

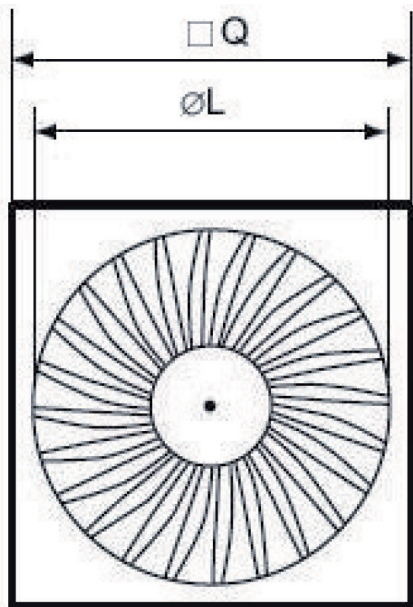


DGF

Helical-effect linear throw diffuser on square panel with fixed deflectors positioned in radial direction. The helical throw impressed on the air injected by the particular geometry of the deflectors allows obtaining a high induction ratio and consequently rapid reduction of the air velocity and temperature difference.

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 galvanised steel panel	epoxy powder coating resistant to impact and abrasion	RAL 9010 white. On request, coating in non-standard RAL colours.	the diffusers are fastened to the plenum by means of side screws or a central screw. Using a central screw to fasten the diffuser to the plenum bridge makes it particularly easy to install. To ensure throw stability, it is suggested to install it flush with the ceiling.



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TECHNICAL DATA

Model	A [mm]	B [mm]
DGF 300	295	295
DGF 400	395	395
DGF 500	495	495
DGF 600	595	595

APPLICATIONS

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

*on request

Selection charts

Flow Rate / Pressure Drop / Noise Level

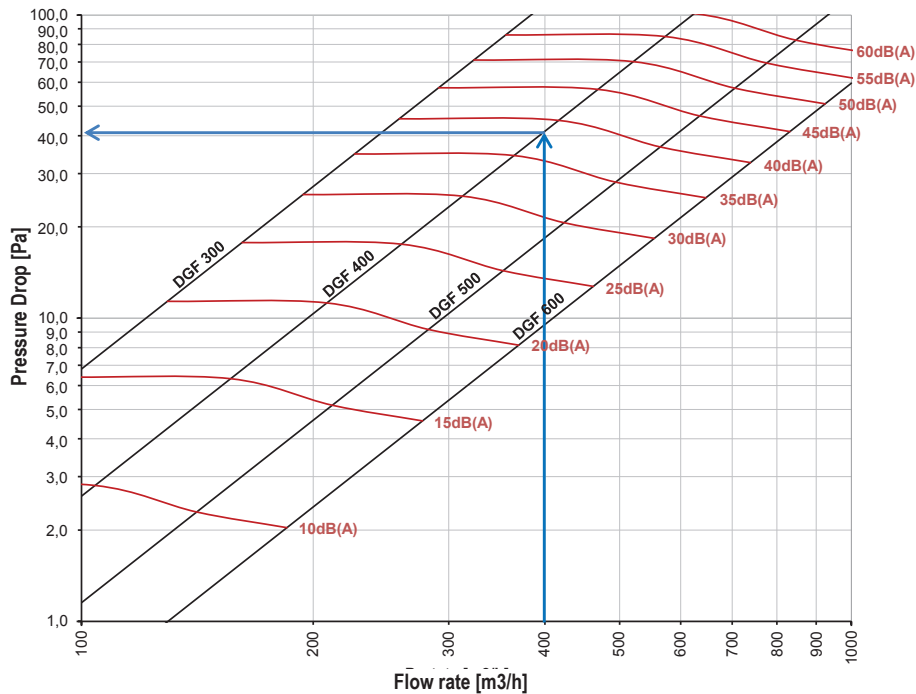


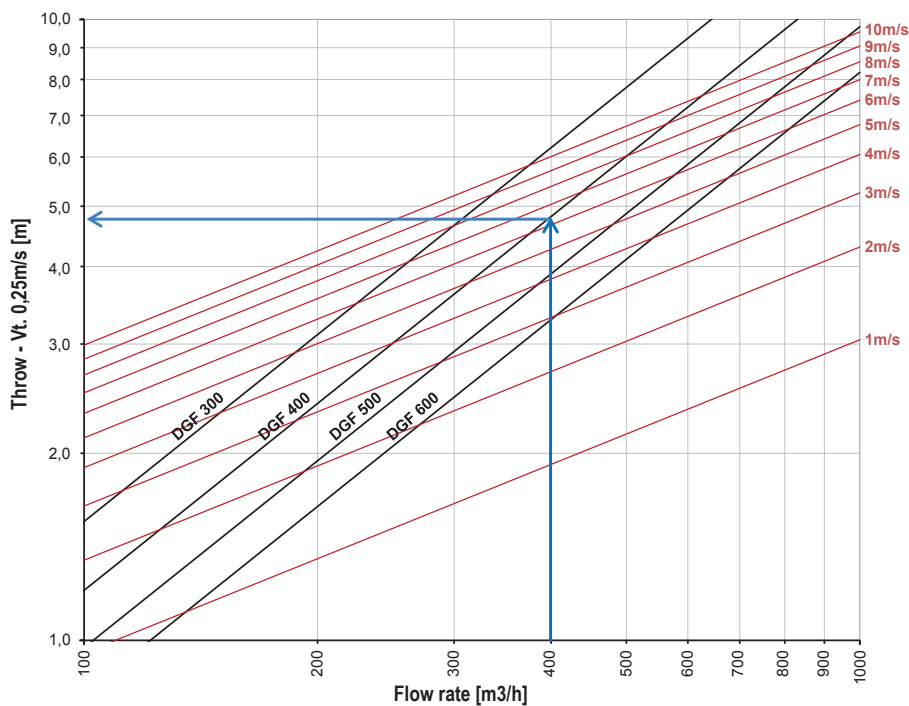
Diagram 1

The diagram shows the diffuser pressure drop based on the flow rate with relative indication of the noise level without environmental attenuation

CALCULATION (input data)

Total Flow Rate	4000 m³/h
Max Noise Level	40dB(A)
Number of diffusers expected	10pz.
Horizontal Isothermal Throw	4,8m

Flow Rate / Throw (Vt.: 0,25m/s) / Outlet Air Speed



SELECTION

Model	DGF 400
Flow Rate	400 m³/h
Pressure Drop	+/- 41Pa
Noise Level	+/-37dB(A)
Horizontal Isothermal Throw	+/- 4,8m
Outlet Air Speed	Flow Rate / (Ak * 3600) = 6,3m/s

Grafico 2

The diagram shows the diffuser air outlet speed and horizontal throw with terminal speed equal to 0.25m/s based on the flow rate.

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
DGF 300 Ak: 0,0103m ²	Flow Rate	m ³ /h	37	74	111	149	186	223	260	297	334	371
	Pressure Drop	Pa	1	4	8	15	23	34	46	60	76	94
	Horizontal Throw Vt 0,25m/s	mt	0,6	1,2	1,7	2,3	2,9	3,5	4,0	4,6	5,2	5,8
	Noise Level	dB(A)	6	11	17	23	29	34	40	46	52	57
DGF 400 Ak: 0,0176m ²	Flow Rate	m ³ /h	63	127	190	254	317	381	444	507	571	634
	Pressure Drop	Pa	1	4	8	15	23	34	46	60	76	94
	Horizontal Throw Vt 0,25m/s	mt	0,8	1,5	2,3	3,1	3,8	4,6	5,3	6,1	6,9	7,6
	Noise Level	dB(A)	6	12	18	24	30	37	43	49	55	61
DGF 500 Ak: 0,0267m ²	Flow Rate	m ³ /h	96	192	288	384	480	576	672	768	864	960
	Pressure Drop	Pa	1	4	8	15	23	34	46	60	76	94
	Horizontal Throw Vt 0,25m/s	mt	0,9	1,9	2,8	3,7	4,7	5,6	6,5	7,5	8,4	9,3
	Noise Level	dB(A)	7	14	20	27	34	41	48	54	61	68
DGF 600 Ak: 0,0374m ²	Flow Rate	m ³ /h	135	269	404	539	674	808	943	1078	1212	1347
	Pressure Drop	Pa	1	4	8	15	23	34	46	60	76	94
	Horizontal Throw Vt 0,25m/s	mt	1,1	2,2	3,3	4,4	5,5	6,6	7,7	8,9	10,0	11,1
	Noise Level	dB(A)	7	15	22	29	36	44	51	58	66	73

Note: the data indicated refer to operation in isothermal conditions

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.

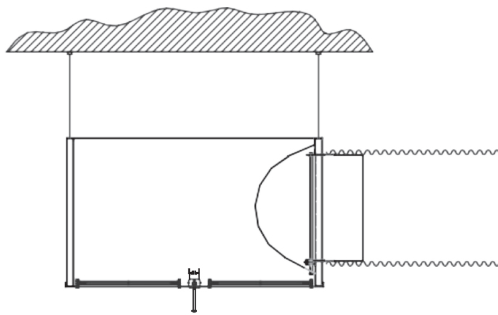


FIG. 1

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.

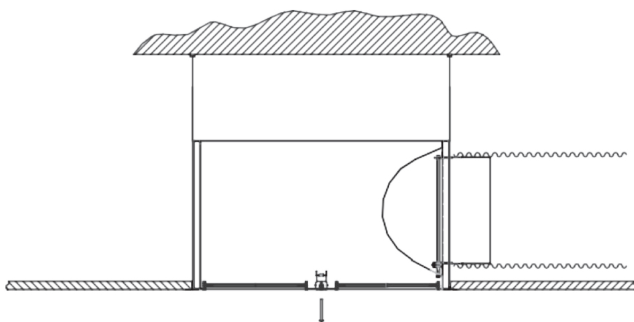


FIG. 2

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.