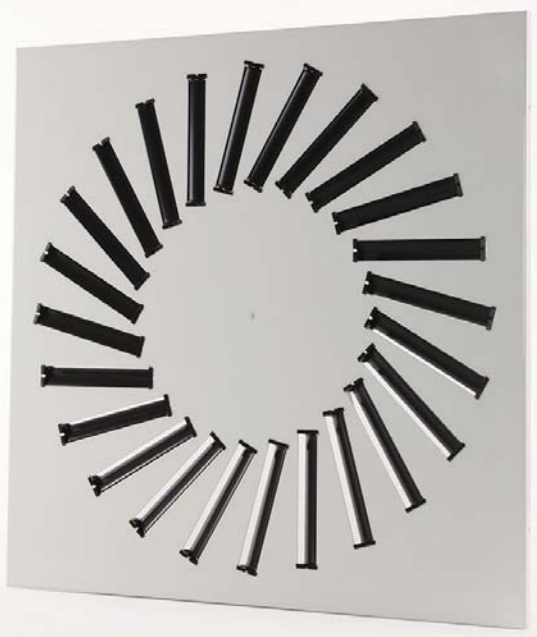
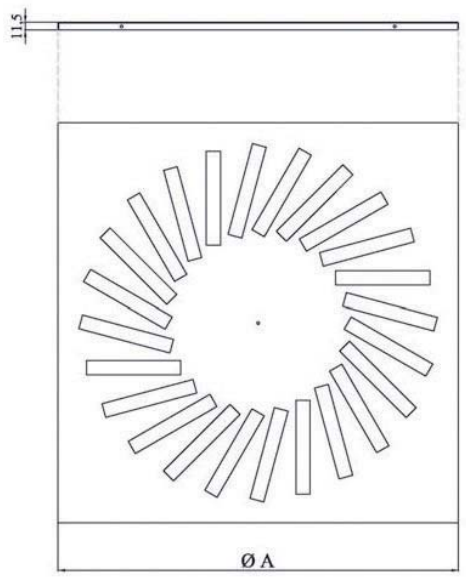


DAM02

Helical-effect diffuser on square panel with helically arranged adjustable deflectors with a high induction ratio (mixing capacity) between the injected and the ambient air. Made up of a plate with holes inside which adjustable plastic deflectors are housed.
The helical flow of the air injected can be oriented clockwise, anticlockwise or alternating by changing the position of the deflectors.

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 suistainable buildings:

LEED
Contributes to credits:
IP, EA, MR

WELL
Contributes to credits:
MATERIALS, COMMUNITY

BREEAM
Contributes to credits:
MAN, WST

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

TECHNICAL DATA

Model	A [mm]	B [mm]
DAM02 300	295	295
DAM02 400	395	395
DAM02 500	495	495
DAM02 600	595	595
DAM02 625	625	625
DAM02 800	795	795

TECNICA™
Efficient Indoor Air Project

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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 Otlet Speed / Noise Level / Horizontal Throw (Vt.: 0,25m/s)

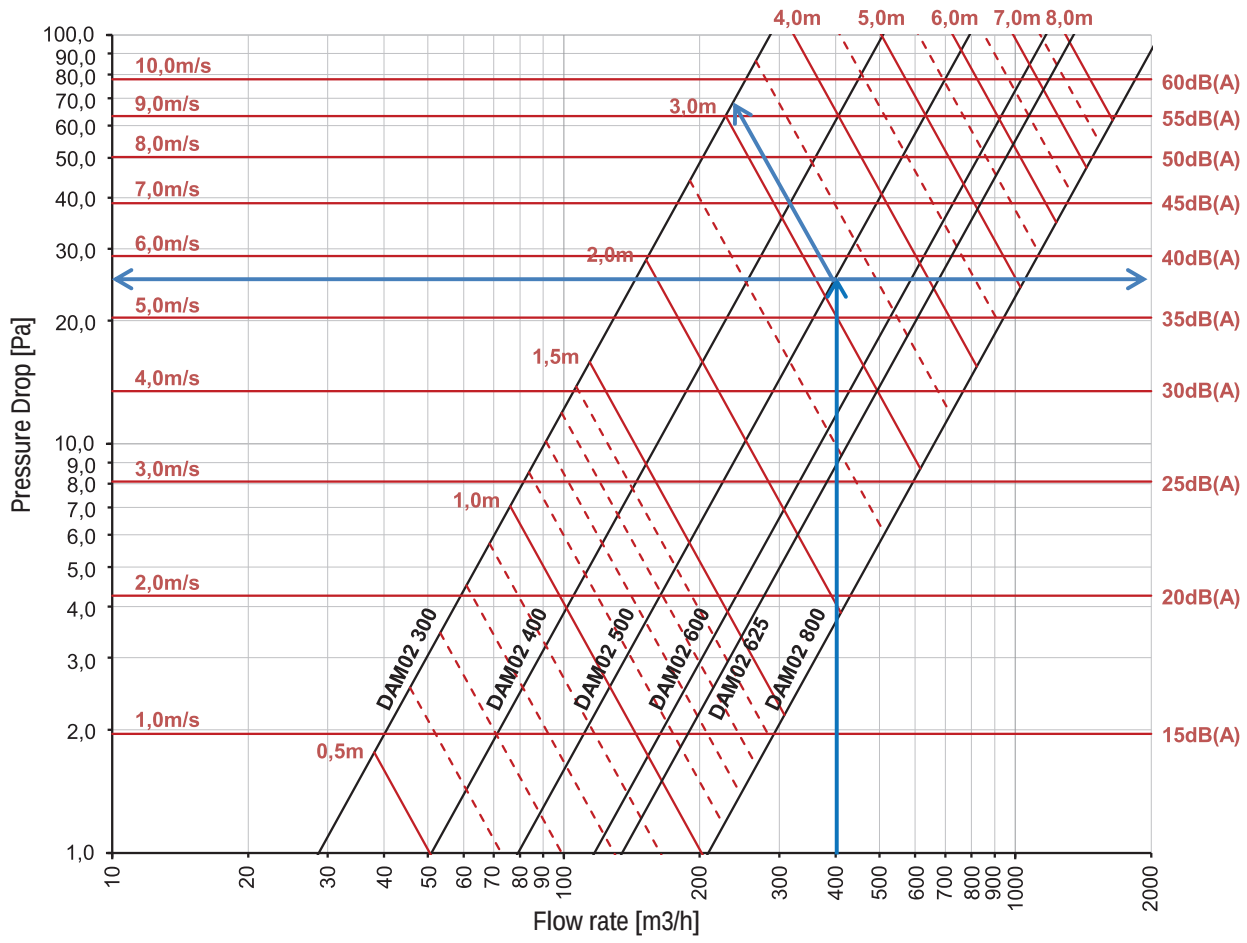

Diagram 1

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	4000 m^3/h
Max Noise Level	40dB(A)
Number of diffusers expected	10pz.
Horizontal Isothermal Throw	3,1,00m

SELECTION	
Model	DAM02 500
Flow Rate	400 m^3/h
Pressure Drop	+/- 26Pa
Noise Level	+/-37dB(A)
Inlet Air Speed	Flow Rate/ (Ak * 3600) = 5,29m/s
Horizontal Isothermal Throw	3,1m

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MODEL	DESCRIPTION	U.M.	Vi (m/sec)									
			1	2	3	4	5	6	7	8	9	10
DAM02 300 Ak: 0,0076	Flow Rate	m3/h	27	55	82	109	137	164	192	219	246	274
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	0,4	0,7	1,1	1,4	1,8	2,2	2,5	2,9	3,2	3,6
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM02 400 Ak: 0,0135	Flow Rate	m3/h	49	97	146	194	243	292	340	389	437	486
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	0,5	1,0	1,4	1,9	2,4	2,9	3,4	3,8	4,3	4,8
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM02 500 Ak: 0,0210	Flow Rate	m3/h	76	151	227	302	378	454	529	605	680	756
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	0,6	1,2	1,8	2,4	3,0	3,6	4,2	4,8	5,4	6,0
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM02 600 Ak: 0,0310	Flow Rate	m3/h	112	223	335	446	558	670	781	893	1004	1116
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	0,7	1,5	2,2	2,9	3,6	4,4	5,1	5,8	6,5	7,3
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM02 625 Ak: 0,0357	Flow Rate	m3/h	129	257	386	514	643	771	900	1028	1157	1285
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	0,8	1,6	2,3	3,1	3,9	4,7	5,5	6,2	7,0	7,8
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM02 800 Ak: 0,0554	Flow Rate	m3/h	199	399	598	798	997	1197	1396	1596	1795	1994
	Pressure Drop	Pa	1	4	8	15	23	33	45	58	74	91
	Horizontal Throw Vt 0,25m/s	mt	1,0	1,9	2,9	3,9	4,9	5,8	6,8	7,8	8,7	9,7
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60

Note: the data indicated refer to operation in isothermal conditions

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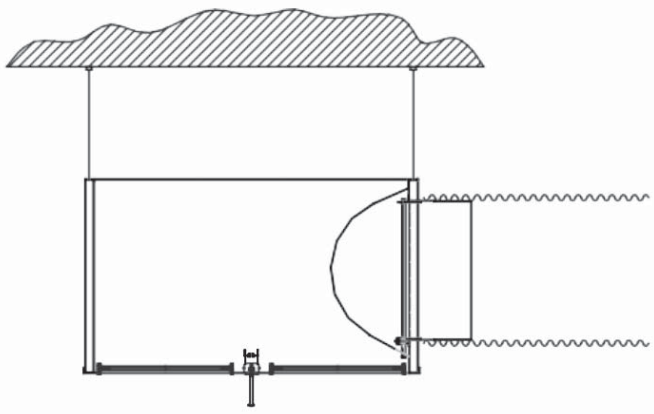


FIG. 1

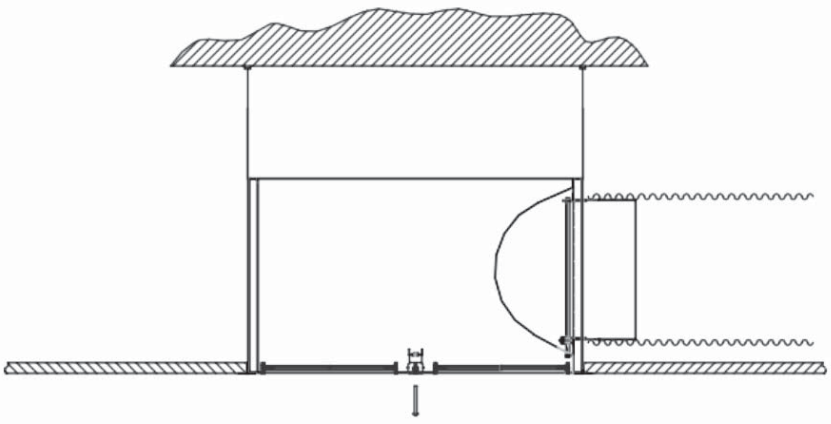
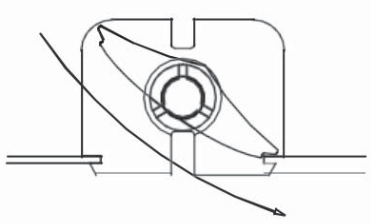
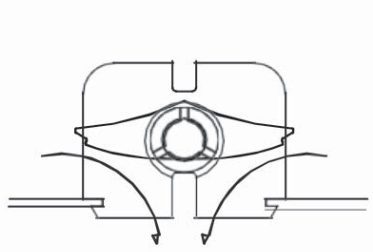


FIG. 2



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 hexagonalhead 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.

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