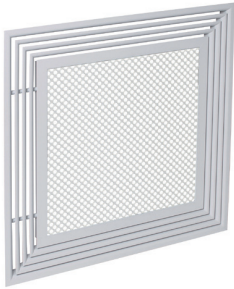


# Special Diffusers

## Multi-slot square diffusers



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).

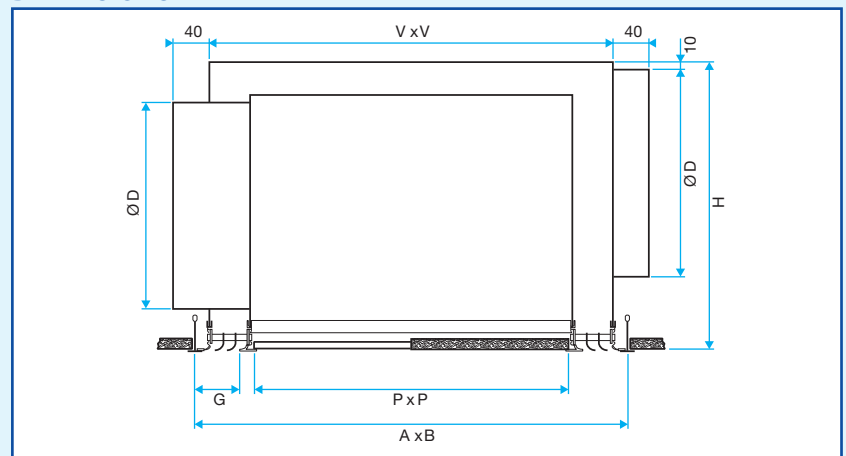
### RANGE

Dimensions	N°. slots	Air inlet core with filter included option Code	Air inlet diffuser with filter included option Code	Double plenum R-RE Code	Filter holder on plenum (option) Code	Fixed diffuser with perforated sheet metal Combined ALD610K Code
600 x 600	1	11002881-a		11003341	11003341-a	11002881
600 x 600	2		11002882-a	11003342	11003342-a	11002882
600 x 600	3		11002883-a	11003343	11003343-a	11002883
600 x 600	4		11002884-a	11003344	11003344-a	11002884
675 x 675	1		11002886-a	11003346	11003346-a	11002886
675 x 675	2		11002887-a	11003347	11003347-a	11002887
675 x 675	3		11002888-a	11003348	11003348-a	11002888
675 x 675	4		11002889-a	11003349	11003349-a	11002889

### 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 (m <sup>3</sup> /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 283.

# Selection Tables



## ALD 610 K Combined Series

Air supply with ceiling effect

Ak (m <sup>2</sup> )	Dimensions	qv (m <sup>3</sup> /h)												1400									
		150		200		250		300		400		500		600		800		1000		1200		Lw	Lt
0.016	600-1 slot	20	2.3	27	2.7	32	3	34	3.4	41	4											Lw	Lt
		2.4	5	3.3	9	4	13	4.9	20	6.5	35											Vk	Pa*
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																				
		Vk	Pa*			24	3.4	31	4	36	4.7	39	5.4	43	6.2								
				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 <sup>3</sup> /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					Pa*		
600-2 slots			3	4	6	10	14			Pa*		
675-2 slots			2	2	4	6	9	15			Pa*	
600-3 slots					9	14	20	36	56	Pa*		
675-3 slots					4	7	10	18	28	40	Pa*	
600-4 slots							19	27	49	Pa*		
675-4 slots	Pa*						13	23	36	52	Pa*	

\* 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 <sup>3</sup> /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					Pa*			
600-2 slots			4	6	10	16	23			Pa*			
675-2 slots			2	3	6	9	14	24			Pa*		
600-3 slots					15	23	33	58			Pa*		
675-3 slots					7	11	17	30	46	66	Pa*		
600-4 slots							31	45			Pa*		
675-4 slots	Pa*						20	46	60			Pa*	

\* Pressure loss of the combined assembly in supply mode. Tests carried out with a standard plenum.

■ Dp > 70 Pa