

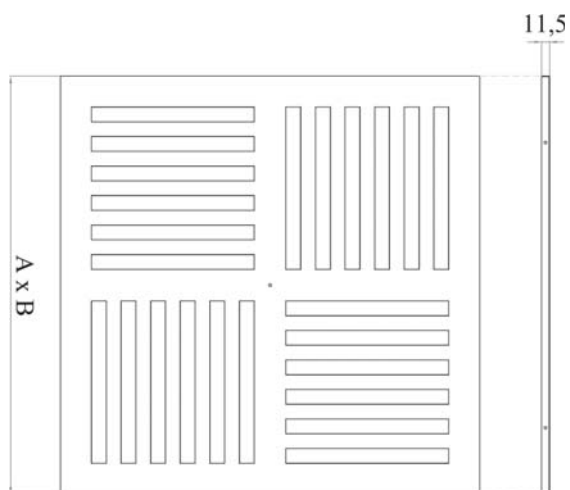


DAM51

Linear throw diffuser on square panel with adjustable deflectors with a high induction ratio between the injected and the ambient air. Made up of a plate with holes inside which adjustable plastic deflectors are housed. Individually orientable for each side/direction.

TECHNICAL SPECIFICATION AND USAGE LIMIT

INSTALLATION HEIGHT	APPLICATIONS	MATERIAL	SURFACE FINISH	COLOR	FASTENING
2,5 to 4 m	The diffuser can also be used for air return; in this case it is supplied without deflecting fins. The deflectors can also be oriented after the diffuser has been installed in order to make adjustments to optimise airflow in the room once the system is running.	Painted steel panel, ABS supports and black PVC deflectors	Epoxy powder coating resistant to impact and abrasion	RAL 9010 white. On request, coating in non-standard RAL colors.	by means of side screws or a central screw



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TECHNICAL DATA

Model	A [mm]	B [mm]
DAM51 400	395	395
DAM51 500	495	495
DAM51 600	595	595
DAM51 625	625	625
DAM51 800	795	795

APPLICATIONS

								
Residential	Easy Pack	Calculation Method	REACH Certificate	RoHS Certificate	Industry	Building	Air Conditioning	Interior design

*on request

Selection charts

Flow Rate / Pressure Drop
Air Outlet Speed / Noise Level / Horizontal Throw (Vt.: 0,25m/s)

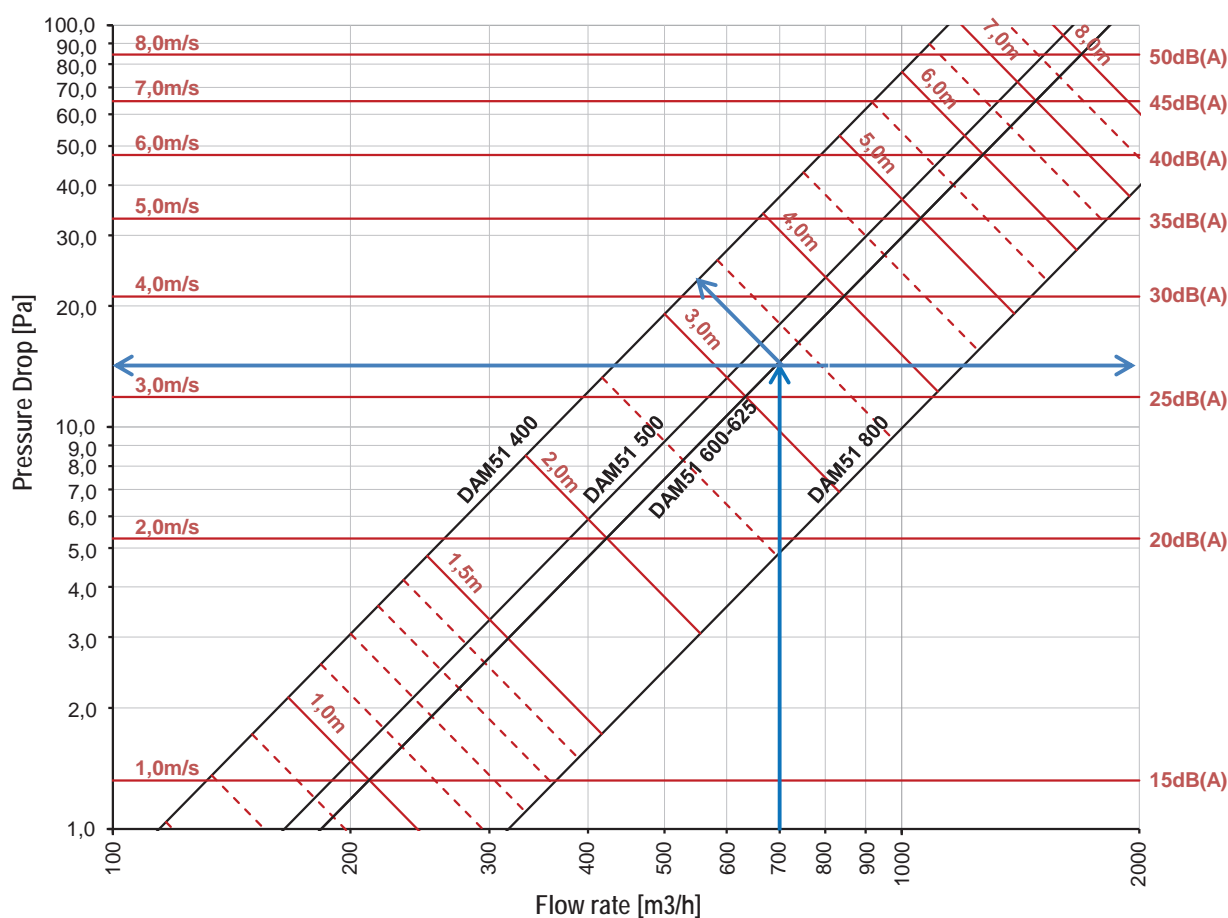


Diagram 1

The diagram shows the diffuser pressure drop based on the flow rate with relative indication of the noise level without environmental attenuation, air outlet speed and horizontal throw with terminal speed equal to 0.25m/s.

Note: Pressure drop data shown in the diagram refer to the diffuser with the damper fully open.

CALCULATION (input data)	
Total Flow Rate	7000 m ³ /h
Max Noise Level	30dB(A)
Number of diffusers expected	10pz.
Horizontal Isothermal Throw	3,3m

SELECTION	
Model	DAM51 600
Flow Rate	700 m ³ /h
Pressure Drop	+/- 16Pa
Noise Level	27dB(A)
Inlet Air Speed	Flow Rate / (Ak * 3600) = 3,31m/s
Horizontal Isothermal Throw	3,3m

MODEL	DESCRIPTION	U.M.	Vi (m/sec)									
			1	2	3	4	5	6	7	8	9	10
DAM51 400 Ak: 0,0365m ²	Flow Rate	m ³ /h	132	263	395	526	658	789	921	1052	1184	1315
	Pressure Drop	Pa	1	5	12	21	33	48	65	84	107	132
	Horizontal Throw Vt 0,25m/s	mt	0,8	1,6	2,4	3,2	3,9	4,7	5,5	6,3	7,1	7,9
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM51 500 Ak: 0,0526m ²	Flow Rate	m ³ /h	190	379	569	758	948	1137	1327	1516	1706	1895
	Pressure Drop	Pa	1	5	12	21	33	48	65	84	107	132
	Horizontal Throw Vt 0,25m/s	mt	0,9	1,9	2,8	3,8	4,7	5,7	6,6	7,6	8,5	9,5
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM51 600 Ak: 0,0586m ²	Flow Rate	m ³ /h	211	422	633	844	1055	1266	1477	1688	1899	2110
	Pressure Drop	Pa	1	5	12	21	33	48	65	84	107	132
	Horizontal Throw Vt 0,25m/s	mt	1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM51 625 Ak: 0,0586m ²	Flow Rate	m ³ /h	211	422	633	844	1055	1266	1477	1688	1899	2110
	Pressure Drop	Pa	1	5	12	21	33	48	65	84	107	132
	Horizontal Throw Vt 0,25m/s	mt	1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM51 800 Ak: 0,1013m ²	Flow Rate	m ³ /h	365	729	1094	1458	1823	2187	2552	2917	3281	3646
	Pressure Drop	Pa	1	5	12	21	33	48	65	84	107	132
	Horizontal Throw Vt 0,25m/s	mt	1,3	2,6	3,9	5,3	6,6	7,9	9,2	10,5	11,8	13,1
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60

Note: the data indicated refer to operation in isothermal conditions

ASSEMBLY INSTRUCTION

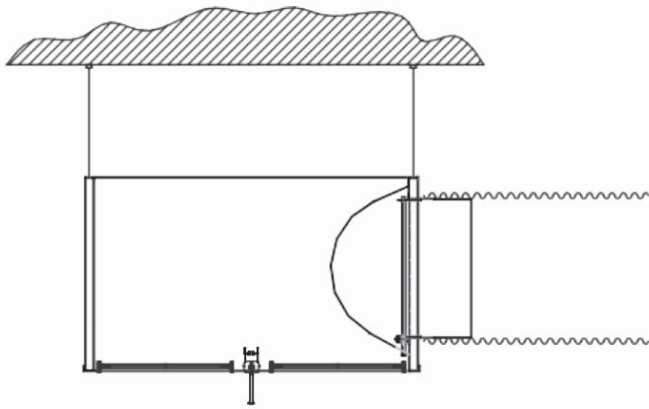


FIG. 1

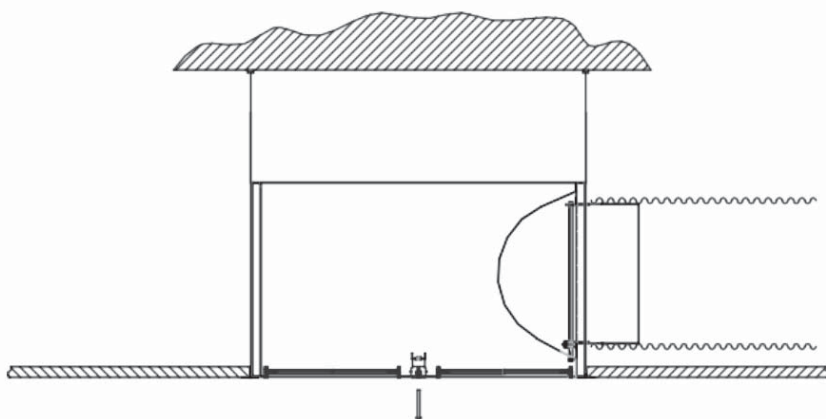
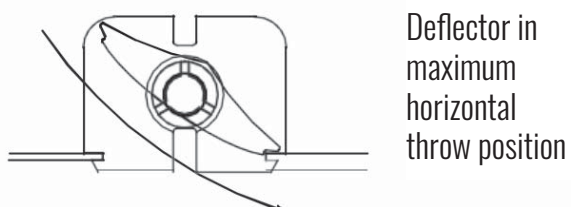
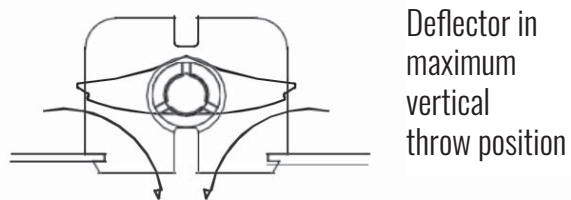


FIG. 2



Deflector in maximum horizontal throw position



Deflector in maximum vertical throw position

FIG. 3

Easy installation, adjustments and maintenance. The diffusers are fastened to the plenum by means of side screws or a central screw.

Adjustment

The airflow distribution is manually adjusted by acting on the deflectors that are fitted with a snap positioning device so that they stay in position during operation.

Fig. 1 Installation with plenum fastened on the ceiling

- Hang the plenum on the ceiling using brackets or chains fastened on the plenum whose outer edge can be drilled.
- Fit the flexible duct on the connecting sleeve and fasten it with a hose clamp.
- Make a preliminary adjustment to the damper by acting on the pin with Allen screw and tightening the hexagonal-head screw that fastens the pin.
- Fit the diffuser using either a central screw screwing it onto the plenum bridge (if provided) or 4 self-tapping side screws.

Fig. 2 Installation on the false ceiling

- Hang the false ceiling elements on the ceiling.
- Make a preliminary adjustment to the damper by acting on the pin with Allen screw and tightening the hexagonal-head screw that fastens the pin.
- Fit the flexible duct on the connecting sleeve and fasten it with a hose clamp.
- Fit the diffuser using either a central screw screwing it onto the plenum bridge (if provided) or 4 self-tapping side screws.
- Rest the diffuser pre-fitted on the plenum on the square space of the false ceiling.

Fig. 3 Movable deflector adjustment

- The movable deflectors can be adjusted from an angle of 0° (maximum vertical throw position used in heating) to a maximum angle (maximum horizontal throw position used in cooling).

The deflectors are fitted with a snap positioning device in order to guarantee accuracy and always correct positioning even with high flow rates and velocities.