

2/S3
v 2.4 (en)



CEILING SWIRL DIFFUSER

DVF

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Definition of symbols:

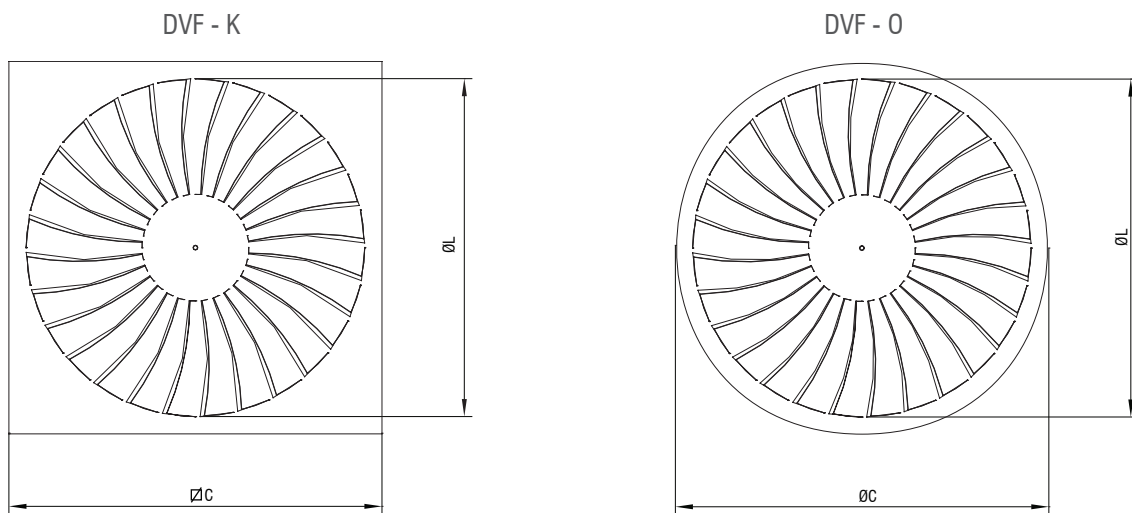
V [m ³ /h]	- Air flow	v_h [m/s]	- Average core velocity at distance h (m) from diffuser
V_{uk} [m ³ /h]	- Total air volume in motion	Δp [Pa]	- Total pressure drop
h [m]	- Distance from the ceiling to the occupied zone	t_p [°C]	- Air temperature in the room
H [m]	- Room height	t_z [°C]	- Supply air temperature
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		


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

Ordering key:

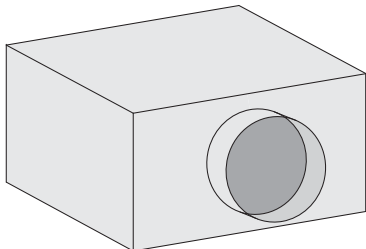
Type	DVF - K - 600 - A - H - ød - Z
K - rectangular plate	
O - round plate	
Size	
A - supply air	
B - exhaust air	
H - horizontal connection	
V - vertical connection	
Connection diameter	
Insulation	
*Screws are not delivered	

CEILING SWIRL DIFFUSER

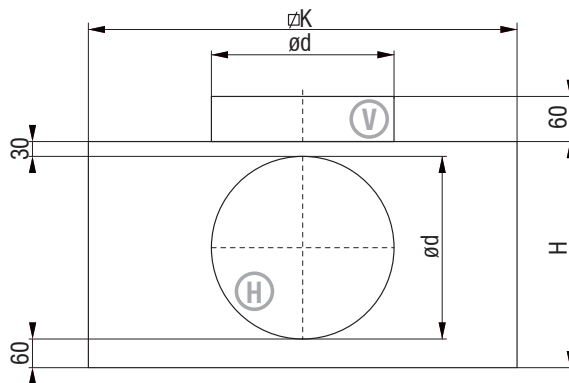
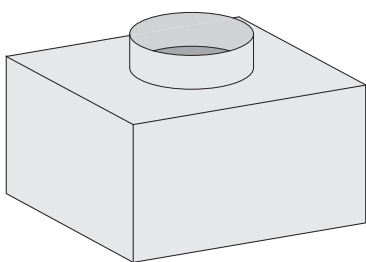
PLENUM BOX

Plenum box UPK1

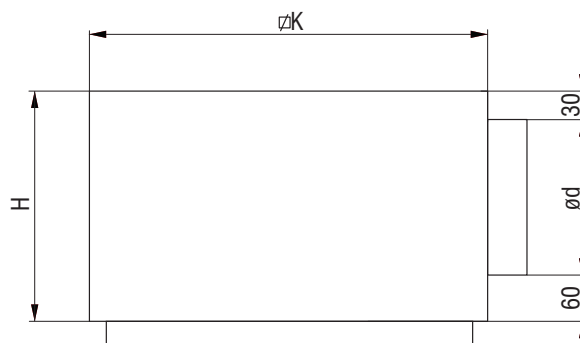
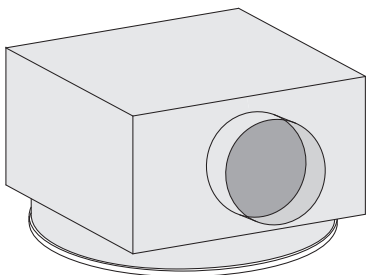
-horizontal connection UPK1 - H



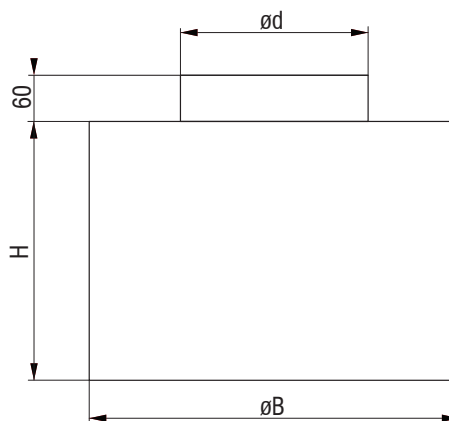
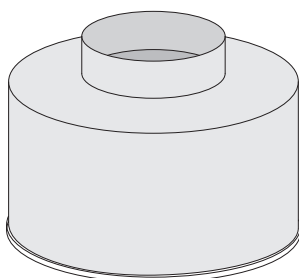
-vertical connection UPK1 - V



Plenum box for round diffuser UPK2



Plenum box for round diffuser UPK3



Plenum box dimensions

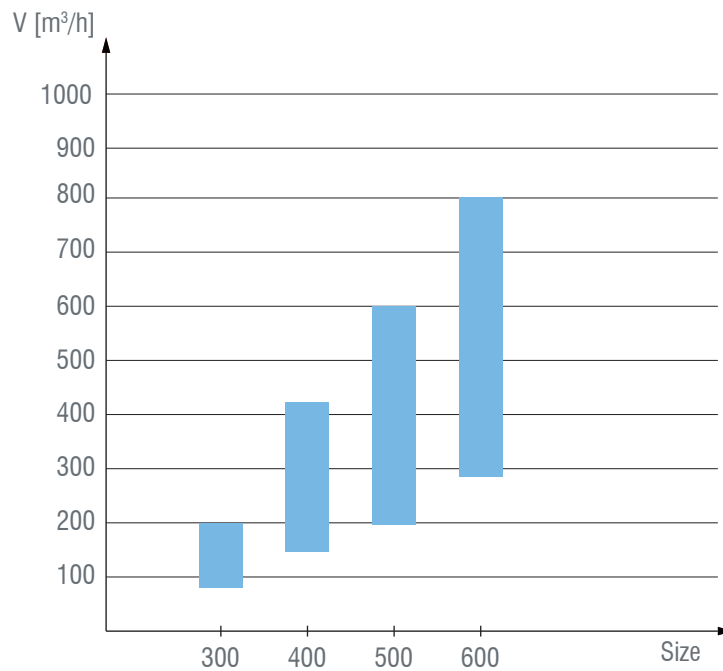
UPK1	$\varnothing K$ [mm]	H [mm]	$\varnothing d$ [mm]
300	284	250	158
400	384	290	198
500	484	290	198
600	590	340	248

UPK2	$\varnothing K$ [mm]	H [mm]	$\varnothing d$ [mm]
300	284	250	158
400	384	290	198
500	484	290	198
600	590	340	248

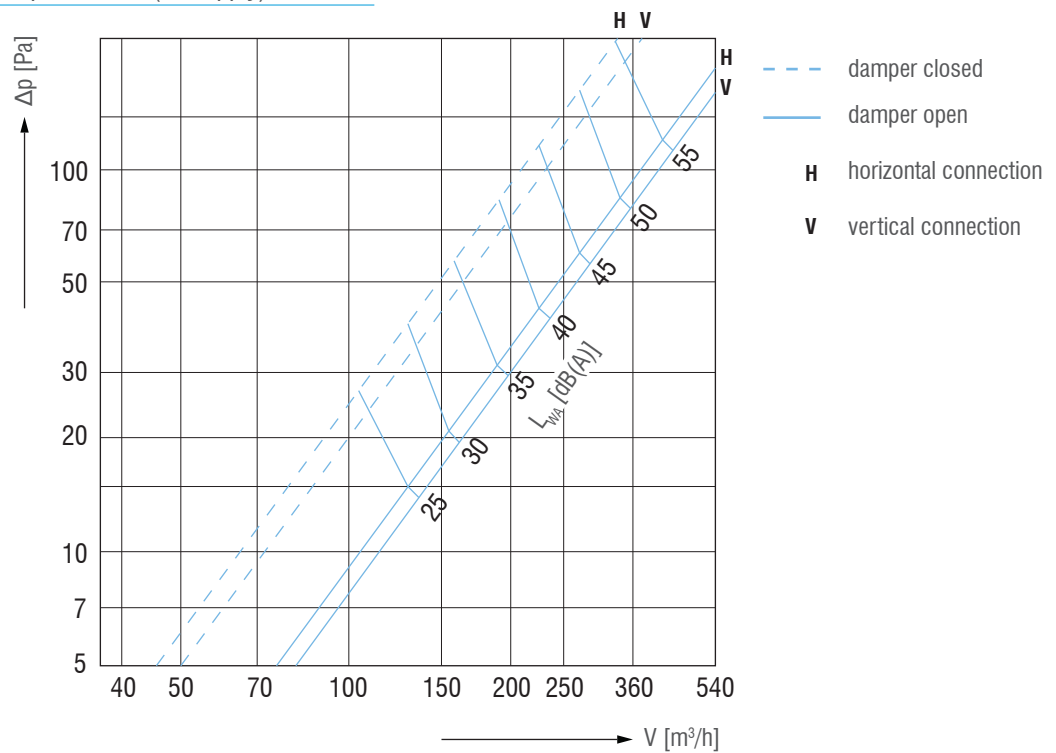
UPK3	K [mm]	H [mm]	$\varnothing d$ [mm]
300	284	200	158
400	384	200	198
500	484	200	198
600	590	200	248

SELECTION DIAGRAM

Fast selection diagram



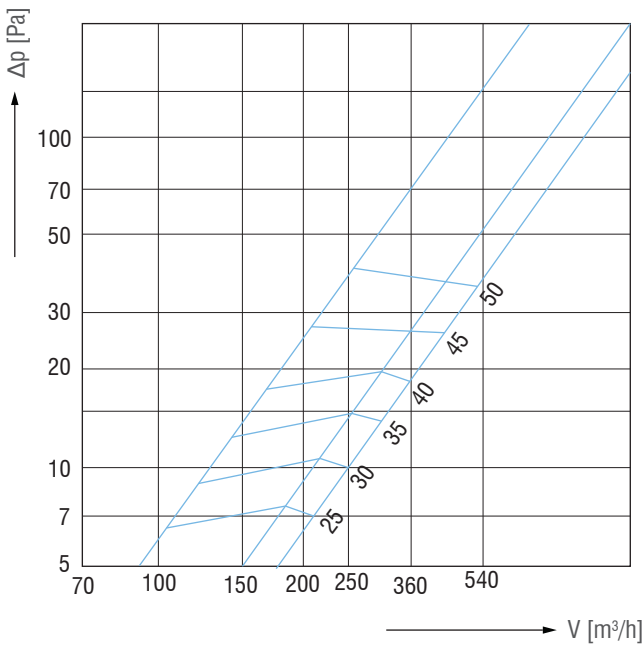
Pressure drop and sound power level (air supply)



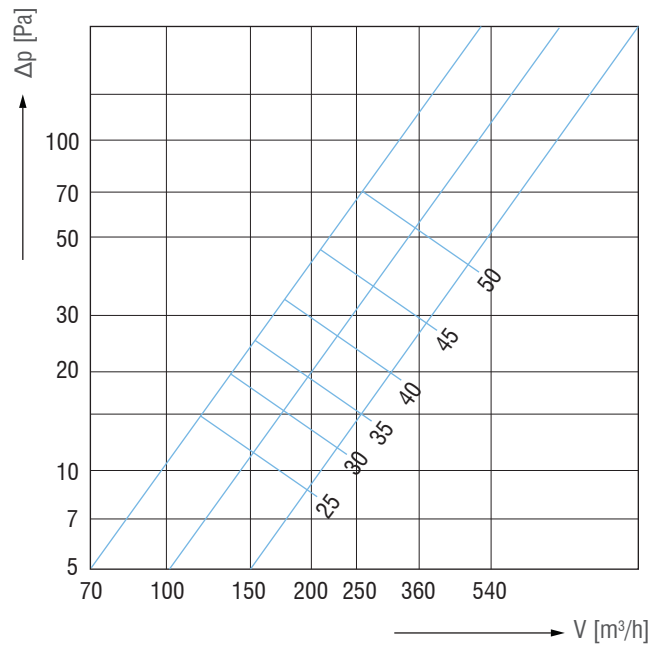
CEILING SWIRL DIFFUSER

Pressure drop and sound power level (exhaust air)

- horizontal connection

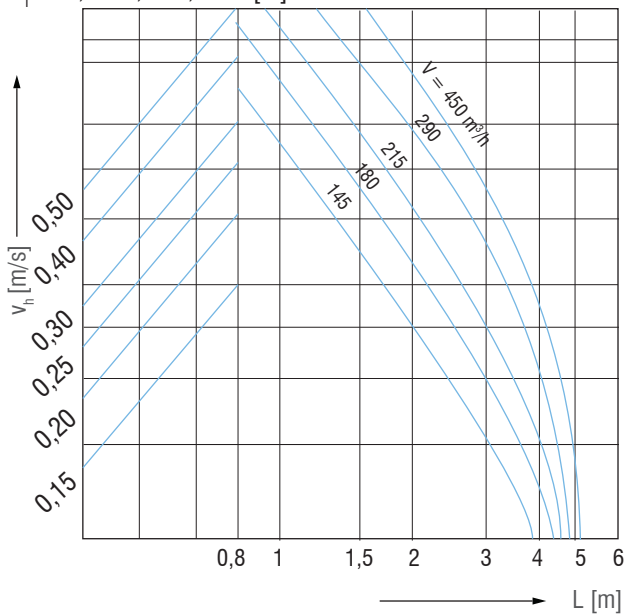


- vertical connection

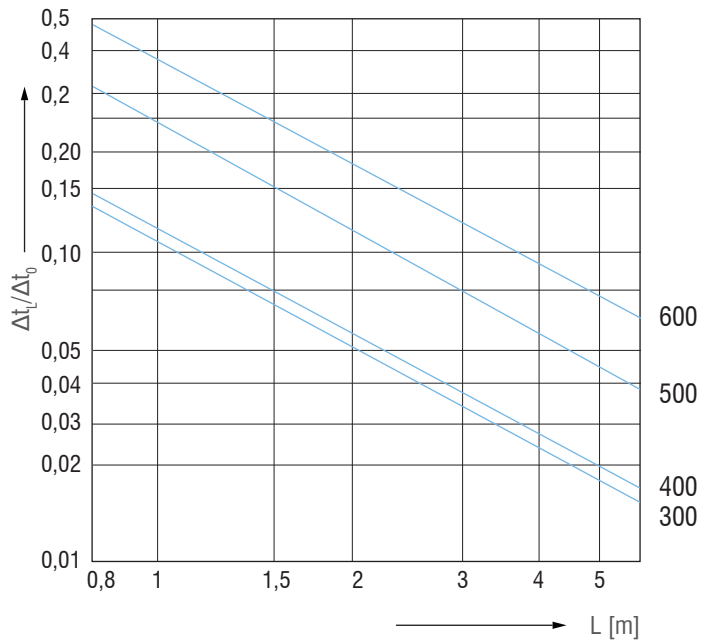


Core jet velocity

$H_1 = 0,9 \quad 1,2 \quad 1,6 \quad 2 \text{ [m]}$



Temperature ratio at a distance L



DISCHARGE DIAGRAM

