

AIR DISPLACEMENT DIFFUSERS

SD

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Definition of symbols:

V [m ³ /h]	- Air flow	t_z [°C]	- Supply air temperature
x [m]	- Distance from the wall	t_p [°C]	- Air temperature in a room
A, B [m]	- Distance between diffusers	t_m [°C]	- Core air temperature
C, X [m]	- Distance between diffusers and walls	Δt_z [K]	- ($t_z - t_p$)
L [m]	- Throw distance $L = x + h$	Δt_L [K]	- ($t_m - t_p$)
v_L [m/s]	- Average core velocity at distance L (m) from a diffuser	Δp_t [Pa]	- Total pressure drop
h [m]	- Distance from the ceiling to the occupied zone	L_{WA} [dB(A)]	- Sound power level
v_n [m/s]	- Average core velocity between two diffusers at distance h [m]		
H [m]	- Room height		

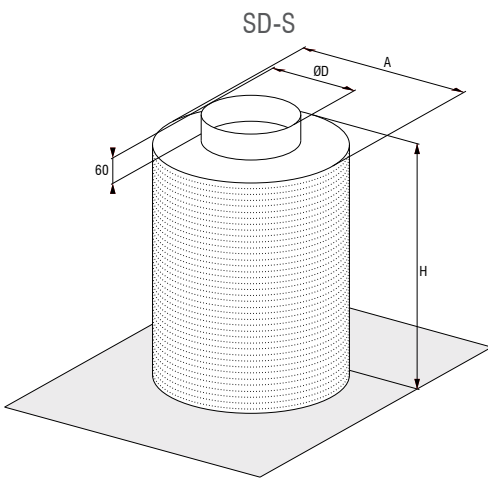


AIR DISPLACEMENT DIFFUSER, TYPE SD

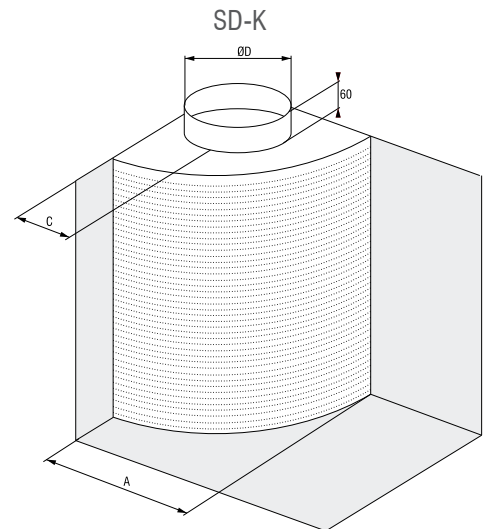
- For cooling and fresh air supply in industrial and commercial spaces
- Low turbulence, low outlet velocity
- Increased air quality in residence areas
- For temperature differences up to 6K
- Made out of steel sheet, standard powder coating RAL 9010
- Standard heights: 750, 1000, 1250 and 1500

Options

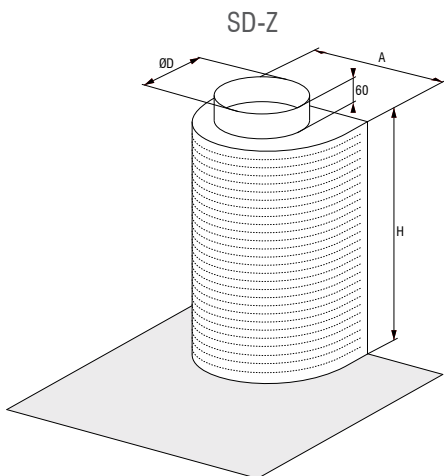
- Models: SD-K - corner diffuser
SD-Z - wall diffuser
SD-S - central diffuser
SD-P - rectangular diffuser
- Damper
- Filter



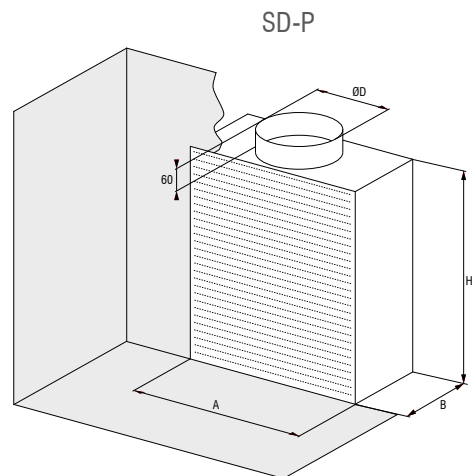
Size	A	øD
400	400	315
600	600	400
800	800	450
1000	1000	500



Size	A	C	øD
800	400	170	200
1000	500	210	250
1200	600	250	250
1400	700	290	315



Size	A	B	C	øD
400	400	320	150	200
600	600	470	230	250
800	800	570	250	315
1000	1000	620	280	355

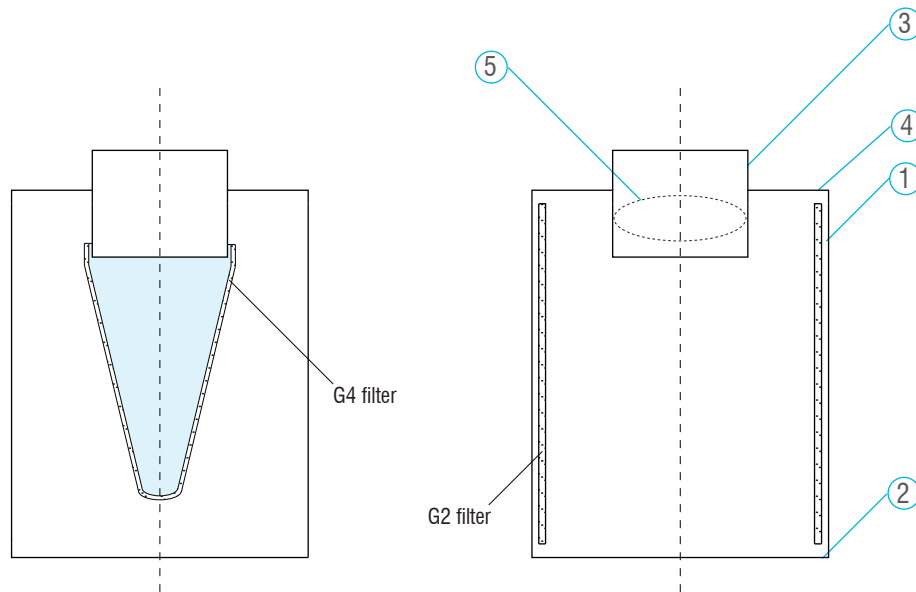


Size	A	B	øD
400	400	300	200
600	600	350	250
800	800	350	250
1000	1000	400	315
1500	1500	400	298
2000	2000	450	313

AIR DISPLACEMENT DIFFUSERS

Filter

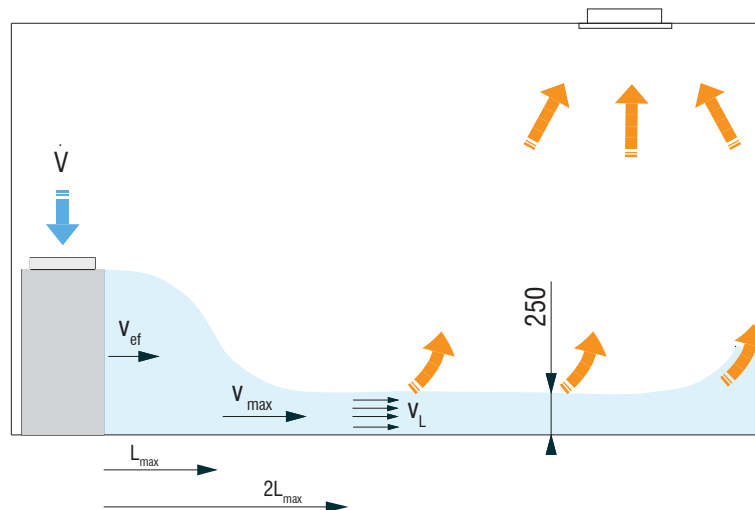
- 1 - Perforated sheet
- 2 - Bottom plate
- 3 - Round connection
- 4 - Cover plate
- 5 - Damper



G4 - conical stabilization filter placed inside diffuser, made out of G4 class filtration material.

G2 - inner side of diffuser covered in black G2 class filtration material.

Discharge pattern



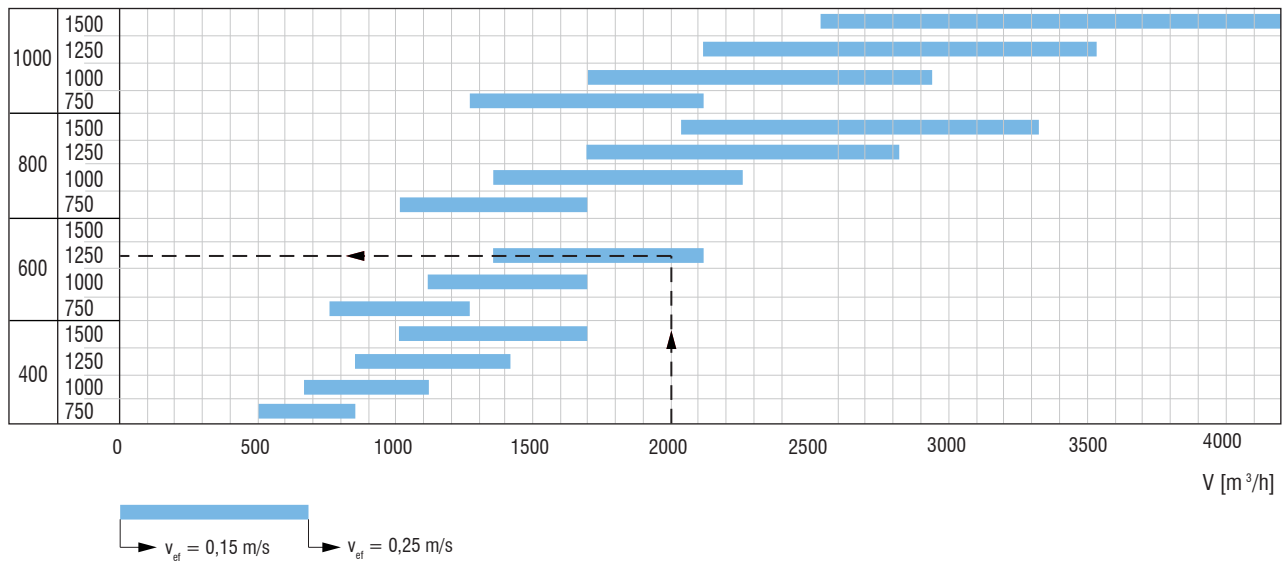
Ordering key

Air displacement diffuser **SD - S - øD - H - R - G2 - RAL...**

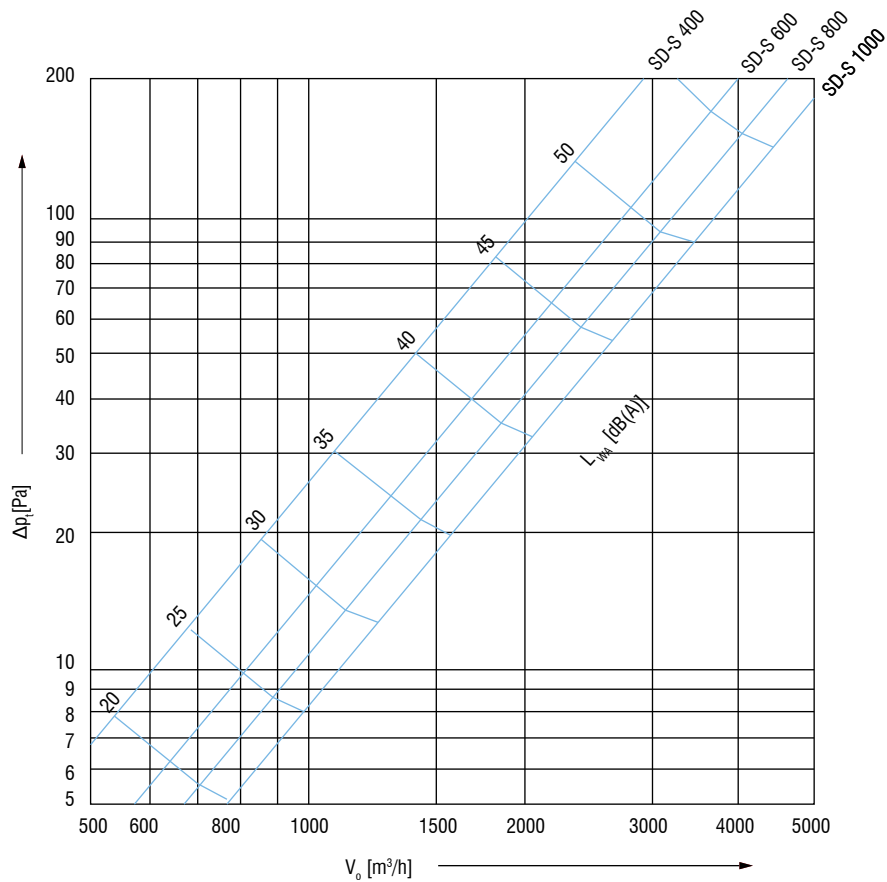
S - central
K - corner
Z - wall
P - rectangular
 Connection diameter (**øD, BxH**)
 Diffuser height
 Damper
 Filter **G2..G4**

SELECTION DIAGRAMS

Fast selection diagram SD-S



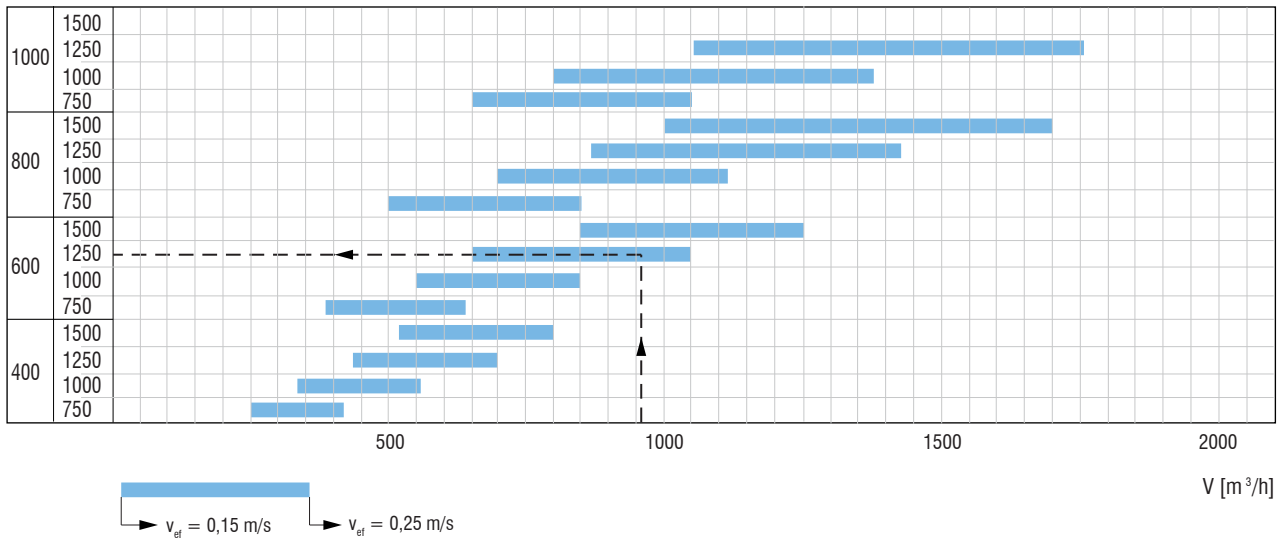
Pressure drop and sound power level



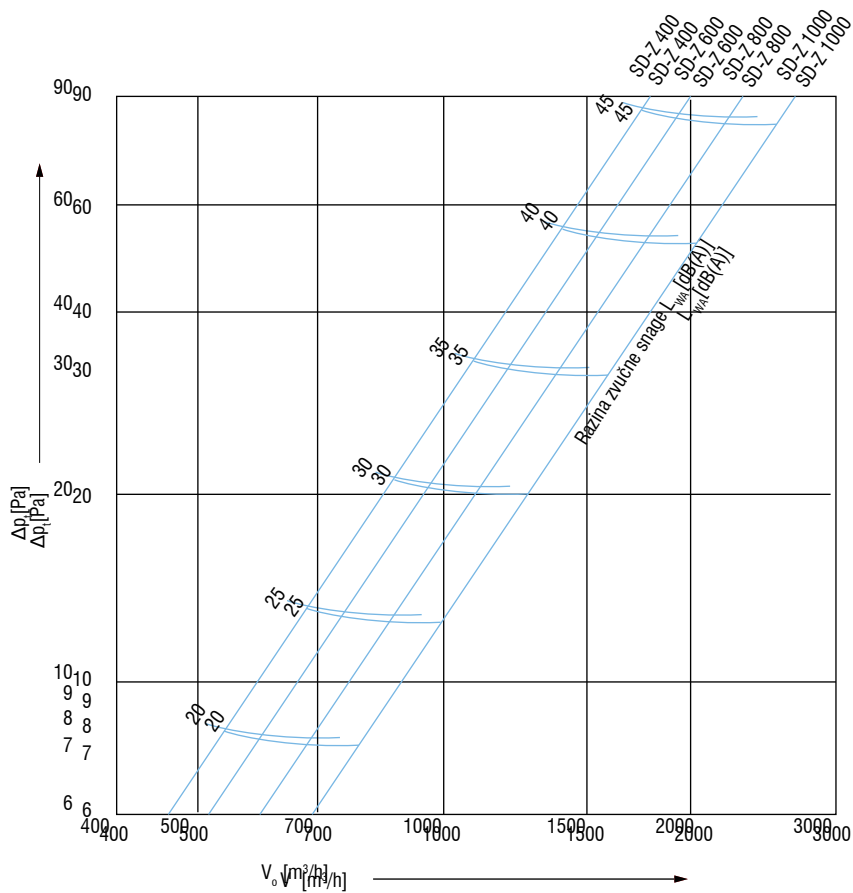
Correction values

H [mm]	750	1000	1250	1500
Δp_t [Pa]	x 1,25	x 1,00	x 0,80	x 0,65
L_{WA} [dB(A)]	+3	± 0	-3	-6

Fast selection diagram SD-Z



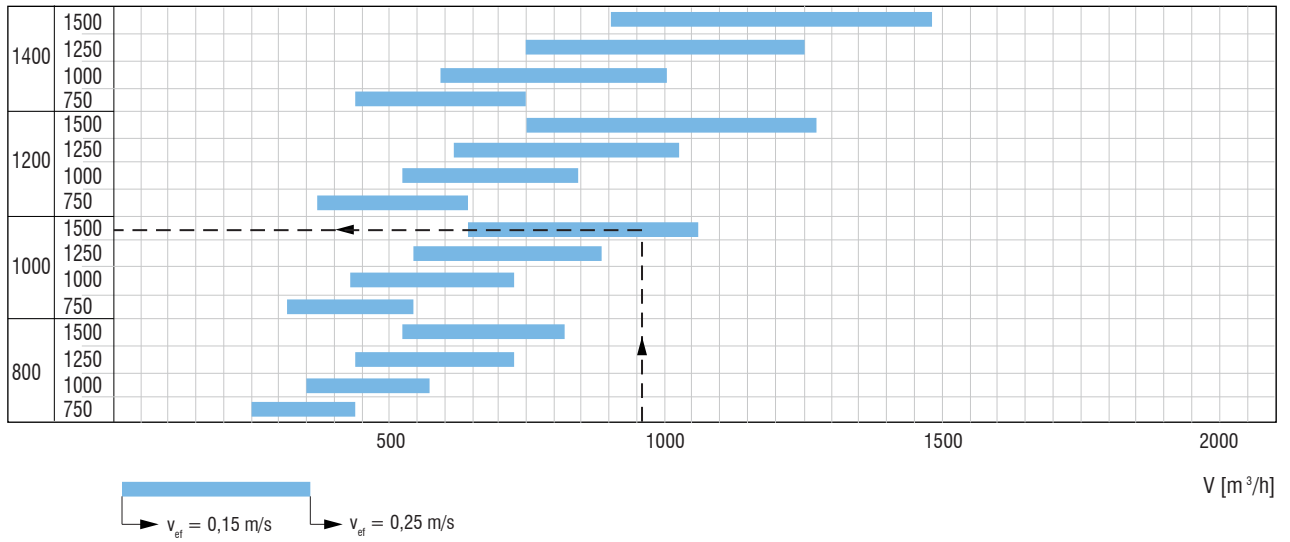
Pressure drop and sound power level



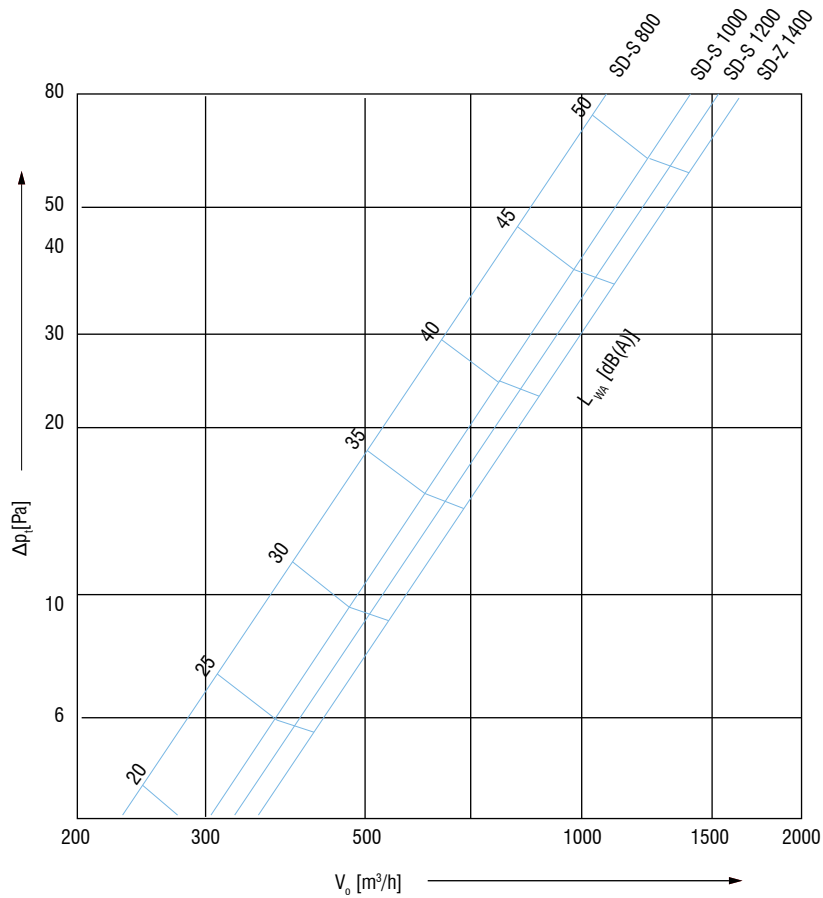
Correction values

H [mm]	750	1000	1250	1500
Δp_t [Pa]	x 1,25	x 1,00	x 0,80	x 0,65
L_{WA} [dB(A)]	+3	± 0	-3	-6

Fast selection diagram SD-K



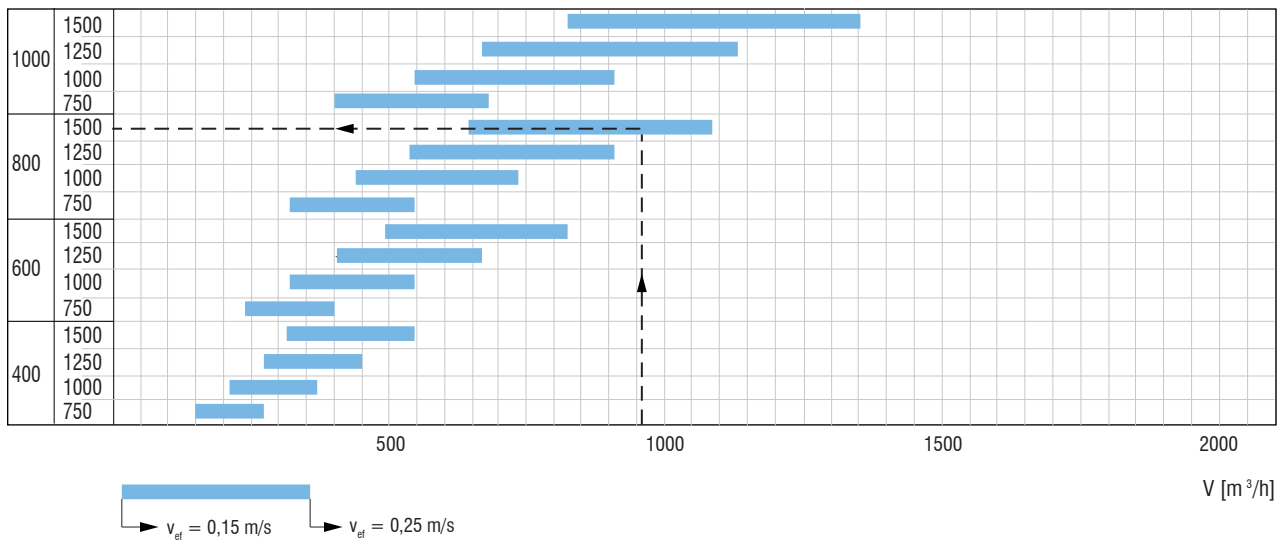
Pressure drop and sound power level



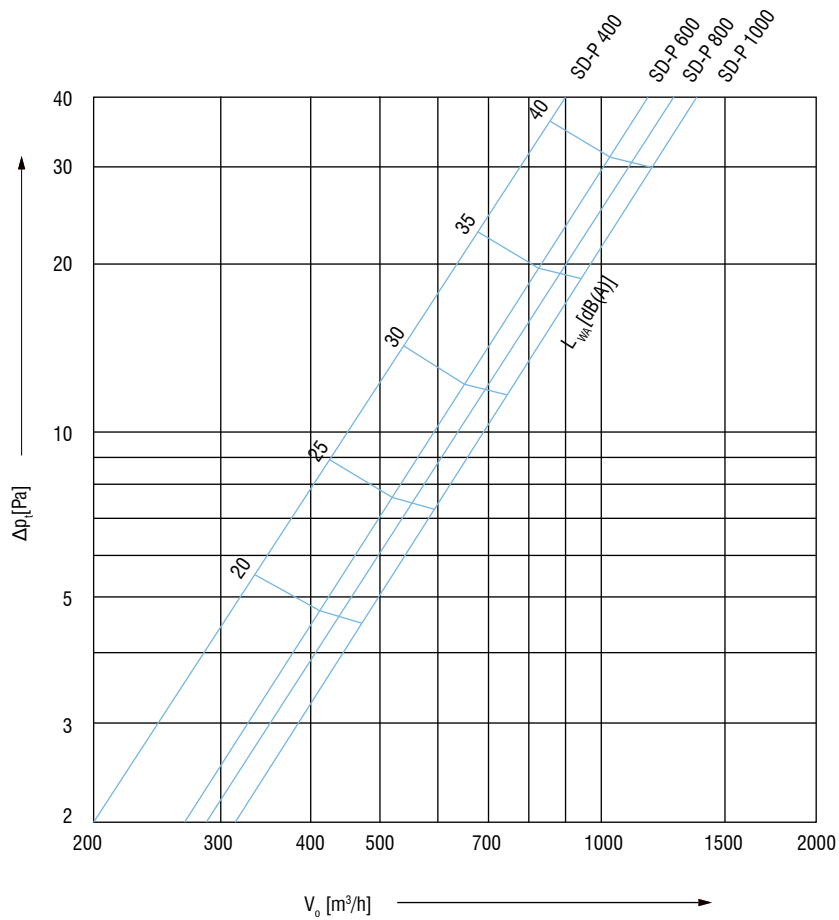
Correction values

H [mm]	750	1000	1250	1500
Δp_t [Pa]	x 1,25	x 1,00	x 0,80	x 0,65
L_{WA} [dB(A)]	+3	± 0	-3	-6

Fast selection diagram SD-P



Pressure drop and sound power level



Correction values

H [mm]	750	1000	1250	1500
Δp_l [Pa]	x 1,25	x 1,00	x 0,80	x 0,65
L_{wa} [dB(A)]	+3	± 0	-3	-6

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