

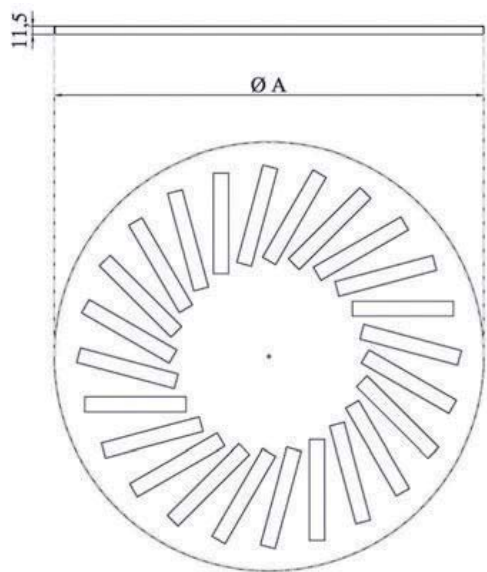


DAM02C

Helical-effect diffuser 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



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TECHNICAL DATA

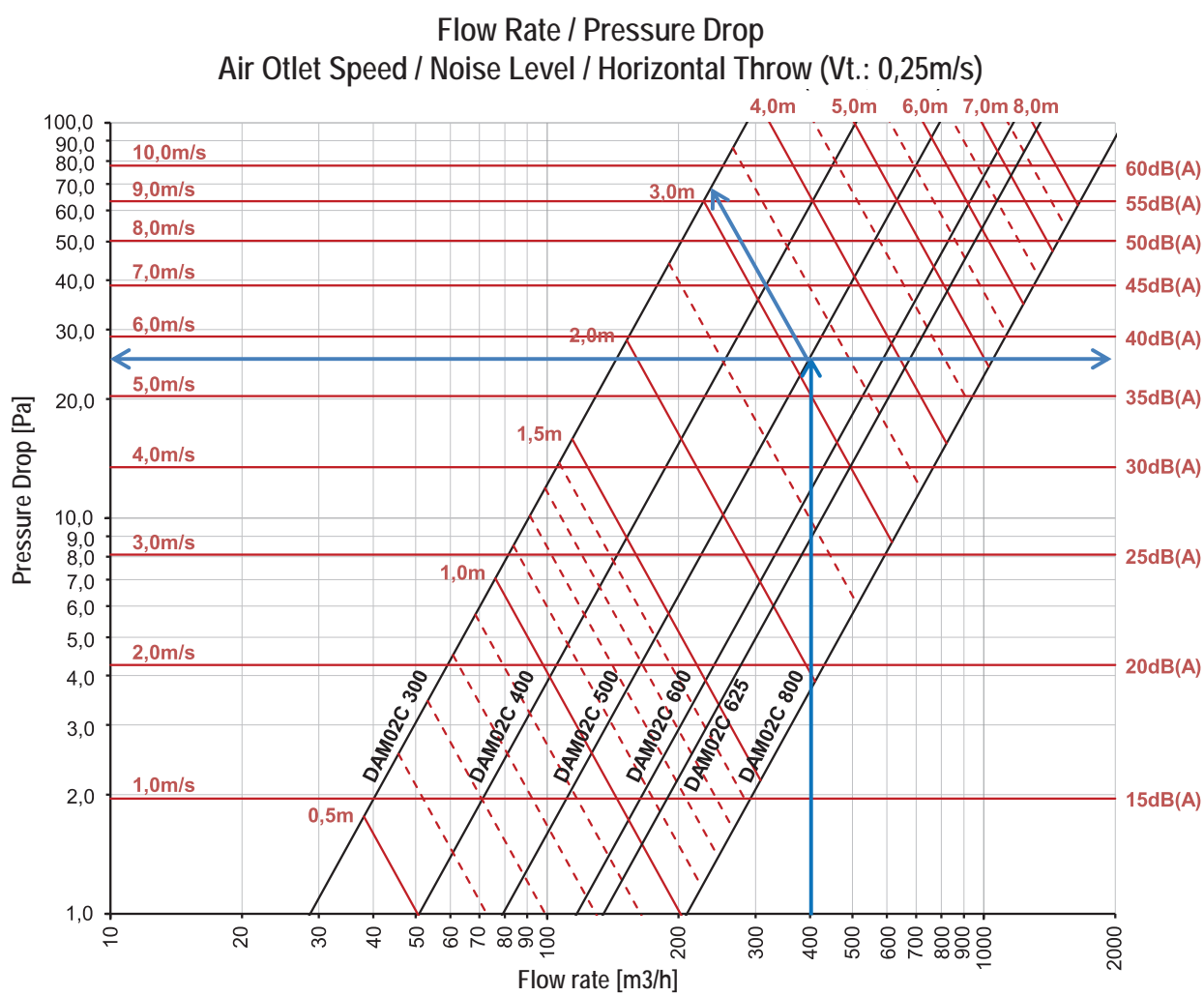
Model	Ø A [mm]
DAM02C 300	295
DAM02C 400	395
DAM02C 500	495
DAM02C 600	595
DAM02C 625	625
DAM02C 800	795

APPLICATIONS

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

*on request

Selection charts



CALCULATION (input data)	
Total Flow Rate	4000 m ³ /h
Max Noise Level	40dB(A)
Number of diffusers expected	10pz.
Horizontal Isothermal Throw	3,100m

SELECTION	
Model	DAM02C 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

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.

MODEL	DESCRIPTION	U.M.	Vi (m/sec)									
			1	2	3	4	5	6	7	8	9	10
DAM02C 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
DAM02C 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
DAM02C 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
DAM02C 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
DAM02C 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
DAM02C 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

ASSEMBLY INSTRUCTION

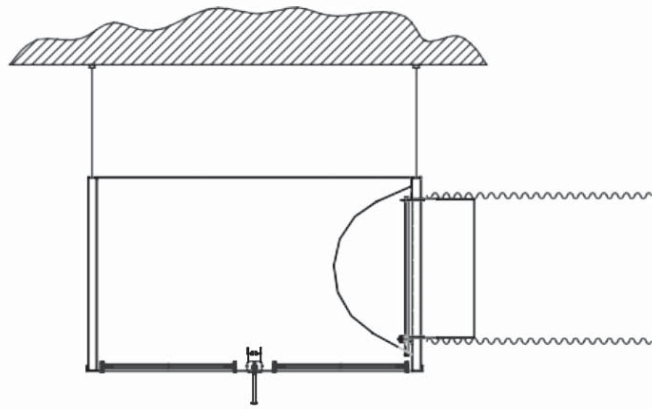


FIG. 1

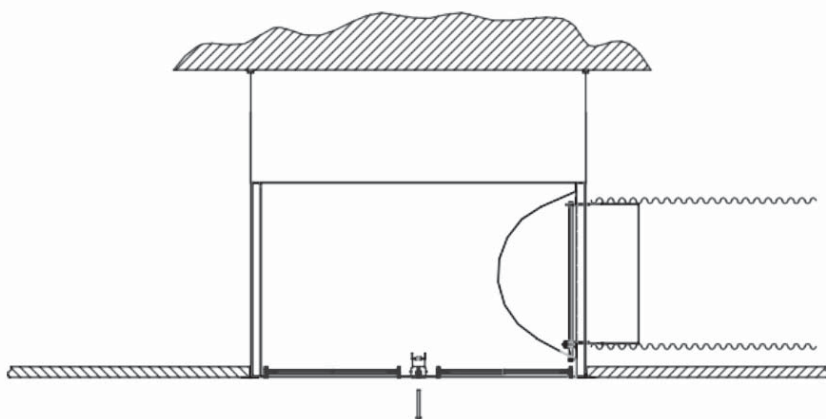
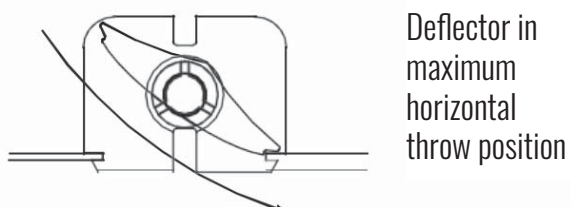
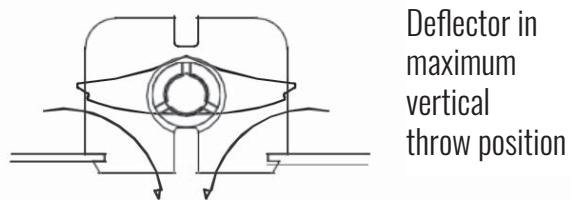


FIG. 2



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.