

2/S3
v 3.3 (en)

CEILING SWIRL DIFFUSER

DVF



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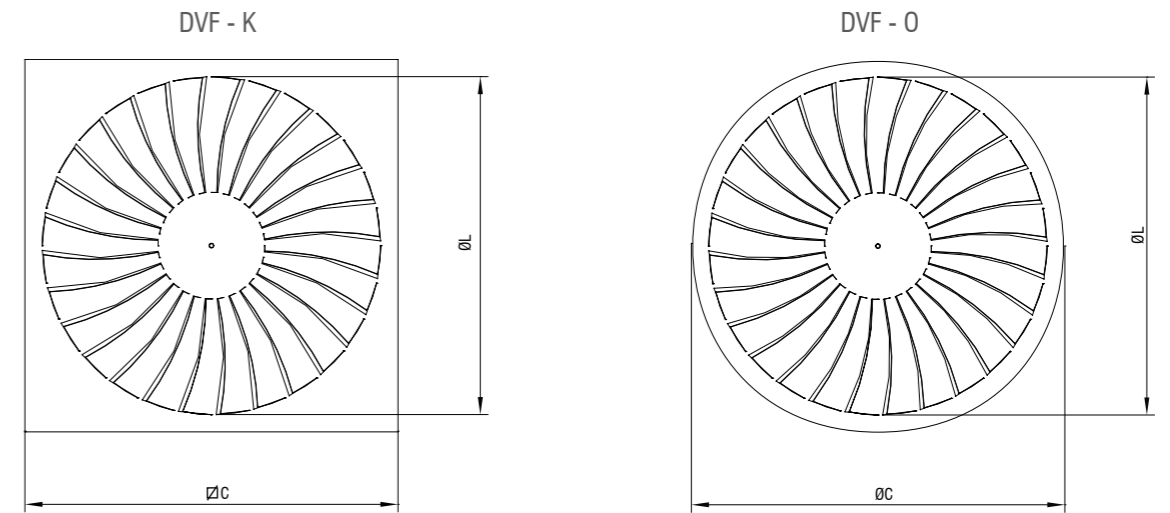
DVF

- Ceiling swirl diffuser for room heights from 2,6 to 4m.
- Made out of steel sheet, standard RAL 9010
- Plenum box made out of galvanized steel sheet

Options

- Plenum box
- RAL...

Diffuser dimensions



Size	C [mm]	L [mm]	A _{ef} [m ²]
300	295	254	0,0145
400	395	350	0,0301
500	495	450	0,0386
600	595	540	0,0580

Definition of symbols:

V [m ³ /h]	- Air flow	v _h [m/s]	- Average core velocity at distance h (m) from diffuser
V _{uk} [m ³ /h]	- Total air volume in motion	Δp [Pa]	- Total pressure drop
h [m]	- Distance from the ceiling to the occupied zone	t _z [°C]	- Air temperature in the room
H [m]	- Room height	t _p [°C]	- Supply air temperature
A, B [m]	- Distance between diffusers	t _m [°C]	- Core air temperature
x [m]	- Distance from wall	Δt _z [°C]	- (t _z - t _p)
L [m]	- Throw distance (x+h)	Δt _L [°C]	- (t _m - t _p)
A _{ef} [m ²]	- Effective discharge area	i	- Induction V _{uk} /V
v _{ef} [m/s]	- Effective jet velocity	L _{WA} [dB(A)]	- Sound power level
v _L [m/s]	- Average core velocity at distance L (m) from diffuser		

Ordering key:

Type **DVF - K - 600 - A - H - ød - Z**
K - rectangular plate
O - round plate
 Size
A - supply air
B - exhaust air
H - horizontal connection
V - vertical connection
 Connection diameter
 Insulation

*Screws are not delivered
 **Ordering key for Plenum box on page 184

SELECTION DIAGRAM

Pressure drop and sound power levels - DVF-K-...-H

Size	Q [m³/h]	Damper blade angle					
		0°		45°		90°	
		Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)
300	40	1	>20	1	>20	2	>20
	120	14	27	16	26	29	26
	220	40	40	46	39	86	41
	280	71	50	83	49	153	53
400	60	1	>20	1	>20	3	>20
	240	13	24	17	22	34	24
	420	40	39	52	39	107	41
	580	76	50	101	51	206	52
500	100	1	>20	2	>20	5	>20
	280	12	23	16	22	47	26
	80	34	37	45	37	134	43
	700	71	50	95	51	280	56
600	150	2	>20	2	>20	5	>20
	420	12	23	16	22	39	26
	660	32	38	41	36	101	41
	940	62	50	82	49	200	52

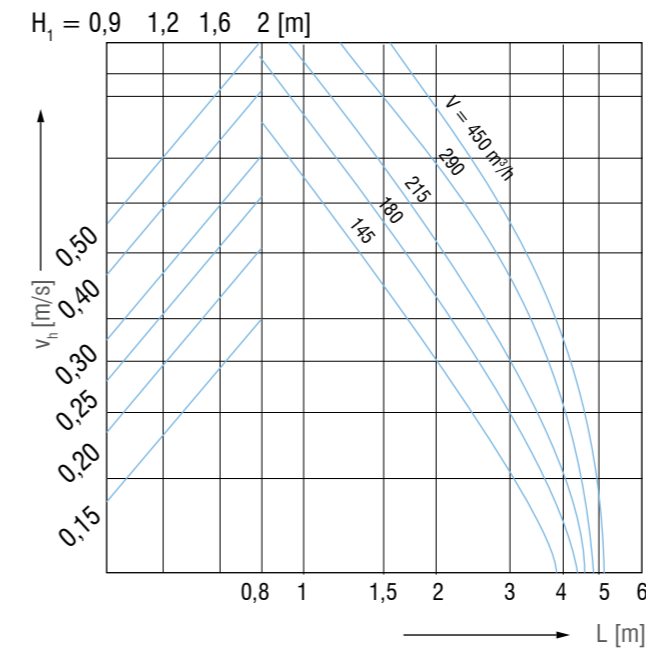
Pressure drop and sound power levels - DVF-O-...-H

Size	Q [m³/h]	Damper blade angle					
		0°		45°		90°	
		Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)
300	40	1	<20	1	<20	2	<20
	120	17	29	20	28	38	28
	220	53	45	63	45	118	45
	280	70	50	82	51	154	51
400	60	1	<20	1	<20	3	<20
	240	12	23	15	22	35	24
	420	39	38	45	38	110	41
	580	76	50	88	50	212	51
500	100	1	<20	2	<20	5	<20
	280	15	23	22	24	58	28
	80	45	39	65	40	171	45
	700	75	50	108	50	287	55
600	150	2	<20	2	<20	5	<20
	420	16	26	21	25	50	30
	660	43	41	56	40	137	46
	940	65	50	86	48	208	53

Pressure drop and sound power levels - DVF-K-...-V

Size	Q [m³/h]	Damper blade angle					
		0°		45°		90°	
		Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)	Δp_i [Pa]	dB(A)
300	40	1	<20	1	<20	2	<20
	120	14	26	16	25	29	25
	220	40	40	46	39	85	40
	280	71	50	83	50	153	51
400	60	1	<20	1	<20	3	<20
	240	12	23	16	25	35	24
	420	39	39	50	40	110	42
	580	71	50	91	51	200	53
500	100	1	<20	2	<20	5	<20
	280	12	23	16	25	46	28
	80	31	37	42	39	121	44
	700	59	50	81	53	232	55
600	150	2	<20	2	<20	5	<20
	420	13	26	19	28	42	32
	660	35	41	48	44	108	48
	940	54	49	74	52	166	57

Core jet velocity



Temperature ratio at a distance L

