APPLICATION

- Smoke exhaust of commercial premises (public assembly, high-rise, commercial or industrial buildings), and multi-family housing (mainly 3rd family B and 4th family).
- Ventilation of commercial premises with a need for fire protection classification (professional kitchens, sports halls, workshops etc.).

FIRE PROTECTION RATING

- VELONE was awarded the classification F400°C-(2h). The All-in-One option (integrated relay box), backdraft damper and the rain hood kit have all been validated by fire resistance tests.
- CE in accordance with Standard EN 12101-3.

DESCRIPTION

- 10 sizes of roof fans: for airflow rates of between 500 and 27,000 m³/h.
- Base and motor mountings in galvanised steel, cover in ABS fixed by 4 quick-motion screws.
- Backward curve impeller in galvanised steel.
- IP 55, Class F electrical motor.
- Protection grille in galvanised steel.

INSTALLATION

- Outdoors on a flat roof stack (accessory) or directly connected to the duct.

AVAILABLE OPTIONS

- Adjustable pressure switch fixed inside to protect it from impacts and bad weather. EXCLUSIVE: The pressure switch is connected/fitted (Note: for use at 2 smoke exhaust speeds, fit 2 pressure switches).
- Proximity switch wired up and fixed inside to protect it from impacts and bad weather.
- ALL-IN-ONE Option.
- Ideal solution when the relay box is installed less than 2 m from the VELONE roof fan.
- Saves time when wiring up, simplified installation and a guarantee that the product will work on-site.
- The wiring of the relay box is carried out at the factory, in compliance with NF-S-61932
- Always comprises the relay box, pressure switch and proximity switch.
- 1 speed model: The AXONE relay box is fixed inside to protect it from impacts and bad weather.
- 2-speed model. The AXONE relay box is fixed outside of the roof fan. Possibility of using the flat roof support.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow.

ACCESSORIES

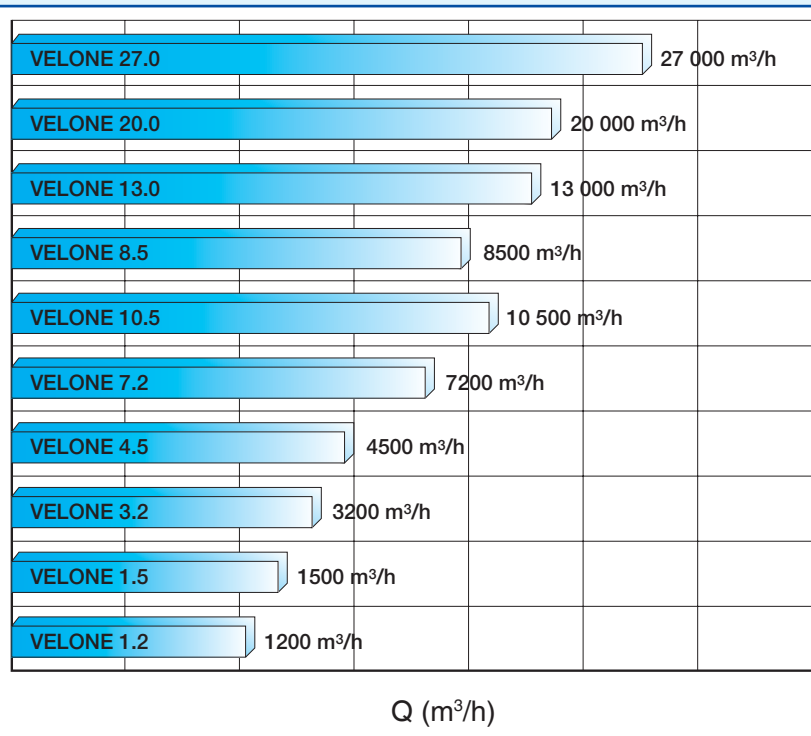
- Rain hood kit, laboratory tested for IP x 4 = sprayed from all directions
- Backdraft damper fire resistance tested.
- Vertical exhaust kit: prohibits with All-in-One solution.
- Grouting frame or duct frame.
- Pivot pin.
- Flat roof stack or sloped roof stack.
- AXONE flat roof support.

Electrical Accessories

- Frequency controller.

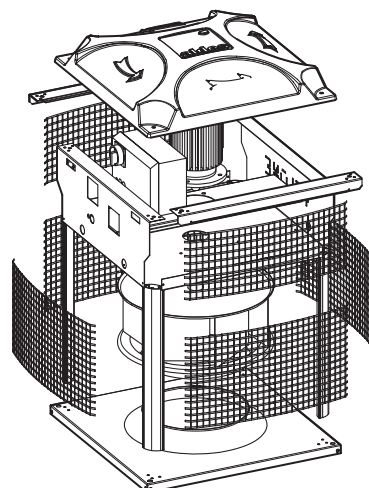
PRE-SELECTION OF VELONE MODEL

The airflows correspond to a pressure loss of 200 Pa.



DESIGN

It is possible to integrate the proximity switch, pressure switch(es) and the 1-speed AXONE relay box under the cover.



Roof Fans

Presentation of the VELONE F400°C advantages



VELONE without option



With the "All-in-One" option

AIRFLOW UP TO 27000 m³/h

- Aldes has taken particular care in the design of the VELONE in order to offer you a range of smoke exhaust roof fans that comply with the CE marking up to 27 000 m³/h, without increasing the dimensions of the base.

COMPACT SO AS TO PROTECT IT FROM IMPACTS AND BAD WEATHER

- We have preferred to improve the motor mounting by using galvanised steel, rather than plastic, because we believe that for a lengthy service life the electrical accessories such as relay boxes, pressure switches and proximity switches, should be fully protected from impacts and bad weather.
- On the 2-speed model, the AXONE relay box is supplied with a 2m long cable for fixing outside the roof fan. Possibility of using the flat roof support.

AIR DUCT CONNECTION OF THE PRESSURE SWITCH

- Being the inventor of the All-in-One solution (relay box wired up at the factory), we are now offering an exclusive feature on this new range - the air duct connection of the pressure switch.
- This option minimises man-hour time on-site: drilling holes in the ductwork on-site is a thing of the past!

RAIN HOOD KIT IPx4 - AN ALDES EXCLUSIVE FEATURE

- A smoke exhaust roof fan, used only for smoke extraction is permanently at rest, ready to start up in case of fire or for testing. A smoke exhaust roof fan at rest, presents a risk of penetration by rain during thunderstorms and violent winds.
- The new VELONE design now allows us to offer you a new accessory called the "rain hood kit". Comprised of 4 parts to be mounted on-site, the rain hood kit passed fire resistance tests and has an IP x4 safety index validated by the CETIAT laboratory.
- This classification corresponds to the usual safety protection index used for electrical equipment: switch, pressure switch, relay box. The first figure concerns dust protection (X because it does not concern a roof fan), the second figure is equivalent to water protection: The 4 guarantees its leaktightness faced with water sprayed at it from all directions with a flow rate of 600 l/h!

CONFORMING BACKDRAFT DAMPER

- The backdraft damper which avoids heat losses succeeded in passing the regulatory fire resistance tests.

EASY REPLACEMENT

- This range of roof fans can replace any VELONE roof fan delivered between 1998 and 2006. In fact, we designed this new range without having to change the dimensions of the base. Moreover, with an equivalent base dimension, the new range can only give better performances in terms of aerualics.

Roof Fans

VELONE F400°C -1.2 - 3-phase/ Single phase



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

CIVIL DEFENCE APPROVED

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed inside for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 1,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 1.2M 0.24KW	11021390
VELONE 1.2 - 4T 0.37KW	11021340

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281

ACCESSORIES R8

Description on the following pages (p. 355 - 358)

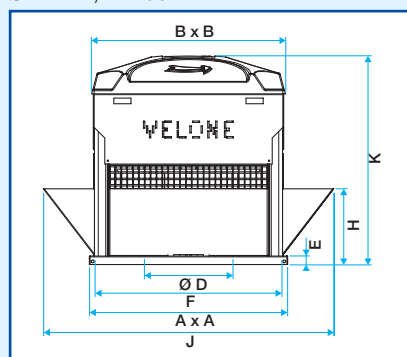
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.

DIMENSIONS (mm) WEIGHT (kg)

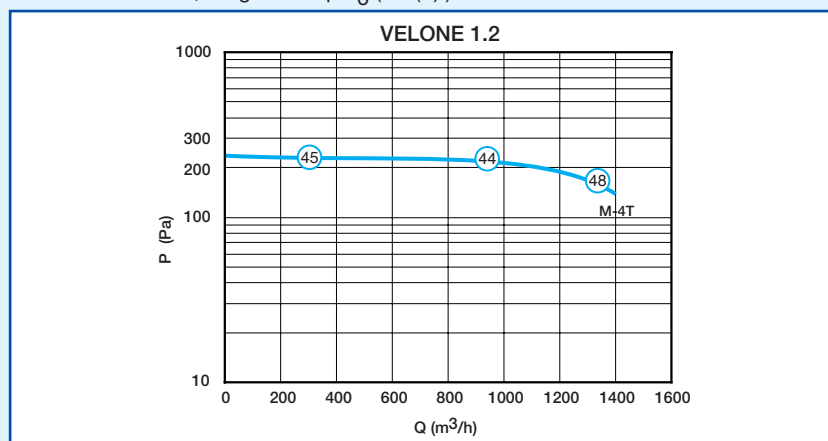
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit			
	Velone	A	B	Ø D	F	K	Weight	J	H	Weight
1.2		533	519	185	493	580	36	707	190	41

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 250 mm)
- The pressures shown on the graphs are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
1.2 M	4	230	0,25	50	2,2	6,2
1.2 T	4	230/400	0,37	50/60	1,03	4,4

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 1.5 - 3-phase/ Single phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 1,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 1.5M 0.24KW	11021391
VELONE 1.5 - 4T 0.37KW	11021341
VELONE 1.5 - 6T 0.18KW	11021342
VELONE 2-speeds	
VELONE 1.5 - 4/8T 0.6/0.15KW	11021371
NEW: VELONE STOCK 1-speed	
VELONE 1.5M 0.24KW+IP (stock)	11021395
VELONE 1.5-6T 0.18KW+IP (stock)	11021256

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the accessories: see p. 355 - 358.

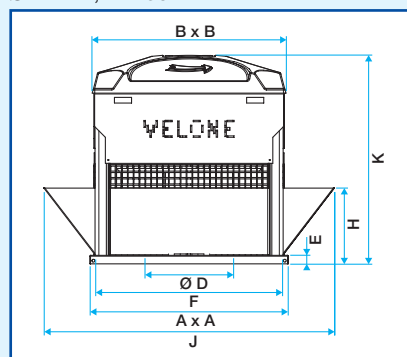
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

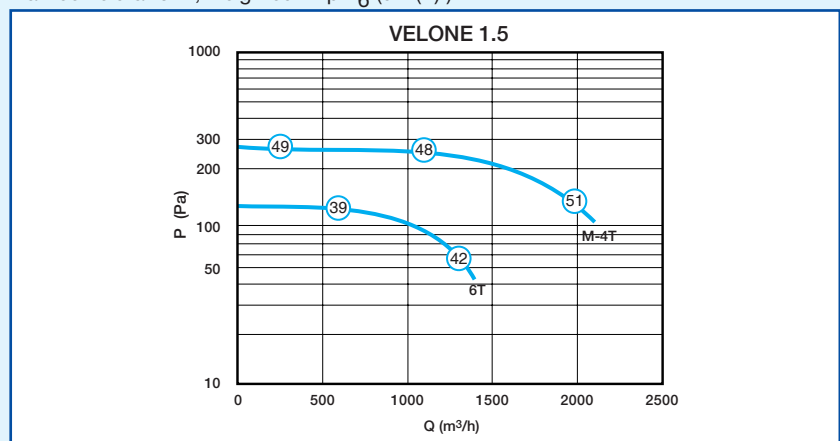
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
1.5	533	519	209	493	607	38	707	190	43

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 250mm)
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	Number of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
1.5 M	4	230	0,25	50	2,2	6,2
1.54T	4	230/400	0,37	50/60	1,03	5
1.56T	6	230/400	0,18	50/60	0,71	3,5
1.5-4/8T	4/8	400	0,6/0,15	50	1,87/0,9	5,2/2,8

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor.
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 3.2 - 3-phase/ Single phase



With the "All-in-One" option

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

CIVIL DEFENCE APPROVED

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 100 and 3,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 3.2M 0.37KW	11021392
VELONE 3.2 - 4T 0.55KW	11021344
VELONE 3.2 - 6T 0.18KW	11021345
VELONE 2-speeds	
VELONE 3.2 - 4/8T 0.6/0.15KW	11021373
NEW: VELONE STOCK 1-speed	
VELONE 3.2M 0.37KW + IP (stock)	11021396
VELONE 3.2 - 4T 0.55KW + IP (stock)	11021386
VELONE 3.2 - 6T 0.18KW + IP (stock)	11021257

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 355 - 358).

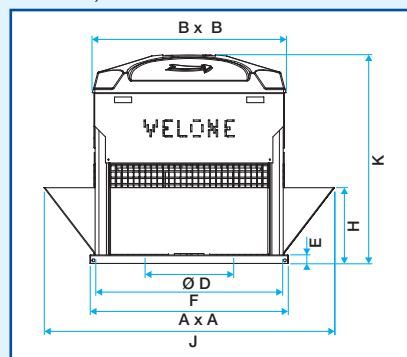
Description	Code
IPx4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Grouting frame 1.2 / 1.5 / 3.2	11021290
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Frame on duct 1.2 / 1.5 / 3.2	11021295
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Roof stack 1.2 / 1.5 / 3.2	11021085

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

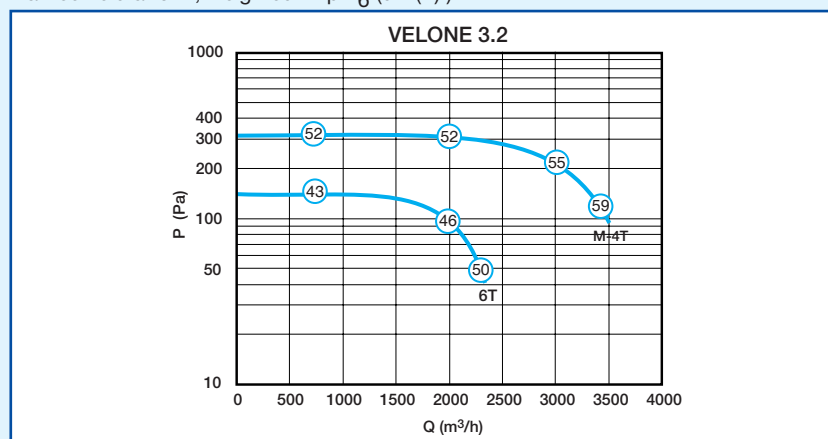
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
3.2	533	519	235	493	629	39	707	190	44

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 315 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted AL_{pm6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
3.2 M	4	230	0,37	50	3	6
3.2-4T	4	230/400	0,55	50/60	1,3	6
3.2-6T	6	230/400	0,18	50/60	0,71	3,5
3.2-4/8	4/8	400	0,6/0,15	50	1,87/0,9	5,2/2,8

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor.
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 4.5 - 3-phase/ Single phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

• Airflow between 300 and 4,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 4.5M 0.75 kW	11021393
VELONE 4.5 - 4T 0.37 kW	11021347
VELONE 4.5 - 6T 0.37KW	11021348
VELONE 2-speeds	
VELONE 4.5 - 4/6T 0.75 /0.25 kW	11021374
VELONE 4.5 - 4/8T 0.8/0.15 kW	11021375
NEW: VELONE STOCK 1-speed	
VELONE 4.5 - 4T 0.75KW + IP (stock)	11021397
VELONE 4.5 - 4T 0.75KW + IP (stock)	11021387
VELONE 4.5 - 6T 0.37KW + IP (stock)	11021258

AVAILABLE OPTIONS R8

• For description see previous page.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages. (p. 355 - 358)

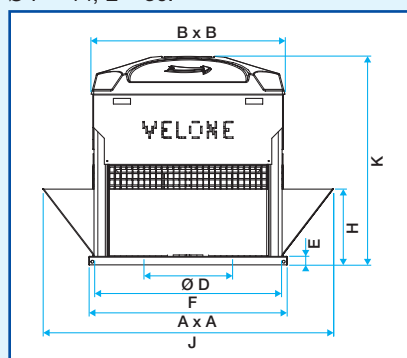
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 4.5/ 7.2/ 10.5	11021070
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

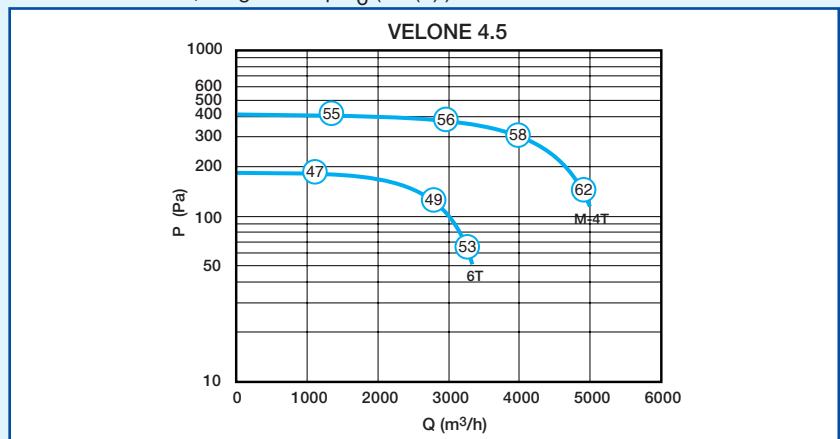
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
4.5	698	684	265	658	658	50	991	265	60

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 355 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
4.5 M	4	230	0,75	50	5,5	5,5
4.5- 4T	4	230/400	0,75	50/60	1,65	6
4.5- 6T	6	230/400	0,37	50/60	1,09	4,7
4.5 -4/6T	4/6	400	0,75/0,25	50	1,98/1,2	4,7/3,9
4.5 -4/8T	4/8	400	0,8/0,2	50	1,99/0,88	4,7/2,7

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/6 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 7.2 - 3-phase/ Single phase



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

**CIVIL
DEFENCE
APPROVED**

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 500 and 7,200 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 7.2M 1.1KW	11021394
VELONE 7.2 - 4T 1.1KW	11021350
VELONE 7.2 - 6T 0.37KW	11021351
VELONE 2-speeds	
VELONE 7.2 - 4/6T 1.1/0.3KW	11021376
VELONE 7.2 - 4/8T 1.2/0.3 kW	11021377
NEW: VELONE STOCK 1-speed	
VELONE 7.2M 1.1KW + IP (stock)	11021398
VELONE 7.2 - 4T 1.1KW + IP (stock)	11021388

AVAILABLE OPTIONS R8

- For description see previous pages.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages (p. 355 - 358)

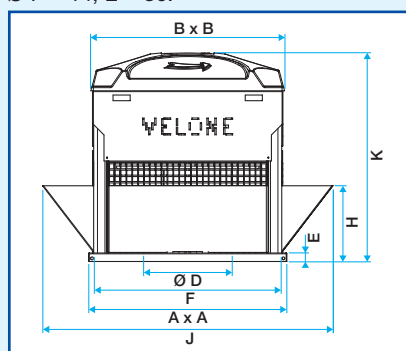
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 4.5/ 7.2/ 10.5	11021070
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Single phase voltage regulator: page 359.
- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

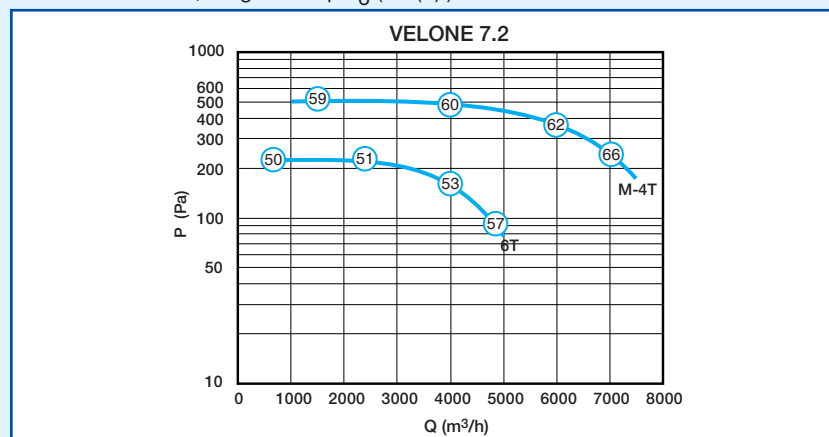
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
7.2	698	684	299	658	688	60	991	265	70

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 400 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_m (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
7.2 M	4	230	1,1	50	7,6	7
7.2 -4 T	4	230/400	1,1	50/60	2,37	7
7.2 -6 T	6	230/400	0,37	50/60	1,09	4,7
7.2 -4/6T	4/6	400	1,1/0,3	50	3,02/1,43	5,4/4
7.2 -4/8T	4/8	400	1,2/0,3	50	2,92/1,29	5,5/3,1

- The rated currents are given for a voltage of 400 V for three-phase roof fans.
- 4/8 and 6/12 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 8.5 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

• Airflow between 500 and 8,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 8.5 - 6T 1.1KW	11021357
VELONE 8.5 - 8T 0.55KW	11021358
VELONE 2-speeds	
VELONE 8.5 - 6/8T 1.1/0.55KW	11021380
VELONE 8.5 - 6/12T 1.1/0.22KW	11021381

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected. If 2 speeds provide for 2 pressure switches.
- Pressure switch and proximity switch supplied and wired up.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages (p. 355 - 358)

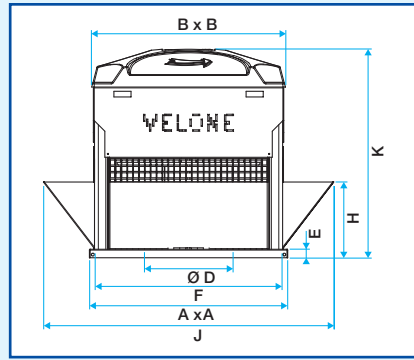
Description	Code
IP x4 rain hood kit - 8.5/ 13	11021287
Vertical Kit 8.5/13	11021368
8.5/13 frame to be embedded	11021292
Pivot pin 4.5/ 7.2/ 10.5	11021070
8.5/13 backdraft damper	11021262
8.5/13 frame on duct	11021297
Miniduct plug	11021082
8.5/13 roof stack	11021087

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

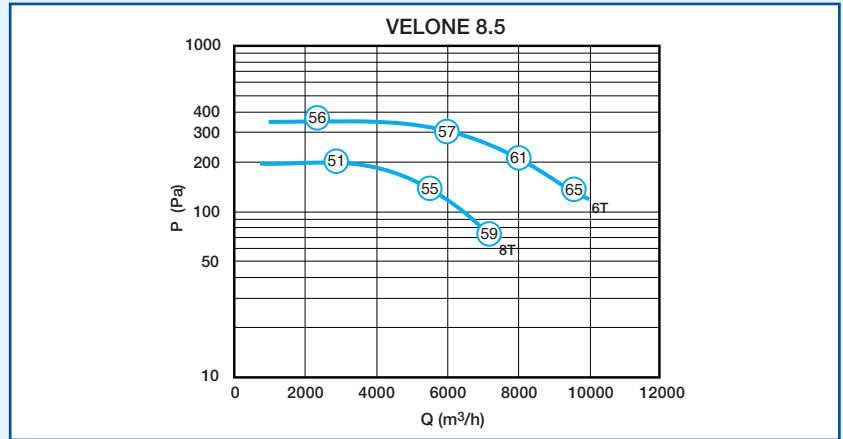
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
	Velone	A	B	Ø D	F	K	Weight	J	H
8.5	834	820	373	794	793	100	1270	355	116

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 500 mm)
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALpm₆ (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
8.5-6 T	6	230/400	1,1	50/60	2,9	5
8.5-8 T	8	230/400	0,55	50/60	2	4
8.5-6/8	6/8	400	1,1/0,55	50	3,59/2,52	5,1/4
8.5-6/12	6/12	400	1,1/0,22	50	4,39/1,5	5,5/2,6

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 10.5 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

• Airflow between 500 and 10,500 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 10.5 - 4T 1.5KW	11021353
VELONE 10.5 - 6T 0.55KW	11021354
VELONE 10.5 - 8T 0.37KW	11021355
VELONE 2-speeds	
VELONE 10.5 - 4/6T 1.5/0.37KW	11021378
VELONE 10.5 - 4/8T 1.6/0.4KW	11021379
NEW: VELONE STOCK 1-speed	
VELONE 10.5 - 4T 1.5KW + IP (stock)	11021389
VELONE 10.5 - 8T 0.37KW + IP (stock)	11021259

AVAILABLE OPTIONS R8

• Description on the following page.

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES R8

Description on the following pages (p. 355 - 358)

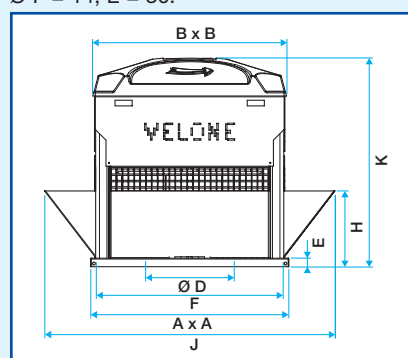
Description	Code
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Grouting frame 4.5 / 7.2 / 10.5	11021291
Pivot pin 1.2/ 1.5/ 3.2	11021069
Backdraft damper 4.5 / 7.2 / 10.5	11021261
Frame on duct 4.5 / 7.2 / 10.5	11021296
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
Roof stack 4.5 / 7.2 / 10.5	11021086

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

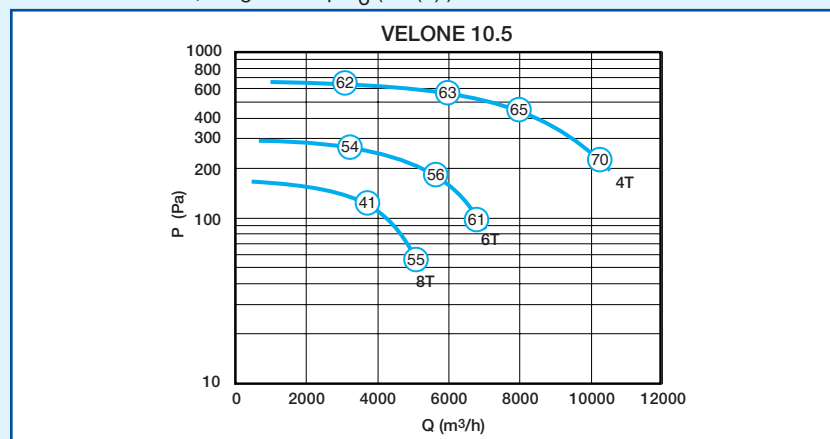
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
10.5	698	684	332	658	721	72	991	265	82

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, connected suction (Ø 450 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
10.5-4 T	4	230/400	1,5	50/60	3,30	7,5
10.5-6 T	6	230/400	0,55	50/60	1,57	4,8
10.5-8 T	8	230/400	0,37	50/60	1,40	4
10.5-4/6T	4/6	400	1,5/0,37	50	3,71/1,73	5,6/3,8
10.5-4/8T	4/8	400	1,6/0,4	50	4,05/1,78	5,7/4,1

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 4/8 = Dahlander motor - 4/6 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 13.0 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 13,000 m³/h under 200 Pa.

RANGE with a choice of options **R8**

Description	Code
VELONE 1-speed	
VELONE 13 - 6T 2.2 kW	11021359
VELONE 13 - 8T 1.1 kW	11021360
VELONE 2-speeds	
VELONE 13 - 6/8T 2.2/1.3 kW	11021382
VELONE 13 - 6/12T 2.2/0.55 kW	11021383

AVAILABLE OPTIONS **R8**

- Pressure switch fitted to air duct, fixed and protected. If 2 smoke exhaust speeds used provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES **R8**

Description on the following pages (p. 355 - 358)

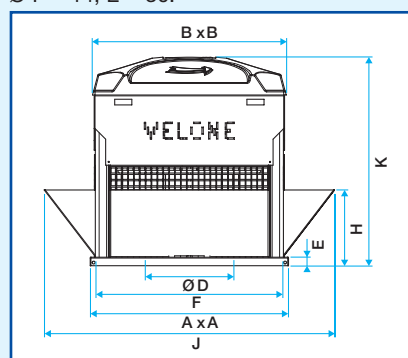
Description	Code
IP x4 rain hood kit - 8.5/ 13	11021287
Vertical Kit 8.5/13	11021368
8.5/13 frame to be embedded	11021292
8.5/13 pivot pin	11021071
8.5/13 backdraft damper	11021262
8.5/13 frame on duct	11021297
Miniduct plug	11021082
8.5/13 roof stack	11021087

ELECTRICAL ACCESSORIES **R7**

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

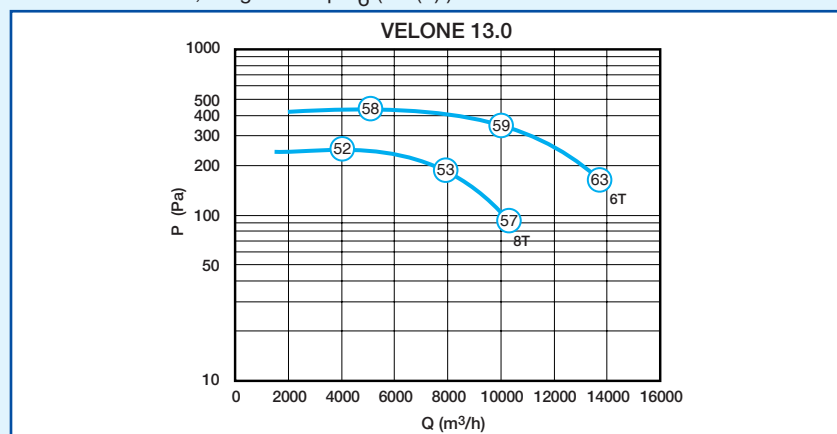
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
13.0	834	820	419	794	833	115	1270	355	131

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 560 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
13.0 -6T	6	230/400	2,2	50/60	5,26	6,2
13.0 -8T	8	230/400	1,1	50/60	3,3	4,2
13.0 -6/8T	6/8	400	2,2/1,3	50/60	5,96/4,36	5,6/3,9
13.0-6/12T	6/12	400	2,2/0,55	50/60	6,4/2,6	7/3

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 6/12 = Dahlander motor - 6/8 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 20.0 - 3-phase



**CIVIL
DEFENCE
APPROVED**

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 20,000 m³/h under 200 Pa.

RANGE with a choice of options **R8**

Description	Code
VELONE 1-speed	
VELONE 20 - 6T 3 kW	11021361
VELONE 20 - 8T 1.5 kW	11021362
VELONE 2-speeds	
VELONE 20 - 6/8T 4/1.1 kW	11021384
VELONE 20 - 6/12T 3/0.55 kW	11021385

AVAILABLE OPTIONS **R8**

- Pressure switch connected to the air duct, fixed and protected. If 2 smoke exhaust speeds used, provide for 2 pressure switches.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281
2 Sp. - 7.5 kW switch + contacts	OPT21282

ACCESSORIES **R8**

Description on the following pages (p. 355 - 358)

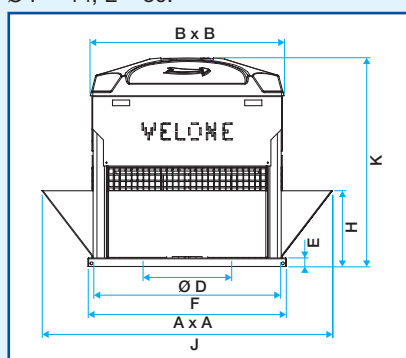
Description	Code
IP x4 rain hood kit - 20/ 27	11021288
Vertical Kit 20/27	11021369
20/27 frame to be embedded	11021293
20/27 pivot pin	11021072
20/27 backdraft damper	11021263
20/27 frame on duct	11021298
20/27 flat roof stack	11021083
20/27 roof stack	11021088

ELECTRICAL ACCESSORIES **R7**

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.
- Comfort 2-speed relay box: page 363.

DIMENSIONS (mm) WEIGHT (kg)

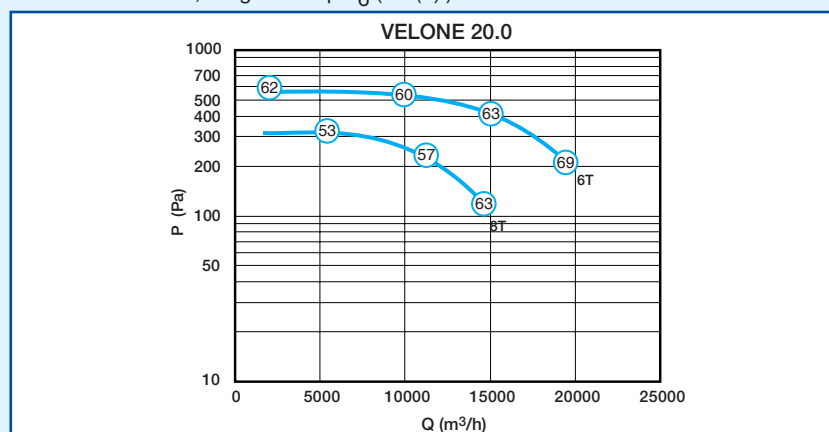
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
20.0	984	970	474	944	983	165	1555	440	189

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 630 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
20.0 -6T	6	230/400	3	50/60	6,8	6
20.0 -8T	8	230/400	1,5	50/60	4	5,4
20.0 -6/8T	6/8	400	4/1,1	50/60	11,3/4,84	6,6/4,6
20.0-6/12T	6/12	400	3/0,55	50/60	6,77/2,3	8,5/4,3

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.
- 6/12 = Dahlander motor - 6/8 = Independent Winding motor (BI).
- For operations under 60 Hz, please consult us.

Roof Fans

VELONE F400°C - 27.0 - 3-phase



CIVIL DEFENCE APPROVED

Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

Advantages

- Accessories are protected from impacts + bad weather due to the metal body.
- Electrical accessories wired up at the factory and fixed to the interior for protection against impacts and bad weather.
- Pressure switch air duct connection is carried out at the factory.
- IP x4 validated rain hood kit.
- Pivot pin: Easy to clean.

DESCRIPTION

- Airflow between 1000 and 27,000 m³/h under 200 Pa.

RANGE with a choice of options R8

Description	Code
VELONE 1-speed	
VELONE 27 - 6T 5.5KW	11021363
VELONE 27 - 8T 3KW	11021364

AVAILABLE OPTIONS R8

- Pressure switch connected to the air duct, fixed and protected.
- Proximity switch wired up, fixed and protected.
- In case of use of the vertical exhaust kit, fix the relay box outside the VELONE and outside the airflow (the supplied cable is 2 m long).

Description	Code
Pressure switch 40-300 Pa connected to air duct	OPT21279
Pressure switch 100-1000 Pa connected to air duct	OPT21280
1Sp - 7.5 kW switch + contacts	OPT21281

ACCESSORIES R8

Description on the following pages (p. 355 - 358)

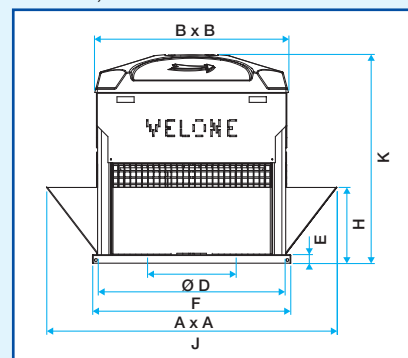
Description	Code
IP x4 rain hood kit - 20/ 27	11021288
Vertical Kit 20/27	11021369
20/27 frame to be embedded	11021293
20/27 pivot pin	11021072
20/27 backdraft damper	11021263
20/27 frame on duct	11021298
20/27 flat roof stack	11021083
20/27 roof stack	11021088

ELECTRICAL ACCESSORIES R7

- Three-Phase Autotransformer: page 361.
- Frequency controller: page 362.

DIMENSIONS (mm) WEIGHT (kg)

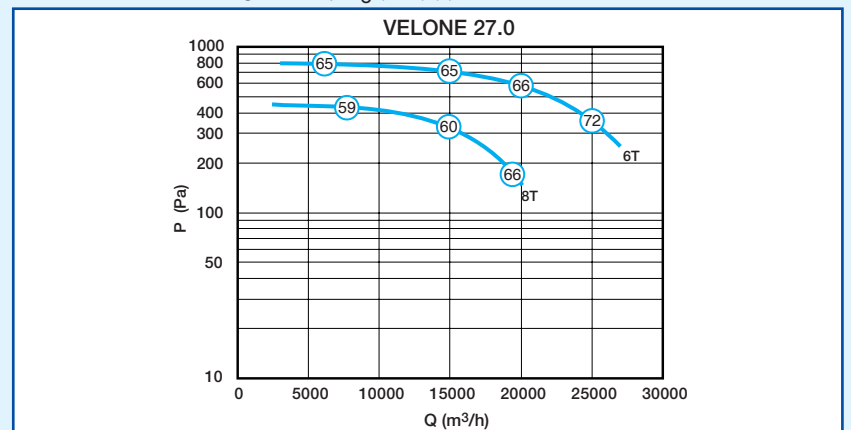
Ø F = 14, E = 30.



Type	Horizontal air exhaust						With vertical kit		
Velone	A	B	Ø D	F	K	Weight	J	H	Weight
27.0	984	970	535	944	1034	175	1555	440	207

AIRFLOW AND ACOUSTIC DETAILS

- Curves follow those of the French Standard NF EN ISO 5801, ducted suction (Ø 630 mm).
- Indicated pressures are static pressures.
- The encircled values correspond to an overall acoustic pressure level radiated through a free field at 6 m, weighted ALp_{m6} (dB (A)).



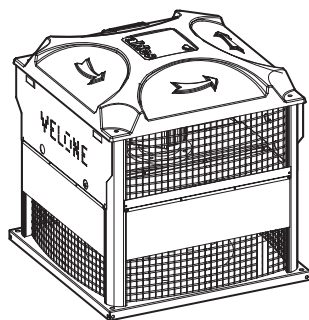
ELECTRICAL DETAILS

Type	No of poles	U (V)	P (kW)	f (Hz)	Rated I (A)	Id/ In
27.0 -6T	6	230/400	5,5	50/60	12,4	6,8
27.0 -8T	8	230/400	3	50/60	6,8	6

- Rated current (In) is given for a voltage of 400 V for three-phase roof fans.

Roof Fans

VELONE IP x4 rain hood kit.



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).
- IP x4 classification: tested by an independent Laboratory.

Advantages

- A solution to prevent water penetration into the ducts in case of very bad weather.

APPLICATION

- The rain hood kit protects against the penetration of rain into the duct due to heavy rainfall when the roof fan is on stand by. A smoke exhaust roof fan, in the majority of cases, is on stand by, the rain hood kit is more efficient than a vertical kit.

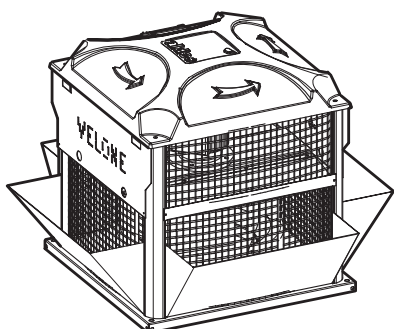
DESCRIPTION

- Tested by an independent test laboratory, the VELONE roof fan equipped with the Rain Hood Kit was awarded an IP x4 classification validated by the CETIAT test laboratory (Test Report supplied on request).
- This classification corresponds to the usual safety protection index used for electrical equipment: switch, pressure switch, relay box. The first figure concerns dust protection ("x" here, because it does not concern a roof fan), the second figure is equivalent to water protection: the "4" guarantees its leaktightness faced with water sprayed at it from all directions with a flow rate of 600 l/h!
- 4 parts of fabric in M0 reinforced on one side by a metal strip.
- In the running position, the 4 parts lift up, without generating any significant pressure loss.
- To be installed on-site.

RANGE R8

Velone model	Code
IP x4 rain hood kit - 1.2/ 1.5/ 3.2	11021285
IP x4 rain hood kit - 4.5/ 7.2/ 10.5	11021286
IP x4 rain hood kit - 8.5/ 13	11021287
IP x4 rain hood kit - 20/ 27	11021288

VELONE vertical exhaust kit



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

APPLICATION

- The vertical exhaust kit is a deflector which orientates the waste air discharge vertically.
- Caution, it is incompatible with the rain hood kit.
- Attention, the use of the vertical exhaust and the All-in-One solution imposes moving the relay box outside of the airflow.

DESCRIPTION

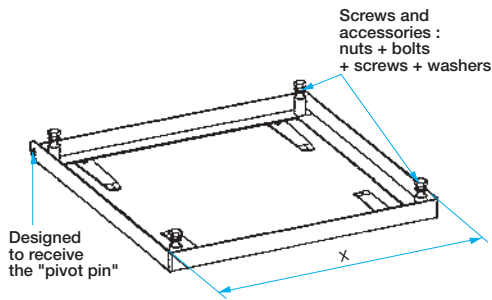
- Composed of 4 parts in galvanised steel.
- Supplied with fully adapted fixings.

RANGE R8

Velone model	Code
Vertical Kit 1.2/ 1.5/ 3.2	11021366
Vertical Kit 4.5/ 7.2/ 10.5	11021367
Vertical Kit 8.5/13	11021368
Vertical Kit 20/27	11021369

Roof Fans

VELONE grouting frame



APPLICATION

- The grouting frame allows the roof fan to be fitted on a brick stack.

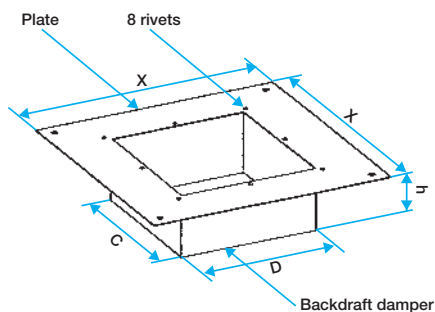
DESCRIPTION

- Includes 4 fold-back lugs to be grouted on to the flat roof stack.
- Anti-corrosion paint.
- Delivered with fixing nuts and bolts.
- Can receive the pivot pin.

RANGE R8

Velone model	Code	X x X (mm)
Grouting frame 1.2 / 1.5 / 3.2	11021290	519
Grouting frame 4.5 / 7.2 / 10.5	11021291	684
8.5/13 frame to be embedded	11021292	820
20/27 frame to be embedded	11021293	970

VELONE backdraft damper



Compliances

- Conforms with the CE marking in accordance with Standard EN 12101-3.
- 2h fire rating: F400°C (2h).

APPLICATION

- The backdraft damper avoids natural ventilation when the roof fan is stopped in order to save on heating and/or air-conditioning costs.
- The backdraft damper can be fitted with the grouting frame, pivot pin and the flat roof stack.
- It is incompatible with the frame on a duct.

DESCRIPTION

- The backdraft damper has passed the fire resistance tests.
- The backdraft damper is designed to be installed in just a few seconds thanks to its stacking plate.
- Removable, it can be easily added later.
- Take into account an additional pressure loss of 50 Pa.

RANGE R8

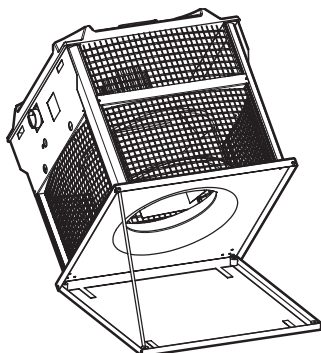
Velone model	Code
Backdraft damper 1.2 / 1.5 / 3.2	11021260
Backdraft damper 4.5 / 7.2 / 10.5	11021261
8.5/13 backdraft damper	11021262
20/27 backdraft damper	11021263

DIMENSIONS (mm)

Code	C	D	X	h
11021260	380	380	515	120
11021261	480	480	680	120
11021262	580	580	816	120
11021263	780	780	966	120

Roof Fans

VELONE pivot pin



APPLICATION

- Pin allowing for access to the duct and the roof fan's impeller in order to facilitate maintenance.

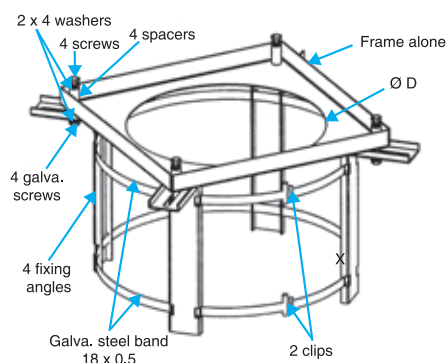
DESCRIPTION

- Pivot pin in stainless steel that slides through the roof fan base and the grouting frame.
- Requires the grouting frame.
- 2 locking washers and a hold open chain.
- **IMPORTANT:** Secure the roof fan when this is in the open position in order to avoid any accidents.

RANGE R8

Velone model	Code
Pivot Pin 1.2 / 1.5 / 3.2	11021069
Pivot Pin 4.5 / 7.2 / 10.5	11021070
8.5/13 Pivot Pin	11021071
20/27 Pivot Pin	11021072

VELONE Duct Frame



APPLICATION

- The duct frame is used to install a VELONE roof fan on a cylindrical duct which is strong enough to support it.

DESCRIPTION

- It consists of four angle brackets, a frame, four spacers and the necessary threaded fasteners.

RANGE R8

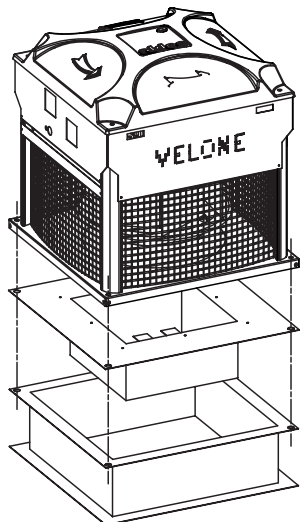
Velone model	Code
Frame on duct 1.2 / 1.5 / 3.2	11021295
Frame on duct 4.5/ 7.2/ 10.	11021296
8.5/13 frame on duct	11021297
20/27 frame on duct	11021298

DIMENSIONS (mm)

Code	X	Ø D	DUCT	
			Ø min.	Ø max.
11021063	490	420	250	400
11021064	655	520	315	500
11021065	790	650	400	630
11021066	940	820	500	800

Roof Fans

VELONE Flat Roof Stack - Roof Stack



Flat Roof Stack

APPLICATION

- The flat roof stack is used to fit a roof fan on a horizontal roof which does not have a brick stack.
- The roof stack is used to fit a roof fan on a sloping roof without a brick stack.

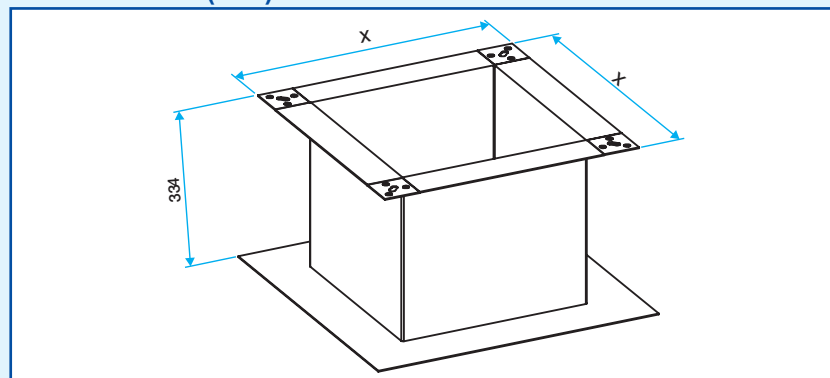
DESCRIPTION

- Galvanised steel
- Being drilled at 4 angles it can house the backdraft damper.
- State the angle of the roof as a percentage (%) or in degrees (°) when ordering.

RANGE R8

Velone model	Code
Flat Roof Stack	
Flat Roof stack 1.2 / 1.5 / 3.2	11021080
Flat Roof stack 4.5 / 7.2 / 10.5	11021081
8.5/13 flat roof stack	11021082
20/27 flat roof stack	11021083
Roof Stack: state the inclination of the roof	
Roof stack 1.2 / 1.5 / 3.2	11021085
Roof stack 4.5 / 7.2 / 10.5	11021086
8.5/13 roof stack	11021087
20/27 roof stack	11021088

DIMENSIONS (mm)



Roof Stack model	X
Roof stack 1.2/ 1.5/ 3.2	526
Roof stack 4.5/ 7.2/ 10.5	691
Roof stack 8.5/13	827
Roof stack 20/27	977

Accessories

1-phase voltage controller 1.5 A



Advantages

- Continuous speed control.
- Attractive and compact enclosure.
- Projection mounted or wall mounted.

APPLICATION

- Speed controller designed for 1-speed 230 VAC 1-phase motors, whose maximum current consumed does not exceed 1.5 A, and which are compatible with voltage regulation.
- **Compatible with TVEC Silence, VEKITA+ (non acoustic), HELICA, VC, THELIA 1-phase and variable.**

DESCRIPTION

- Supplied in an aesthetically designed enclosure with IP 44, for either wall or projection mounting.
- PCB type design.
- Start-up by an adjustment potentiometer.
- Integrated anti-EMI (EMC) feature.
- Integrated fuse protection.
- 230 VAC - 50/60 Hz
- Regulation of the maximum towards the minimum speed (avoids restarting at low voltage).
- Possibility to adjust the minimum speed (80 V by default).

RANGE R7

Description	Code	L x H x P (mm)
1.5 A voltage regulator	11086572	82 x 82 x 65

3 to 10 A 1-phase voltage regulator



Advantages

- Continuous speed control.
- Separate ON/OFF switch.
- Full voltage safety starting function.

APPLICATION

- Speed controller designed for 1-speed 230 VAC 1-phase motors, whose maximum current consumed does not exceed 3, 5 and 10 A respectively, and which are compatible with voltage regulation.
- **Compatible with TVEC Silence, VEKITA+ (acoustic), HELICA, VC, THELIA 1-phase and variable.**

DESCRIPTION

- Supplied in an IP 54 enclosure.
- PCB type design.
- Start-up by offset switch (on the side of the box).
- Integrated anti-EMI (EMC) feature.
- Integrated fuse protection.
- 230 VAC - 50/60 Hz.
- Full voltage start-up function: on starting up, the voltage regulator sends out a maximum voltage for 6 or 7 seconds before returning to the voltage adjustment on the potentiometer. This function avoids start-up at low voltage, which could damage the motor.
- It is possibility to adjust the minimum speed (100 V by default).

RANGE R7

Description	Code	L x H x P (mm)
3.0 A voltage regulator	11086024	83 x 140 x 88
5.0 A voltage regulator	11086013	83 x 160 x 88
10 A voltage regulator	11057067	115 x 195 x 95

Accessories

1-phase electronic speed controller



Advantages

- Continuous speed control.
- 2 analogue 0-10 V inputs.
- Potentiometer and switch on the front panel.

APPLICATION

- Electronic speed controller for 1-phase asynchronous motors accepting voltage control.
- **Compatible with TVEC Silence, VEKITA+, HELICA, THELIA 1-phase and VC.**

DESCRIPTION

- IP 65 box.
- 230 VAC - 50/60 Hz
- Potentiometer on the facade.
- 2 analogue 0-10 V inputs.
- Adjustment U min, U max.
- ON/OFF switch, energized circuit warning light.
- Thermal protection.
- Visual display of faults by warning indicator light.

RANGE R7

Description	Code	L x H x P (mm)
1-phase electronic controller 5 A	11057080	123 x 160 x 165
1-phase electronic controller 11.5 A	11057081	168 x 160 x 165

1-phase autotransformer



Advantages

- Accurate 5 position adjustment.

APPLICATION

- Regulator designed for 1-speed, 1-phase 230 VAC motors compatible with voltage regulation.
- **Compatible with TVEC Silence, VEKITA+, HELICA, THELIA 1-phase and VC.**

DESCRIPTION

- Supplied in an IP 54 enclosure.
- 5 manual adjustment positions + stop (110 - 140 - 170 - 200 - 230 V).
- ON/OFF indicator light.
- Integrated fuse protection.
- Non-adjusted 230V additional outlet.
- 230 VAC - 50/60 Hz

RANGE R7

Description	Code	L x H x P (mm)
1.5 A 1-phase autotransformer	11086100	115 x 180 x 85
3.5 A 1-phase autotransformer	11086418	170 x 245 x 140
5.0 A 1-phase autotransformer	11086417	170 x 245 x 140
13 A 1-phase autotransformer	11057061	300 x 300 x 170

Accessories

3-phase autotransformer



APPLICATION

- Voltage regulator designed for a 1 speed, 3-phase, 400V motor, compatible with the variation in voltage.
- Compatible with VEC, VIK, TVEC GII, VDA 3-phase, THELIA 3-phase.

RANGE R7

Description	Code
2A 3-phase autotransformer	11086096
4A 3-phase autotransformer	11086097
6A 3-phase autotransformer	11086098
8A 3-phase autotransformer	11086099
14A 3-phase autotransformer	11057060

DIMENSIONS - WEIGHT

Type	L (mm)	H (mm)	D (mm)	Weight (kg)
2 A, 3-phase autotransformer	200	280	140	6,0
4 A, 3-phase autotransformer	250	300	200	14,0
6 A, 3-phase autotransformer	300	400	200	20,5
8 A, 3-phase autotransformer	300	400	200	27,7
14 A, 3-phase autotransformer	500	400	250	38,0

TECHNICAL DETAILS

- Voltage variation controlled by autotransformer.
- 400 V, 50 Hz three-phase network voltage + Neutral.
- IP 55 metal box enclosure with epoxy paint.
- Enclosure's front panel contains an ON/OFF indicator light and a 5-position + ON/OFF switch. (130 - 180 - 230 - 300 - 400 V).
- Articulated door on hinges.
- Without motor protection.

Frequency controller



Frequency controller

APPLICATION

- Frequency controller designed for a 1-speed 3-phase 230/400V - 50/60 Hz asynchronous motor.
- Compatible with all Aldes 1-speed 3-phase fans.

RANGE R7

Description	Code
1 / 3-phase range	
Freq. cont. 0.37 kW 1 / 3	11086389
Freq. cont. 0.75 kW 1 / 3	11086390
Freq. cont. 1.5 kW 1 / 3	11086391
Freq. cont. 2.2 kW 1 / 3	11086392
3 / 3 phase range	
Freq. cont. 0.75 kW 3 / 3	11086401
Freq. cont. 1.5 kW 3 / 3	11086402
Freq. cont. 2.2 kW 3 / 3	11086403
Freq. cont. 3 kW 3 / 3	11086404
Freq. cont. 4 kW 3 / 3	11057201
Freq. cont. 7.5 kW 3 / 3	11057202

DIMENSIONS

Type	L (mm)	H (mm)	D (mm)
Frequency controller 0.37 kW	80	140	114
Frequency controller 0.75 kW	110	155	136 S/T 163 T/T
Frequency controller 1.5 / 2.2 / 3 / 4 kW	110	155	163
Frequency controller 7.5 kW	180	250	163

TECHNICAL DETAILS

- Frequency conversion from 0 to 50 Hz.
- Comes in an IP 20 compact and robust box, to be fixed to a DIN rail.
- LCD display screen + potentiometer on the front panel
- Pid function for regulation via an exterior sensor (input 0-10 V or 4-20mA and 24 V output).
- Converter 1 / 3-phase: enables conversion from 230 V single to 230 V 3-phase mode - Specific programming instruction manual supplied.
- Offset potentiometer is possible, please consult us.
- Delivered with the installation and programming instructions (CD).

NOTE : EMC filter is highly recommended in order to respect electromagnetic compatibility standards for residential housing. Please, consult us.

Accessories

VARILONE VF: frequency regulator for professional kitchens



VARILONE VF

Advantages

- Pre-adjusted for professional kitchen use in order to facilitate the wiring.
- Progressive and continuous airflow variation.
- 1 potentiometer and 1 HS offset emergency stop button.

APPLICATION

- Speed control by frequency regulator designed for a three-phase 230/400V - 50 Hz asynchronous motor.
- VARILONE VF is configured at the factory to be controlled by an RD offset potentiometer and an HS high speed emergency stop button with priority.
- Ideal for use in professional kitchens, especially for controlling **VELONE** roof fans.
- Reserved for 1 Speed motors. Do not use for 2 Speed motors.

DESCRIPTION

- LCD = indicator light energized.
- IP 20 box.
- No ON/OFF switch,
- CE and UL Certification
- Integrated class A EMC filter. Class B filter advisable for a residential environment, please consult us.
- 1 status change relay if the potentiometer requests 0 Hz.

Note 1: An action on the HS emergency stop button passes the speed controller to maximum smoke extraction speed in large kitchens.

Note 2: The front panel mounted potentiometer is inactive, only the offset potentiometer is authorised to control.

STANDARD RANGE R7

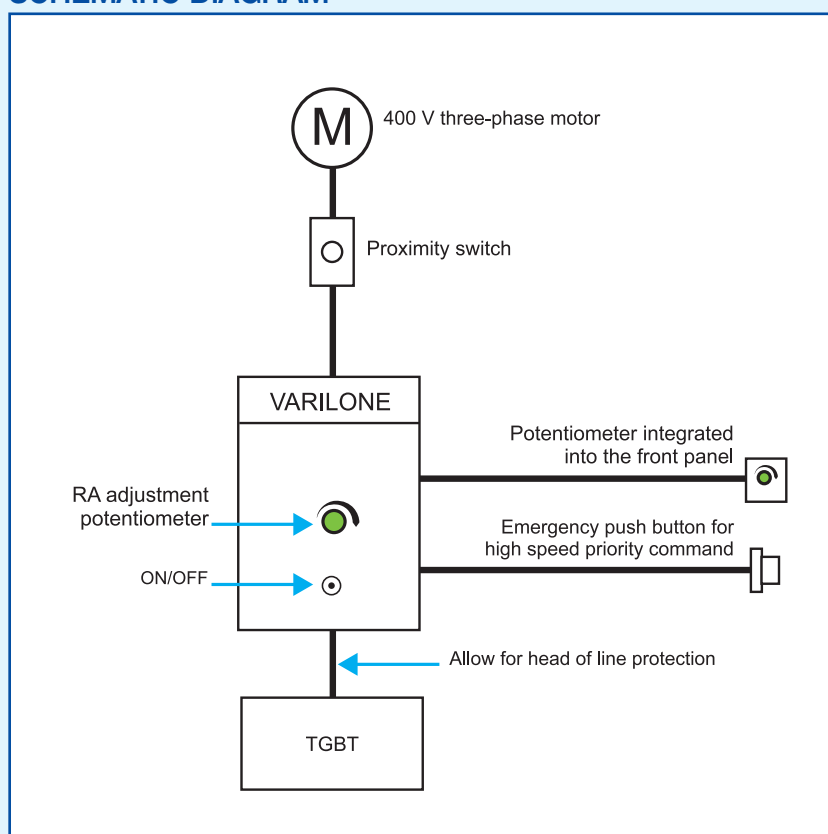
Description	Code
SINGLE/ THREE PHASE RANGE	
VARILONE VF 0.75 kW - Single/Three	11057265
VARILONE VF 1.5 kW - Single/Three	11057266
VARILONE VF 2.2 kW - Single/Three	11057267
THREE/ THREE PHASE RANGE	
VARILONE VF 0.75 kW - Three/Three	11057270
VARILONE VF 1.5 kW - Three/Three	11057271
VARILONE VF 2.2 kW - Three/Three	11057272
VARILONE VF 3 kW - Three/Three	11057273
VARILONE VF 4 kW - Three/Three	11057274
VARILONE VF 7.5 kW - Three/Three	11057275

INSTALLATION ACCESSORIES R7

- Emergency stop button for closing: priority command for setting the fan to High Speed (HSPB). IP65 box enclosure.
- Potentiometer + emergency push button in the same IP65 box (RD+HSPB).

Description	Code
RD Potentiometer - IP65	11057065
HSPB emergency push button box	11057759
RD + HSPB box	11057066

SCHEMATIC DIAGRAM



DIMENSIONS (mm)

Type of Varilone VF	Width	Height	Depth
Varilone VF 0.75 kW	110	155	136 Mono/Tri 163 Tri/Tri
Varilone VF 1.5 / 2.2 / 3 / 4 kW	110	155	163
Varilone VF 7.5 kW	180	250	163

Accessories

Comfort 2-speed box enclosure



APPLICATION

- This box enclosure enable, for 2-speed 3-phase 400 V Independent Winding (IW) or Dahlander coupling (DAH) fans:
- manual control of the speeds: stop, low speed LS, high speed HS,
- thermal protection of the motor under LS and HS.

DESCRIPTION

- IP65 box enclosure in ABS.
- Prepared cable gland inlet points (glands not supplied).
- 3 positions selector switch on the front panel (LS-STOP-HS).
- 400 V contactors with appropriate ratings.
- 2 thermal relays (LS/HS) with appropriate ratings.

RANGE R7

Description	Code
2-speed Dahlander couplings	
2-speed DAH 1.6/0.6 box	11057235
2-speed DAH 2.4/1.0 box	11057236
2-speed DAH 4/1.6 box	11057237
2-speed DAH 4/1 box	11057238
2-speed DAH 4/2.4 box	11057239
2-speed DAH 6/2.4 box	11057240
2-speed DAH 9/2.4 box	11057241
2-speed DAH 9/4 box	11057242
2-speed DAH 9/6 box	11057243
2-speed DAH 10/4 box	11057244
2-speed DAH 16/4 box	11057245
2-speed DAH 16/6 box	11057246
2-speed DAH 24/10 box	11057247
2-speed DAH 40/10 box	11057248
2-speed DAH 40/16 box	11057249
2-speed DAH 57/16 box	11057250
2-speed DAH 57/24 box	11057277
2-speed Independent Windings	
2-speed IW 1.6/0.6 box	11057280
2-speed IW 1.6/1.6 box	11057281
2-speed IW 2.4/1.6 box	11057282
2-speed IW 2.4/1.0 box	11057283
2-speed IW 4/1.6 box	11057284
2-speed IW 4/2.4 box	11057285
2-speed IW 6/2.4 box	11057286
2-speed IW 6/4 box	11057287
2-speed IW 9/4 box	11057288
2-speed IW 9/6 box	11057289
2-speed IW 10/6 box	11057290
2-speed IW 16/6 box	11057291
2-speed IW 16/10 box	11057292
2-speed IW 24/10 box	11057293
2-speed IW 40/10 box	11057294
2-speed IW 40/16 box	11057295
2-speed IW 57/16 box	11057296
2-speed IW 57/24 box	11057297

DIMENSIONS - ELECTRICAL DETAILS

Description	HS current (A)		LS current (A)		Dimensions		
	Ith min.	Ith max.	Ith min.	Ith max.	L (mm)	H (mm)	D (mm)
2-SPEED DAHLANDER MOTOR							
2-speed DAH 1.6/0.6 box	1.0	1.6	0.4	0.6	160	240	152
2-speed DAH 2.4/1.0 box	1.6	2.4	0.6	1.0	160	240	152
2-speed DAH 4/1.6 box	2.4	4.0	1.0	1.6	160	240	152
2-speed DAH 4/1 box	2.4	4.0	0.6	1.0	160	240	152
2-speed DAH 4/2.4 box	2.4	4.0	1.6	2.4	160	240	152
2-speed DAH 6/2.4 box	4.0	6.0	1.6	2.4	160	240	152
2-speed DAH 9/2.4 box	6.0	9.0	2.4	4.0	160	240	152
2-speed DAH 9/4 box	6.0	9.0	2.4	4.0	160	240	152
2-speed DAH 9/6 box	6.0	9.0	4.0	6.0	160	240	152
2-speed DAH 10/4 box	6.0	10.0	2.4	4.0	200	280	152
2-speed DAH 16/4 box	10.0	16.0	2.4	4.0	200	280	152
2-speed DAH 16/6 box	10.0	16.0	4.0	6.0	200	280	152
2-speed DAH 24/10 box	16.0	24.0	6.0	10.0	200	280	152
2-speed DAH 40/10 box	24.0	40.0	6.0	10.0	375	375	175
2-speed DAH 24/16 box	24.0	40.0	10.0	16.0	375	375	175
2-speed DAH 57/16 box	40.0	57.0	10.0	16.0	375	375	175
2-speed DAH 57/24 box	40.0	57.0	16.0	24.0	375	375	175
2-SPEED INDEPENDENT WINDING MOTOR							
2-speed IW 1.6/0.6 box	1.0	1.6	0.4	0.6	160	240	152
2-speed IW 1.6/1.6 box	1.0	1.6	1.0	1.6	160	240	152
2-speed IW 2.4/1.6 box	1.6	2.4	1.0	1.6	160	240	152
2-speed IW 2.4/1.0 box	1.6	2.4	0.6	1.0	160	240	152
2-speed IW 4/1.6 box	2.4	4.0	1.0	1.6	160	240	152
2-speed IW 4/2.4 box	2.4	4.0	1.6	2.4	160	240	152
2-speed IW 6/2.4 box	4.0	6.0	1.6	2.4	160	240	152
2-speed IW 6/4 box	4.0	6.0	2.4	4.0	160	240	152
2-speed IW 9/4 box	6.0	9.0	2.4	4.0	160	240	152
2-speed IW 9/6 box	6.0	9.0	4.0	6.0	160	240	152
2-speed IW 10/6 box	6.0	10.0	4.0	6.0	160	240	152
2-speed IW 16/6 box	10.0	16.0	4.0	6.0	200	280	152
2-speed IW 16/10 box	10.0	16.0	6.0	10.0	200	280	152
2-speed IW 24/10 box	16.0	24.0	6.0	10.0	200	280	152
2-speed IW 40/10 box	24.0	40.0	6.0	10.0	250	375	175
2-speed IW 40/16 box	24.0	40.0	10.0	16.0	250	375	175
2-speed IW 57/16 box	40.0	57.0	10.0	16.0	250	375	175
2-speed IW 57/24 box	40.0	57.0	16.0	24.0	250	375	175

Accessories

3-phase selector switch



APPLICATION

- Enables, amongst other things, the delocalisation of the 1-speed or 2-speed 3-phase motors control:
 - 1-speed motor: ON/OFF command,
 - 2-speed motor: High/Low speed control + ON/OFF.
- **Compatible with TVEC GII, VIK, VEC, C.VEC, VDA 3-phase, THELIA 3-phase.**

DESCRIPTION

- Presentation in an IP 54 box enclosure for projection fitting.
- AC3 category in use.
- Supplied with connection instructions.

RANGE R7

Description	Code	L x H x P (mm)
3-phase On/Off switch 7.5 kW max.	11056115	87 x 160 x 125
2-speed 3-phase Ind. Winding 4 kW max.	11056116	80 x 137 x 95
2-speed 3-phase Dahl. selector switch - 4 kW max.	11056117	80 x 137 x 95

Accessories

Alarm Pressure Switch Kit



APPLICATION

- This safety device enables a fan operating anomaly to be detected (pressure loss) and thus to respect the installation standards.
- **Compatible with all ALDES fans, fan units or roof fans.**

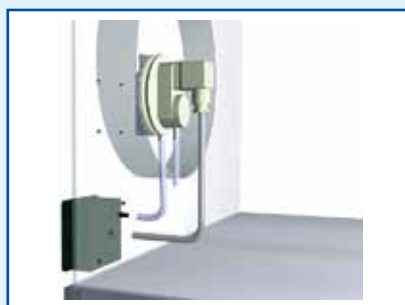
DESCRIPTION

- Box enclosure to be installed inside the fan casing, or on the ductwork.
- Delivered in a complete kit, ready to be installed. Kit comprises 2 m of glassine tube, 2 pressure taps or grommets, threaded fasteners and fixed (80 Pa) or adjustable pressure switch alarm + installation instructions.

RANGE R7

Description	Code
Fixed pressure switch kit - 80 Pa	11025018
VEC adjustable pressure switch kit	11025009
Adjustable pressure switch kit 40 - 300 Pa	11091001
Adjustable pressure switch kit 100 - 1000 Pa	11091002
Pressure switch timer (highly recommended in case of turbulent winds)	11025012

ASSEMBLY DIAGRAMS



Fixed pressure switch kit



Adjustable pressure switch kit

Filter Clogging Detection Kit



APPLICATION

- This accessory is used to detect pressure loss, adjustable settings - to deal with filter clog.
- **Compatible with VIK and TVEC GII.**

DESCRIPTION

- Kit comprising 4.5 m de glassine tube, 4 pressure taps, 1 x 40-300 Pa adjustable pressure alarm, threaded fasetners + fitting instructions.

RANGE R6

Description	Code
Filter clogging detection kit	11056313

Accessories

M0 airtight flexible sleeve



MS PRO



Compliance

- Classified M0 non combustible.
- Aldes patented.
- CETIAT Test No. 2914020.

Advantages

- New generation of fan-ductwork sleeves:
- quick to install: integrated rigid connections,
- airtight: C Class, half as many leaks as airtight flexible sleeves,
- long lasting: silicon sleeve, weather resistant.

APPLICATION

- Dissociation of fan-network or network-network links.
- Class C airtight connection extending performance of rigid ductwork with sealing fittings.
- Improved durability (silicon-coated sleeve).

DESCRIPTION

- Flexible sleeve incorporating a rigid female connection and an airtight seal at each end.
- Airtight female interlocking: directly in fan connection, plugs onto a fitting (bend or RPC or RF or...) on the ductwork side.
- Silicon-coated sleeve: most resistant to UV, tearing, most airtight.
- Class M0 fire rating product.
- Class C airtight sealing.
- Operating range: pressure: 0-2500 Pa / T° continuous: -30° at +250° C; T° peak = +400° C max.

RANGE R6

Ø mm	Code
125	11094690
160	11094691
200	11094692
250	11094693
315	11094694
355	11094695
400	11094696

SPECIFICATIONS

- On connection between the rigid ductwork and the fan, the connection must be dissociated for acoustic reasons and shall be ensured by a flexible sleeve of the MS Pro type.
- In the case of use of a flexible MS Pro sleeve, the C Class airtightness of the ductwork

Anti-vibration mountings



APPLICATION

- Ensures dampening of the vibrations of a fan or a central unit.
- Spare parts for fans and central units with a pulley-drive belt.

CAREFUL: cannot be mounted on the outside of a pulley-drive belt fan.

DESCRIPTION

- Rubber dampers, with a variety of diameters and densities (shore).
- Supplied with fixings and base plate.

RANGE R9

Description	Ø (mm)	Type	Code
Anti-vibration mountings (set of 4)	40	Shore 45 / 4 kg per mounting	11034385
	40	Shore 60 / 10 kg per mounting	11034386
Anti-vibration mountings (set of 8)	60	Shore 45 / 15 kg per mounting	11034387
	60	Shore 60 / 25 kg per mounting	11034388

Project Reference List

Below are some of our prestigious project references.

S. No.	Project	Consultant/Client	Contractor	Location
1	132/11 KV Substation	Lahmeyer	Dynamic Technical	Abu Dhabi
2	5 villas offices city	AEC	SEG Emirates	Abu Dhabi
3	IKEA Showroom	Mario Associates	Al Futtaim	Abu Dhabi
4	LuLu Island Development	Hilli International	Emirates EMI	Abu Dhabi
5	Shuwehiat Desalination Plant	P.B. Power	THERMO	Abu Dhabi
6	Al Ain Hospital, Al Jimi	PWD	Al Dhafr Cont.	Al Ain
7	General Library & Theatre Society at Dibba Al Hassan for Govt. of Dubai	CAB Consultant	Al Sabbah	Al Ain
8	Al Moosa Tower	ARENCO	ETA	Dubai
9	Al Reef Mall	RMJM	GECO	Dubai
6	Arabian Ranches 829 Villas	Schuster Pechtold (SPP)	Bilt Middle East	Dubai
11	Boho Café & rest	Quatrofolio	Solica	Dubai
12	Capital Tower / Monarch Tower	RMJM	ETA	Dubai
13	Carpet Factory at JAFZA	Next Consultant	Amana Steel	Dubai
14	Dubai Mall	Meinhardt	Juma Al Majid	Dubai
15	Dubai studio city	Al Hashemir	Al Reyarmi	Dubai
16	Emirates Crew Training College	RMJM	Transgulf	Dubai
17	Emirates Hills Golf Academy	RMJM	Elemec Electrical Cont.	Dubai
18	Food Court at JAFZA	Belyoahah	ETA	Dubai
19	Grand Stand for Dubai Police	ARCHON	ETA	Dubai
20	IKEA Showroom	Mario Associates	Al Futtaim	Dubai
21	Jebel Ali 'K' Station Phase II	DEWA	Drake & Scull	Dubai
22	Khaleej Times	Mario & Associates	ETA M&E	Dubai
23	Liwa Heights	KEO International	ELMACS	Dubai
24	Marina View Tower	Adnan Saffarini	Transgulf	Dubai
25	Palace Tower	Al Hashem	Fawaz A/C	Dubai
26	Pizza Restaurant	Kennedy & Donkin	Tech Trading	Dubai
27	Substation at Burjnahar	DEWA	ETA M&E	Dubai
28	Substation at Munay	Kennedy & Donkin	ETA M&E	Dubai
29	Union National Bank	Ian Banham & Associates	Sensaire Services	Dubai
31	Villa at Manara	Engineering's Office	Zener Steward	Dubai
31	Wafi Hotel	Hyder	Voltas	Dubai
32	IKEA Showroom	Mario Associates	Al Futtaim	Egypt
33	Dental Clinic	HDP	Fawaz A/C	Fujairah
34	Fujairah Tower	Shadid Engineering	REMCO	Fujairah
35	IKEA Showroom	Mario Associates	Al Futtaim	Qatar
36	Qatar Sports Club	Qatari Engineers & Associates	TRAGS	Qatar
37	ADNOC Filling Station at Ras Al Khaimah	DIAR Consultant	ETTS	Ras Al Khaimah
38	Ras Al Khaimah Police Headquarter	Al Burj	LOUJIEN	Ras Al Khaimah
39	Al Mansoury Tower	SYR Consultant	Fawaz A/C	Sharjah
40	American University Sharjah	Khatib & Alami	GECO	Sharjah
41	Expo Center Sharjah	Cansult	NILE E/M	Sharjah
42	Muhtadi Bldg	Adnan Saffarini	Fawaz A/C	Sharjah

New

Heat Recovery Ventilation

Systems p. 370, 398
Selection Guide p. 371

- A response to the environmental preoccupations of the modern dwelling that improves comfort in the home.
- A set of solutions that ensures healthier, continuously renewed air, a comfortable and warm atmosphere in winter, a pleasantly cool atmosphere in summer and hot water throughout the year, while integrating objectives to reduce energy consumption.
- DFR / DFE Heat Recovery Fans
- T.Flow Activ Heat pump water heater - p. 399.
- T.Flow Hygro Heat pump water heater - p. 402.

HRV Fan units

HRV Fan units



DFS+ HRV Unit
p. 373



DFST HRV Unit
p. 377

HRV Fan units



DFE+ micro-watt
HRV Unit
p. 383



DFE+ Top micro-watt
HRV Unit
p. 387

Heat pump water heaters

Heat pump water heaters



T.Flow Activ
p. 399



T.Flow Activ Modulo
p. 401



DFE micro-watt
HRV Unit
p. 379



DFE Compact
micro-watt HRV Unit
p. 381



DFR micro-watt
HRV unit
p. 390



DFR Top micro-watt
HRV unit
p. 392



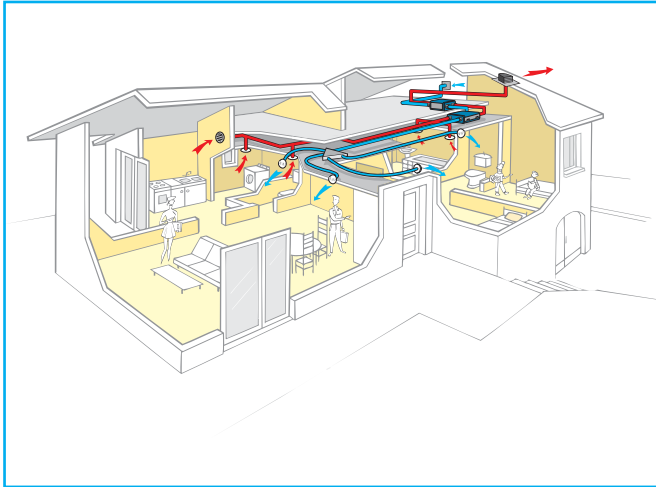
DFR Flex micro-watt
HRV unit
p. 394



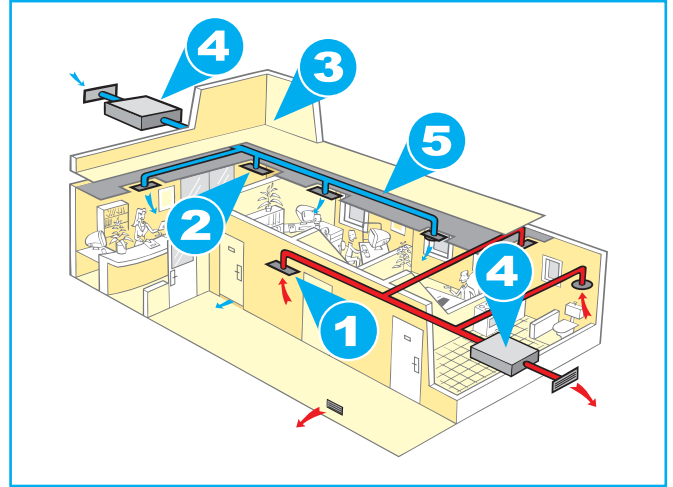
T.Flow
p. 402

Systems

Centralised Heat Recovery Ventilation

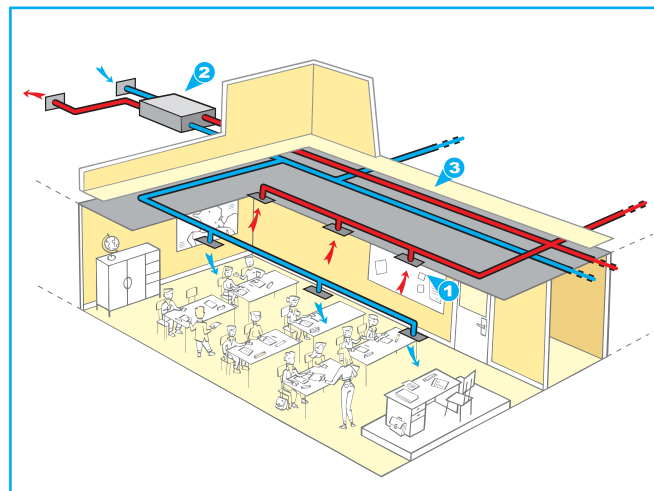


Separate Heat Recovery Ventilation System










- 1 Terminals and airflow control - p. 212
- 2 Grilles and diffusers - p. 118
- 3 Fire dampers - p. 32
- 4 Casings and fan units - p. 280

Heat Recovery System with Heat Exchanger



- 1 Grilles and diffusers - p. 118
- 2 HRV system units - p. 373
- 3 Ducts and accessories, please consult us.

Selection Guide

Model	Description	Comfort and air quality 	Cooling 	Acoustics 	Energy savings 
Heat Recovery ventilation 	The air is extracted mechanically. Incoming fresh air is introduced mechanically and heated by the extracted air: - fresh air is filtered and pre-heated for free - cooling is also possible - total acoustic isolation in relation to the exterior.	✓✓✓	✓✓✓	✓✓✓	✓✓✓
T.Flow Hygro 	Heat pump water heater using exhaust air: • Humidity-controlled air exhaust system. • Heat recovered from stale exhaust air. • Economic production of domestic hot water	✓✓	✓	✓✓	✓✓✓
T.Flow Activ 	Heat pump water heater using outside air: • Uses the energy from outside air. • Economic and extremely rapid production of domestic hot water • Heat pump using CO ₂ technology.		✓✓✓	✓	✓✓✓

HRV Fan Units

DFS



DFS

DFS+ Bypass



Advantages

- Compact and modular.
- 25 mm double skin insulation.
- Airflow up to 5000 m³/h.
- Version with bypass.
- Version with regulation.

APPLICATION

- Heat Recovery Ventilation systems designed for commercial buildings and premises.
- Filtration and preheating/pre-cooling of the blown air.

INSTALLATION

- Horizontal/ vertical
- Suspended ceilings/ technical areas.
- Indoors/ outdoors with rain hood.
- Condensate drain.

DESCRIPTION

- Structure in aluminium sections with 25 mm removable double skin panel equipped with a quarter turn lock.
- Aluminium plate heat exchanger (efficiency up to 65 %).
- Direct drive double inlet fan.
- 1 to 4-speed motor with separate windings depending on the model.
- Integrated isothermal motor protection.
- G4 (exhaust air) and F7 (fresh air) flat filters, accessible from beneath/ the side via 2 hatches.
- Condensate collection tray.
- Interchangeable panels: possibility of adapting the position of pipe connections on site.

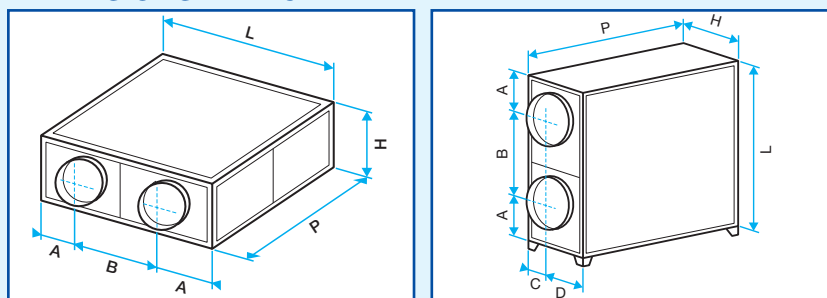
RANGE

- 6 DFS models up to 5000 m³/h.
- Horizontal (H) or vertical (V) configuration.
- Indoors / outdoors with rain hood.
- Version with or without bypass (BP):
 - 100% bypass on DFS 4000 and 5000,
 - 50% bypass on DFS 300 and DFS 3000,
- Version with or without regulation (BA Pilot).

ACCESSORIES

- Spare filters.
- Circular silencer with baffles.
- Rain hood for outdoor version.
- Switch 4V – 3V.
- Batteries

DIMENSIONS - WEIGHT

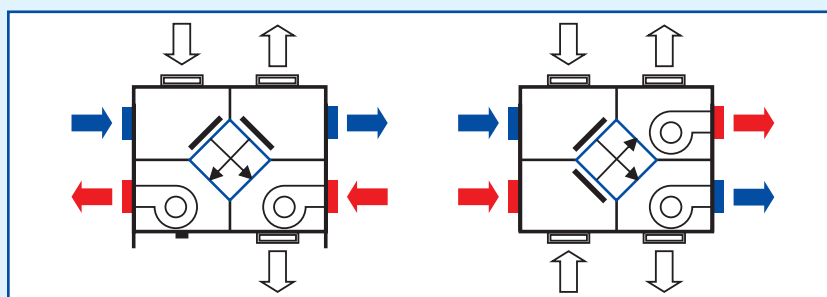


Type	D	W	H	A	B	C	D	E	Weight	ØN
DFS 300	640	640	345	175	290	173	278	50	32	200
DFS 700	820	820	360	220	380	180	285	50	44	250
DFS 1500	1040	1040	535	275	490	220	325	50	91	315
DFS 3000	1270	1270	630	332.5	605	270	375	50	125	355
DFS 4000	1300	1200	855	315	670	428	428	50	171	450
DFS 5000	1300	1200	855	315	670	428	428	50	176	450

Type	D	W	H	A	B	C	D	E	Weight	ØN
DFS 300 with bypass	640	640	450	175	290	178	278	50	41	200
DFS 700 with bypass	820	820	465	220	380	180	285	50	56	250
DFS 1500 with bypass	1040	1040	640	275	490	315	325	50	107	315
DFS 3000 with bypass	1270	1270	735	333	605	360	375	50	146	355
DFS 4000 with bypass	1300	1200	855	315	670	428	428	50	171	450
DFS 5000 with bypass	1300	1200	855	315	670	428	428	50	176	450

ELECTRICAL DETAILS

- Single-phase 230V/50 Hz motor with external rotor, IP 20, class F for DFS 300 and DFS 700.
- Single-phase 230V/50 Hz motor with external rotor, IP 20, class B for DFS 1500 and DFS 3000.
- Three-phase 400V/50 Hz motor with external rotor, IP 20, class B for DFS 4000 and DFS 5000.



Possible layouts on site

Type	Motor	Drive	I _{max}	Motor power (W)
DFS 300	4-speed	Direct	2x 0.66	2x 150
DFS 700	4-speed	Direct	2x 1.55	2x 355
DFS 1500	3-speed	Direct	2x 3.9	2x 373
DFS 3000	3-speed	Direct	2x 4	2x 550
DFS 4000	1-speed	Direct	2x 3.1	2x 750
DFS 5000	1-speed	Direct	2x 5.2	2x 1500

HRV Fan Units

DFS+



DFS+



Advantages

- Compact and modular.
- 25 mm double skin insulation.
- Airflow rates of up to 5000 m³/h.
- Version with bypass.
- Version with regulation.
- Integrated hot water or electric heating coil.

APPLICATION

- Heat Recovery Ventilation systems designed for commercial buildings and premises.
- Filtration and preheating/pre-cooling of the blown air.

INSTALLATION

- Horizontal/ vertical
- Suspended ceilings/ technical areas.
- Indoors/ outdoors with rain hood.
- Condensate drain.

DESCRIPTION

- Structure in aluminium sections with 25 mm removable double skin panel equipped with a quarter turn lock.
- Aluminium plate heat exchanger (efficiency up to 65 %).
- Direct drive double inlet fan.
- 1 to 4-speed motor with separate windings depending on the model.
- Integrated ipsothermal motor protection
- G4 (exhaust air) and F7 (fresh air) flat filters, accessible from beneath / the side via 2 hatches.
- Condensate collection tray.
- Interchangeable panels: possibility of adapting the position of pipe connections on site.

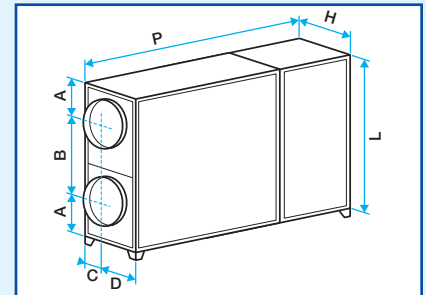
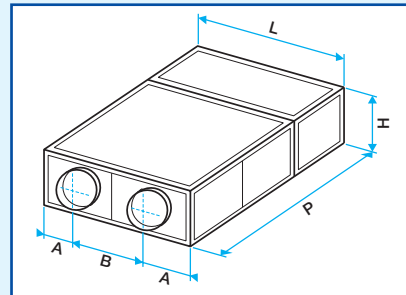
RANGE

- 6 DFS models up to 5000 m³/h.
- Horizontal (H) or vertical (V) configuration.
- Version with or without bypass (BP).
- 50% bypass on DFS+ 300/700/1500/3000.
- 100% bypass on DFS+ 4000/5000.
- Version with or without regulation (BA Pilot).

ACCESSORIES

- Spare filters.
- Filter clogging detector
- Circular silencer with baffles.
- Rain hood for outdoor version.
- Switch 4V - 3V.

DIMENSIONS - WEIGHT

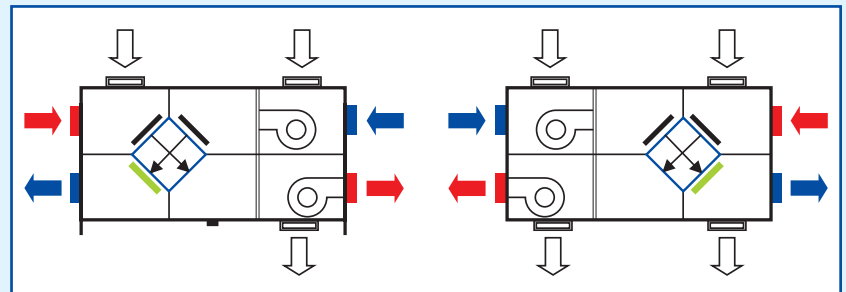


Type	D	W	H	A	B	C	D	E	Weight	ØN
DFS+300	960	640	345	175	290	173	278	40	200	200
DFS+700	1230	820	360	220	380	180	285	56	250	250
DFS+1500	1560	1040	535	275	490	220	325	110	315	315
DFS+3000	1905	1270	630	332.5	605	270	375	155	355	355
DFS+4000	1550	1200	855	315	670	428	428	195	450	450
DFS+5000	1550	1200	855	315	670	428	428	200	450	450

Type	D	W	H	A	B	C	D	E	Weight	ØN
DFS+300 with bypass	960	640	450	175	290	178	278	40	200	200
DFS+700 with bypass	1230	820	465	220	380	180	285	56	250	250
DFS+1500 with bypass	1560	1040	640	275	490	315	325	110	315	315
DFS+3000 with bypass	1905	1270	735	333	605	360	375	155	355	355
DFS+4000 with bypass	1550	1200	855	315	670	428	428	195	450	450
DFS+5000 with bypass	1550	1200	855	315	670	428	428	200	450	450

ELECTRICAL DETAILS

- Single-phase 230V/50 Hz motor with external rotor, IP 20, class F for DFS+ 300 and DFS+ 700.
- Single-phase 230V/50 Hz motor with external rotor, IP 20, class B for DFS+ 1500 and DFS+ 3000.
- Three-phase 400V/50 Hz motor with external rotor, IP 20, class B for DFS+ 4000 and DFS+ 5000.



Possible layouts on site

Type	Motor	Drive	I _{max}	Motor power (W)
DFS+ 300	4-speed	Direct	2x 0.66	2x 150
DFS+ 700	4-speed	Direct	2x 1.55	2x 355
DFS+ 1500	3-speed	Direct	2x 2.75	2x 373
DFS+ 3000	3-speed	Direct	2x 4	2x 550
DFS+ 4000	1-speed	Direct	2x 3.1	2x 750
DFS+ 5000	1-speed	Direct	2x 5.2	2x 1500

HRV Fan Units

DFS / DFS+

DFS RANGE **R7**

	Regulation type	Without bypass		With bypass	
		Horizontal Code	Vertical Code	Horizontal Code	Vertical Code
DFS 300	Without regulation	11058317	11059301	11058362	11059302
	BA Pilot	11059303	11059304	11059305	11059306
DFS 700	Without regulation	11058318	11059311	11058363	11059312
	BA Pilot	11059313	11059314	11059315	11059316
DFS 1500	Without regulation	11058319	11059321	11058364	11059322
	BA Pilot	11059323	11059324	11059325	11059326
DFS 3000	Without regulation	11058321	11059331	11058365	11059332
	BA Pilot	11059333	11059334	11059335	11059336
DFS 4000	Without regulation	11058360	11059341	11058367	11059342
	BA Pilot	11059343	11059344	11059345	11059346
DFS 5000	Without regulation	11058361	11059351	11058368	11059352
	BA Pilot	11059353	11059354	11059355	11059356

*Pilot and BMS Pilot regulations available on request

DFS+ RANGE **R7**

	Coil	Regulation type	Without bypass		With bypass	
			Horizontal Code	Vertical Code	Horizontal Code	Vertical Code
DFS+300	Electric 2 kW	Without regulation	11059369	11059370	11059371	11059372
		BA Pilot	11059373	11059374	11059375	11059376
	Hot water	Without regulation	11059361	11059362	11059363	11059364
		BA Pilot	11059365	11059366	11059367	11059368
DFS+ 700	Electric 4 kW	Without regulation	11059389	11059390	11059391	11059392
		BA Pilot	11059393	11059394	11059395	11059396
	Hot water	Without regulation	11059381	11059382	11059383	11059384
		BA Pilot	11059385	11059386	11059387	11059388
DFS+ 1500	Electric 6 kW	Without regulation	11059409	11059410	11059411	11059412
		BA Pilot	11059413	11059414	11059415	11059416
	Hot water	Without regulation	11059401	11059402	11059403	11059404
		BA Pilot	11059405	11059406	11059407	11059408
DFS+ 3000	Electric 8 kW	Without regulation	11059429	11059430	11059431	11059432
		BA Pilot	11059433	11059434	11059435	11059436
	Hot water	Without regulation	11059421	11059422	11059423	11059424
		BA Pilot	11059425	11059426	11059427	11059428
DFS+ 4000	Electric 12 kW	Without regulation	11059449	11059450	11059451	11059452
		BA Pilot	11059453	11059454	11059455	11059456
	Hot water	Without regulation	11059441	11059442	11059443	11059444
		BA Pilot	11059445	11059446	11059447	11059448
DFS+ 5000	Electric 12 kW	Without regulation	11059469	11059470	11059471	11059472
		BA Pilot	11059473	11059474	11059475	11059476
	Hot water	Without regulation	11059461	11059462	11059463	11059464
		BA Pilot	11059465	11059466	11059467	11059468

*BMS Pilot regulation available on request

ACCESSORIES **R7**

Description	Code
SPARE FILTERS*	
G4 filter for DFS+/DFS 300	11058314
G4 filter for DFS+/DFS 700	11058315
G4 filter for DFS+/DFS 1000	11058316
G4 filter for DFS+/DFS 3000	11058324
G4 filter for DFS+/DFS 4000 and 5000	11058326
F7 filter for DFS+/DFS 300	11058392
F7 filter for DFS+/DFS 700	11058393
F7 filter for DFS+/DFS 1500	11058394
F7 filter for DFS+/DFS 3000	11058395
F7 filter for DFS+/DFS 4000 and 5000	11058396

Description	Code
MISC ACCESSORIES	
4V switch	11059481
3V switch	11059482
Condensate discharge assembly	11059483
M0 FLEXIBLE SLEEVE	
MS Pro M0 Ø 200 mm	11094692
MS Pro M0 Ø 250 mm	11094693
MS Pro M0 Ø 315 mm	11094694
MS Pro M0 Ø 355 mm	11094695
MS Pro M0 Ø 400 mm	11094696
MS Pro M0 Ø 450 mm	11094697

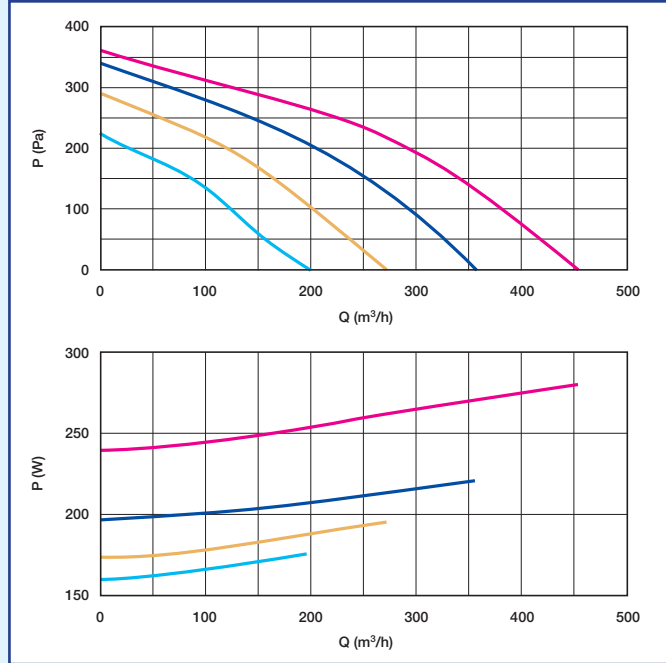
HRV Fan Units

DFS / DFS+

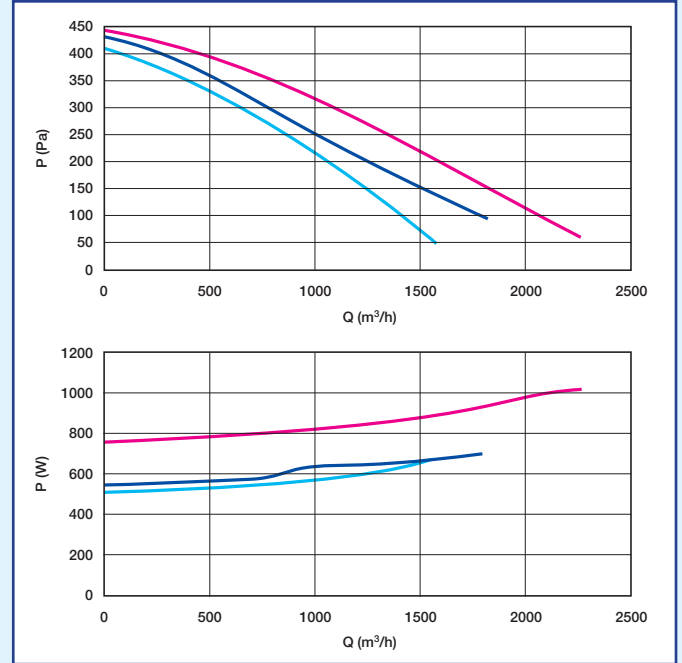
AIRFLOW DETAILS

- Airflow curves drawn up in accordance with the Standard NF E51-705.
- P(Pa) = static pressure.

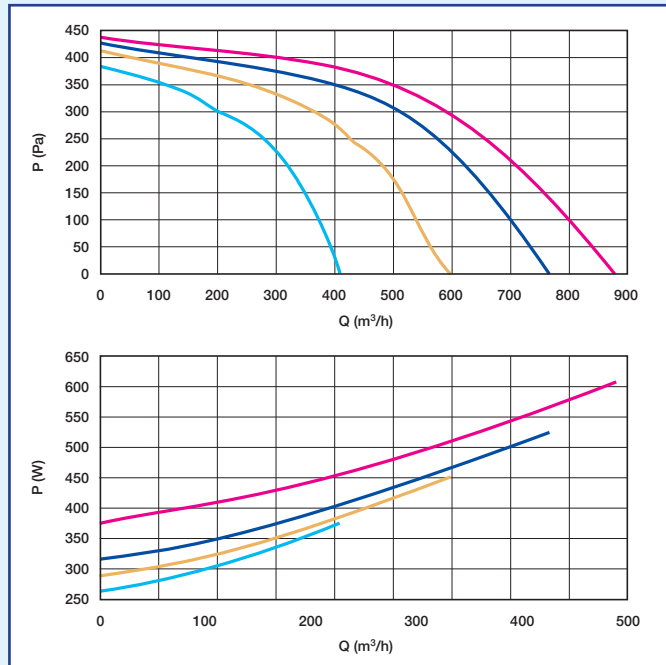
DFS 300 / DFS+ 300



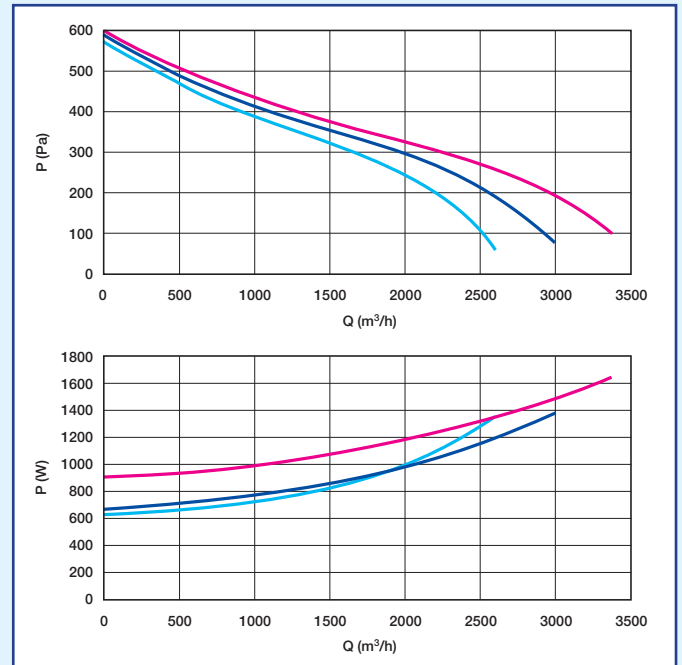
DFS 500 / DFS+ 500



DFS 700 / DFS+ 700



DFS 3000 / DFS+ 3000



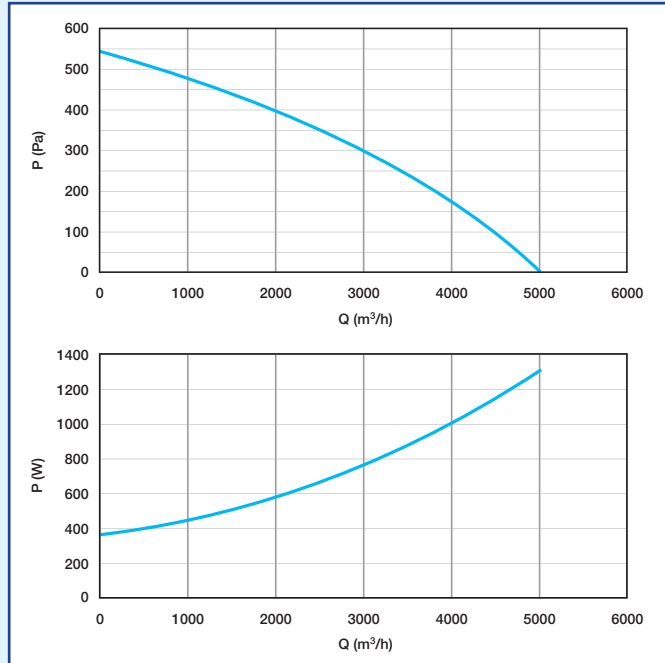
HRV Fan Units

DFS / DFS+

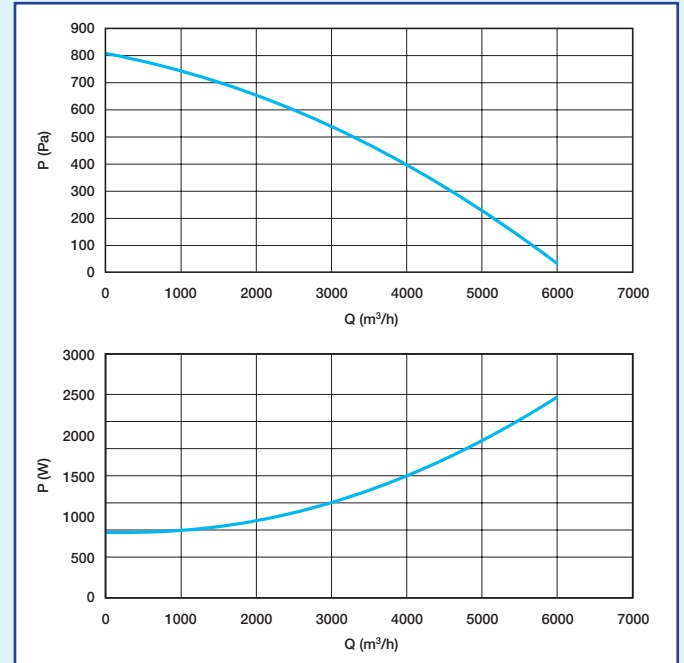
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard NF E51-705.
- P(Pa) = static pressure.

DFS 4000 / DFS+ 4000



DFS 5000 / DFS+ 5000



HRV Fan Units

DFS T



Advantages

- Airflow up to 12000 m³/h.
- 25 mm double skin insulation.
- Version with bypass.

APPLICATION

- HRV ventilation intended for commercial premises with energy efficiency design.
- Filtration and pre-cooling/preheating of supplied air.
- Fixed air flow or maximum airflow setup.
- Supply temperature regulation by electric heaters or water cooling/heating coil.

INSTALLATION

- Vertical.
- Indoor/Outdoor with rain hood.
- Condensate evacuation.

DESCRIPTION

- Extruded Aluminum casing with double skin isolation of 25 mm, equipped with a quarter turn lock.
- Aluminum plate exchangers (efficiency of 65%)
- Double inlet motor belt driven.
- 2 speed motor.
- F7 filter for air supply and G4 filter for air extraction.
- Condensate receiver with collection box.

RANGE

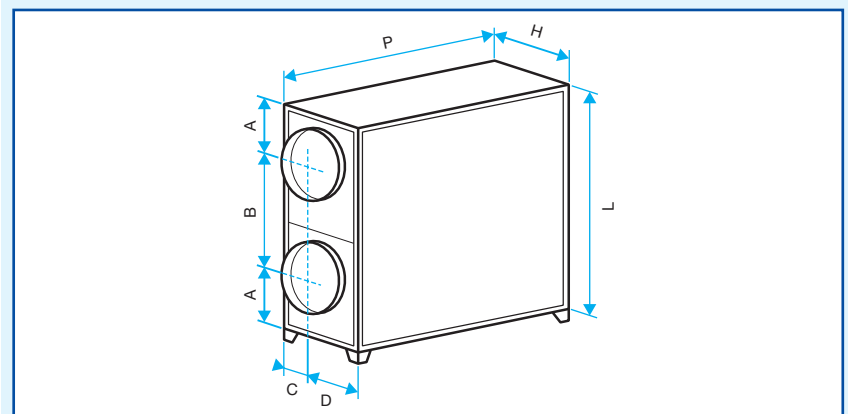
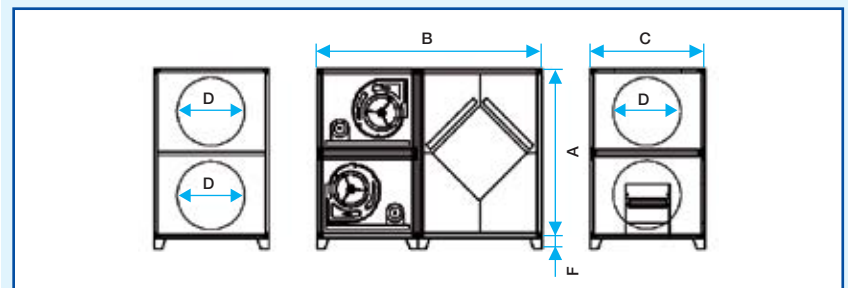
- 3 models DFST up to 12000 m³/h.
- Vertical configuration (V)
- Available with or without bypass (BP).
- Bypass 50% on DFST 300/700/1500/3000 100%.
- Bypass 100 % on DFST 4000/5000 100%.
- Available without regulation.

Description	Code
DFST 4500	11058322
DFST 4500 + bypass	11059491
DFST 8000	11058323
DFST 8000 + bypass	11059492
DFST 12000	11059493
DFST 12000 + bypass	11059494

ACCESSOIRES AND OTHER OPTIONS

- Preheating by hot water coil in casing.
- Preheating by circular electric coil.
- Wind hood for outdoor model. (contact us for information)
- Horizontal installation. (contact us for information)
- Model without regulation and other motor type (contact us for information).

DIMENSIONS - WEIGHT



Type	A	B	C	DØ	F	Weight (kg)	ØN
DFST 4500	1200	1800	860	450	100	250	200
DFST 8000	1500	2000	1060	630	100	420	250
DFST 12000	1700	2800	1260	710	100	630	315

ELECTRICAL DETAILS

- Three - Phase Motorisation 400 V / 50 Hz.

Type	Motor	Drive	Motor Power (kW)
DFST 4500	2 speed	Variable pulley + belt	0,6/1,7
DFST 8000	2 speed	Variable pulley + belt	1,4/4,2
DFST 12000	2 speed	Variable pulley + belt	1,6/5,5

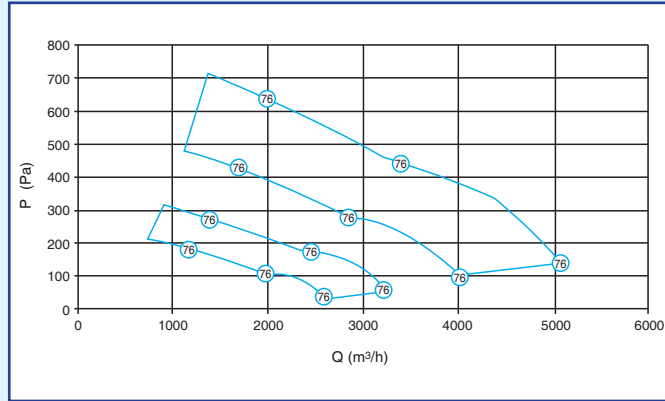
HRV Fan Units

DFS T

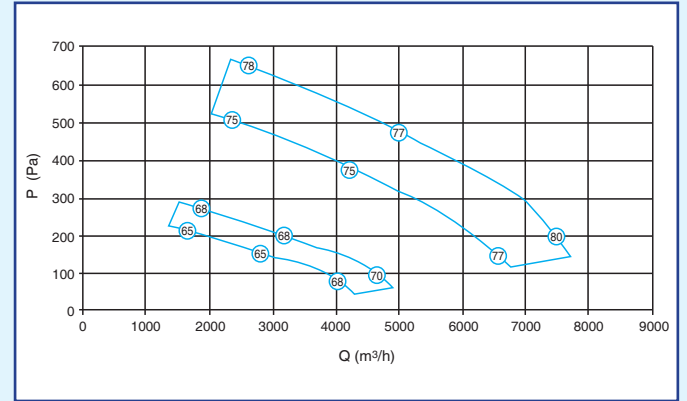
AIRFLOW AND ACOUSTIC DETAILS.

- Airflow curve drawn up in accordance with European Standard NF E51-705.
- Sound Pressure level measured in supply duct.
- P (Pa)= Static Pressure.

DFS 4500



DFS 8000



HRV Fan Units

DFE micro-watt



Advantages

- High efficiency heat exchanger.
- Energy-saving EC motors.
- Plug and play.
- Motorised by-pass for free-cooling.

APPLICATION

- HRV ventilation intended for low-energy commercial buildings.
- Filtration and preheating/pre-cooling of the blown air.

INSTALLATION

- Indoors in an attic or technical room.
- Outdoors with the optional "Outdoors version kit".

DESCRIPTION

- 4 DFE models up to 1200 m³/h.
- Plug & Play pre-cabled single-block unit.
- Casing structure made of extruded and anodised aluminium.
- 15 mm double wall panels. Inside of DFE made of galvanised steel.
- Polystyrene thermal insulation (Fire class M1).
- High efficiency counterflow heat exchanger (>90% EUROVENT certified).
- Centrifugal fans with EC motors.
- Full regulation with remote control :
 - Constant airflow (CA)
 - Constant pressure (CPs),
 - Signal 0-10V (LS).
- Motorised bypass permitting free cooling
- G4 flat and pleated filters (optional F7 on fresh air).
- Proximity switch.
- Stainless steel condensate collection tray.

RANGE R7

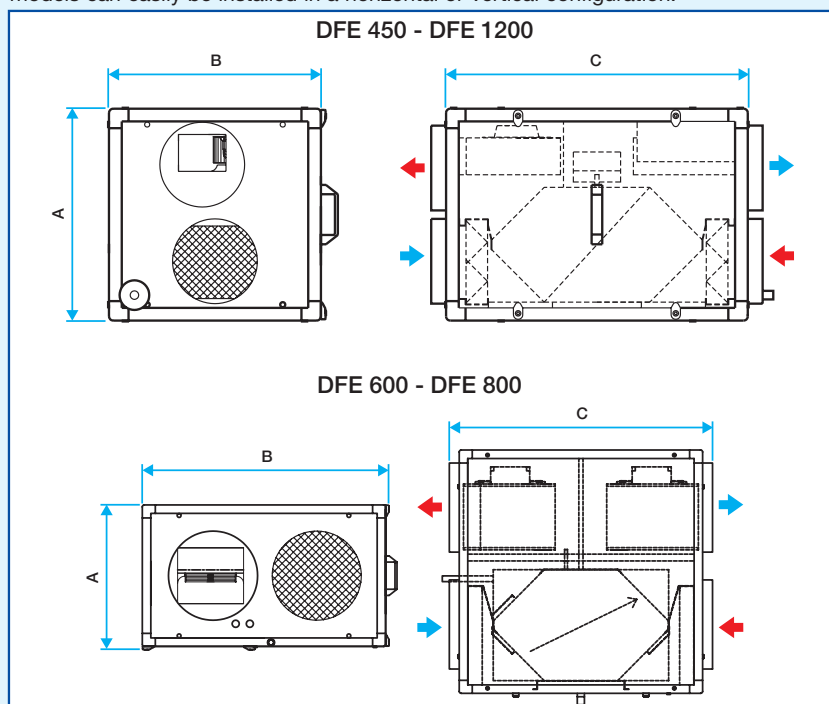
Description	Code
DFE 450	11058051
DFE 600	11058174
DFE 800	11058052
DFE 1200	11058176

ACCESSORIES R7

Description	Code
REGULATION	
DFE pressure sensor kit	11058050
CO2 Sensor	11017090
Remote control	11058441
SAT 3 relay	11058149
OUTDOOR VERSION (VEX) KIT	
DFE 450 VEX Kit	11058177
DFE 600 VEX Kit	11058178
DFE 800 VEX Kit	11058179
DFE 1200 VEX Kit	11058180
SPARE FILTER	
G4 filter for DFE 450	11058100
F7 filter for DFE 450	11058164
G4 filter for DFE 600/DFE 800	11058166
F7 filter for DFE 600/DFE 800	11058165
G4 filter for DFE 1200	11058167
F7 filter for DFE 1200	11058168

DIMENSIONS - WEIGHT

Through suitable positioning of the condensate discharge, the DFE 600 and DFE 800 models can easily be installed in a horizontal or vertical configuration.



Model	A (mm)	B (mm)	C (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or inlet (mm)	Weight (kg)
DFE 450	500	500	712	Ø 200	Ø 200	75
DFE 600	500	860	860	Ø 250	Ø 250	104
DFE 800	500	860	860	Ø 315	Ø 315	117
DFE 1200	860	860	1000	338 x 798	Ø 355	172

ELECTRICAL DETAILS

- EC motor, class B IP 44
- Single phase power supply 230 V - 50 Hz

Model	Max. airflow (m ³ /h)	Wheel	Pmax fan (kW)	Pmax consumption at max airflow (kW)	I _{max} (A)	Max. current protection (A)
DFE 450	470	Forward curved	2 x 0.24	2 x 0.21	2.9	1 x 8
DFE 600	630	Forward curved	2 x 0.23	2 x 0.17	3.1	1 x 8
DFE 800	840	Forward curved	2 x 0.54	2 x 0.28	3.7	1 x 8
DFE 1200	1260	Forward curved	2 x 0.6	2 x 0.42	5.4	1 x 8

SELECTION SOFTWARE

- SELECTOR DFE is used to specify the full performance of DFE fan units.



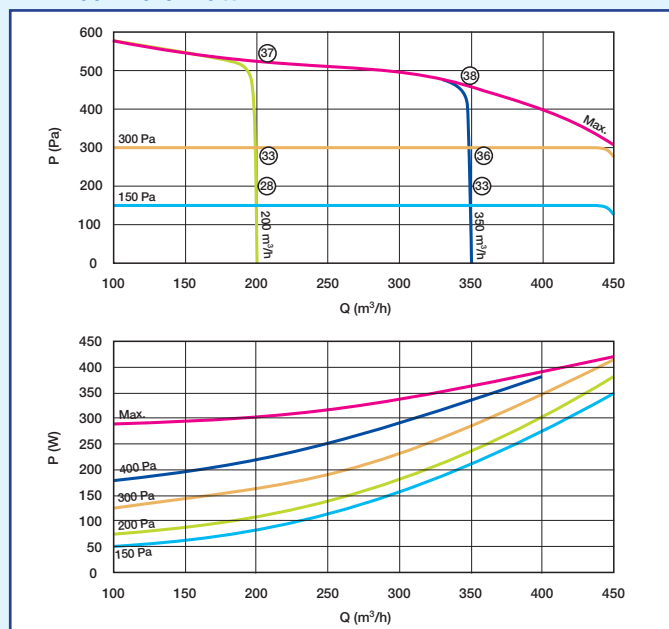
HRV Fan Units

DFE micro-watt

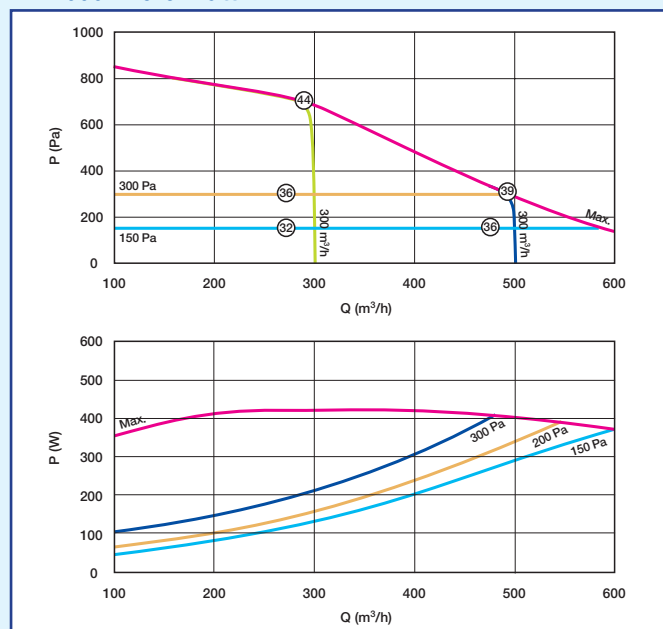
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- \bigcirc = L_p in dB(A) – Overall acoustic pressure levels measured 4 m from fan casing with free fan discharge.
- P(Pa) = static pressure.
- P (W) = power consumption

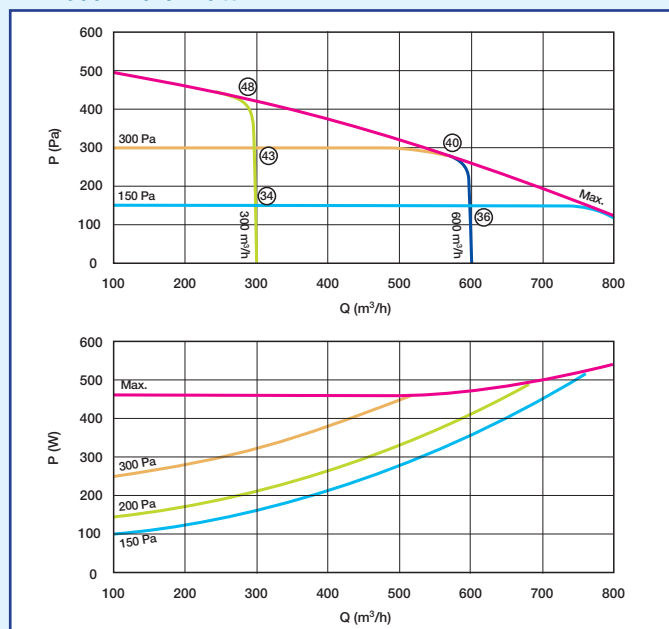
DFE 450 micro-watt



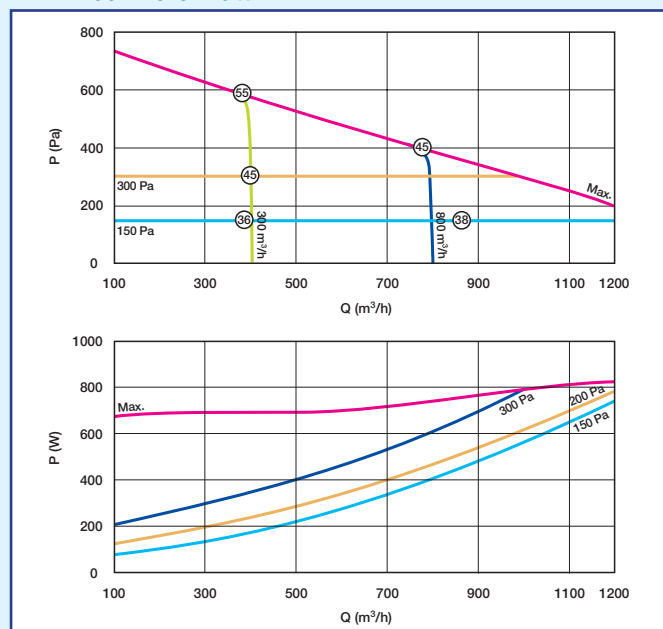
DFE 600 micro-watt



DFE 800 micro-watt



DFE 1200 micro-watt



ACCESSORIES (cont.) R7

Description	Code
RECTANGULAR/CIRCULAR ADAPTER PART	
DFE 1200 adapter part (Fresh air/exhaust) 338x798 \square \varnothing 355 mm	11058188
M0 FLEXIBLE SLEEVE	
MS Pro M0 \varnothing 200 mm	11094692
MS Pro M0 \varnothing 250 mm	11094693
MS Pro M0 \varnothing 315 mm	11094694
MS Pro M0 \varnothing 355 mm	11094695

HRV Fan Units

DFE compact micro-watt



ECO-RESPONSE



RT 2012

Advantages

- High efficiency heat exchanger.
- Energy-saving EC motor
- Height from 320 to 400 mm.
- Plug and play.
- 100% bypass.

APPLICATION

- HRV ventilation intended for low-energy commercial buildings.
- Filtration and preheating/pre-cooling of the blown air.

INSTALLATION

- Horizontal.
- Indoors in a technical ceiling.

DESCRIPTION

- Plug & Play pre-cabled single-block unit.
- Double wall 30 mm panels, polystyrene thermal insulation (Fire class M1).
- High efficiency counterflow heat exchanger (>90%), EUROVENT certified.
- Energy-saving EC motor.
- Remote control (RC) included.
- Fully regulated.
- Constant airflow (CA)
- Constant pressure (CPs),
- Signal 0-10V (LS).
- G4 flat and pleated filters (optional F7 on fresh air).
- 100% by pass.
- Proximity switch.
- Pre-installed and pre-cabled condensate discharge pump
- Optional: communication with BMS in RTU Modbus (requires SAT ModBus option)
- Configuration and control via remote control or touch-screen remote control (additional accessory).

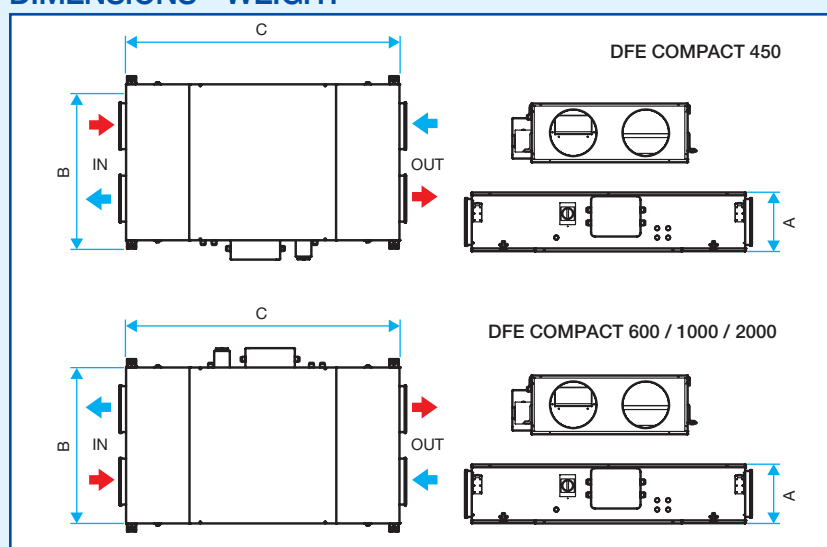
RANGE R7

Description	Code
DFE Compact 450 + RC	11058471
DFE Compact 600 + RC	11058472
DFE Compact 1000 + RC	11058473
DFE Compact 2000 + RC	11058474

ACCESSORIES R7

Description	Code
REGULATION	
DFE pressure sensor kit	11058050
CO2 Sensor	11017090
Remote control	11058441
Touch-screen remote control	11058444
SAT Modbus relay	11058442
SAT 3 relay	11058149
M0 FLEXIBLE SLEEVE	
MS Pro M0 Ø 200 mm	11094692
MS Pro M0 Ø 250 mm	11094693
MS Pro M0 Ø 315 mm	11094694
SPARE FILTER	
G4 filter for DFE Compact 450	11058195
F7 filter for DFE Compact 450	11058196
G4 filter for DFE Compact 600	11058169
F7 filter for DFE Compact 600	11058170
G4 filter for DFE Compact 1000	11058197
F7 filter for DFE Compact 1000	11058198
G4 filter for DFE Compact 2000	11058199
F7 filter for DFE Compact 2000	11058200

DIMENSIONS - WEIGHT



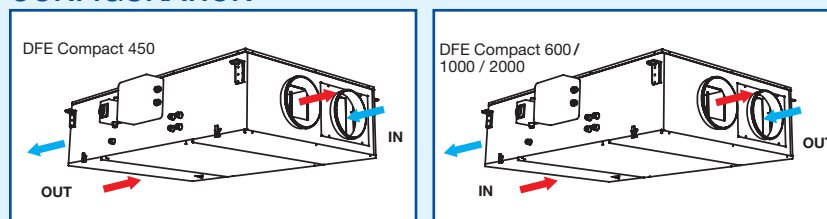
Model	A (mm)	B (mm)	C (mm)	Ø Fresh air inlet or air exhaust (mm)	Ø Exhaust or inlet (mm)	Weight (Kg)
DFE Compact 450	360	560	1100	Ø 200	Ø 200	117
DFE Compact 600	320	850	1490	Ø 250	Ø 250	135
DFE Compact 1000	400	1050	1490	Ø 250	Ø 250	120
DFE Compact 2000	370	1550	1690	Ø 315	Ø 315	205

ELECTRICAL DETAILS

- EC motor, class B IP 44
- Single phase power supply 230 V - 50 Hz

Model	Max. airflow (m³/h)	Wheel	Pmax fan (kW)	Pmax consumption at max airflow (kW)	I max (A)	Protection rating (A)
DFE Compact 450	472	Forward curved	2 x 0.25	2 x 0.25	3	1 x 8
DFE Compact 600	630	Forward curved	2 x 0.25	2 x 0.25	3	1 x 8
DFE Compact 1000	1050	Forward curved	2 x 0.6	2 x 0.49	6.2	1 x 8
DFE Compact 2000	2100	Forward curved	2 x 0.96	2 x 0.96	11.2	1 x 16

CONFIGURATION



SELECTION SOFTWARE

- SELECTOR DFE is used to specify the full performance of DFE fan units.



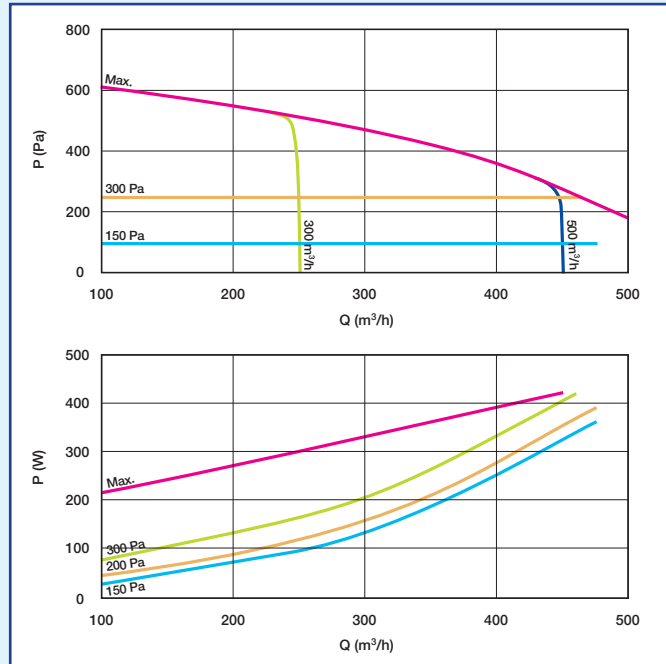
HRV Fan Units

DFE compact micro-watt

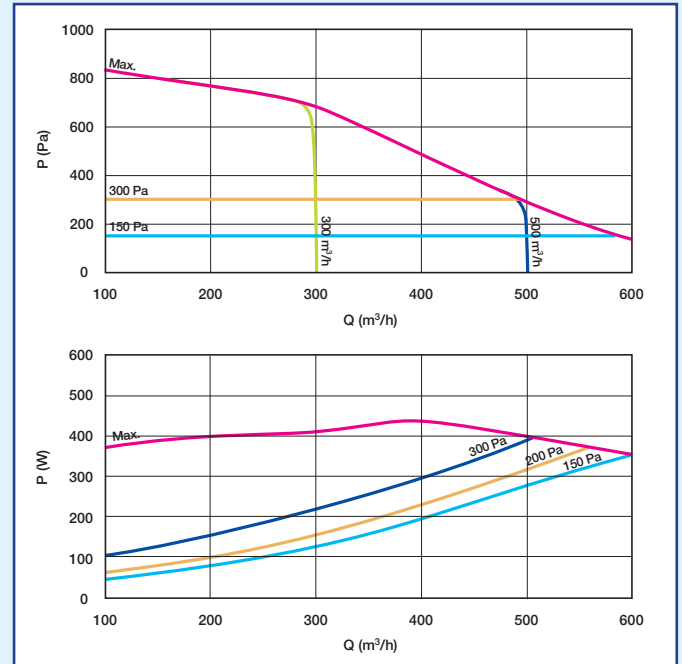
AERAUIC SPECIFICATIONS AND POWER CONSUMPTION

- Airflow curves established in accordance with French Standard EN ISO 5801.
- ○ : Lp (dB(A)) = sound pressure level measured at 4 metres from the casing, free discharge
- P (Pa) = Static pressure
- P (W) = power consumption

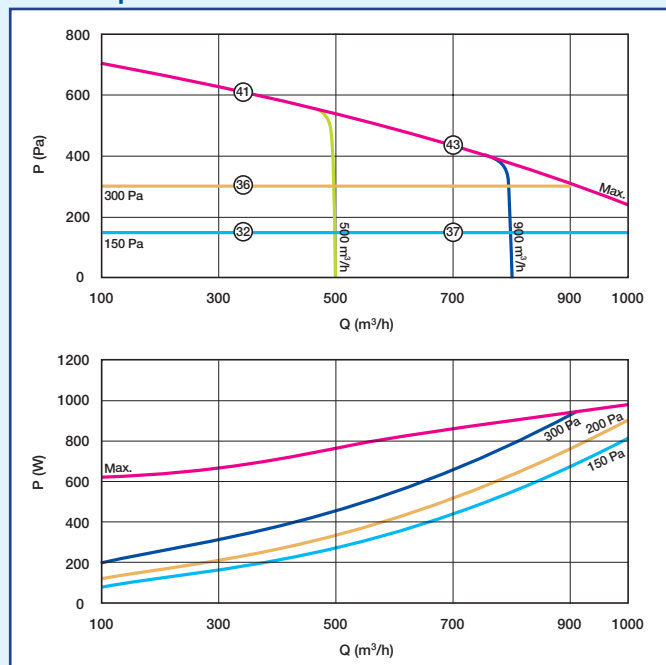
DFE Compact 450 micro-watt



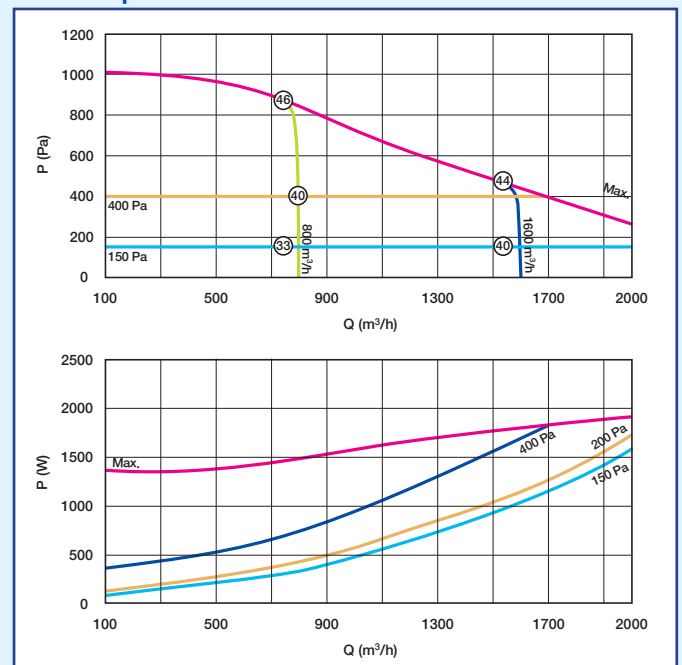
DFE Compact 600 micro-watt



DFE Compact 1000 micro-watt



DFE Compact 2000 micro-watt



HRV Fan Units

DFE+ micro-watt



Compliance

- Eligible for CEE: BAR-TH25, BAR-TH26 and BAT-TH26 GT.

ECO-RESPONSE



RT 2012

Advantages

- High efficiency heat exchanger.
- Micro-watt motor
- Plug and play.
- Free-cooling 100%.
- Optional integrated coils.

APPLICATION

- HRV ventilation intended for low-energy commercial buildings.
- Filtration and preheating of the blown air.

INSTALLATION

- Technical rooms/ Terraces.
- Indoors / outdoors
- Heat-insulated ductwork.
- Condensate discharge.

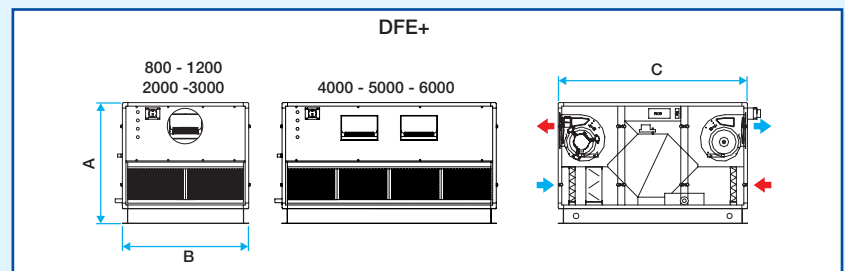
DESCRIPTION

- 7 DFE+ models up to 6000 m³/h.
- Plug & Play pre-cabled single-block unit.
- Casing structure made of extruded and anodised aluminium.
- 30 mm double wall panels. Inner wall made of galvanised steel.
- Internal aerulic seal class 1 and external class 2 (EN 13141-7).
- High efficiency counterflow heat exchanger (>90 %).
- Centrifugal fans with EC motors.
- Full regulation included:
 - Constant airflow (CA)
 - Constant pressure (CPs),
 - Signal 0-10V (LS).
- Integrated clock.
- 100 % automatic bypass.
- G4 flat filters on exhaust air and F7 on fresh air.
- Proximity switch.
- Stainless steel condensate collection tray.
- Optional: Communication with BMS in ModBus RTU protocol.
- Configuration and control via remote control or touch-screen remote control (additional accessory).

RANGE AND ACCESSORIES

- See page 384.

DIMENSIONS - WEIGHT



Model	A (mm)	B (mm)	C (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or inlet (mm)	Weight (kg)
DFE+ 800	1185	530	1060	Ø 315	Ø 315	151
DFE+ 1200	1185	890	1160	368 x 828	Ø 355	216
DFE+ 2000	1185	1060	1592	368 x 998	Ø 400	316
DFE+ 3000	1185	1430	1592	368 x 1368	Ø 450	391
DFE+ 4000	1185	1800	1592	368 x 1738	344 x 1050	486
DFE+ 5000	1550	2090	1592	568 x 2028	344 x 1420	635
DFE+ 6000	1550	2090	1592	568 x 2028	344 x 1420	661

ELECTRICAL DETAILS

- EC motor, class B IP 44
- Single-phase power supply 230 V - 50 Hz (EXCEPT for DFE+ 4000 / 5000 / 6000 - three-phase power 230/400 V - 50 Hz).

Model	Max. airflow (m ³ /h)	Wheel	P _{max} fan (kW)	P _{max} consumption at max airflow (kW)	I _{max} (A)	Current protection (A)
DFE+ 800	800	Forward curved	2 x 0.54	2 x 0.31	4.1	8
DFE+ 1200	1200	Forward curved	2 x 0.6	2 x 0.41	5.2	8
DFE+ 2000	2000	Forward curved	2 x 0.96	2 x 0.90	10.6	16
DFE+ 3000	3000	Forward curved	2 x 1.25	2 x 1.16	13.2	20
DFE+ 4000	4000	Forward curved	4 x 0.96	4 x 0.90	10.6	20
DFE+ 5000	5000	Forward curved	4 x 0.96	4 x 0.94	18	20
DFE+ 6000	6000	Forward curved	4 x 1.2	4 x 1.2	23.1	25

ELECTRIC COIL (pre-heating and post-heating)

Type of unit	Power supply (V)	Coil power (kW)	I _{max} (A)
DFE+ 800	3 x 400V + N	3	4.3
DFE+ 1200	3 x 400V + N	4.5	6.5
DFE+ 2000	3 x 400V + N	6	8.7
DFE+ 3000	3 x 400V + N	9	13.0
DFE+ 4000	3 x 400V + N	12	17.3
DFE+ 5000	3 x 400V + N	18	26
DFE+ 6000	3 x 400V + N	18	26

SELECTION SOFTWARE

- SELECTOR DFE is used to specify the full performance of DFE+ fan units.



HRV Fan Units

DFE+ micro-watt

RANGE WITH CHOICE OF OPTIONS

HRV FAN UNITS

Description	11058431 DFE +800	11058432 DFE +1200	11058434 DFE +2000	11058435 DFE +3000	11058436 DFE +4000	11058437 DFE +5000	11058438 DFE +6000
UNIT	•	•	•	•	•	•	•

DFE + MICROWATT OPTIONAL EQUIPMENT

Abbreviation	Description	11058431 DFE +800	11058432 DFE +1200	11058434 DFE +2000	11058435 DFE +3000	11058436 DFE +4000	11058437 DFE +5000	11058438 DFE +6000
REGULATION	REMOTE CONTROL	•	•	•	•	•	•	•
	COMMUNICATION MODBUS	•	•	•	•	•	•	•
FRESH AIR	RAIN COVER + GRILL	•	•	•	•	•	•	•
	RAIN COVER + MOTORISED DAMPER	•	•	•	•	•	•	•
	ROUND INLET	•	-	-	-	-	-	-
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
	MOTORISED DAMPER + RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
	AIR SUPPLY MOTORISED DAMPER	•	•	•	•	•	•	•
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
AIR SUPPLY	ROUND ROOF COWL	•	•	•	•	-	-	-
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
EXTRACT	ROUND INLET	•	-	-	-	-	-	-
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
	MOTORISED DAMPER + RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
	AIR SUPPLY MOTORISED DAMPER	•	•	•	•	•	•	•
EXHAUST	RECTANGULAR FLEXIBLE SLEEVE	•	•	•	•	•	•	•
	ROUND ROOF COWL	•	•	•	•	-	-	-
	OVERPRESSURE SHUTTER	•	•	•	•	•	•	•
OUTDOORS	OUTDOORS VERSION = ROOF + WATER TRAP DIAPHRAGM	•	•	•	•	•	•	•
POST-HEATING COIL	REGULATED WATER + 3-WAY VALVE + T° SENSOR	•	•	•	•	•	•	•
	REGULATED ELECTRIC HEATER + T° SENSOR	•	•	•	•	•	•	•
FROST-PROTECTION COIL	REGULATED ELECTRIC + T° SENSOR	•	•	•	•	•	•	•

ACCESSORIES

Abbreviation	Description	Code
REGULATION	DFE pressure sensor kit	11058050
	Remote control	11058441
	SAT Modbus relay	11058442
	External coil SAT kit	11058443
	Touch-screen remote	11058444
	CO2 Sensor	11017090
	TRANSFORMER 230V/24V-12V 1/1.5A	11057101
	SAT 3 relay	11058149
RECT/CIRC ADAPTER PART	DFE+ 1200 (Fresh air intake / extract)	11058045
	DFE+ 2000 (Fresh air intake / extract)	11058046
	DFE+ 3000 (Fresh air intake / extract)	11058047
	DFE+ 4000 (Fresh air intake / extract)	11058048
	DFE+ 4000 (Supply / exhaust)	11058049
	DFE+5000 / 6000 (Fresh air intake / extract)	11058192
DFE+ 5000 / 6000 (Supply / exhaust)	11058193	
M0 FLEXIBLE SLEEVE	MS Pro M0 Ø 315 mm	11094694
	MS Pro M0 Ø 355 mm	11094695
	MS Pro M0 Ø 400 mm	11094696
	MS Pro M0 Ø 450 mm	11094697
	MS Pro M0 Ø 500 mm	11094698

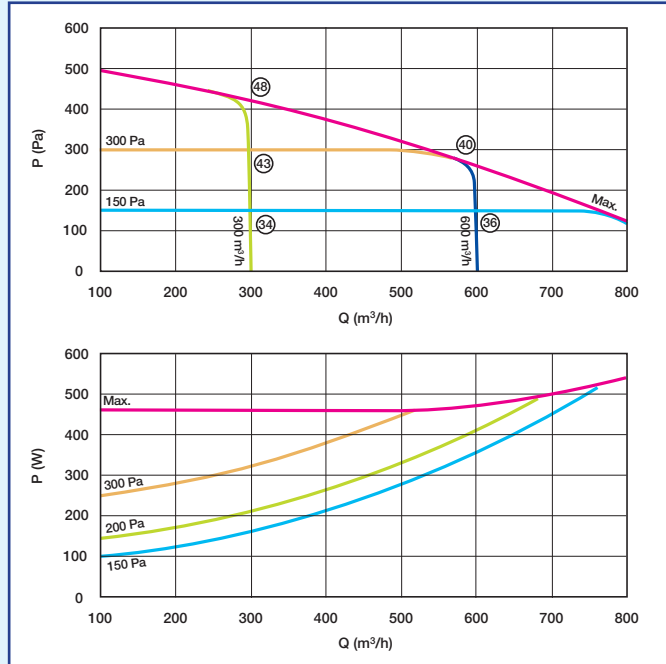
HRV Fan Units

DFE+ micro-watt

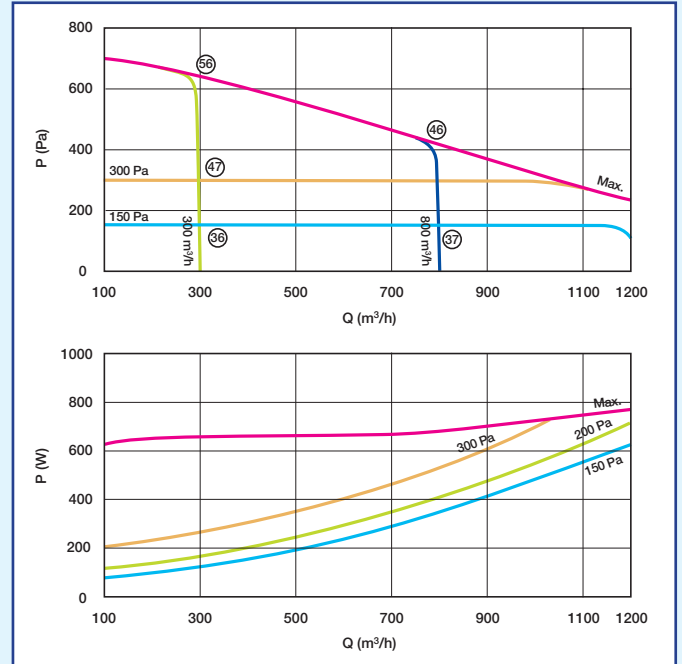
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P(Pa) = static pressure.
- P (W) = power consumption

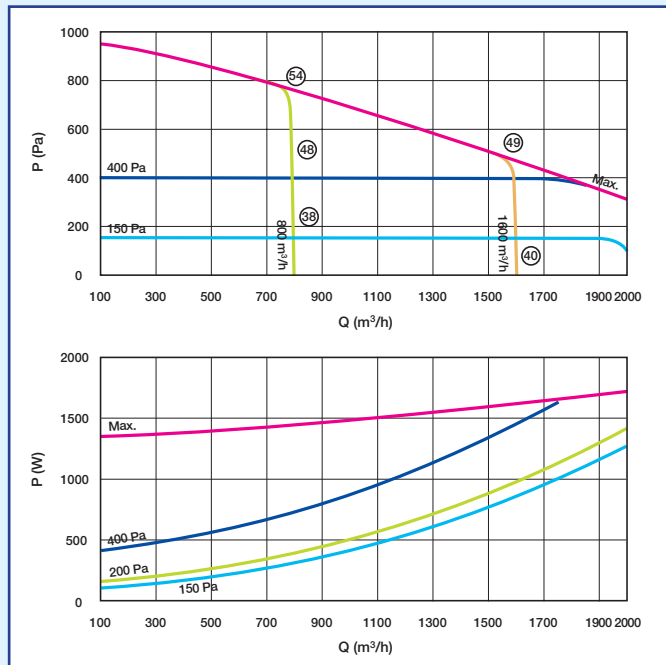
DFE+ 800 micro-watt



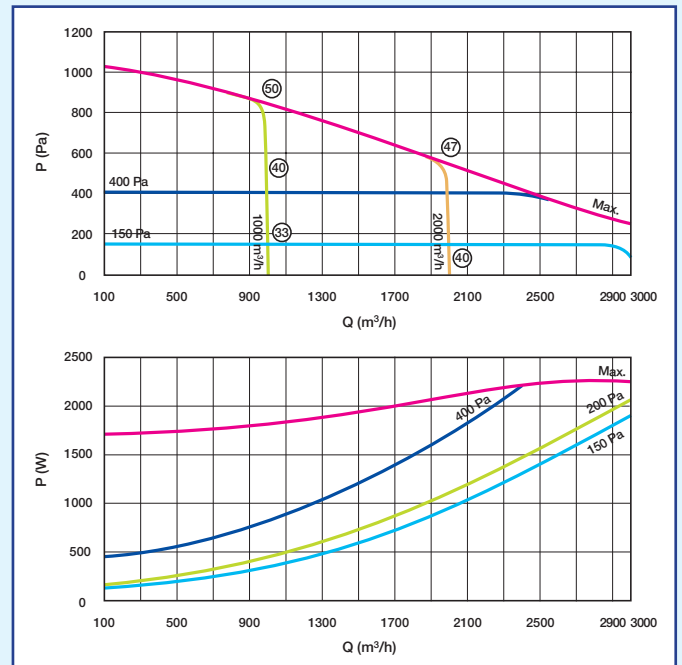
DFE+ 1200 micro-watt



DFE+ 2000 micro-watt



DFE+ 3000 micro-watt



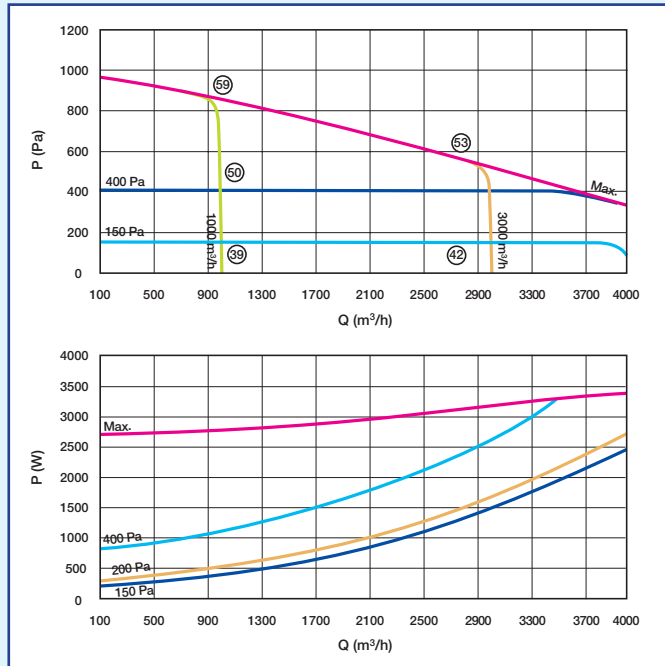
HRV Fan Units

DFE+ micro-watt

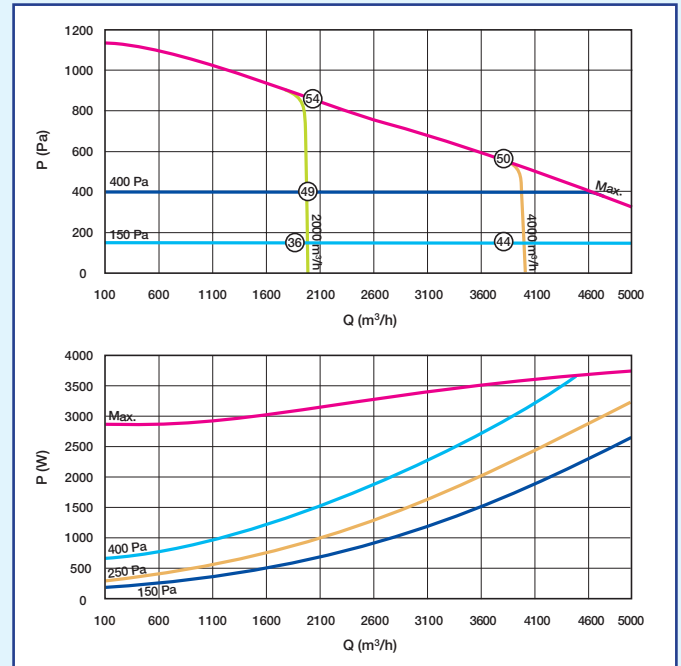
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P(Pa) = static pressure.
- P (W) = power consumption

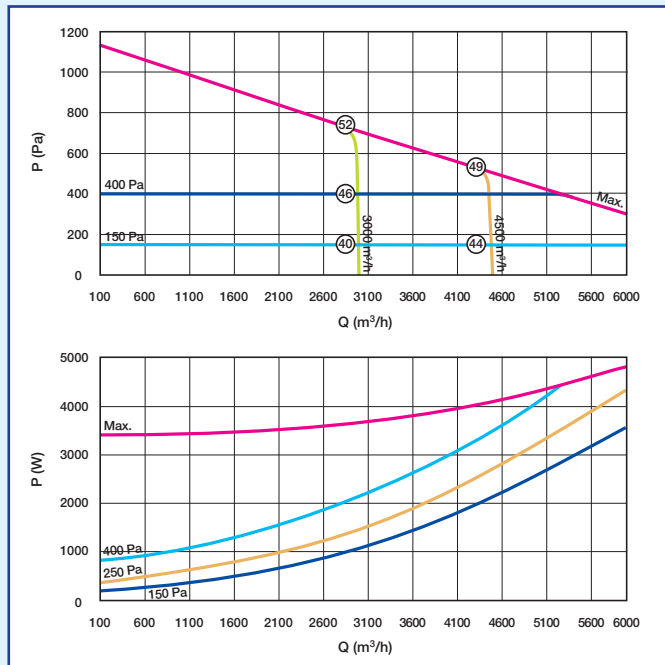
DFE+ 4000 micro-watt



DFE+ 5000 micro-watt



DFE+ 6000 micro-watt



HRV Fan Units

DFE+ TOP micro-watt



Advantages

- High efficiency heat exchanger.
- Micro-watt motor
- Minimal floor occupation dimensions
- Free-cooling 100%.
- Optional integrated coils.



APPLICATION

- HRV ventilation intended for low-energy commercial buildings.
- Filtration and preheating/pre-cooling of the blown air.

INSTALLATION

- Vertical.
- Technical rooms.
- Indoors.
- Condensate discharge.

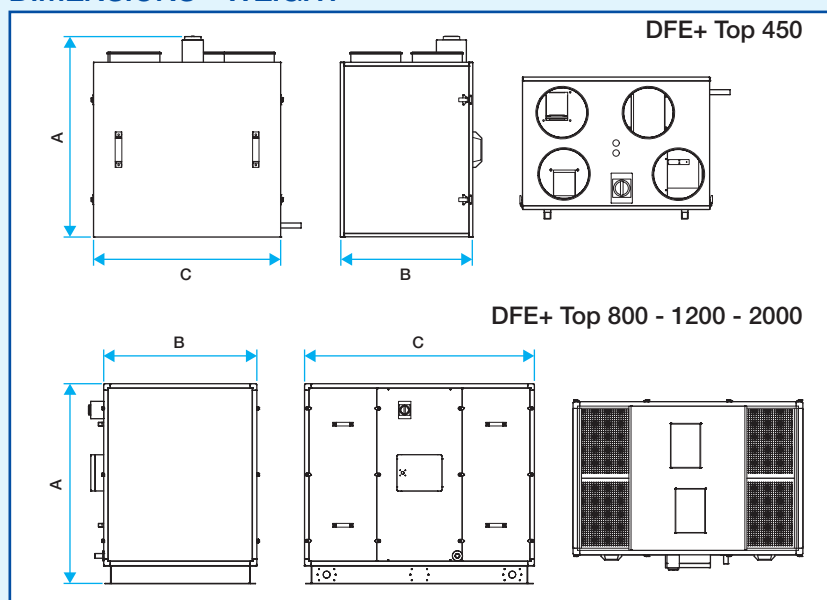
DESCRIPTION

- 4 DFE+ TOP models up to 2000 m³/h.
- Plug & Play pre-cabled single-block unit.
- Casing structure made of extruded and anodised aluminium.
- 30 mm double wall panels (15 mm for DFE TOP 450). Inner wall made of galvanized steel.
- Internal aeraulic seal class 1 and external class 2 (EN 13141-7).
- High efficiency counterflow heat exchanger (>90 %).
- Centrifugal fans with EC motors.
- Full regulation included:
 - Constant airflow (CA)
 - Constant pressure (CPs),
 - Signal 0-10V (LS).
- Integrated clock.
- 100% automatic bypass.
- G4 flat filters on exhaust air and F7 on fresh air
- Proximity switch.
- Stainless steel condensate collection tray.
- Optional: Communication with BMS in ModBus RTU protocol.
- Configuration and control via remote control or touch-screen remote control (additional accessory).

RANGE

Description	Code
DFE TOP 450	11058460
DFE+ TOP 450	11058450

DIMENSIONS - WEIGHT



Model	A (mm)	B (mm)	C (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or inlet (mm)	Weight (kg)
DFE+ TOP 450	700	530	750	Ø 200	Ø 200	140
DFE+ TOP 800	1385	530	1060	175 x 465	Ø 250	151
DFE+ TOP 1200	1385	890	1160	300 x 825	Ø 355	216
DFE+ TOP 2000	1385	1060	1592	365 x 995	Ø 400	316

ELECTRICAL DETAILS

- EC motor, class B IP 44
- Single phase power supply 230 V - 50 Hz

Model	Max. airflow (m ³ /h)	Wheel	Pmax consumption at max airflow (kW)	I _{max} (A)	Current protection (A)
DFE+ TOP 450	472	Forward curved	2 x 0.20	1.38	1 x 8
DFE+ TOP 800	840	Forward curved	2 x 0.31	5.5	1 x 8
DFE+ TOP 1200	1260	Forward curved	2 x 0.41	7	1 x 8
DFE+ TOP 2000	2100	Forward curved	2 x 0.90	14.3	1 x 16

ELECTRIC COIL (pre-heating and post-heating)

Type of unit	Power supply (V)	Coil power (kW)	I _{max} (A)
DFE+ TOP 800	3 x 400V + N	3	4.3
DFE+ TOP 1200	3 x 400V + N	4.5	6.5
DFE+ TOP 2000	3 x 400V + N	6	8.7

HRV Fan Units

DFE+ TOP micro-watt

RANGE WITH CHOICE OF OPTIONS

HRV FAN UNITS

Description	11058451 DFE+ TOP800	11058452 DFE+ TOP1200	11058453 DFE+ TOP2000
UNIT	•	•	•

DFE+ TOP OPTIONAL EQUIPMENT

Abbreviation	Description	11058451 DFE+ TOP800	11058452 DFE+ TOP1200	11058454 DFE+ TOP2000
REGULATION	REMOTE CONTROL	•	•	•
	COMMUNICATION MODBUS	•	•	•
FRESH AIR	ROUND INLET	-	-	-
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•
	MOTORISED DAMPER + RECTANGULAR FLEXIBLE SLEEVE	-	•	•
	AIR SUPPLY MOTORISED DAMPER	-	•	•
AIR SUPPLY	RECTANGULAR FLEXIBLE SLEEVE	•	•	•
	ROUND ROOF COWL	•	•	•
EXTRACT	ROUND INLET	-	-	-
	RECTANGULAR FLEXIBLE SLEEVE	•	•	•
	MOTORISED DAMPER + RECTANGULAR FLEXIBLE SLEEVE	-	•	•
	AIR SUPPLY MOTORISED DAMPER	-	•	•
EXHAUST	RECTANGULAR FLEXIBLE SLEEVE	•	•	•
	ROUND ROOF COWL	•	•	•
POST-HEATING COIL	REGULATED WATER + 3-WAY VALVE + T° SENSOR	•	•	•
	REGULATED ELECTRIC + T° SENSOR	•	•	•
FROST-PROTECTION COIL	REGULATED ELECTRIC HEATER + T° SENSOR	•	•	•

ACCESSORIES

Abbreviation	Description	Code
REGULATION	DFE pressure sensor kit	11058050
	Remote control	11058441
	SAT Modbus relay	11058442
	CO2 Sensor	11017090
	Touche-screen remote control	11058444
	SAT 3 relay	11058149
RECT/CIRC ADAPTER PART	DFE+ TOP 800	11058420
	DFE+ TOP 1200	11058421
	DFE+ TOP 2000	11058046
M0 FLEXIBLE SLEEVE	MS Pro M0 Ø 315 mm	11094694
	MS Pro M0 Ø 355 mm	11094695
	MS Pro M0 Ø 400 mm	11094696
	MS Pro M0 Ø 450 mm	11094697
	MS Pro M0 Ø 500 mm	11094698

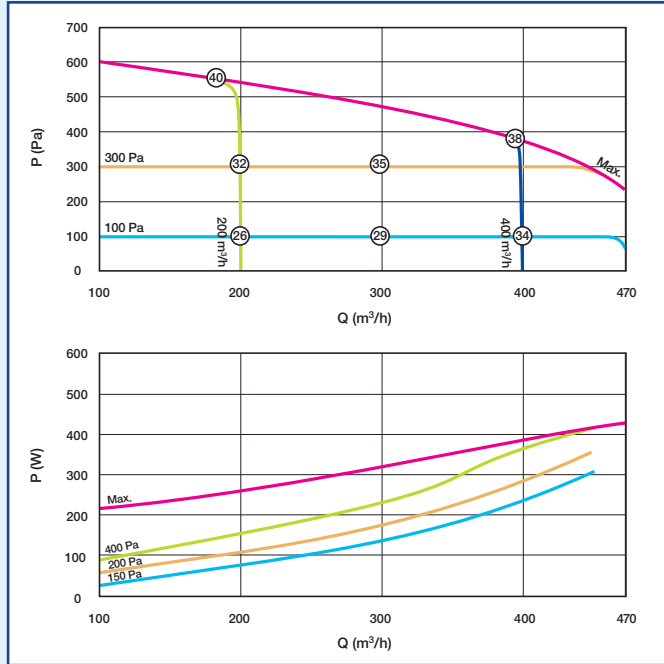
HRV Fan Units

DFE+ TOP micro-watt

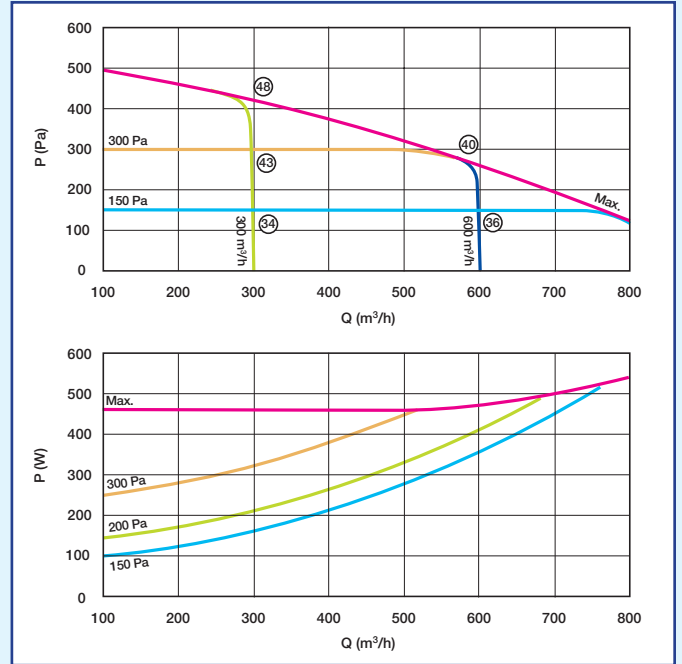
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curves drawn up in accordance with French Standard EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P(Pa) = static pressure.
- P (W) = power consumption.

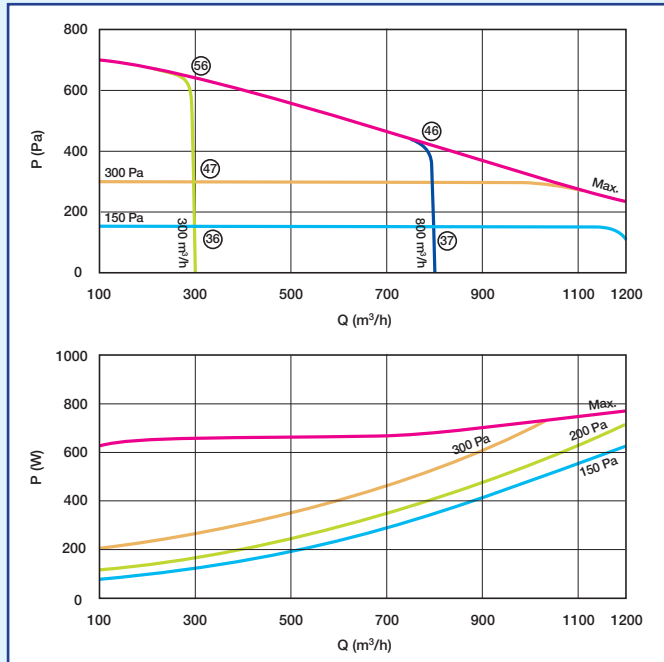
DFE TOP 450 and DFE+ TOP 450 micro-watt



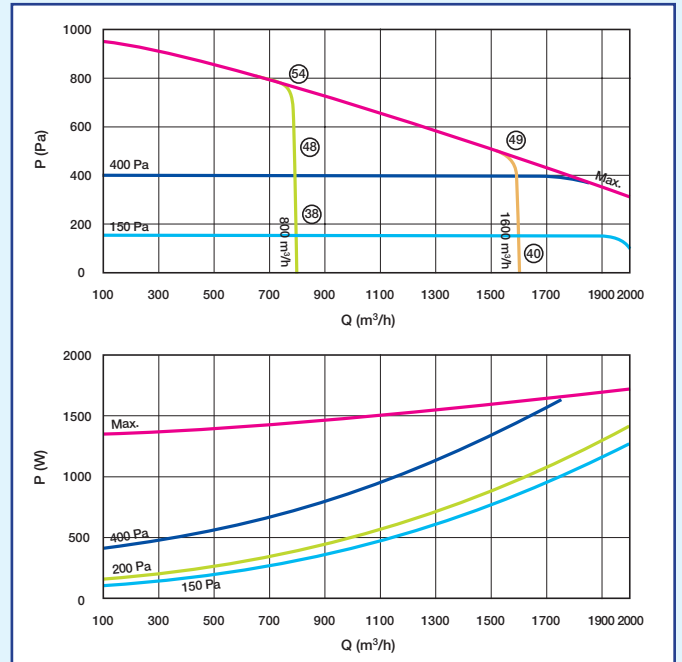
DFE+ TOP 800 micro-watt



DFE+ TOP 1200 micro-watt



DFE+ TOP 2000 micro-watt



HRV Fan Units

DFR micro-watt



Compliance

- Eligible for CEE: BAR-TH26 and BAT-TH26 GT.

ECO-REPOSE



RT 2012

Advantages

- High efficiency energy recovery
- ECM motor low energy consumption.
- Free-cooling.
- Plug and play.
- BMS Communication.

APPLICATION

- HRV ventilation intended for commercial premises with energy efficiency design.
- Filtration and pre-cooling/preheating of supplied air.
- Free cooling.
- Optimised performance for thermal comfort and acoustic.

INSTALLATION

- Indoor/Outdoor with rain hood.
- Insulated duct system.

DESCRIPTION

- 4 models DFR micro-watt up to 5500 m³/h.
- Compact design with double skin insulation of 25 mm.
- Zinc- Aluminum plates mounted on lever equipped with handles.
- Rotary heat exchanger, high efficiency (86%).
- Low energy consumption motors.
- Direct driven aluminum wheel.
- Complete automation with Siemens Climatix.
- Extended controller with screen.
- BMS communication. ModBus protocol. (Optional protocol; BacNet, LonWorks,KNX)
- Pocket filters F7 supply/ F5 exhaust

RANGE AND AVAILABLE OPTIONS ^{R7}

Descriptions	Code
DFR 1500 micro-watt	11058405
DFR 2000 micro-watt	11058406
DFR 3500 micro-watt	11058407
DFR 5500 micro-watt	11058408

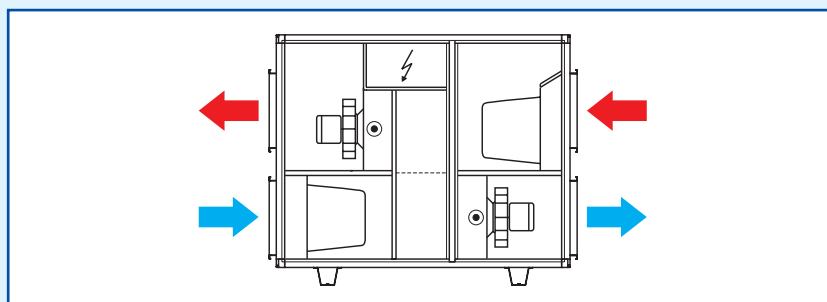
OPTIONS

Monobloc
Electric coil
Heating water coil
Cooling water coil
Out door Version
Motorised damper (supply / exhaust)
Transition piece rectangular/ Circular

ACCESSOIRES

Descriptions	Code
TRANSITION PIECE RECTANGULAR / CIRCULAR	
RAC DFR 2000	11058493
RAC DFR 3500	11058494
RAC DFR 5500	11058382

DIMENSIONS - WEIGHT



Type	Length (mm)	Width (mm)	Height (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or Inlet (mm)	Weight (Kg)
DFR 1500	1395	708	1085	dia 315	dia 315	200
DFR 2000	1515	850	1147	500x300	500x300	245
DFR 3500	1576	980	1248	700x400	700x400	310
DFR 5500	1820	1255	1523	1000x500	1000x500	486

ELECTRICAL DETAILS

- Low energy consumption motor with electronic communication.

Type	Power Supply (V)	Coil Power (kW)	I _{max} (A)
DFR 1500	230	2 x 0,42	10
DFR 2000	230	2 x 0,72	10
DFR 3500	230	2 x 1,48	10
DFR 5500	3 x 400	2 x 1,85	10

SELECTION SOFTWARE

- Selector DFR facilitates the selection of DFR Flex Micro Watt that is most appropriate for the building configuration.
- Friendly interface
- Quick calculation.
- All technical details and sizes included.
- CAD drawing model creation.



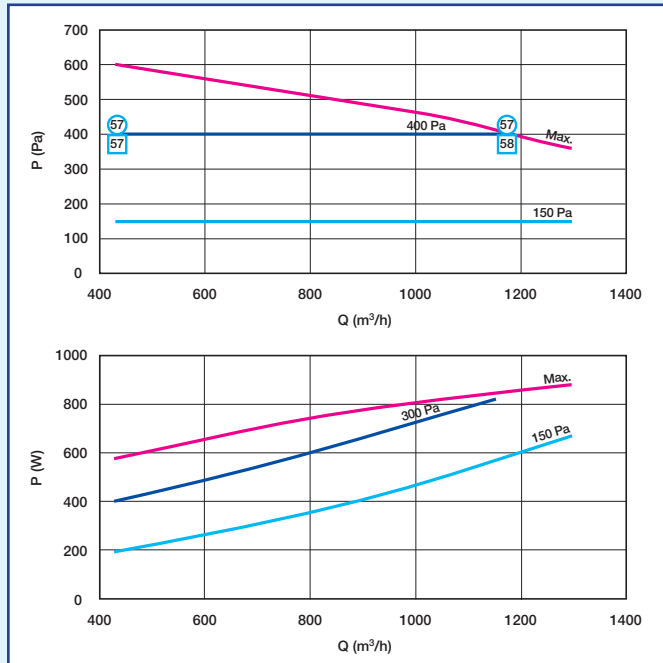
HRV Fan Units

DFR micro-watt

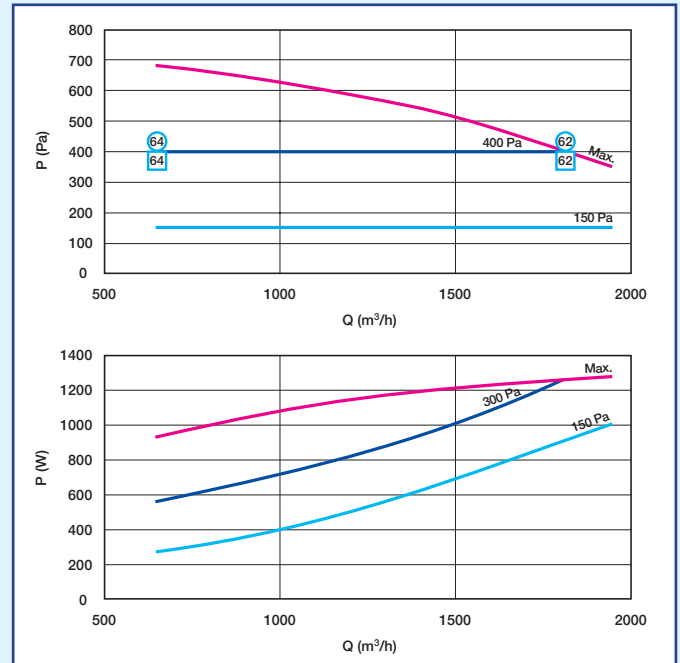
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curve drawn up in accordance with European Standard NF EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P (Pa) = static pressure P(W) = power consumption.

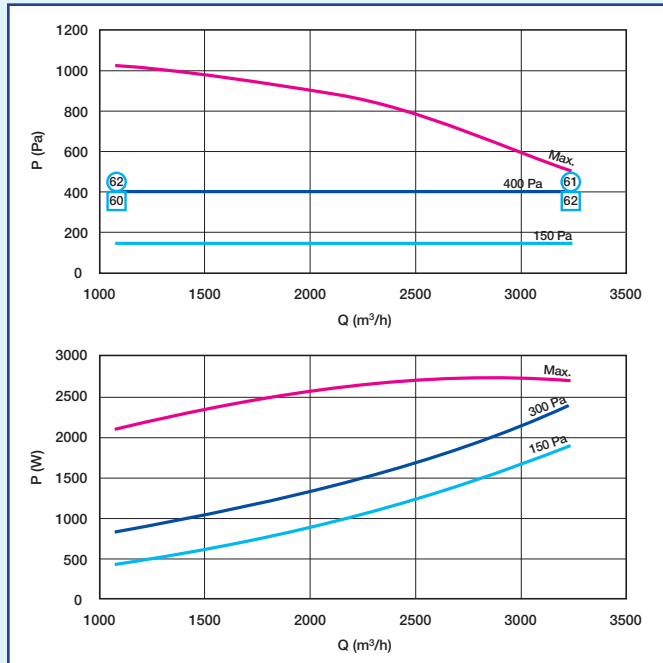
DFR 1500 micro-watt



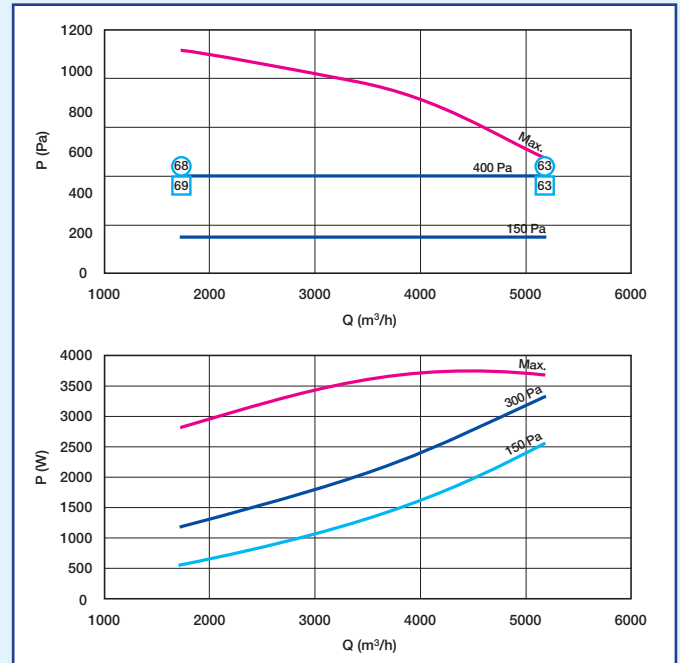
DFR 2000 micro-watt



DFR 3500 micro-watt



DFR 5500 micro-watt



HRV Fan Units

DFR Top micro-watt



Compliance

- Eligible for CEE: BAR-TH26 and BAT-TH26 GT.

ECO-REPOSE



RT 2012

Avantages

- High efficiency energy recovery
- Low energy consumption motor
- Free-cooling.
- Plug and play.
- BMS Communication.

APPLICATION

- HRV ventilation intended for commercial premises with energy efficiency design.
- Filtration and pre-cooling/preheating of supplied air.
- Pre cooling/heating of supplied air.
- Free cooling.

INSTALLATION

- Indoor
- Technical Room.

DESCRIPTION

- 4 models DFR Top micro-watt up to 5500m³/h
- Compact design with double skin insulation of 25 mm.
- Zinc- Aluminum panel equipped with hinge and handle.
- Rotary heat exchanger, high efficiency (86%).
- Low energy consumption motors.
- Direct driven aluminum wheel.
- Complete automation with Siemens Climatix.
- Extended controller with screen.
- BMS communication.
- Pocket filters F7 supply/ F5 exhaust.

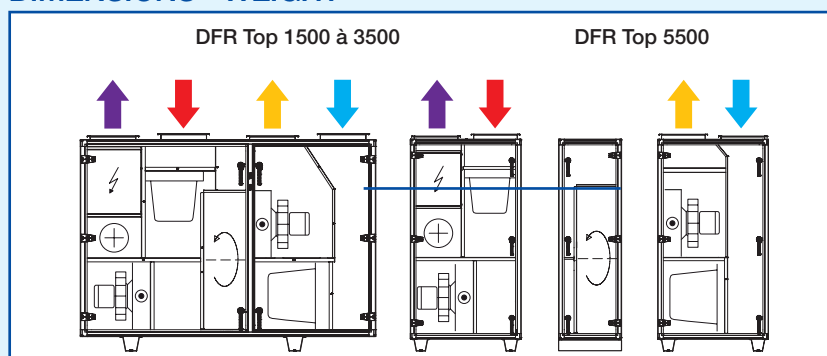
RANG AND AVAILABLE OPTIONS ^{R7}

Description	Code
DFR Top 1500	11058401
DFR Top 2000	11058402
DFR Top 3500	11058403
DFR Top 5500	11058404
OPTIONS	
Electric coil	
Heating water coil	
Cooling water coil	
Motorised damper (supply / exhaust)	
Transition piece rectangular/ Circular	

ACCESSOIRES

Descriptions	Code
TRANSITION PIECE RECTANGULAR / CIRCULAR	
RAC DFR 2000	11058491
RAC DFR 3500	11058380
RAC DFR 5500	11058492

DIMENSIONS - WEIGHT



Type	Length (mm)	Width (mm)	Height (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or Inlet (mm)	Weight (Kg)
DFR Top 1500	1530	708	1230	Dia 250	Dia 250	225
DFR Top 2000	1680	850	1230	500x250	500x250	270
DFR Top 1500	1950	980	1300	700x300	700x300	350
DFR Top 5500	2285	1255	1606	900x350	900x350	610

ELECTRICAL DETAILS

- Three - phase asynchronous motor 3x400V/ 50 Hz, classe B, IP 44.

Type	Power Supply (V)	Coil Power (kW)	I _{max} (A)
DFR Top 1500	230 V	2 x 0,42	10
DFR Top 2000	230 V	2 x 0,72	10
DFR Top 3500	230 V	2 x 1,48	10
DFR Top 5500	3 x 400 V	2 x 1,85	10

SELECTION SOFTWARE

- Selector DFR facilitates the selection of DFR Flex Micro Watt that is most appropriate for the building configuration.
- Friendly interface
- Quick calculation.
- All technical details and sizes included.
- CAD drawing model creation.



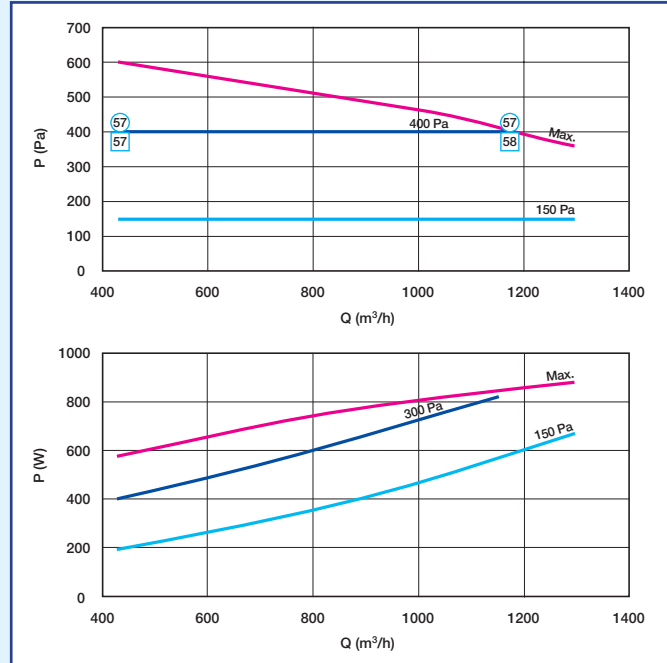
HRV Fan Units

DFR Top micro-watt

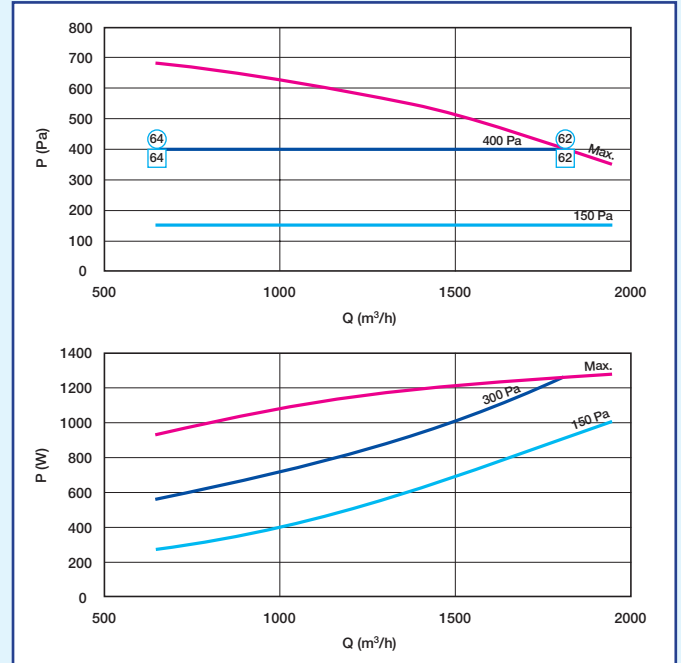
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curve drawn up in accordance with European Standard NF EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P (Pa) = static pressure P(W) = power consumption.

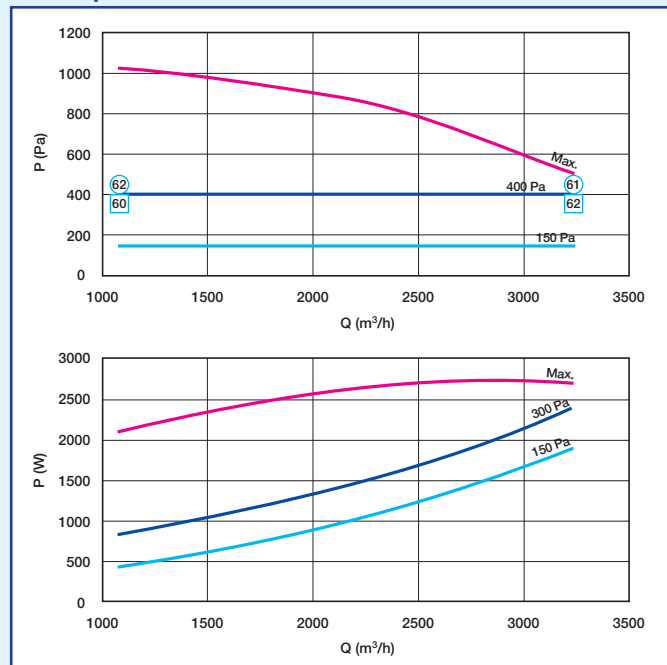
DFR Top 1500 micro-watt



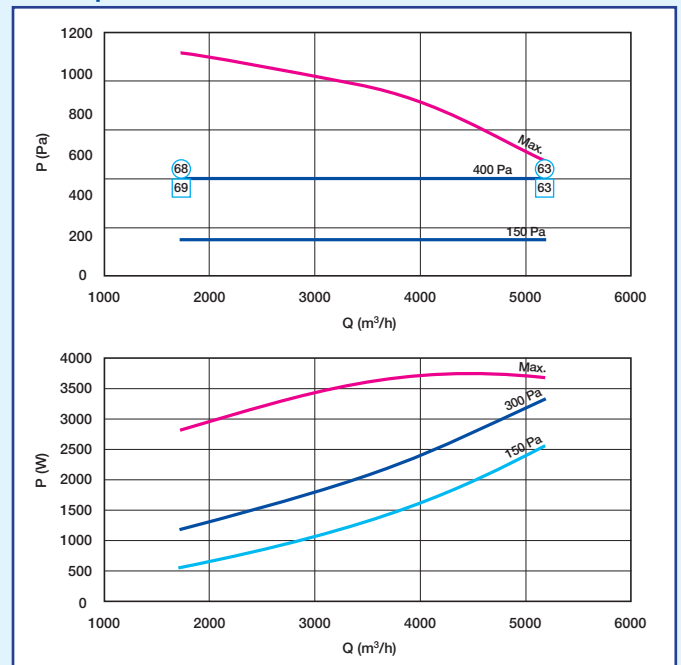
DFR Top 2000 micro-watt



DFR Top 3500 micro-watt



DFR Top 5500 micro-watt



HRV Fan Units

DFR Flex micro-watt



Compliance

- Eligible for CEE: BAR-TH26 and BAT-TH26 GT.

ECO-REPOSE



RT 2012

Avantages

- High efficiency energy recovery
- Low energy consumption motor
- Free-cooling.
- Plug and play.
- BMS Communication.

APPLICATION

- HRV ventilation intended for commercial premises with energy efficiency design.
- Filtration and pre-cooling/preheating of supplied air.
- Pre cooling/heating of supplied air.
- Free cooling.

INSTALLATION

- Indoor/ outdoor with roof top option.
- Insulated ducting system.

DESCRIPTION

- 7 models DFR Flex micro-watt up to 15000 m³/h.
- Compact structure with double skin and 25 mm fiber glass insulation.
- Zinc- Aluminum panel equipped with hinge and handle.
- Rotary heat exchanger "Normal" or "Normal Plus" high efficiency (86%).
- ECM motors low energy consumption.
- Direct driven rotary will.
- Complete automation with Siemens Climatix.
- Extended controller with screen.
- BMS communication included. Modbus Protocole.
- Other protocols in option: Bacnet, KNX, Lonworks.
- Pocket filter F7 supply/ F5 exhaust.

RANGE AND AVAILABLE OPTIONS ^{R7}

Description	Code
DFR Flex 1500	11058370
DFR Flex 5000	11058371
DFR Flex 6000	11058372
DFR Flex 8000	11058373
DFR Flex 9000	11058374
DFR Flex 12000	11058375
DFR Flex 15000	11058376

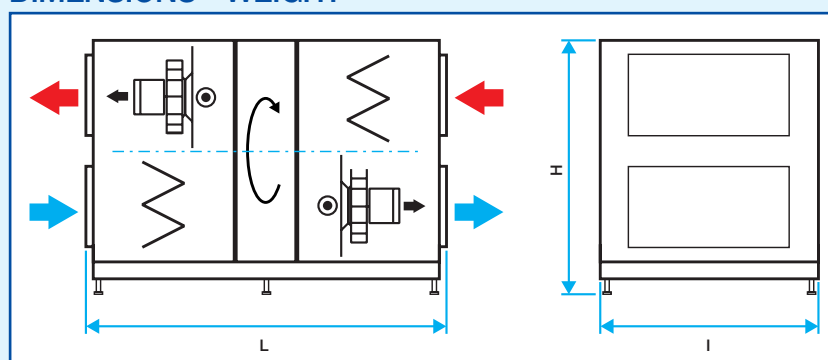
OPTIONS

Monobloc / Multibloc
Electric coil
Heating water coil
Cooling water coil
Out door Version
Motorised damper (supply / exhaust)
Recycling pannel
Transition piece rectangular/ Circular

ACCESSOIRES

Description	Code
RAC DFR 3000 D500 - 300x700	11058380
RAC DFR 5000 D710 - 500x800	11058381
RAC DFR 6000 D800 - 1000x500	11058382
RAC DFR 8000 D900 - 1000x600	11058383
RAC DFR 9000 D1000 - 1200x600	11058384
RAC DFR 12000 D1250 - 1200x800	11058385

DIMENSIONS - WEIGHT



Type	Length (mm)	Width (mm)	Hight (mm)	Fresh air inlet or air exhaust (mm)	Exhaust or Inlet (mm)	Weight (Kg)
DFR Flex 3000	1640	980	1010	700x300	700x300	414
DFR Flex 5000	1940	1080	1390	800x500	800x500	578
DFR Flex 6000	1940	1360	1390	1000x500	1000x500	678
DFR Flex 8000	2160	1360	1605	1000x600	1000x600	789
DFR Flex 9000	2160	1575	1605	1200x600	1200x600	875
DFR Flex 12000	2540	1575	1980	1200x800	1200x800	1046
DFR Flex 15000	2840	1950	1980	1400x800	1400x800	1350

ELECTRICAL DETAILS

- Low energy consumption motor with electronic communication, Class B, IP 44 for DFR Flex 3000 to 12000.
- Three - phase asynchronous motor 3x400V/ 50 Hz, classe B, IP 44 for DFR Flex 15000.

Type	Power Supply (V)	Coil Power (kW)	Imax (A)
DFR Flex 3000	3 x 400	2 x 1,48	10
DFR Flex 5000	3 x 400	2 x 3,00	16
DFR Flex 6000	3 x 400	2 x 3,00	16
DFR Flex 8000	3 x 400	2 x 5,5	25
DFR Flex 9000	3 x 400	2 x 5,5	25
DFR Flex 12000	3 x 400	2 x 4,7	25
DFR Flex 15000	3 x 400	2 x 7,5	16

SELECTION SOFTWARE

- Selector DFR facilitates the selection of DFR Flex Micro Watt that is most appropriate for the building configuration.
- Friendly interface
- Quick calculation.
- All technical details and sizes included.
- CAD drawing model creation.



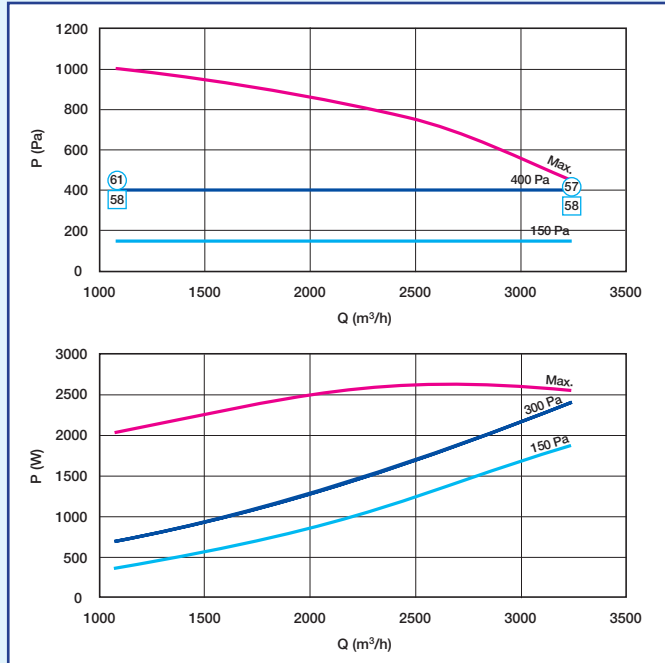
HRV Fan Units

DFR Flex micro-watt

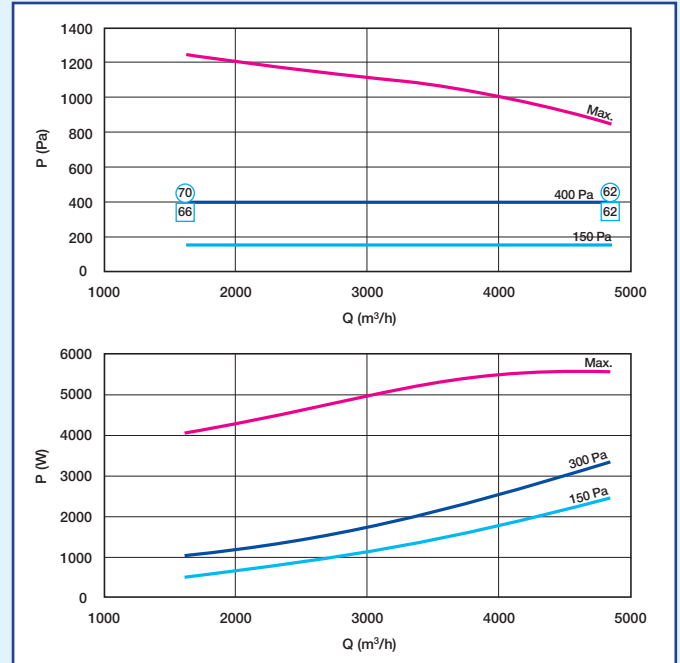
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curve drawn up in accordance with European Standard NF EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P (Pa) = static pressure P(W) = power consumption.

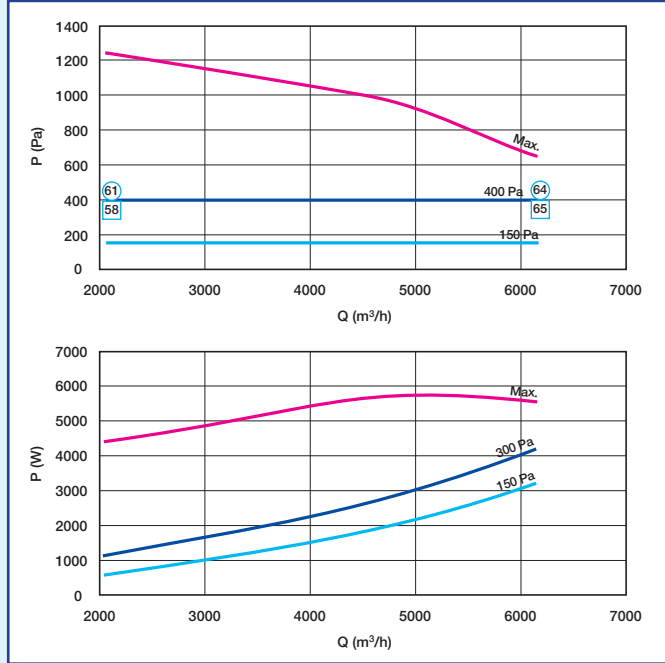
DFR Flex 3000 micro-watt



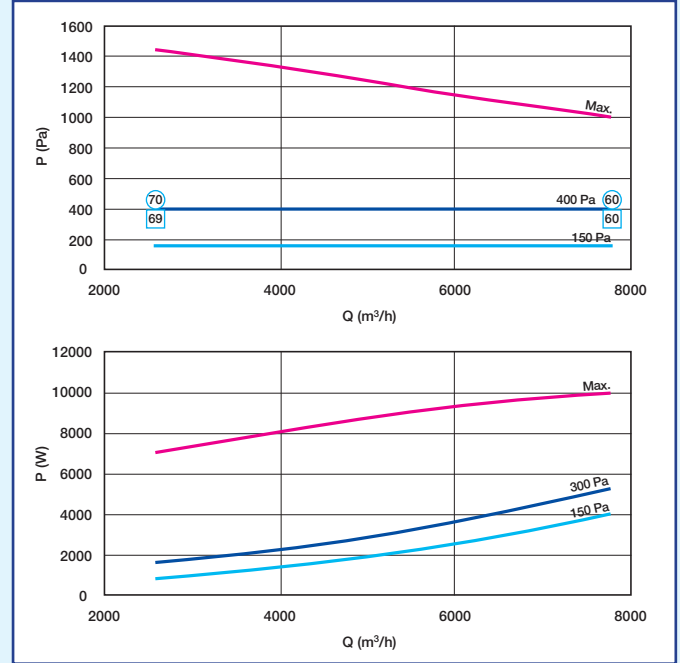
DFR Flex 5000 micro-watt



DFR Flex 6000 micro-watt



DFR Flex 8000 micro-watt



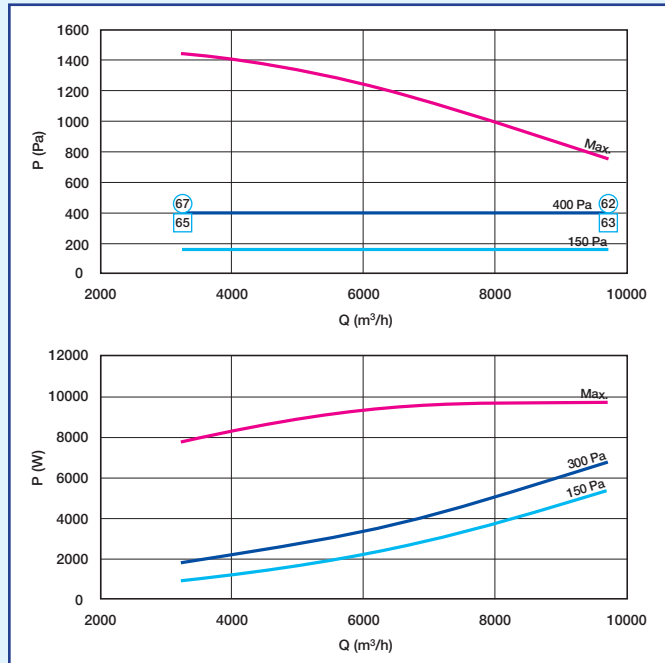
HRV Fan Units

DFR Flex micro-watt

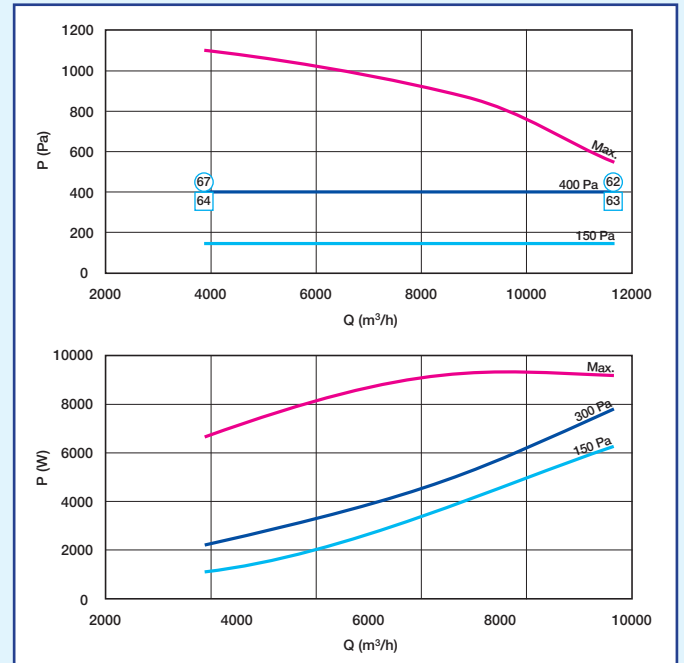
AIRFLOW AND ACOUSTIC DETAILS

- Airflow curve drawn up in accordance with European Standard NF EN ISO 5801.
- ○ = acoustic pressure level in dB (A), measured at 4 m from the casing, discharge connected.
- P (Pa)= static pressure P(W)= power consumption.

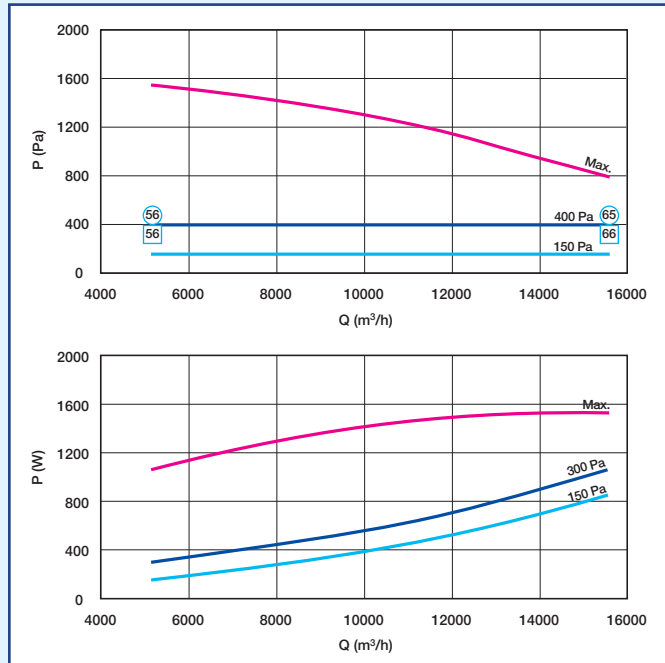
DFR Flex 9000 micro-watt



DFR Flex 12000 micro-watt



DFR Flex 16000 micro-watt



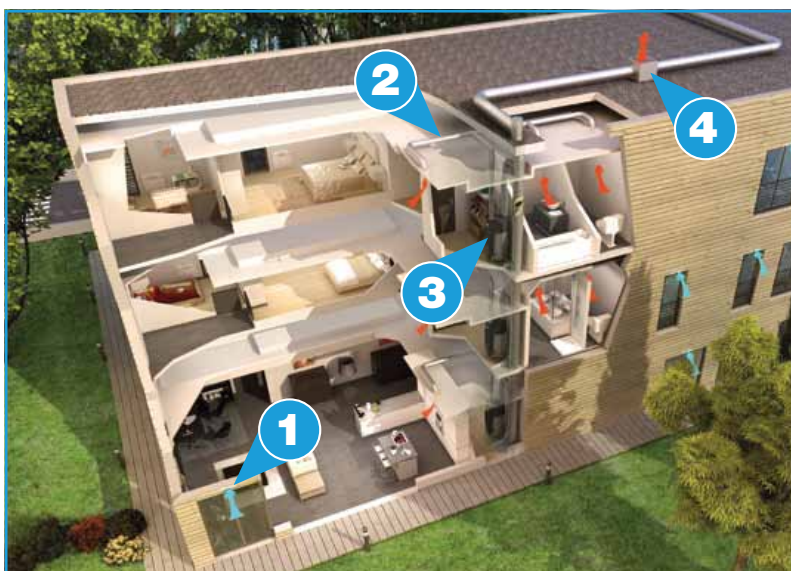
Notes

Systems

T.Flow Hygro system



- 1 Air inlets
- 2 Ducts and accessories, please consult us.
- 3 Heat pump water heater - p. 402



- 1 Air inlets
- 2 Ducts and accessories, please consult us.
- 3 Heat pump water heater - p. 402
- 4 Exhaust fan - p. 280

T.Flow Activ system



- 1 Heat pump water heater - p. 400

Heat Pump Water Heaters

T.Flow Activ System



Advantages

- Thermodynamic hot water production recognized as renewable energy.
- CO₂ technology: natural refrigerant technology, environmentally neutral.
- Unrivalled performance: heating to 65°C in 2 hours 30 minutes.

PRINCIPLE

The T.Flow Activ system is a revolutionary heat pump water heating system designed to produce domestic hot water in individual homes.

This thermodynamic system captures the available energy from outside air to heat domestic hot water. It also features a CO₂ technology heat pump, using a natural refrigerant gas to offer unrivalled performance.

PERFORMANCE AND RAPIDITY

- Hot water on demand: hot water is stored at 65°C all year round.
- Ultra-rapid: T.Flow Activ heats a full tank (filled with cold water) in 2.5 hours compared to 8 hours with an electrical water heater.

ENVIRONMENTAL PROTECTION

- CO₂ is a natural refrigerant gas, totally neutral for the environment, non-inflammable and non-toxic. In the event of a leak, the gas is a natural component of the air we breathe, in our natural surroundings.
- The T.Flow Activ water heater is economical in energy use, requiring no additional electric heater on a wide temperature range (-15°C to +43°C).

COMFORT OF INSTALLATION AND USE

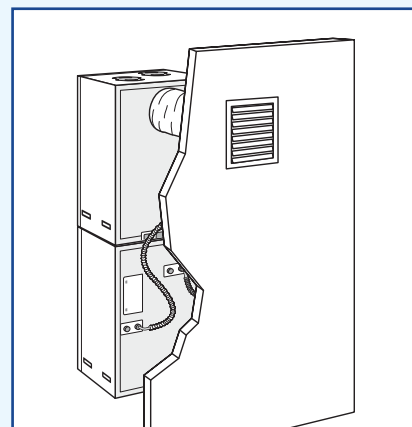
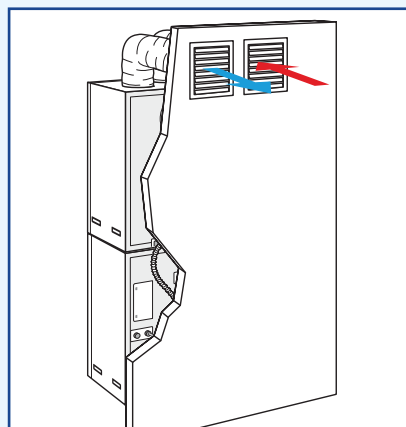
- Suited to all types of construction, the T.Flow Activ water heater features 2 elements (heat pump and tank) that can be installed according to your needs. No work is needed on the thermodynamic loop.
- With this silent and efficient heat pump, the end user is assured of hot water at any moment. A single luminous button indicates the operating mode of the water heater and is used to activate boost mode in the event a large volume of hot water is consumed.

INSTALLATION

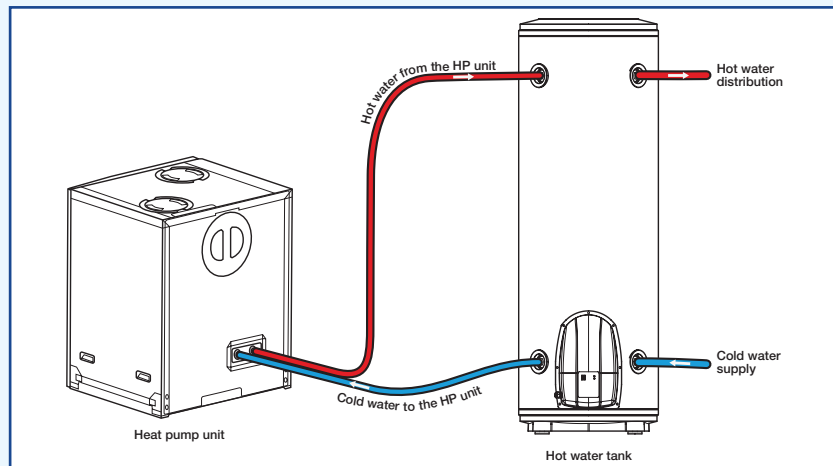
- Indoor in a technical room.
- Several installations possible depending on the configuration of the dwelling:
 - T.Flow Activ in vertical configuration: heat pump module installed on a tank module, in a frost-protected room.
 - T.Flow Activ in horizontal configuration: heat pump module installed alongside a tank module, in a frost-protected room.
 - T.Flow Activ Modulo: heat pump installed on the floor or wall in a technical room, tank installed close to points of use up to 15 m from the heat pump module.
- Connection:
 - Dual-hole: a fresh air inlet grille and an exhaust grille positioned on the wall and connected to the Heat pump water heater via two flexible insulated ducts.
 - Single-hole: a single grille with a divider to enable air intake and exhaust, directly connected to the Heat pump water heater via a rigid insulated duct that features an airflow divider partition (Airduo kit).



Horizontal configuration



Vertical mounting and dual hole connection Vertical mounting and single hole connection



T.Flow Activ Modulo - Principle

Heat Pump Water Heaters

T.Flow Activ



Advantages

- Comfort of use: hot water at 65°C and boost function.
- Economical: no electrical backup.
- Low sound level.
- Simple to install both in new constructions and renovations.

APPLICATION

- Private house.
- New buildings and renovation.

DESCRIPTION

- Hot water temperature: 65°C
- Heating time 2 hours 30.
- Control button for selection of operating mode: Eco mode or Comfort (Boost) mode.
- Operates during off-peak hours.

Heat pump

- Heat pump using outside air, with inverter compressor.
- Natural CO₂ refrigerant fluid.
- Heating power up to 4.5 kW.
- Micro-watt EC motor.
- Outdoor temperature operating range: -15°C to +43°C.

Hot water tank

- 150 litre capacity
- Stainless steel tank.
- Integrated pressure regulator, safety unit and condensate pump.
- Hot and cold water hydraulic connections: 3/4" pipe thread.

INSTALLATION

- Indoor in a frost-protected room.
- Tank and heat pump positioned horizontally or vertically on a stable floor using the adjustable feet provided.
- Air inlets and outlets on exterior wall:
- 2 x Ø200 mm insulated ducts with AWA251 type exterior grilles 250x250 mm.
- Single hole Ø300 mm with Airduo kit including a duct with divider partition and grille.

RANGE R20

Designation	Code
T.Flow Activ HP4500	11023300
T.Flow Activ B150	11023301
AIRDUO kit	11023302

DUCTS AND ACCESSORIES

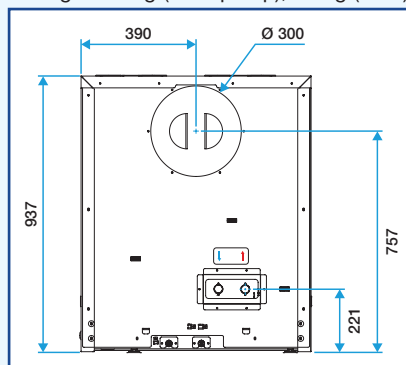
Please consult us.

OUTDOOR GRILLES

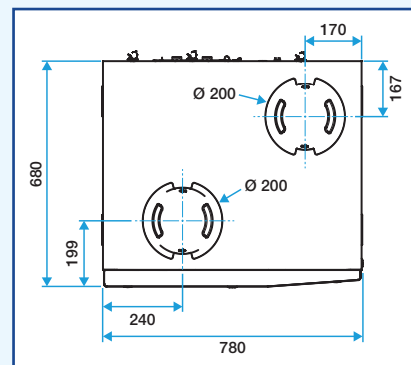
See Aeraulic Components, Grilles and Air Diffusion section.

DIMENSIONS (mm) - WEIGHT

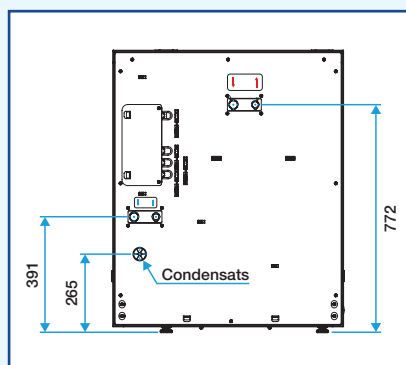
- Weight: 76 kg (Heat pump), 56 kg (Tank).



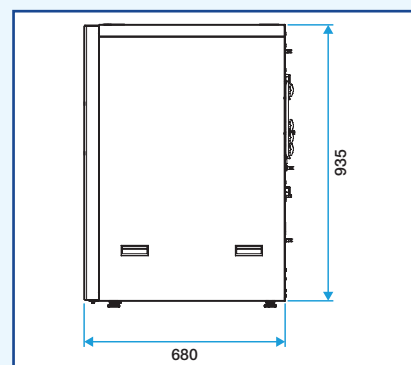
Heat pump - rear view



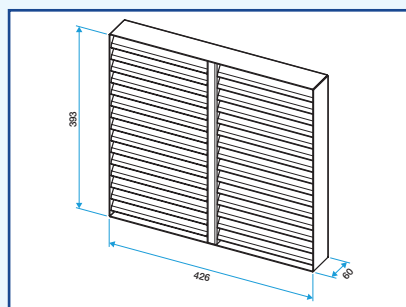
Heat pump - top view



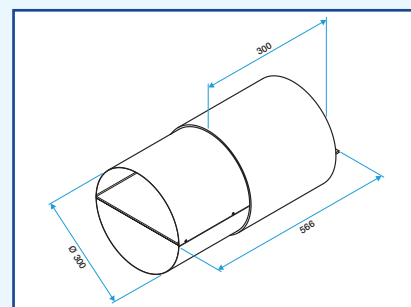
Tank - rear view



Tank - side view



AIRDUO kit - exterior grille



AIRDUO kit - Duct

TECHNICAL DETAILS

- Power supply: 230V - 50 Hz single phase.
- Heating power: COMFORT 4.5 kW, ECO 3.5 kW.
- Capacity: 150L at 65°C
- Indoor and outdoor acoustic pressure at 1 m ≤ 40 dB(A).
- NF Electricity Performance-certified features:
- COP at 7°C (as per EN 16147) = 3.42.
- Reserve power Pes = 30 W.
- Drawing-off cycle = L.
- Heating time = 2 hours 33.

Heat Pump Water Heaters

T.Flow Activ Modulo



Advantages

- Comfort of use: hot water at 65°C and boost function.
- Backup electric resistance.
- Simplified integration: separate storage tank and heat pump.

APPLICATION

- Private housing / commercial premises.
- New buildings and renovation.

DESCRIPTION

- Hot water temperature: 65°C
- Control button for selection of operating mode: Eco mode or Comfort (Boost) mode.
- Operates during off-peak hours.

Heat pump

- Heat pump using outside air, with inverter compressor.
- Natural CO₂ refrigerant fluid.
- Heating power up to 4.5 kW.
- Micro-watt EC motor.
- Outdoor temperature operating range: -15°C to +43°C.

Hot water tank

- 200 or 300 L capacity with or without heat exchanger.
- Enamelled stainless steel tank.
- Manually-activated backup electric resistance.
- Hot and cold water hydraulic connections: 3/4" pipe thread.

INSTALLATION

- Indoors.
- The water tank and heat pump can be installed in different rooms:
 - heat pump mounted on floor or wall with the suitable mounting kit.
 - Tank installed close to points of use.
- Air inlets and outlets on exterior wall:
 - 2 x Ø200 mm insulated ducts with AWA251 type exterior grilles 250x250 mm.
 - Single hole Ø300 mm with Airduo kit including a duct with divider partition and grille.

RANGE R20

Designation	Code
T.Flow Activ M HP4500 heat pump	11023303
T.Flow Activ M B200 200L tank	11023304
T.Flow Activ M B300 300L tank	11023305
T.Flow Activ M DUO B300 300L tank with heat exchanger	11023306
HP4500 wall mounting kit	11023307
HP4500 floor mounting kit	Contact us

DUCTS AND ACCESSORIES

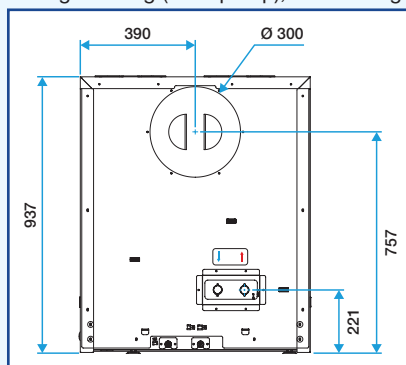
Please consult us.

OUTDOOR GRILLES

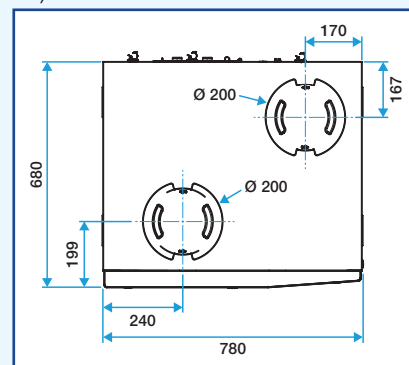
See Aeraulic Components, Grilles and Air Diffusion section.

DIMENSIONS (mm) - WEIGHT

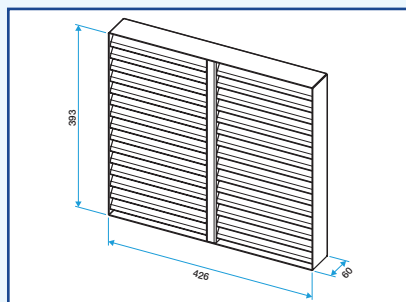
- Weight: 76 kg (Heat pump), 50 to 90 kg (Tank).



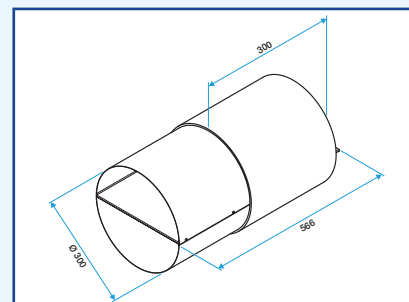
Heat pump - rear view



Heat pump - top view



AIRDUO kit - exterior grille



AIRDUO kit - Duct

TECHNICAL DETAILS

- Power supply: 230V - 50 Hz single phase.
- Heating power: BOOST 4.5 kW, ECO 3.5 kW.
- Capacity: 200 L or 300 L at 65°C
- Indoor and outdoor acoustic pressure at 1 m ≤ 40 dB(A).

Heat Pump Water Heaters

T.Flow Systems



Compliances

- Patented system.
- NF Electricity Performance.
- Humidity-controlled: French CSTB Technical Report.

Advantages

- Intelligent ventilation.
- Exploitation of the energy from polluted air for the production of DHW.
- Up to 75% in energy savings.
- Wide range.

PRINCIPLE

The T.Flow Hygro systems ensure ventilation and management of domestic hot water.

Air renewal is ensured mechanically by the air extraction from sanitary areas and the kitchen depending on the rate of humidity. Fresh incoming air is introduced by air inlets in each main room depending on the rate of humidity.

The heat pump exploits the energy contained in the polluted air to heat the water contained in the storage tank.

RANGE

Large range allowing for meeting the various expectations of the market and that of users:

- T.Flow Hygro is designed for all types of project: new constructions, low energy buildings, renovation, replacement.
- T.Flow Auto, designed for renovation projects for which it is necessary to foresee the implementation of a ventilation system. The solution integrates a self-balanced CMEV.

APPLICATION

- Single or multi-family houses.
- New or renovation.
- Family of 2 to 6 persons.

DESCRIPTION

The system principle is:

- air inlets in the living areas,
- air exhaust grilles in technical rooms,
- a heat pump water heater integrating the micro-watt ventilation casing (single family houses) and the Inverter heat pump. In multi-family houses, a centralised micro-watt ventilation casing will ensure the exhaust of polluted air for all of the flats.

INSTALLATION

- Indoors in a heated room.
- In an acoustically controlled technical area.
- Vertical on a stable floor.

THE T.FLOW SOLUTIONS

Application	System	Function			Tank and main components
		Ventilation		Production of DHW	
		Humidity-controlled	Self-balanced		
Single family houses	T.Flow Hygro	•		•	- B200-FAN T.Flow Hygro - BAHIA humidity-controlled exhaust grilles - Humidity-controlled air inlets
	T.Flow Auto		•	•	- B200-FAN T.Flow Hygro - Bap'SI self-balanced exhaust grilles - Self-balanced air inlets
Multi-family houses	T.Flow Hygro	•		•	- B200 T.Flow Hygro - BAHIA humidity-controlled exhaust grilles - Humidity-controlled air inlets - Low consumption exhaust fan unit
	T.Flow Auto		•	•	- B200 T.Flow Hygro - Bap'SI self-balanced exhaust grilles - Self-balanced air inlets - Low consumption exhaust fan unit

Heat Pump Water Heaters

B200-FAN T.Flow Hygro



BAHIA Curve grille



Advantages

- Energy savings: Heat pump with inverter compressor on the exhaust air, micro-watt motorisation and humidity-controlled ventilation.
- Long-lasting: titanium anode, steatite heating element, G4 filter.
- Plug and play system.

APPLICATION

- Single family houses.
- New and renovation.
- T.Flow Humidity-controlled System or self-balanced system..

DESCRIPTION

- Enamelled tank with 55 mm of insulation and RAL9006 coloured paint metal jacket.
- Protection of the tank by a titanium anode.
- Steatite backup heating element.
- Heat pump on the air exhaust with inverter compressor and efficiency G4 filter.
- Micro-watt fan with an EC motor.
- Digital display for access the various functions (start/stop, hot water temperature, anti-legionnaire's disease cycle etc.)
- 200 litres capacity to meet the daily needs of 2 to 6 persons.
- Humidity-controlled grilles: see Ventilation in the humidity-controlled grilles part page 202.

INSTALLATION

- Indoors in a heated room.
- Vertical, on a stable floor with adjustable feet included.
- T.Flow Hygro: humidity-controlled exhaust grilles in sanitary areas and kitchen, and humidity-controlled air inlets in main rooms.
- T.Flow Auto: self-balanced exhaust grilles in sanitary areas and kitchen, and self-balanced air inlets in main rooms.

RANGE

Description	Code
B200-FAN T.Flow Hygro	11023196
BAHIA KITCHEN C13 D125 kit R1	11033645
BAHIA BATH hygro B kit R1	11033640
BAHIA WC Presence hygro A/B kit R1	11033641
BAHIA LAUNDRY hygro A/B kit R1	11033644
BAHIA Curve BATH/WC BW15 kit R1	11033647

AIR INLETS

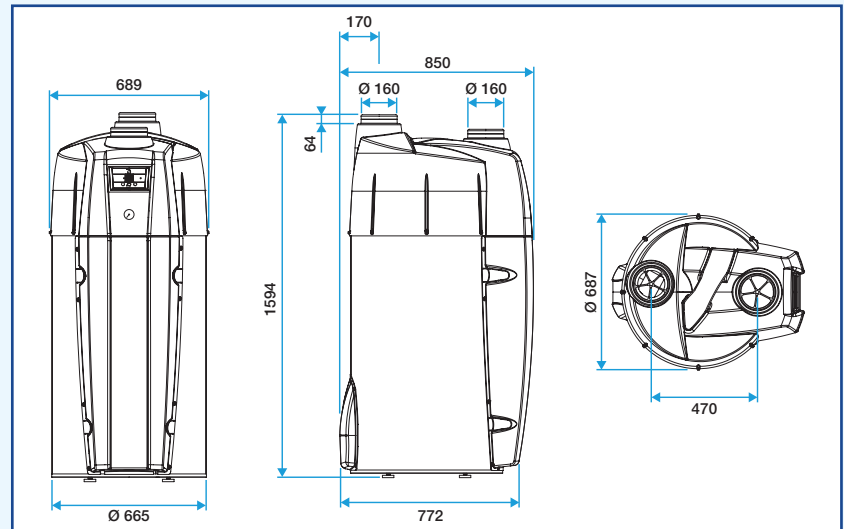
For humidity-controlled air inlets, please consult us.

DUCTS AND ACCESSORIES

Please consult us.

DIMENSIONS (mm) - WEIGHT

- Weight: about 110 kg (empty).



TECHNICAL DETAILS

- Steatite backup heating element: 1500 W.
- Ventilation power consumption: from 14,1 W-ThC up to 18,9 W-ThC from the F3 (1 bath/ WC) to the F7 (3 bathrooms/ 3 WC).
- Sound pressure level at 2 m: 30,5 dB (A) at 100 m³/h.
- **Test results according to the EN 16147 Standards and the NF Electricité Performance:**
 - Hot water reference temperature: 53,5°C.
 - Volume : 198 L.
 - Cycle : L.

Airflow (m ³ /h)	COP (EN16147)	Cycle	Reserve power (W)	Rated power of the heat pump W
40	2,43	L	39	750
101,5	2,79	L	36	800
195	2,82	L	43	800

Certified results according to EN16147.

Heat Pump Water Heaters

B200 T.Flow Hygro



Advantages

- Energy savings: heat pump with the inverter compressor on the exhaust air.
- Long-lasting: titanium anode, steatite heating element, G4 filter.
- Plug and play system.

APPLICATION

- Apartment blocks.
- New and renovation.
- T.Flow Humidity-controlled and T.Flow Self-balanced System.

DESCRIPTION

- Enamelled tank with 55 mm of insulation and RAL9006 coloured paint metal jacket.
- Protection of the tank by a titanium anode.
- Steatite backup heating element.
- Heat pump on the extracted air with inverter compressor and G4 protection filter.
- 200 litres capacity to meet the daily needs of 2 to 6 persons.
- Digital display for access to and display of the various functions (start/stop, hot water temperature, Anti-Legionnaire's Disease cycle etc.).

INSTALLATION

- Indoors in a heated room.
- Vertical, on a stable floor and adjustable feet included.
- T.Flow Humidity-controlled System: humidity-controlled exhaust grilles in technical areas and humidity-controlled air inlets in the main rooms.
- T.Flow Self-balanced System: Bap'SI type exhaust grilles in technical areas and self-balanced air inlets in the main rooms.

RANGE R13

Description	Code
B200 T.Flow Hygro	11023197

AIR INLETS AND EXHAUST GRILLES

For self-balanced or humidity-controlled air inlets, please consult us.

DUCTS AND ACCESSORIES

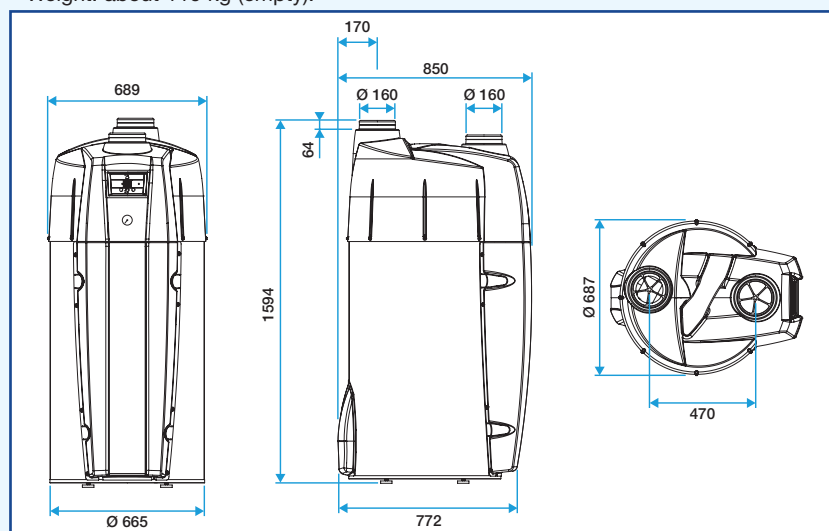
Please consult us.

ASSOCIATED FANS

See micro-watt C4 (400°C ½ h) exhaust fans page 283.

DIMENSIONS (mm) - WEIGHT

- Weight: about 110 kg (empty).



TECHNICAL DETAILS

- Steatite backup heating element: 1500 W.
- Sound pressure level at 2 m < 26 dB (A).
- **Test results according to the EN 16147 Standards and the NF Electricité Performance:**
 - Hot water reference temperature: 53,5°C.
 - Volume : 198 L.
 - Cycle : L.

Airflow (m ³ /h)	COP (EN16147)	Cycle	Reserve power (W)	Rated power of the heat pump W
40	2,54	L	36	750
101,5	2,87	L	35	800
195	2,85	L	42	800

Certified results according to EN16147.

Notes



Miscellaneous engineering datas

METRIC SYMBOLS AND NAMES

A – ampere	m – meter
°C – degree Celsius	min – minute
g – gram	Pa – pascal
h – hour	s – second
Hz – hertz = cycle/second	V – volt = W/A
J – joule	W – watt = J/s
L – liter = 1000 cm ³	Ω – ohm = V/A

INCH/ DECIMAL/ MILLIMETER CONVERSION

Fractional Inches	Decimal inches	Millimeters
1/16	0.0625	1.588
1/8	0.1250	3.175
3/16	0.1875	4.763
1/4	0.2500	6.350
5/16	0.3125	7.938
3/8	0.3750	9.525
7/16	0.4375	11.113
1/2	0.5000	12.700
9/16	0.5625	14.288
5/8	0.6250	15.875
11/16	0.6875	17.463
3/4	0.7500	19.050
13/16	0.8125	20.638
7/8	0.8750	22.225
15/16	0.9375	23.813
1	1.00	25.400

FORMULAS

AIR VELOCITY AS A FUNCTION OF THE DYNAMIC PRESSURE Pd

$$V \text{ (m/s)} = \sqrt{\frac{2 \text{ Pd (Pa)}}{\rho \text{ (kg/m}^3\text{)}}$$

AIR DENSITY AS A FUNCTION OF TEMPERATURE AND PRESSURE

$$\rho \text{ (kg/m}^3\text{)} = \frac{\text{Pt (Pa)}}{287 \times \text{T (}^\circ\text{C)}} = 1,2 \text{ at } 20^\circ\text{C and } 101325 \text{ Pa}$$

AIRFLOW AS A FUNCTION OF VELOCITY AND OPENING SECTION

$$Q \text{ (m}^3\text{/h)} = V \text{ (m/s)} \times S \text{ (m}^2\text{)}$$

AIRFLOW THROUGH A HOLE

$$Q \text{ (m}^3\text{/s)} = x \cdot S_h \text{ (m}^2\text{)} \cdot \sqrt{\frac{2 \Delta P \text{ (Pa)}}{\rho \text{ (kg/m}^3\text{)}}$$

(S_h = hole surface - x = contraction factor (0,6 - 0,7))

AIR LEAKAGE THROUGH A SLOT

$$Q \text{ (m}^3\text{/h)} = \frac{1}{\sqrt{10}} S_A \text{ (cm}^2\text{)} \sqrt{\Delta P \text{ (Pa)}} \quad (S_A = \text{slot surface})$$

STACK EFFECT

$$\Delta P \text{ (Pa)} = 0,00467 (\theta_{in} - \theta_{out}) \times g \times \Delta H$$

θ_{in} = indoor temperature - θ_{out} = outdoor temperature - g = 9,81 = gravity constant

ΔH = height difference between air inlet and air outlet.

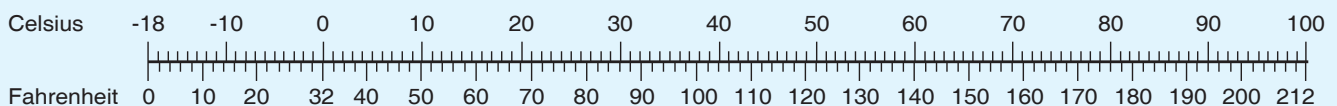
COMMON EXPRESSIONS

1.00/sq. ft. = 10.76/m ²	1 cfm/sq. ft. = 5.080 L/s m ²
m ³ /h = 1.6981 cfm	W = 1.21 L/s Δt °C (air)

USEFUL CONVERSION FACTORS

Multiply	By	To get	Multiply	By	To get
mm	0.0393	in.	in.	25.4	mm
m	3.2807	ft.	ft.	0.3048	m
m ²	10.76	ft. ²	ft. ²	0.0929	m ²
m ³	35.31	ft. ³	ft. ³	0.0283	m ³
m ³ /s	1000	l/s	l/s	0.001	m ³ /s
m ³ /s	2119.5	cfm	cfm	0.00047	m ³ /s
m ³ /h	0.5886	cfm	cfm	1.6986	m ³ /h
m ³ /s	15873	gpm US	gpm US	0.0001	m ³ /s
m ³ /h	4.403	gpm US	gpm US	0.2268	m ³ /h
l/s	15.85	gpm US	gpm US	0.063	l/s
m/s	196.8	fpm	fpm	0.0051	m/s
m/s	3.28	fps	fps	0.3048	m/s
kg	2.2046	lbs.	lbs.	0.4536	kg
kg	15456	grain	grain	0.00006	kg
N	0.1020	kg (kp)	kg (kp)	9.8066	N
N	0.2248	lb. f	lb. f	4.4482	N
Pa	1.0	N/m ²	N/m ²	1.0	Pa
Pa	0.000145	psi	psi	6896	Pa
Pa	0.00029	in. Hg	in. Hg	3386	Pa
Pa	0.0040	in. WG	in. WG	249	Pa
Pa	0.0003	ft. WG	ft. WG	2989	Pa
Pa	0.00001	bar	bar	100000	Pa
Pa	0.1020	mmWG	mmWG	9.8066	Pa
Pa	0.0010	mWG	mWG	980.66	Pa
Pa	0.00001	at	at	98066	Pa
Pa	0.00001	kg/cm ²	kg/cm ²	98066	Pa
kg/cm ²	14.233	psi	psi	0.0703	kg/cm ²
Pa	0.0075	Tr	Tr	133.3	Pa
kcal/h	3.968	Btu/h	Btu/h	0.2519	kcal/h
kcal/h	0.0003	Ref. ton	Ref. ton	3022.8	kcal/h
W	1.0	J/s	J/s	1.0	W
W	0.8598	kcal/h	kcal/h	1.163	W
W	3.412	Btu/h	Btu/h	0.2931	W
kW	0.284	Ref. ton	Ref. ton	3.517	kW
kW	1.359	HP metric	HP metric	0.7354	kW
kW	1.341	HP UK	HP UK	0.7457	kW
cal	4.1858	J	J	0.2389	cal
Btu	1055	J	J	0.0009	Btu
kWh	3.6	MJ	MJ	0.2778	kWh
kg	9.8067	J	J	0.1020	kg
ft. lb.	1.3558	J	J	0.7376	ft. lb.
kcal/kg	4.1868	kJ/kg	kJ/kg	0.2388	kcal/kg
Btu/lb.	2.326	kJ/kg	kJ/kg	0.4299	Btu/lb.
lb./lb.	1.0	kg/kg	kg/kg	1.0	lb./lb.
grain/lb.	0.143	g/kg	g/kg	6.993	grain/lb.
m ³ /kg	16.018	ft. ³ /lb	ft. ³ /lb	0.0624	m ³ /kg
m ² °C	5.0	ft. ² °F h	ft. ² °F h	0.2	m ² °C
kcal		Btu	Btu		kcal

* Commonly used prefixes



General Terms of Sale and Conditions 2013 - 14

Unless otherwise stipulated, as specified in a specific agreement between the parties, all orders placed are subject, without exception, to our G.T.S. whatever the customer's general terms of purchase, the customer hereby declaring and acknowledging that he is aware of the G.T.S. and expressly accepts them.

1. GENERAL POINTS: The information given by ALDES in any catalogues, brochures, price lists and drawings are for information only, ALDES reserving the right, at any time and without prior notice, to make modifications thereto, except when a technical file supporting a sales contract is drawn up in reference to the product. ALDES is only bound by any undertakings made by its employees if it has issued written confirmation thereof. No order shall be deemed accepted unless it is expressly accepted by a document bearing a registration number and order acknowledgement of the said order.

2. TECHNICAL SURVEYS AND PROJECTS: ALDES' liability is limited to the characteristics of the products. The Customer remains liable for the choice of the product and its start-up according to the properties of the installation. Any theoretical or computational drawings giving dimensions, drawn up by ALDES, or which result from computer-assisted calculation software made available for the purpose of surveys and price offers, cannot be considered as a technical survey of the actual installation.

3. PRICE: The products are supplied at the rates given in the sales offer addressed to the Customer. The standard packing is included in the offer. If customer needs any special packaging, then the same may be charged separately. Prices are quoted in Arab Emirates Dirhams (AED). Price quotations are valid only for the period specified in the quotations. Confirmed prices are those in force at the time of the order. Unless otherwise stipulated, offers only remain valid (content and price) for a period of one month.

4. DELIVERY CONDITIONS: All times, dates and delivery deadlines are considered non binding, unless their binding nature has been expressly agreed in writing.

If not otherwise indicated in the order confirmation, the delivery terms is "Ex Works Sharjah Airport Free Zone"

We are rightfully released from any undertaking relating to the delivery times if the terms of payment are not respected by the purchaser or in the case of circumstances beyond our control, or in the case of force majeure or events such as lock-outs, strikes, epidemics, war, requisition, fire, flooding, tooling accidents, significant rejects during manufacturing, interruption or delays in terms of transport or any other cause leading to the total or partial lay off of our workforce or our suppliers. We shall keep the customer informed of this type of case or event.

We are not liable for any rust, dampness or any damage whatsoever occurring to the goods after their dispatching or their being made available to the purchaser. In the case of damage of any nature whatsoever occurring during transport, it is up to the consignee to exert any recourse against the carrier or the insurer by the usual means and within the usual deadlines.

5. TERMS OF PAYMENT: ALDES invoices must be paid in full on the due date. In the case of non-payment on the due date, ALDES may suspend the consignment of other goods ordered by the same customer without incurring the payment of any damages. The Customer is not entitled to offset the outstanding amount with any counterclaims. Any significant change in the financial or economic situation of the customer, even after the partial performance of orders, may lead to the terms of payment relative to said orders being reviewed.

6. CLAIMS – CANCELATIONS OF ORDERS:

6.1. Claims: claim concerning quality can only be accepted if they are made in writing within eight days of the arrival of the goods at their destination. In the case of a claim which we acknowledge is justified, our liability is limited to the replacement of the part acknowledged as being faulty under the terms without it being possible to claim any indemnity for any reason whatsoever. All the goods that are replaced must be returned to our factory, unless otherwise stipulated..

6.2. Cancellation of orders: The customer is liable for any cancellation

of order. The customer may not cancel orders without our express, prior agreement and only on the minimum condition that the customer takes delivery of any products already manufactured and pays an indemnity covering our outlay and loss of profit for the equipment in the process of being manufactured. In the case of a change in the purchaser's situation and, in particular, in the case of death, incapacity, winding-up or modification of the company, etc., ALDES reserves the right, even after the partial performance of an order, to demand guarantees or to cancel the balance of the orders in process in the name of the purchaser in question.

7. WARRANTY

7.1. The warranty is applied to products used and maintained in accordance with user standards and our installation recommendations and that have not been subject to any external damage (electrical shocks, inclement weather), modifications made by the customer or abnormal usage.

The warranty covers the replacement of equipment acknowledged as being faulty by our technical services to the exclusion of any labor and travelling expenses which may be incurred.

The warranty excludes any incidents due to circumstances beyond our control or cases of force majeure, and all replacements or repairs resulting from the normal wear and tear of the equipment, damage or accidents resulting from negligence, faults due to ineffective supervision or maintenance and all incorrect use of the equipment in question.

7.2. Duration and start of the warranty: Our warranty covers a period of one year from the date of delivery. It is understood that the replacement of one part does not modify the duration of the initial warranty for the product concerned. ALDES' liability is strictly limited to the obligations defined herein and it is expressly agreed that ALDES shall not be bound to pay any indemnity including for financial or indirect loss such as loss of profit, operating loss, loss of profit margin, claims by third parties etc.

7.3. Obligations of the purchaser: To be able to benefit from these provisions, the purchaser must inform us without delay and in writing of any defects attributed to the equipment and provide all relevant justifications. The purchaser is bound to facilitate all actions so that a statement of these defects can be made and a solution found. He must abstain from carrying out repairs himself or having them carried out by a third party, excepting express agreement from us.

7.4. Means of exercising the guarantee: Once informed thereof, it is up to our company to repair the defect at our cost and in good time. We reserve the right to modify the devices on the equipment if necessary, so as to be able to fulfill these obligations. Work resulting from the guarantee clause are in principle conducted in our workshops once the purchaser has sent the equipment or the faulty parts back for the purpose of repairs or replacement. However, in view of the nature of the equipment, should the equipment be repaired on the site of installation, we shall bear the labor costs corresponding to these repairs, excluding the time spent for preliminary work or any dismantling and remounting operations made necessary by the conditions of use or installation of the equipment and with regard to any items that are not included in the supplies in question. The cost of transporting the equipment or the faulty parts and the return of the equipment or parts once they have been repaired or replaced is payable by the purchaser, as are the travelling and accommodation expenses of our agents in the case of repairs conducted on the site of installation. Any parts replaced free of charge become our property and remain at our disposal.

7.5. Damages: Our liability is strictly limited to the obligations defined herein and cannot access the cost of the products or services invoiced and it is expressly agreed that we are not bound to pay any indemnity, including financial or indirect loss such as loss of profit, loss of use or income, claims by third parties etc.

8. MODIFICATIONS: ALDES reserves the right to modify these General Terms and Conditions at any time.

9. APPLICABLE LAW AND JURISDICTION: UAE law shall apply exclusively and the ordinary courts at ALDES domicile shall have exclusive jurisdiction.

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