

2/S7
v 3.3 (en)

CEILING SWIRL DIFFUSER

DK

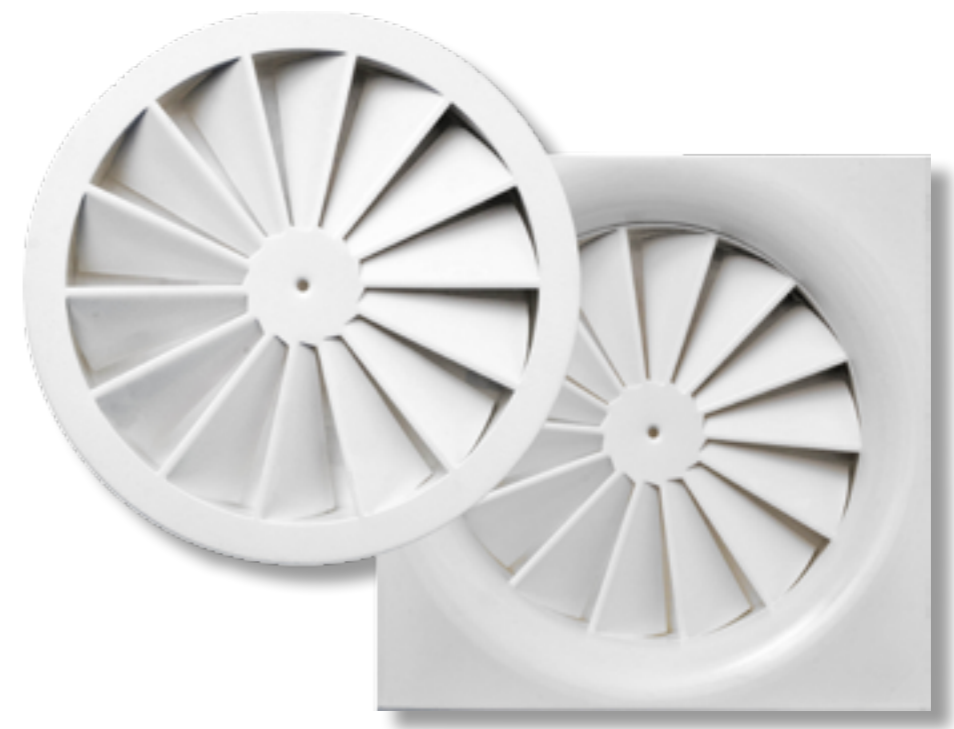


TABLE OF CONTENTS

Ceiling swirl diffuser, type DK.....	115
Ordering key.....	116
Selection diagram.....	116
Discharge diagram.....	121



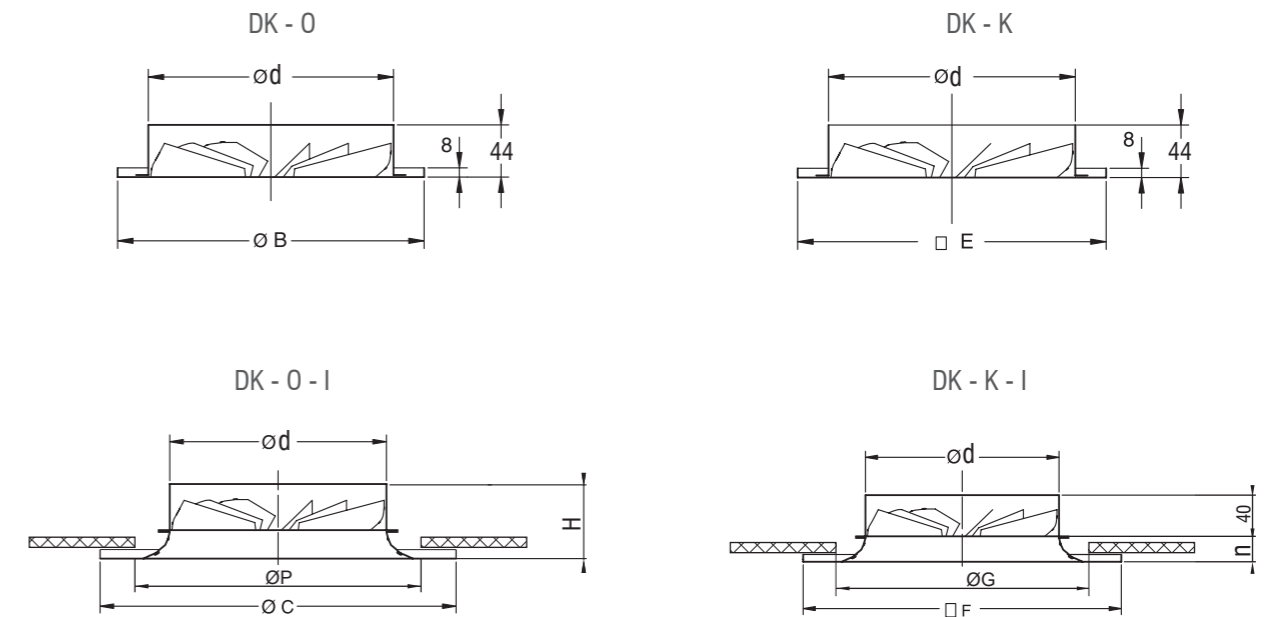
DK

- Ceiling swirl diffuser for room heights from 2,6 to 4m.
- Made out of steel sheet, standard RAL 9010
- Designed for air supply in heating or cooling operations
- Plenum box made from galvanized steel sheet
- Fixing with central screw

Options

- Plenum box
- Round or square model

Models and dimensions



**Minimal ceiling opening: øP - for round diffuser plate
øG - for square diffuser plate

Round model dimensions

Size	ød [mm]	øB [mm]	øC [mm]	H [mm]	øP [mm]	□E [mm]	□F [mm]	øG [mm]	Z [mm]	A _{ef} [m ²]	UPK2
125	132	178	200	62	185	178	198	180	50	0,0029	300/ø98
160	158	195	250	80	220	195	248	190	50	0,0062	300/ø123
200	198	248	300	100	280	248	248	230	50	0,0095	300/ø158
250	248	296	350	120	345	296	298	280	50	0,0158	500/ø198
315	313	363	450	150	425	363	398	350	50	0,027	600/ø248
400	398	600	570	180	530	600	594	570	65	0,036	625/ø313

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		

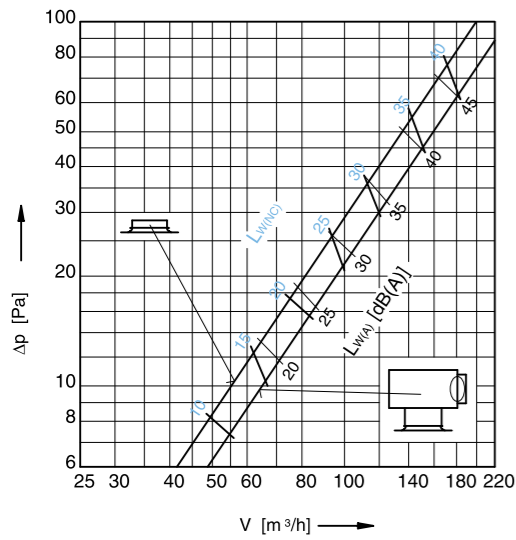
Ordering key

Type	DK - O - I - 250 - A - H - ød - Z
K - square diffuser plate	
O - round diffuser plate	
Discharge nozzle	
Standard size	
A - supply air	
B - exhaust air	
H - horizontal connection	
V - vertical connection	
Connection diameter	
Insulation	

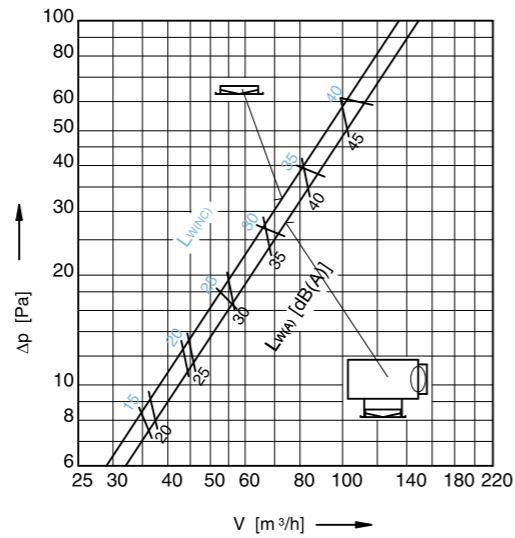
*Ordering key for Plenum box on page 184
 **Only plenum box UPK2

SELECTION DIAGRAMS

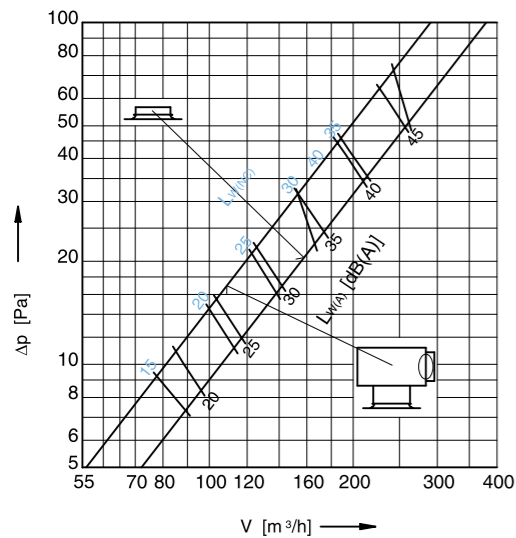
Sound power level and pressure drop diagram DK - I 125



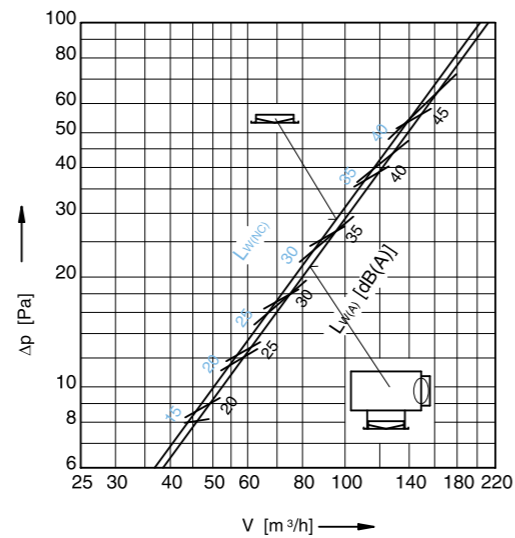
Sound power level and pressure drop diagram DK 125



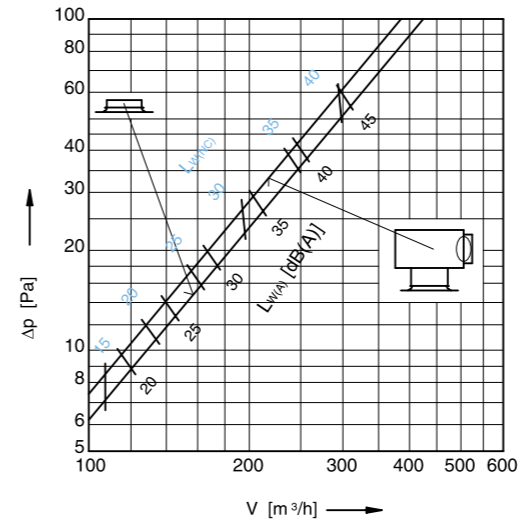
Sound power level and pressure drop diagram DK - I 160



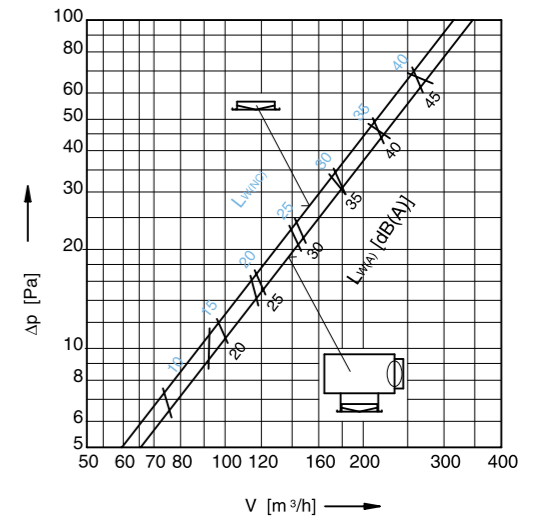
Sound power level and pressure drop diagram DK 160



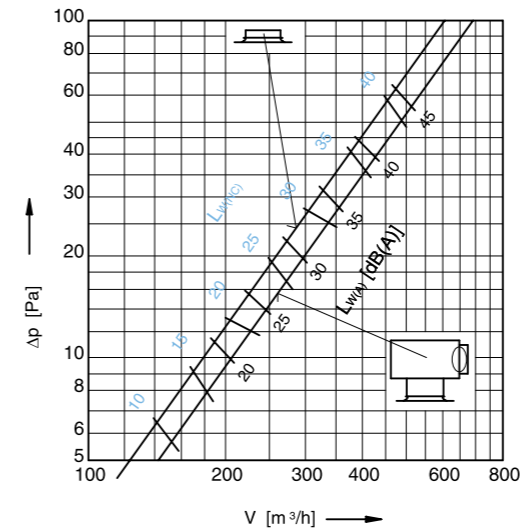
Sound power level and pressure drop diagram DK 200 - I



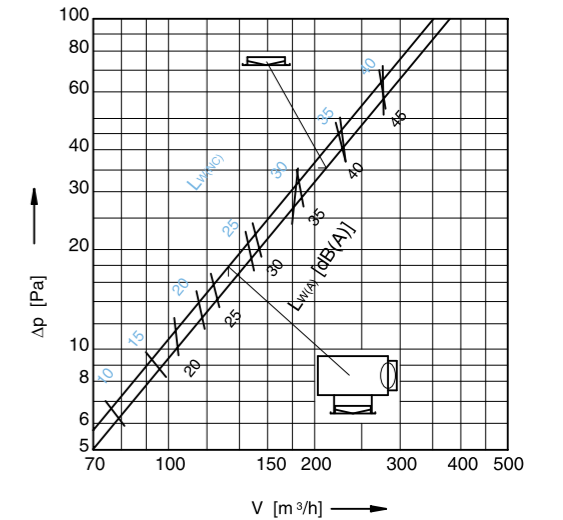
Sound power level and pressure drop diagram DK 200



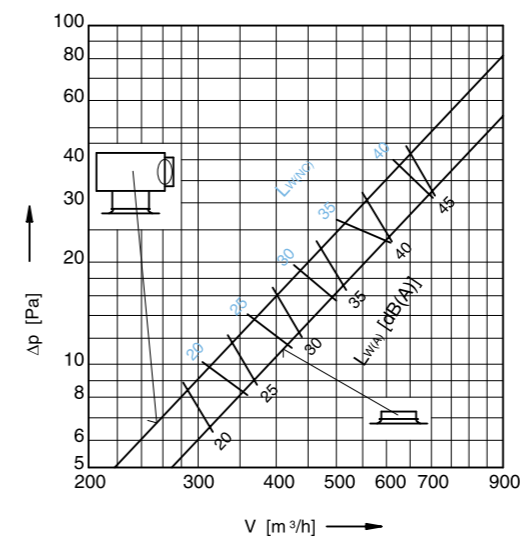
Sound power level and pressure drop diagram DK 250 - I



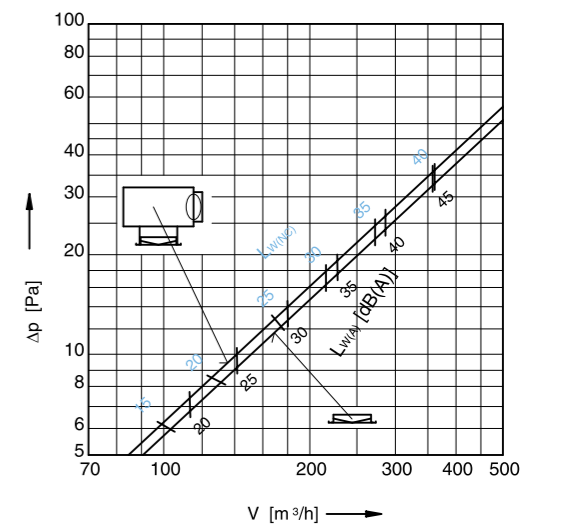
Sound power level and pressure drop diagram DK 250



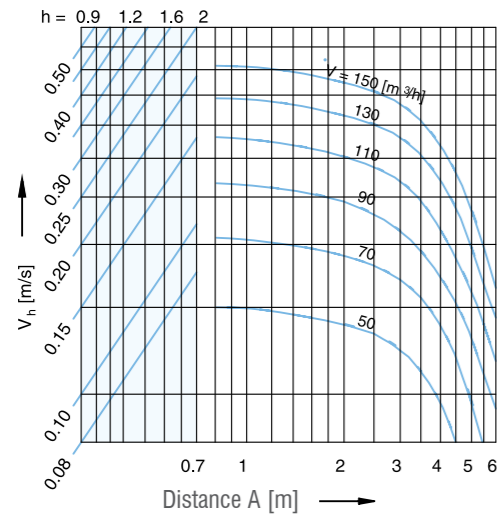
Sound power level and pressure drop diagram DK 315 - I



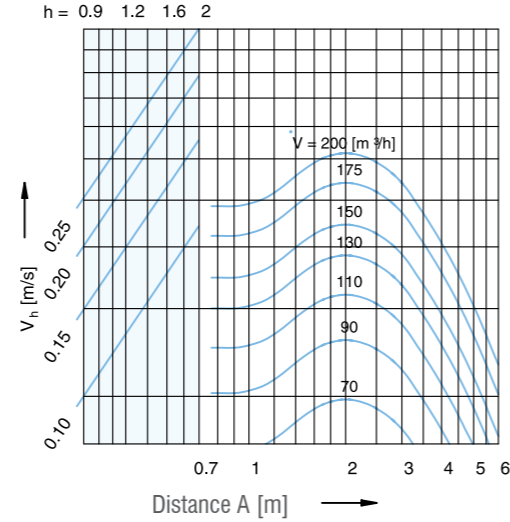
Sound power level and pressure drop diagram DK 315



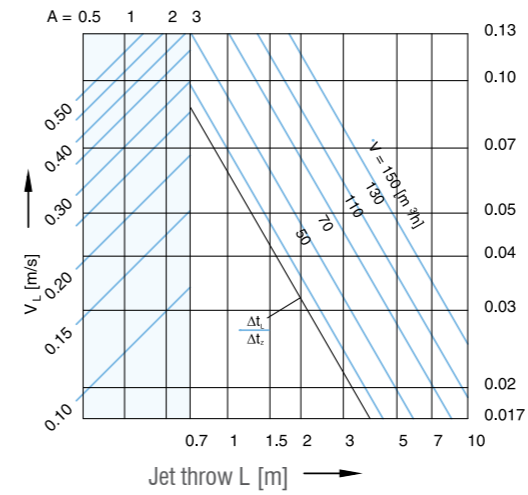
Diffuser arrangement - DK 125
(more than one row, if B = 2,80 m)



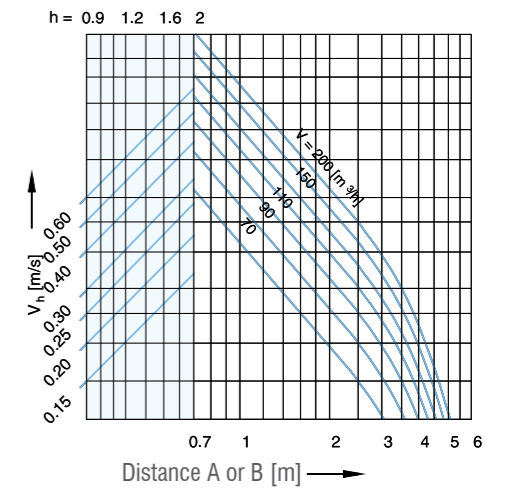
Diffuser arrangement - DK 125
(single or more than one row, if B ≥ 4,00 m)



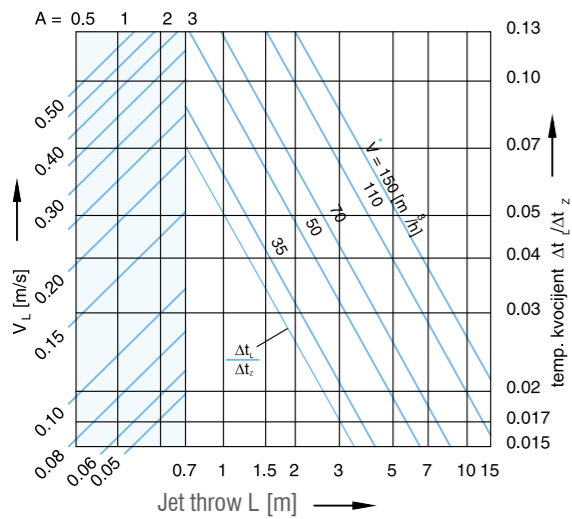
Air velocity at the wall - DK 160



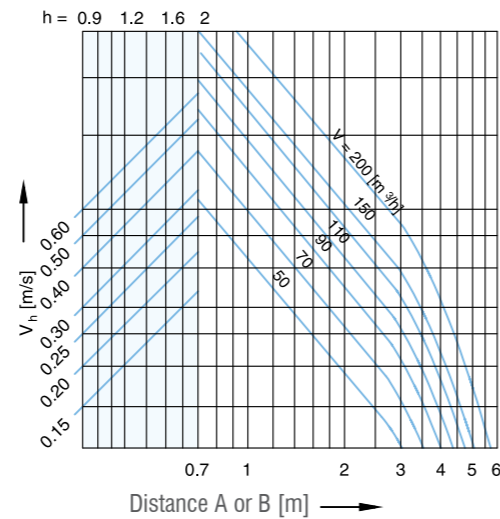
Square diffuser - DK 160



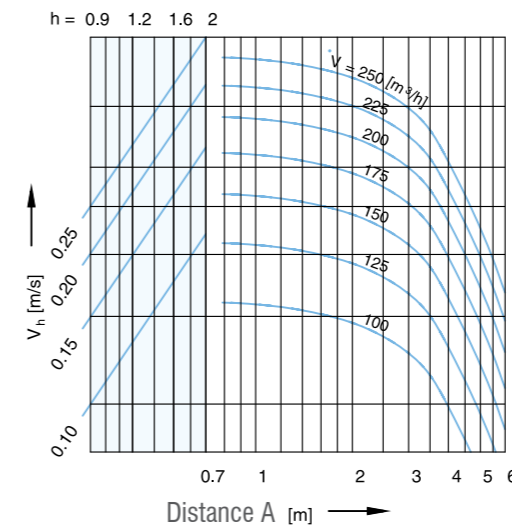
Air velocity at the wall - DK 125



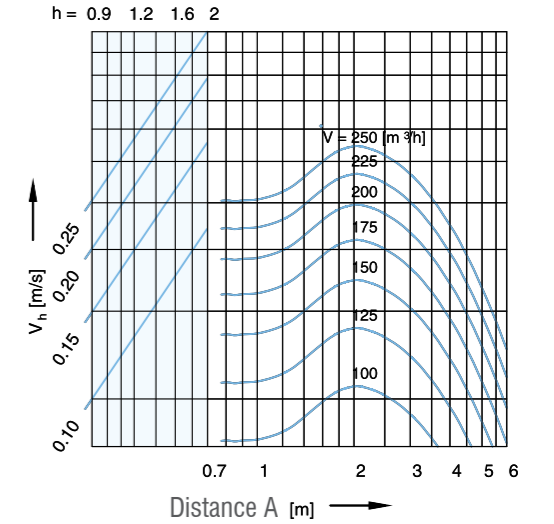
Square diffuser - DK 125



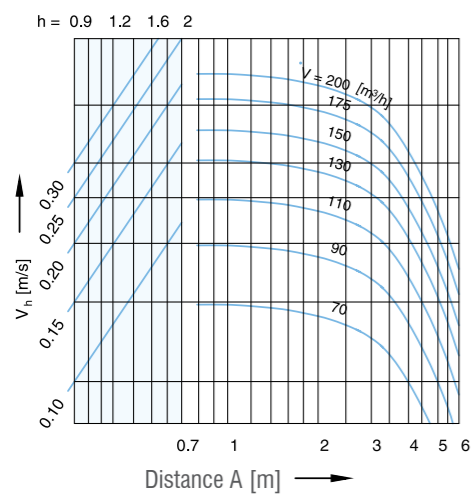
Diffuser arrangement - DK 200
(more than one row, if B = 2,80 m)



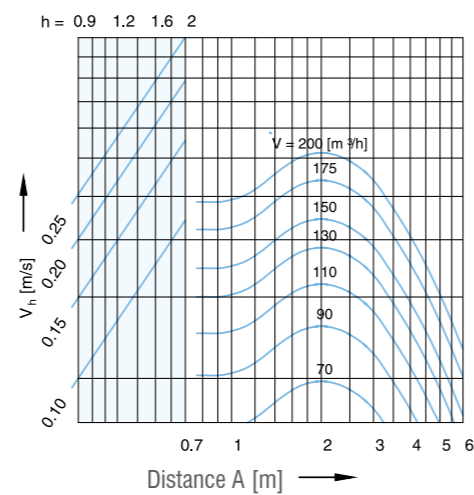
Diffuser arrangement - DK 200
(single or more than one row, if B ≥ 4,00 m)



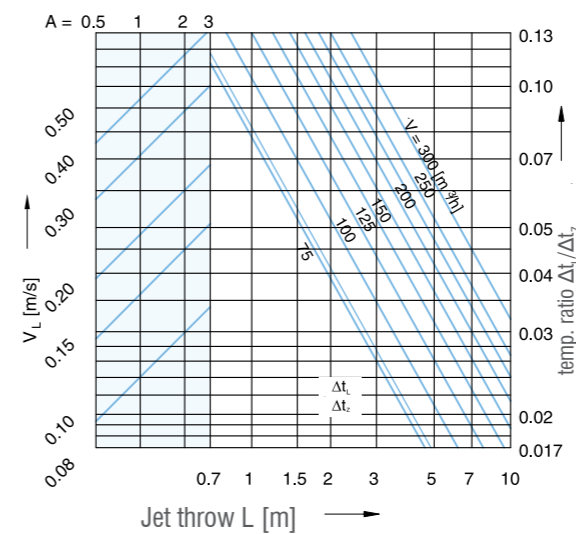
Diffuser arrangement - DK 160
(more than one row, if B = 2,80 m)



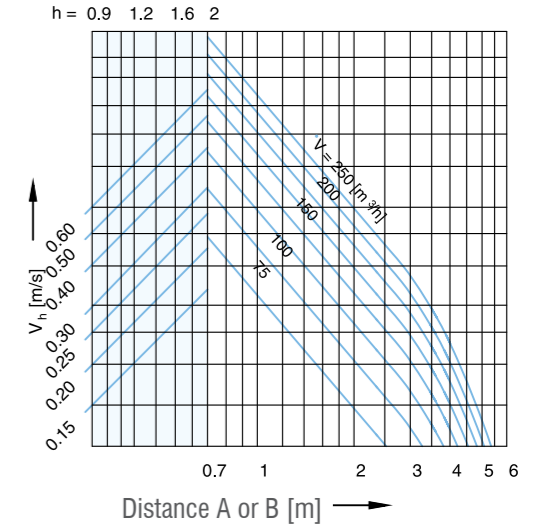
Diffuser arrangement - DK 160
(single or more than one row, if B ≥ 4,00 m)



Air velocity at the wall - DK 200



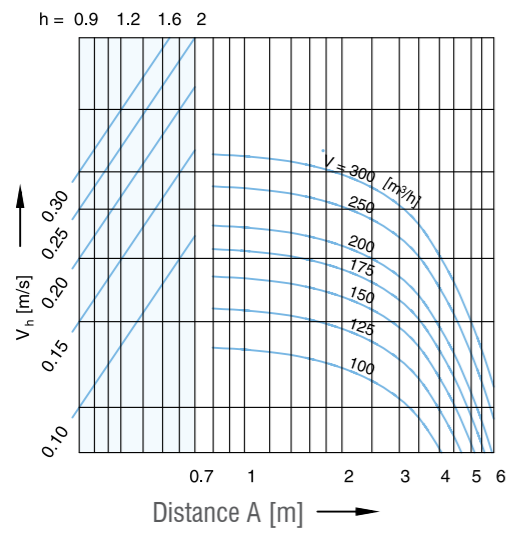
Square diffuser - DK 200



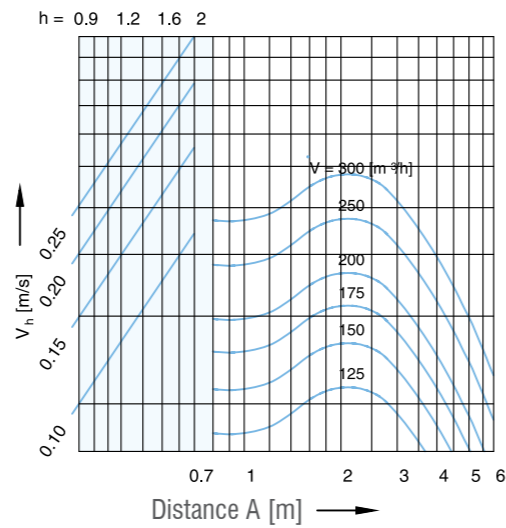
CEILING SWIRL DIFFUSER

CEILING SWIRL DIFFUSER

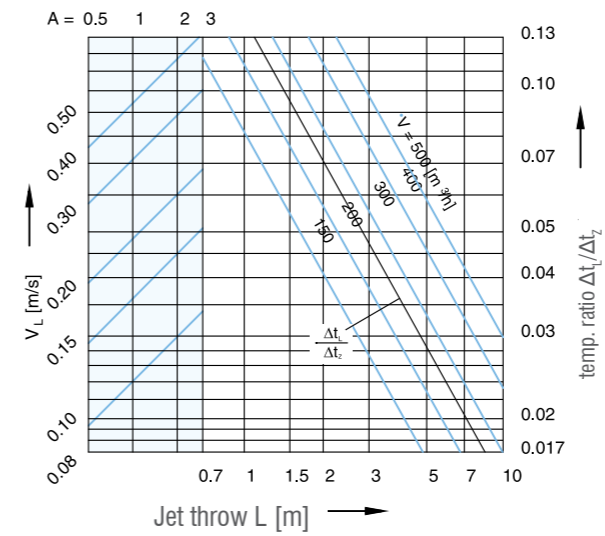
Diffuser arrangement - DK 250
(more than one row, if B = 2,80 m)



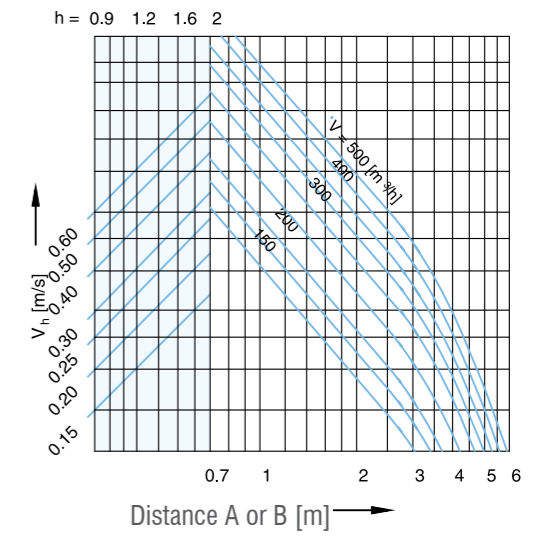
Diffuser arrangement - DK 250
(single or more than one row, if B ≥ 4,00 m)



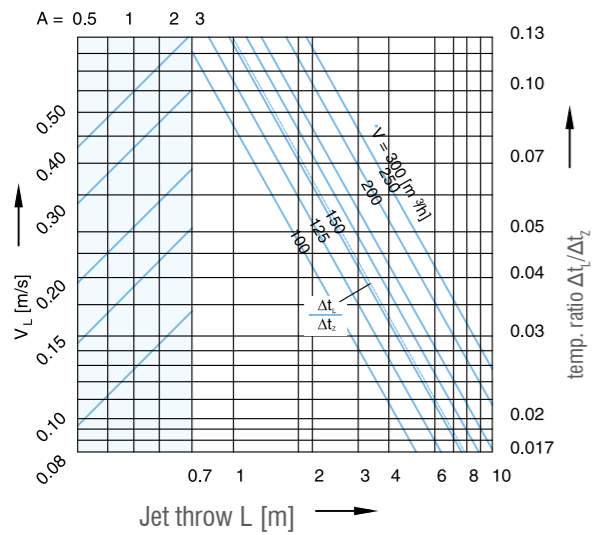
Air velocity at the wall - DK 315



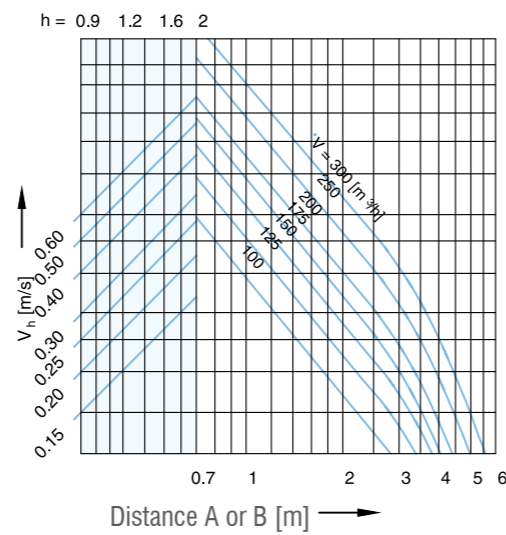
Square diffuser - DK 315



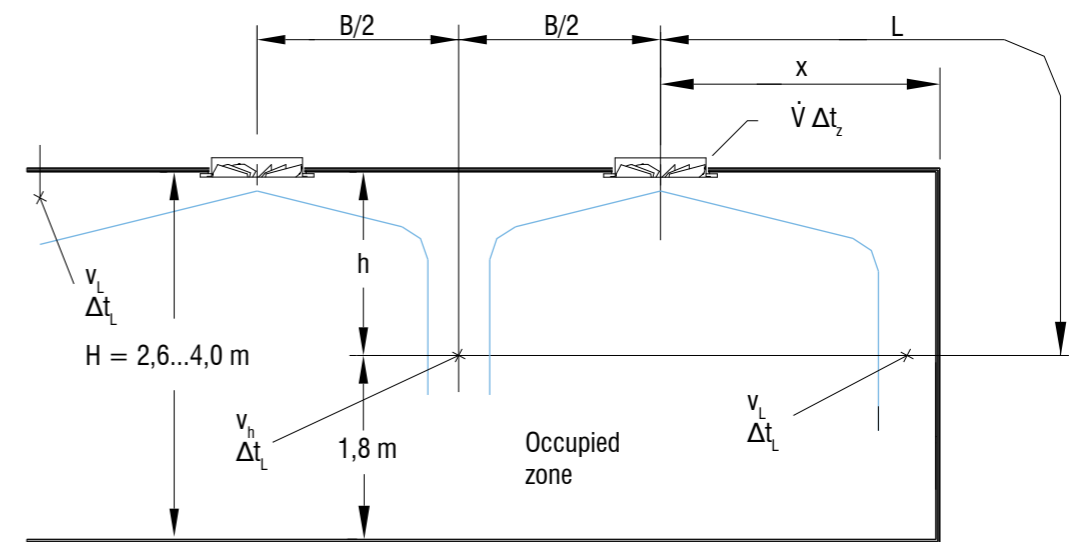
Air velocity at the wall - DK 250



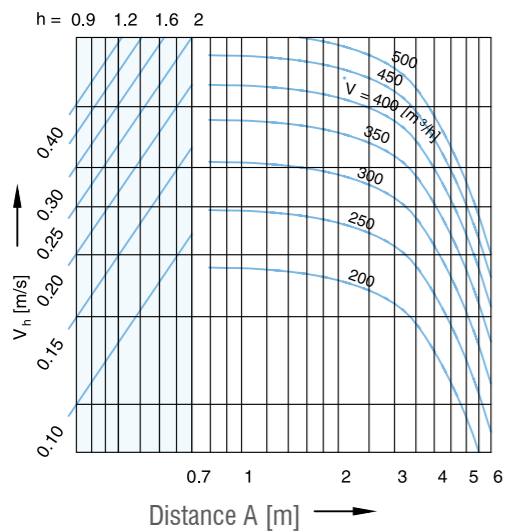
Square diffuser - DK 250



DISCHARGE DIAGRAM



Diffuser arrangement - DK 315
(more than one row, if B = 2,80 m)



Diffuser arrangement - DK 315
(single or more than one row, if B ≥ 4,00 m)

