

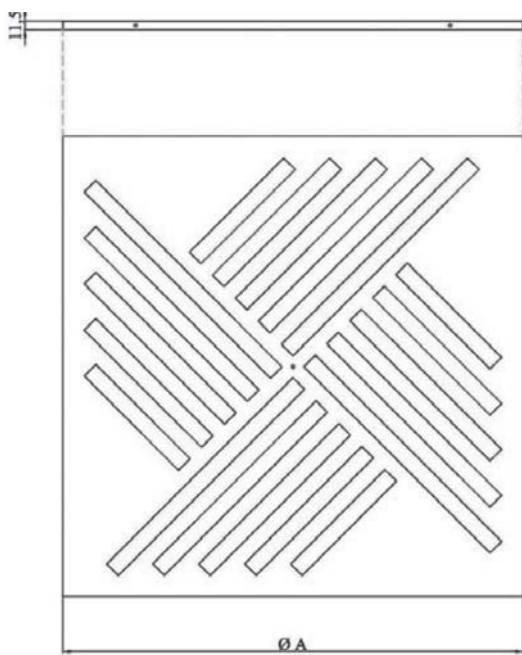


DAM41

4-ways linear throw diffuser on square panel with helically arranged 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.

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



GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR, EQ



WELL

Contributes to credits:
AIR, THERMAL COMFORT,
MATERIALS, COMMUNITY

BREEAM®

BREEAM










Contributes to credits:
MAN, HEA, WST

For further details about specific contributions to the credits indicated, contact Tecnica Srl

TECHNICAL DATA

Model	A [mm]	B [mm]
DAM41 300	295	295
DAM41 400	395	395
DAM41 500	495	495
DAM41 600	595	595
DAM41 625	625	625
DAM41 800	795	795

APPLICATIONS

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

*on request

Selection charts

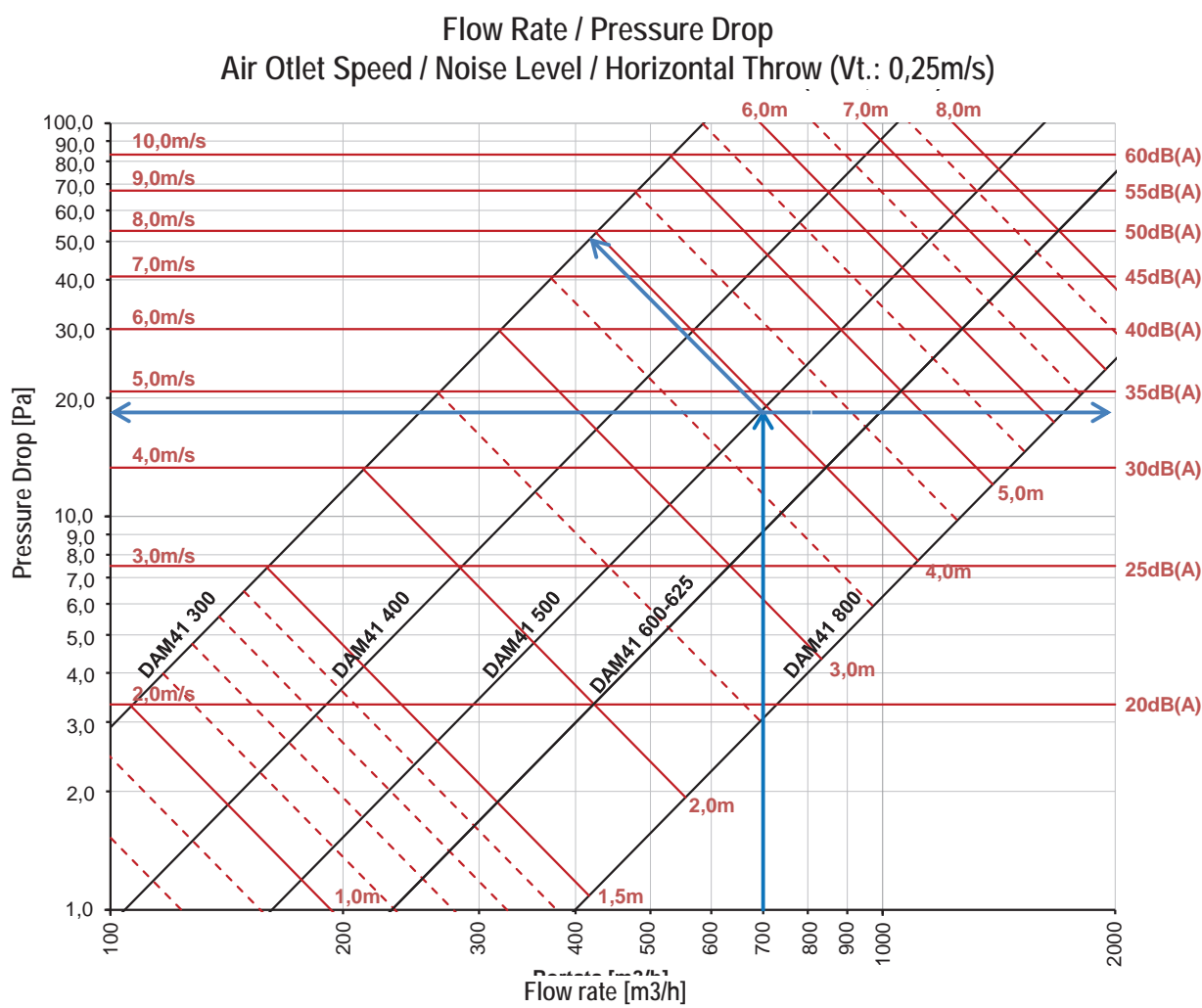


Diagram 1

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 m³/h
Max Noise Level	35dB(A)
Number of diffusers expected	10pz.
Horizontal Isothermal Throw	3,9m

SELECTION	
Model	DAM41 500
Flow Rate	700 m³/h
Pressure Drop	+/- 19Pa
Noise Level	34dB(A)
Inlet Air Speed	Flow Rate / (Ak * 3600) = 4,74m/s
Horizontal Isothermal Throw	3,9m

MODEL	DESCRIPTION	U.M.	Vi (m/sec)									
			1	2	3	4	5	6	7	8	9	10
DAM41 300 Ak: 0,0148m ²	Flow Rate	m ³ /h	53	107	160	214	267	321	374	428	481	535
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	Horizontal Throw Vt 0,25m/s	mt	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM41 400 Ak: 0,0264m ²	Flow Rate	m ³ /h	95	190	285	381	476	571	666	761	856	952
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	Horizontal Throw Vt 0,25m/s	mt	0,7	1,3	2,0	2,7	3,4	4,0	4,7	5,4	6,0	6,7
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM41 500 Ak: 0,0410m ²	Flow Rate	m ³ /h	148	295	443	590	738	885	1033	1180	1328	1475
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	Horizontal Throw Vt 0,25m/s	mt	0,8	1,7	2,5	3,3	4,2	5,0	5,8	6,7	7,5	8,4
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM41 600 Ak: 0,0586m ²	Flow Rate	m ³ /h	211	422	633	844	1055	1266	1477	1688	1899	2110
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	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
DAM41 625 Ak: 0,0586m ²	Flow Rate	m ³ /h	211	422	633	844	1055	1266	1477	1688	1899	2110
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	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
DAM41 800 Ak: 0,1013m ²	Flow Rate	m ³ /h	365	729	1094	1458	1823	2187	2552	2917	3281	3646
	Pressure Drop	Pa	1	3	7	13	21	30	41	53	67	83
	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

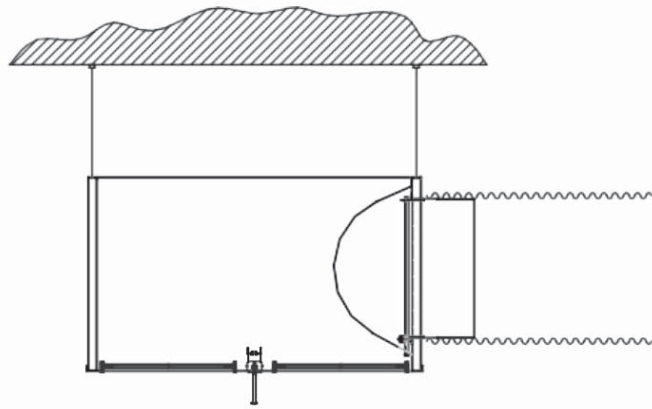


FIG. 1

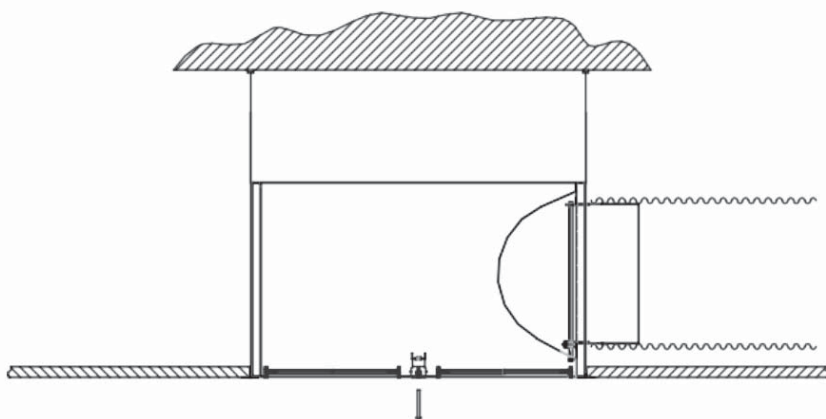
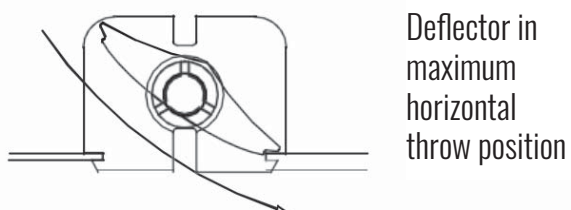
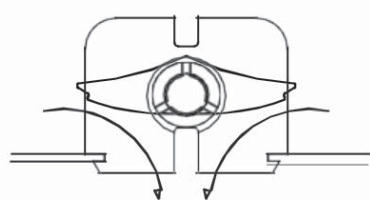


FIG. 2



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.