

Constant Airflow Regulators

Rectangular Constant Airflow Regulator



MR MAX-R

APPLICATION

- Airflow is automatically regulated at a pre-set value in rectangular ducts, independently of the varying pressure in the duct.
- Installation of CMEV and air conditioning.
- Air exhaust or air supply.
- Operating pressure range up to 1000 Pa.

DESCRIPTION

- Galvanized steel construction with flanged duct connection.
 - Volume flow controllers work with a smooth-running, asymmetrically angled plate, which guarantees a sensitive responding behavior even in case of low volume flows.
 - Control plate is supported by two maintenance free PTFE bearings.
 - Flow rate can be easily set or reset within airflow range by using 2 mm Allen key.
 - Airflow tolerances:
 - $Q_{average} = Q_{nominal} \pm 10 \text{ m}^3/\text{h}$ for $Q_{nominal} \leq 100 \text{ m}^3/\text{h}$,
 - $Q_{average} = Q_{nominal} \pm 10 \%$ for $Q_{nominal} > 100 \text{ m}^3/\text{h}$.
 - Operating temperature range : $-30 \text{ }^\circ\text{C} / +100 \text{ }^\circ\text{C}$.
 - Minimum size: $W = 150 \text{ mm}; H = 100 \text{ mm}; L = 220 \text{ mm}$
 - Maximum size: $W = 600 \text{ mm}; H = 300 \text{ mm}; L = 385 \text{ mm}$
- Note: Width must be same or larger than Height.

INSTALLATION

- Adjustment of the required airflow is possible from outside.
- Airflow direction as per the drawing.
- Undisturbed airflow profile at the inlet of the volume flow controller is recommended.
- Horizontal or vertical installation.

RANGE

Description	Code
MR MAX-R 200X100 202-698CMH/119-411CFM	44008250
MR MAX-R 300X100 216-799CMH/127-470CFM	44008251
MR MAX-R 400X100 302-1094CMH/178-644CFM	44008252
MR MAX-R 150X150 243-729CMH/143-429CFM	44008253
MR MAX-R 300X150 486-1458CMH/178-644CFM	44008254
MR MAX-R 200X200 432-1296CMH/254-763CFM	44008255
MR MAX-R 300X200 648-1944CMH/381-1144CFM	44008256
MR MAX-R 400X200 864-2592CMH/508-1525CFM	44008257
MR MAX-R 300X300 972-2916CMH/572-1716CFM	44008258
MR MAX-R 450X300 1458-4374CMH/858-2574CFM	44008259
MR MAX-R 600X300 1944-5832CMH/1144-3432CFM	44008260

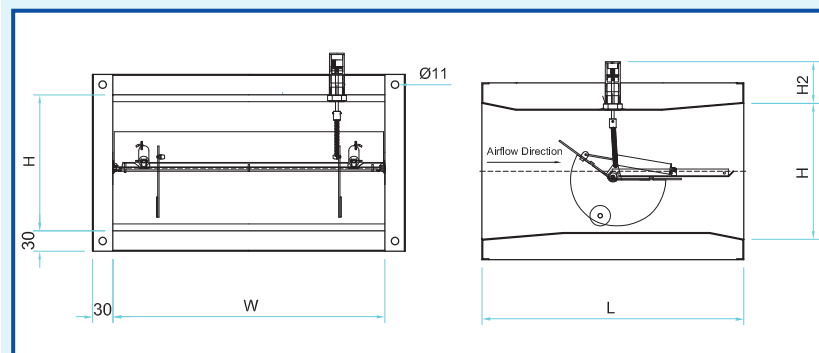
AVAILABLE OPTIONS

Description	Code
Stainless Steel INOX 304 construction	
Stainless Steel INOX 316 construction	
Insulated version with 30 mm thick thermal insulation	
Special version with high temperature resistance 250°C	
Explosion Proof version according to ATEX	

Advantages

- Maintenance free.
- External adjustment of airflow.
- Wide range of airflow.
- Suitable for high airflow & high pressure systems.

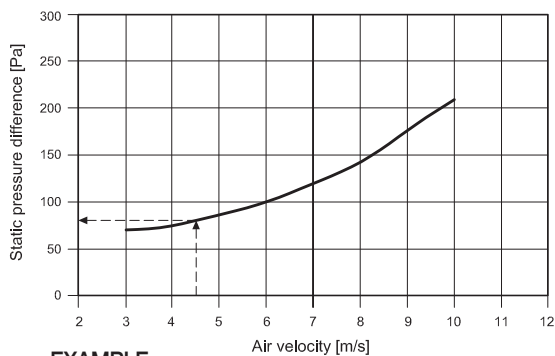
DIMENSIONS



W (mm)	H (mm)	L (mm)	H ₂ (mm)	Airflow Range (m ³ /h)
200	100	220	70	200 - 600
300	100	220	70	200 - 800
400	100	220	70	300 - 1100
150	150	220	70	200 - 700
300	150	220	70	400 - 800
200	200	220	70	400 - 1000
300	200	220	70	500 - 2000
400	200	220	70	600 - 2800
300	300	385	60	700 - 3000
450	300	385	60	1000 - 4500
600	300	385	60	1500 - 6500

- Other combinations of **W** and **H** available upon request.
- Required airflow range must be informed at the time of placing the order.

MINIMUM STATIC PRESSURE DIFFERENCE AT THE CONTROLLER



EXAMPLE:

Given: Volume flow controller MR MAX-R
Width 250mm, height 200mm
[duct cross section 0.05 m^2]
volume flow 810 m³/h
(=Air velocity 4.5 m/s)

Minimum static pressure difference Δp in Pa?

Solution according to the given chart:

$$\Delta p = 80 \text{ Pa}$$