



Ceiling swirl diffuser

DHV



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Ceiling swirl diffuser DHV

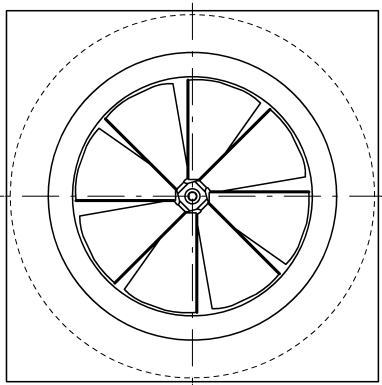
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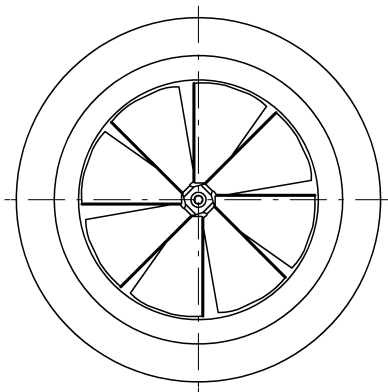
Ceiling swirl diffuser DHV

Overview of product versions

DHV-Q-...



DHV-R-... / DHV-K-...



Description

The ceiling swirl diffuser DHV is used to supply air without causing draughts in rooms up to 4 m high. A high induction is ensured by a special design of the **fixed swirl impellers**. This increased induction causes the temperature difference and velocity to be rapidly reduced. The supply air enters the room horizontally. This diffuser was designed **especially for cooling and isothermal supply air pattern** and is suitable for constant and variable volumetric flows from 100% to 40%.

A volumetric flow meter (-VME1) can be integrated in the connection spigot of the plenum box at an extra charge. The measurement error of the volumetric flow meter is $\pm 5\%$ at a spigot velocity of 2–5 m/s and a straight flow pattern of at least $1 \times D$. The measurement is carried out with integrated diffuser. By adjusting the damper (-DK1) in the plenum box, the required air volume of each diffuser can be set quickly and correctly.

For plenum boxes SK-R-..., the ceiling diffuser must be removed, before the damper can be adjusted. Alternatively, a cable-operated adjustment can be ordered at an extra charge, which allows the damper to be adjusted on the room side even with mounted diffuser.

Special model

If, for constructional reasons (e.g. ceiling grid), a particular faceplate size has been defined, it is possible to use a larger faceplate up to a size of max. 623x623 mm. If a plenum box is required, it will be delivered, as a standard feature, in the same size as the DHV and not in the size of the faceplate.

Construction

Faceplate, inlet and swirl impellers

- made of painted sheet steel (-SB-...) (only DHV-Q/R-... NW 100):
 - RAL colour 9010 (white) (-9010, standard)
 - RAL colour can be freely selected (-xxxx, always with 4 digits)
- made of painted aluminium (-AL-...) (only DHV-Q/R-... NW 125-400):
 - RAL colour 9010 (white) (-9010, standard)
 - RAL colour can be freely selected (-xxxx, always with 4 digits)
- made of plastic material, RAL colour 9010 (white) (-K-9010) (only NW 125-250)

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Model

- DHV-Q-... - with square faceplate and inlet nozzle, NW 100-400 (NW 100 made of sheet steel / NW 125-400 made of aluminium)
- DHV-R-... - with round front plate and inlet nozzle NW 100-400 (NW 100 made of sheet steel / NW 125-400 made of aluminium)
- DHV-K-... - with round front plate and inlet nozzle NW 125-250 (made of plastic)
- DHV-...-Z- - supply air
- DHV-...-A- - return air

Accessories

- Panelled cover plate (-PA000/-PA...)
 - without panelled cover plate (-P0000) (standard)
 - with panelled cover plate, made of sheet steel, painted to the selected colour (not possible for DHV-R)
- Transition piece (-U0/-US)
 - without transition piece (-U0) (standard)
 - with transition piece (-US) (natural aluminium, with internal counter pole brace for concealed mounting (VM), with integrated perforated straightener, for ceiling panels up to 20 mm thick (not possible for NW 400) (only possible with concealed mounting VM)
- Plenum box (SK-R-09-...) with square design, for round air diffusers with round diffuser support, suitable for DHV-..., made of galvanised sheet steel (-SV), with fixing lugs.
 - Type of air:
 - supply air (-Z), with air diffuser plate.
 - return air (-A)
 - Fastening:
 - Concealed mounting (-VM, standard)
 - Damper:
 - Without damper (-DK0) (standard)
 - with damper in plenum box/connection spigot, adjustable from below, for easy air volume regulation without dismantling the faceplate.
 - without cable-operated adjustment (-DK1)
 - with cable-operated adjustment (-DK2)
 - Rubber lip seal:
 - without rubber lip seal (-GD0) (standard)
 - with rubber lip seal (-GD1), made of special rubber, at the connection spigot
 - Volumetric flow meter:
 - without volumetric flow meter (-VME0) (standard)
 - with volumetric flow meter (-VME1) (not for use with a damper)

- ROB version:
 - without ROB version (-ROB0) (standard)
- Insulation:
 - without insulation (-I0) (standard)
 - with internal insulation (-Ii), thermal insulation inside the plenum box
 - with external insulation (-Ia), thermal insulation on the outside of the plenum box
- Height of box:
 - Standard height of plenum box (-KHS)
 - height of box in mm, freely selectable (always with 3 digits)
 - (Min. height of plenum box [KHS] for NW 100-315 = spigot diameter $\varnothing D + 137$ mm, but at least 235 mm, for NW 400 = spigot diameter $\varnothing D + 242$ mm, but at least 340 mm) (With SK-R-09-Z-...-DK1/-DK2-...-S0, observe special height of plenum box for NW 100)
- Spigot diameter:
 - Standard spigot diameter (-SDS)
 - spigot diameter (D) in mm, freely selectable (-xxx, always three digits)
- Spigot position:
 - Spigot from above (-S0)
 - 1 lateral spigot on the plenum box (-S1) (standard)
 - 2 lateral spigots, offset by 90° (-S2)
 - 2 lateral spigots, offset by 180° (-S3)
 - 2 spigots arranged next to each other (-S5)

Fastening

Concealed mounting (-VM, standard)

- Counter pole brace on site (without plenum box or transition piece).
- with pole brace fixing (with plenum box or transition piece).
- **Attention: The max. torque of the fastening screw is 0.4 Nm.**

Clamp fastening (-KB)

- only for connection to flexible ducts (without plenum box)

Screw mounting (-SM)

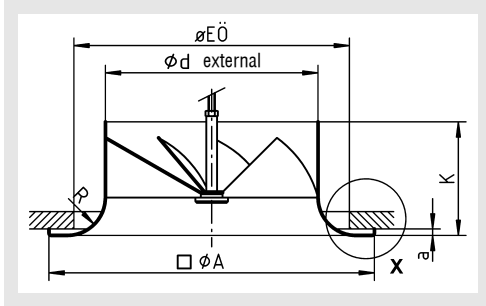
- Standard for panelled cover and for connection to flexible ducts (without plenum box).
number of countersunk screws
Panelled cover and DHV-Q with 4 screws (on site), DHV-R and DHV-K with 3 screws (on site).
Not possible for transition piece (-US).

Ceiling swirl diffuser DHV

Models and dimensions

Dimensions

DHV-...-VM (standard, without plenum box)
for flexible duct connection



Attention: Counter pole brace on site!

Available sizes DHV-...-VM

NW	DHV-Q-...		DHV-R-...		DHV-K-...		ød	øEÖ	K	R
	□ A	a	øA	a	øA	a				
100	160	6	155	1	155	--	98	128	50	15
125	190	6	185	4	185	3	123	144	63	17
160	245	6	240	4	240	3	158	184	80	20
200	305	6	300	5	300	3	198	254	105	35
250	385	6	380	5	380	3	248	324	130	45
315	495	6	490	5	490	--	313	419	170	60
400	635	12	630	8	630	--	398	545	220	80

Attention:

The max. torque of the fastening screw is 0.4 Nm.

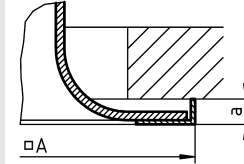
EÖ = Installation opening

Detail X (models)

square faceplate:

made of sheet steel / aluminium

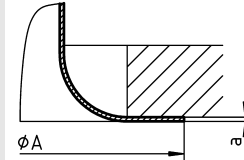
DHV-Q-...-100-...-SB-...
DHV-Q-...-125 to 400-...-AL-...



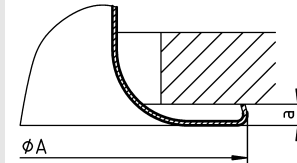
round faceplate:

made of sheet steel / aluminium

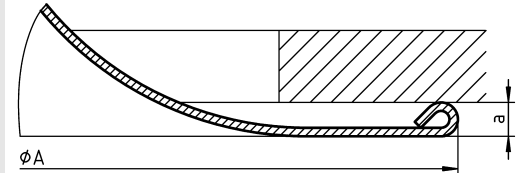
DHV-R-...-100-...-SB-...



DHV-R-...-125 to 315-...-AL-...

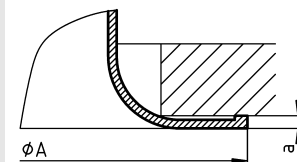


DHV-R-...-400-...-AL-...



made of plastic:

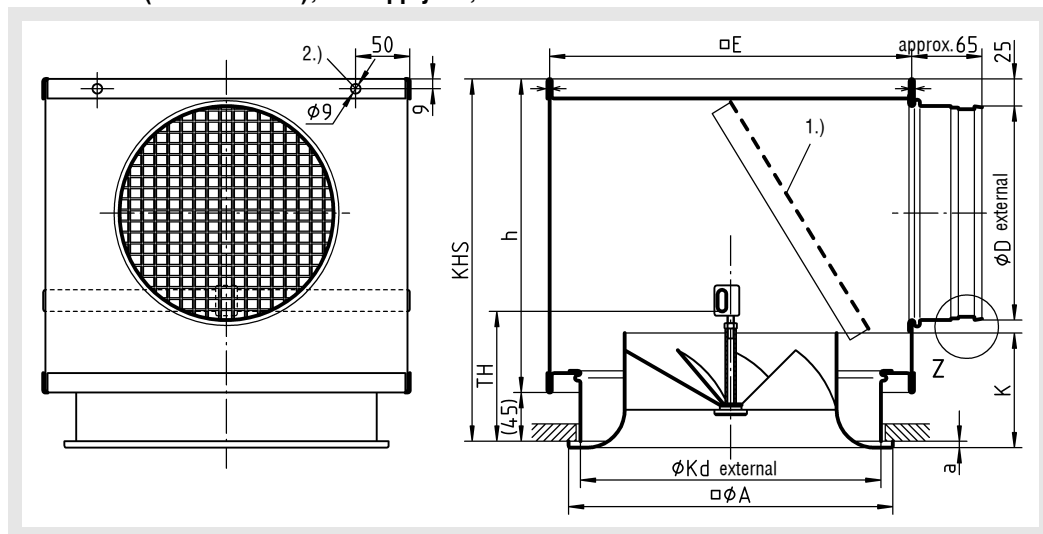
DHV-K-...-125 to 250-...-KU-...



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Accessories - dimensions

Plenum box (SK-R-09-Z-...), for supply air, with VM

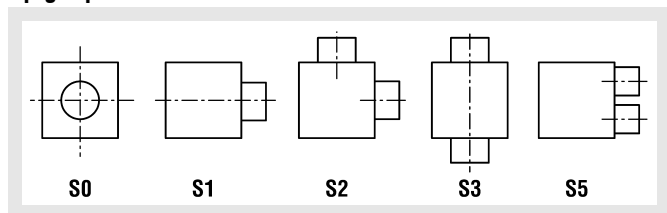


Ceiling opening with SK-R-09-...: $\varnothing Kd + 5$

Available sizes

NW	Ceiling swirl diffuser						Plenum box							
	DHV-Q-...		DHV-R-...		DHV-K-...		K	$\square E$	$\varnothing Kd$	KHS	h	TH	$\varnothing D$	$\varnothing D_{max}$ for ...-S5
	$\square A$	a	$\varnothing A$	a	$\varnothing A$	a								
100	160	6	155	1	155	--	50	245	123	235	190	90	98	78
125	190	6	185	4	185	3	63	245	158	260	215	90	123	78
160	245	6	240	4	240	3	80	290	198	295	250	100	158	98
200	305	6	300	5	300	3	105	335	265	335	290	120	198	123
250	385	6	380	5	380	3	130	405	335	385	340	150	248	158
315	495	6	490	5	490	--	170	545	425	385	340	190	248	198
400	635	12	630	8	630	--	220	670	570	555	510	290	313	298

Spigot position



Attention: The max. torque of the fastening screw is 0.4 Nm.

- 1.) The air diffuser plate is not included in the SK-R-09-A-... model
- 2.) Suspension on site

KHS = standard height of box

Min. height of plenum box [KHS] for NW 100-315 = spigot diameter $\varnothing D + 137$ mm, but at least 235 mm, for NW 400 = spigot diameter $\varnothing D + 242$ mm, but at least 340 mm)

Note: For the model with damper and spigot position from above (SK-R-09-Z-...-DK1/-DK2-...-S0), the following dimensions change for NW 100: KHS = 250 mm / h = 205 mm.

Ceiling swirl diffuser DHV

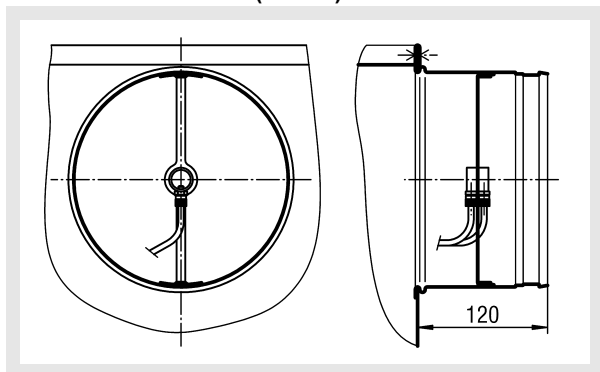
Volumetric flow meter (-VME0/-VME1),

for SK-R-09-...

- Without volumetric flow meter (-VME0) (standard)
- with volumetric flow meter (-VME1)

Not for use with the damper (-DK1/-DK2).

Volumetric flow meter (-VME1)

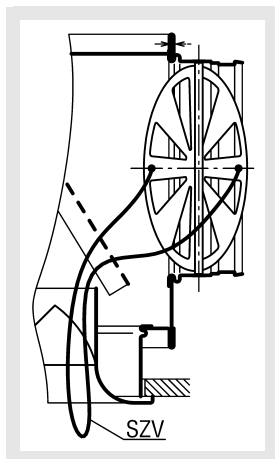


Damper (-DK0/-DK1/-DK2), for SK-R-09-...

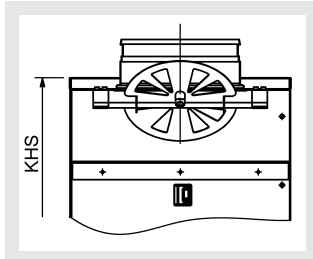
- Without damper (-DK0) (standard)
- with damper in plenum box/connection spigot
 - without cable-operated adjustment (-DK1)
 - with cable-operated adjustment (-DK2)

Damper (-DK1/DK2)

Spigot position (-S1/-S2/-S3/-S5)



Spigot position (-S0)



SZV = Cable-operated adjustment
(only for -DK2)

Height of box:

For the model with spigot from above (-S0) in combination with damper (-DK1 / -DK2), the height of box KHS changes for NW 100 (for SK-R-09-Z-...) (see table below).

SK-R-09-Z-...-DK1/DK2-...-S0

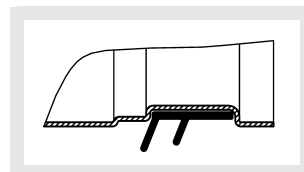
NW	KHS	h
100	250	205

Rubber lip seal (-GD0/-GD1), for SK-R-09-...

- without rubber lip seal (-GD0) (standard)
- with rubber lip seal (-GD1), made of special rubber, at the connection spigot

Rubber lip seal (-GD1)

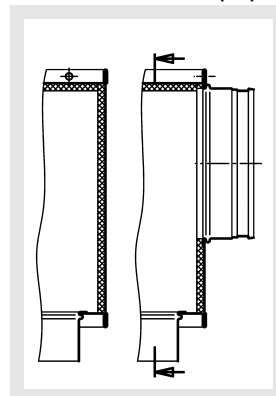
Detail Z



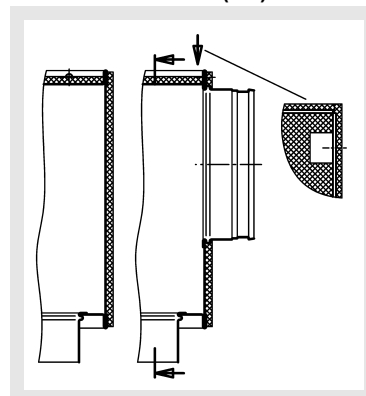
Insulation (-I0/-Ii/-Ia), for SK-R-09-...

- without insulation (-I0) (standard)
- with internal insulation (-Ii)
- with external insulation (-Ia)

Internal insulation (-Ii)



External insulation (-Ia)

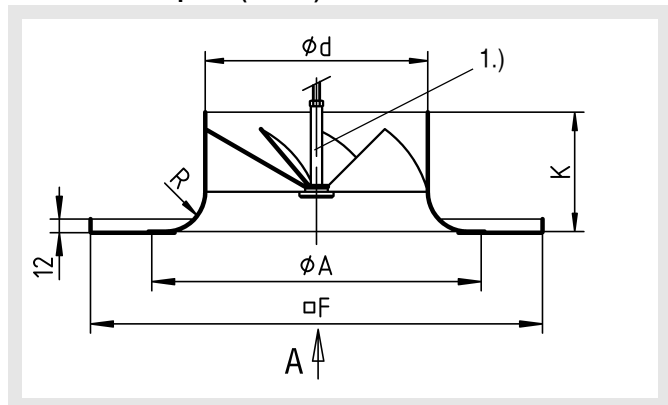


Ceiling swirl diffuser DHV

Panelled cover plate (-PA000/-PA...)

- without panelled cover plate (-P000) (standard)
- with panelled cover plate, made of sheet steel, painted to the selected colour (not possible for DHV-R)
 - NW 310 (-PA310), for DHV NW 100-200.
 - NW 400 (-PA400), for DHV NW 100-250.
 - NW 500 (-PA500), for DHV NW 100-315.
 - NW 600 (-PA600), for DHV NW 100-400.
 - NW 625 (-PA625), for DHV NW 100-400.

Panelled cover plate (-PA...)



1.) Cylinder screw M6x40 DIN EN ISO 4762

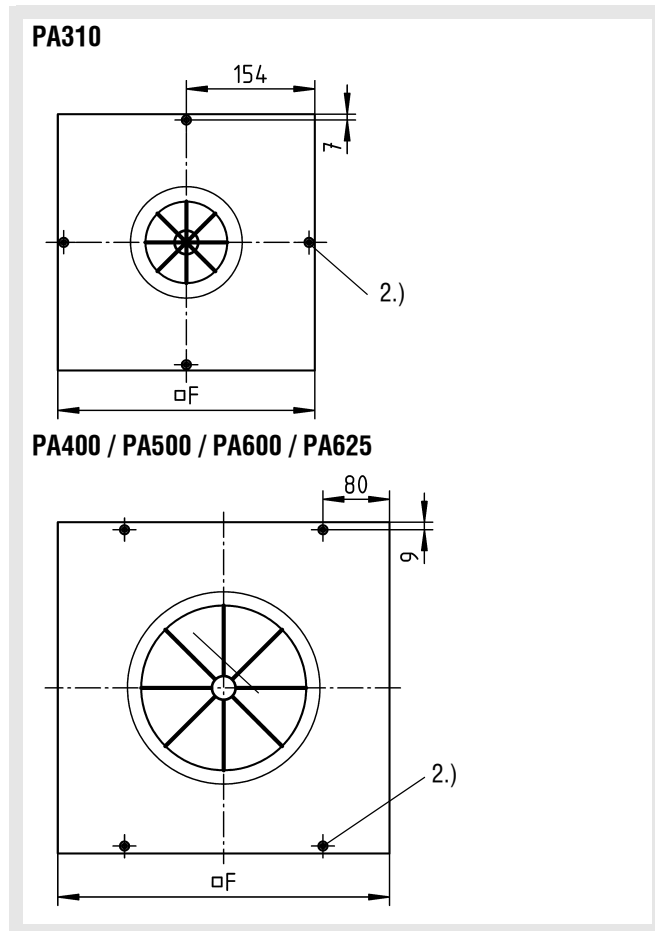
Available sizes PA...

NW PA...	NW DHV-...	□F
310	100 - 200	308
400	100 - 250	398
500	100 - 315	498
600	100 - 400	598
625	100 - 400	623

Available sizes DHV...

NW	φA	φd	K	R
100	155	98	50	15
125	185	123	63	17
160	240	158	80	20
200	300	198	105	35
250	380	248	130	45
315	490	313	170	60
400	630	398	220	80

View A



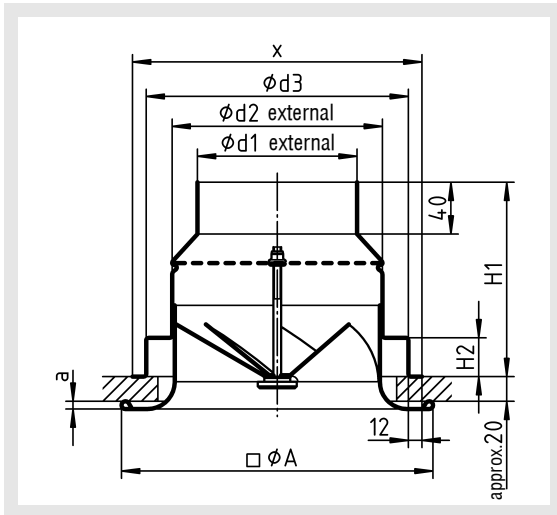
2.) With indentation for slotted shallow-raised countersunk-head tapping screw
DIN ISO 7051 ST4.8 (on site)

Ceiling swirl diffuser DHV

Transition piece (-U0/-US)

- without transition piece (-U0) (standard)
- with transition piece (-US) (natural aluminium, with internal counter pole brace for concealed mounting (VM), with integrated perforated straightener, for ceiling panels up to 20 mm thick (not possible for NW 400) (only possible with concealed mounting VM)

Transition piece (-US) with VM



Available sizes

NW	Ceiling swirl diffuser						Transition piece					
	DHV-Q-...		DHV-R-...		DHV-K-...		ød1	ød2	ød3	H1	H2	x
	□ A	a	øA	a	øA	a						at
100	160	6	155	1	155	--	78	102	117	120	20	138
125	190	6	185	4	185	3	98	127	147	135	25	168
160	245	6	240	4	240	3	123	162	202	150	30	223
200	305	6	300	5	300	3	158	202	262	175	40	283
250	385	6	380	5	380	3	198	252	342	200	50	363
315	495	6	490	5	490	--	248	317	452	253	77	473
400	635	12	630	8	630	--	-	-	-	-	-	-

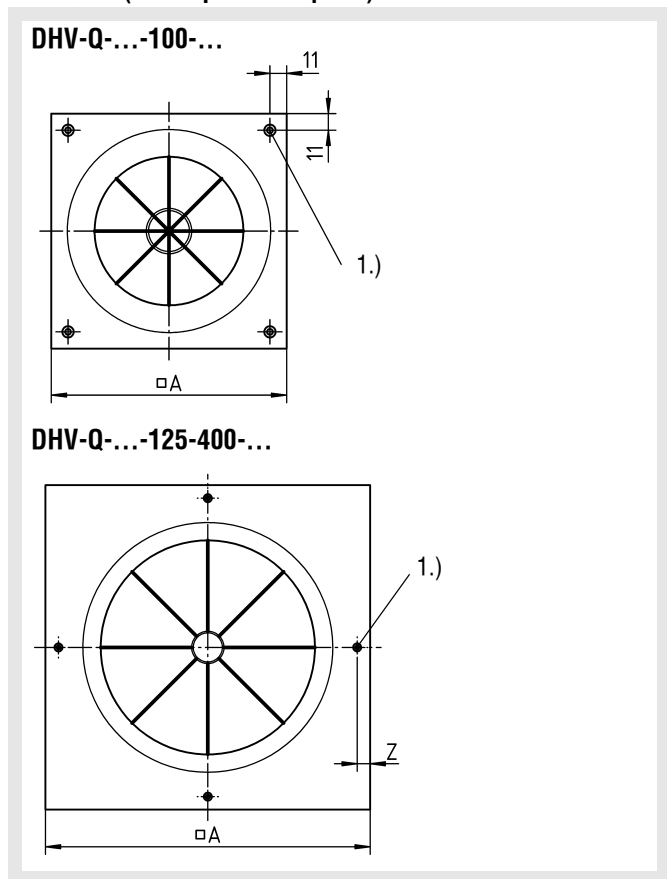
Ceiling swirl diffuser DHV

Fastening methods

Screw mounting (-SM)

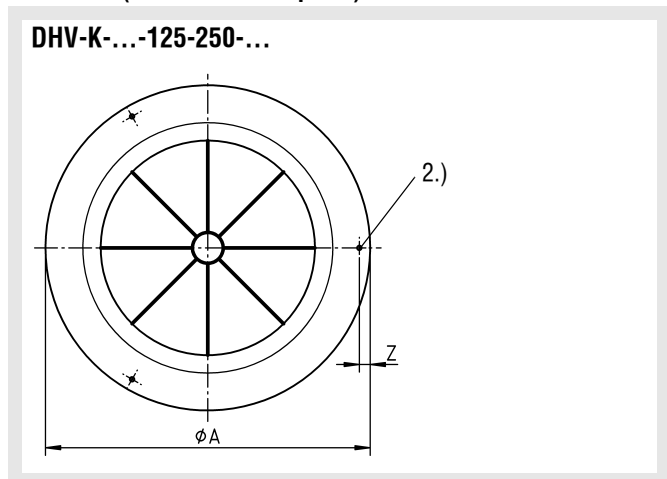
only for connection to flexible ducts

DHV-Q-... (with square faceplate)



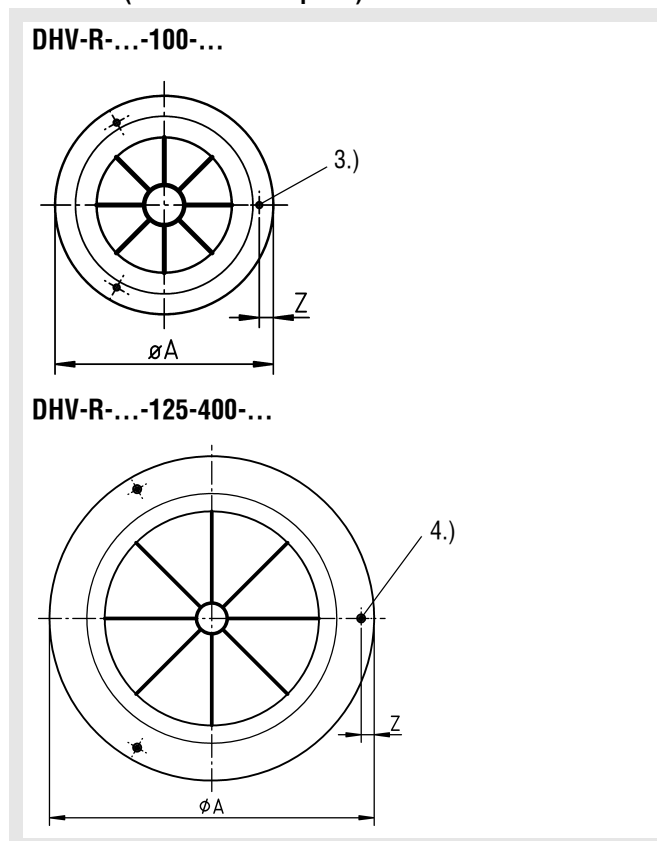
- 1.) NW 100-315:
4 on-site slotted shallow-raised countersunk-head tapping screws DIN ISO 7051 pitch 3.9
NW 400:
4 on-site slotted shallow-raised countersunk-head tapping screws DIN ISO 7051 pitch 4.8

DHV-K-... (with round faceplate)



- 2.) NW 125-250:
3 bores, $d = 4.2$ mm for slotted shallow-raised countersunk-head tapping screws DIN ISO 7049 pitch 4.2 (on site)

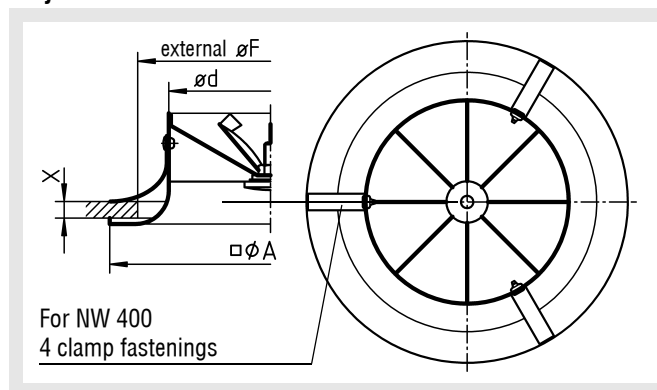
DHV-R-... (with round faceplate)



- 3.) NW 100: 3x bores, $d = 4.2$ mm for slotted shallow-raised countersunk-head tapping screws DIN ISO 7049 pitch 4.2 (on site)
4.) NW 125 400: 3 indentations for slotted shallow-raised countersunk-head tapping screw DIN ISO 7051 pitch 3.9 (on site)

Clamp fastening (-KB)

only for connection to flexible ducts



Available sizes

NW	ϕd	$\square A$	ϕA	ϕF	Z	X
100	98	160	155	128	10	10 - 25
125	123	190	185	144	10	
160	158	245	240	184	15	
200	198	305	300	254	10	
250	248	385	380	324	15	
315	313	495	490	419	22,5	
400	398	635	630	545	20	

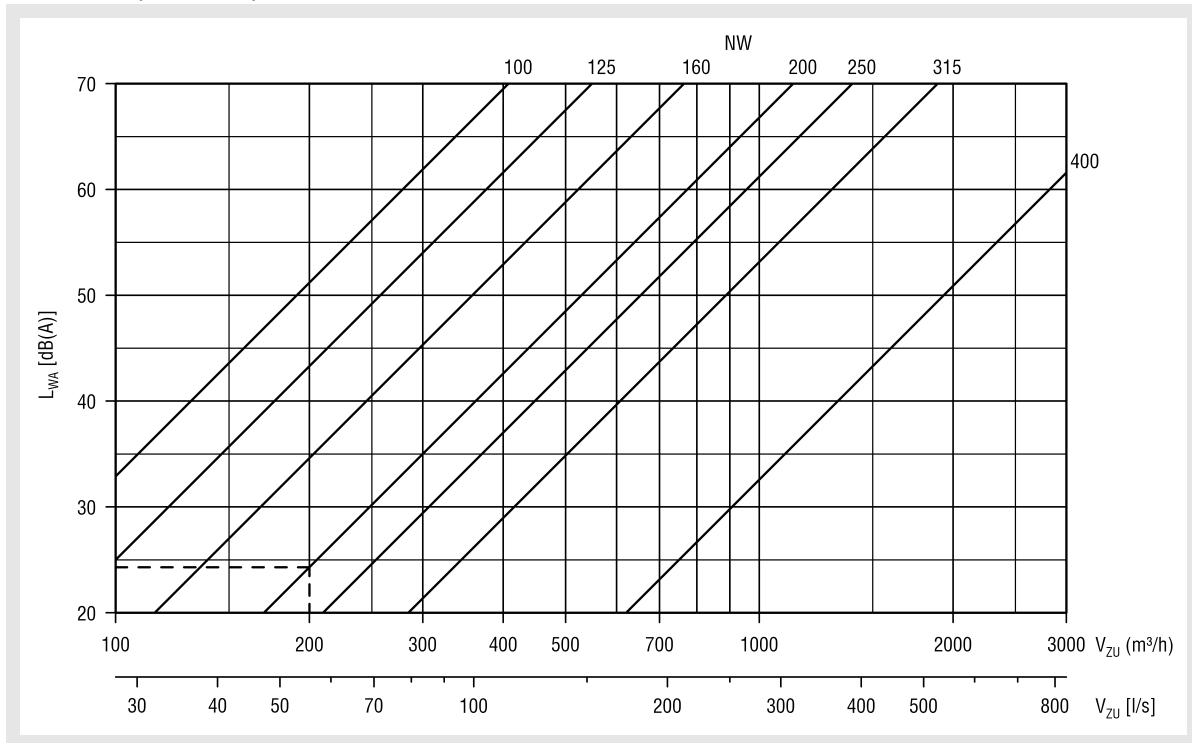
Ceiling swirl diffuser DHV

Technical data

Pressure loss and noise level

DHV-... (for flexible duct connection, without plenum box)

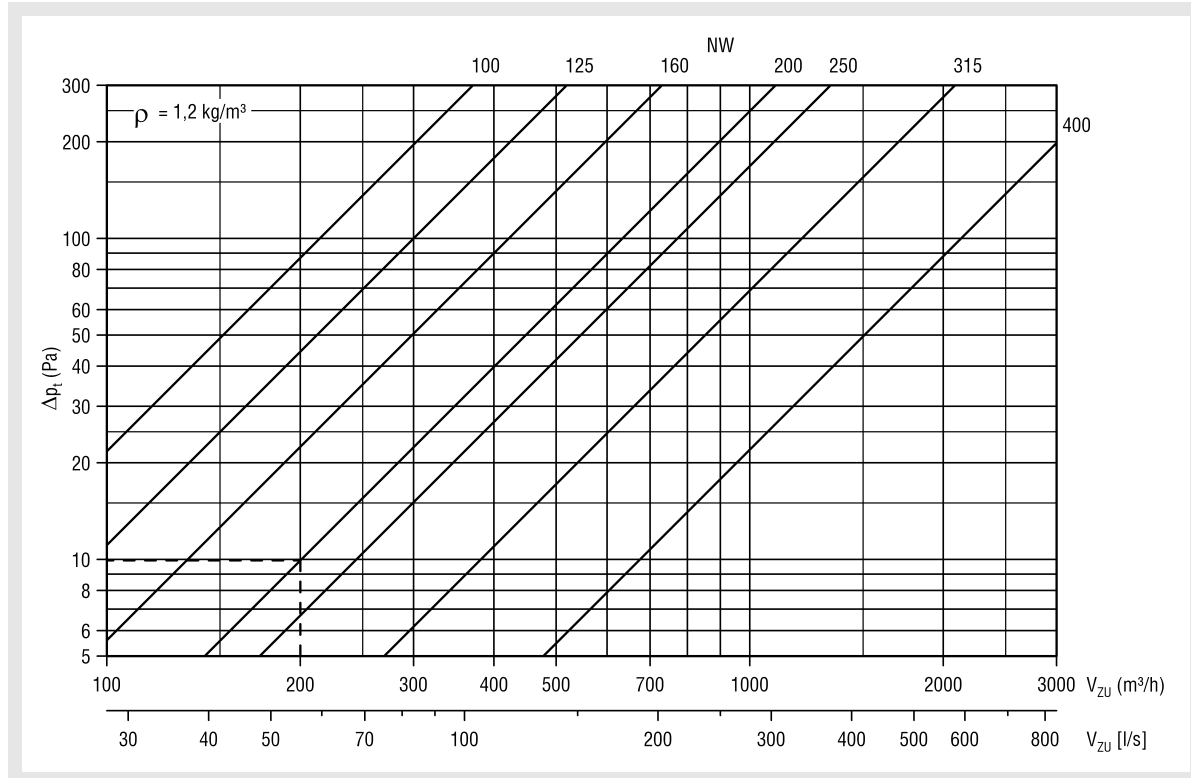
Noise level (supply air)



Relative sound power spectrum (dB)							
Frequency Hz	125	250	500	1000	2000	4000	8000
Correction value K_L	8	3	-3	-7	-13	-18	-23

Ceiling swirl diffuser DHV

DHV-... (for flexible duct connection, without plenum box)
Supply air pressure loss



Ceiling swirl diffuser DHV

Pressure loss and noise level
with plenum box for supply air

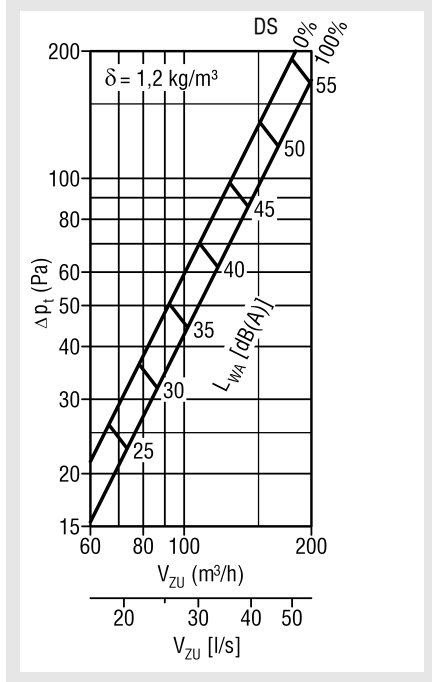
Relative sound power spectrum (dB)							
Frequency Hz	125	250	500	1000	2000	4000	8000
Correction value K_L	8	3	-3	-7	-13	-18	-23

Damper position (DS):

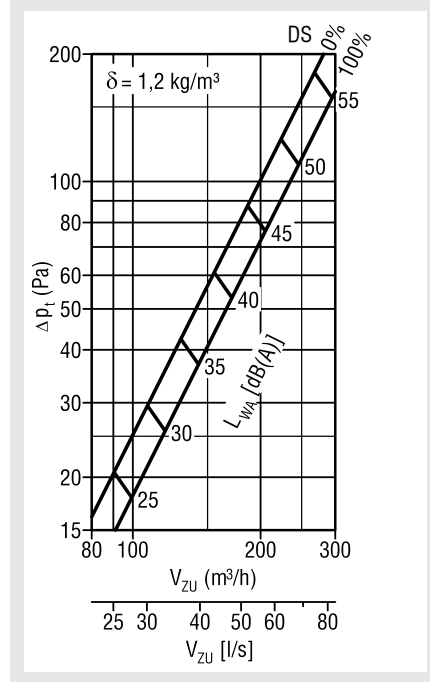
OPEN = 100%

CLOSED = 0%

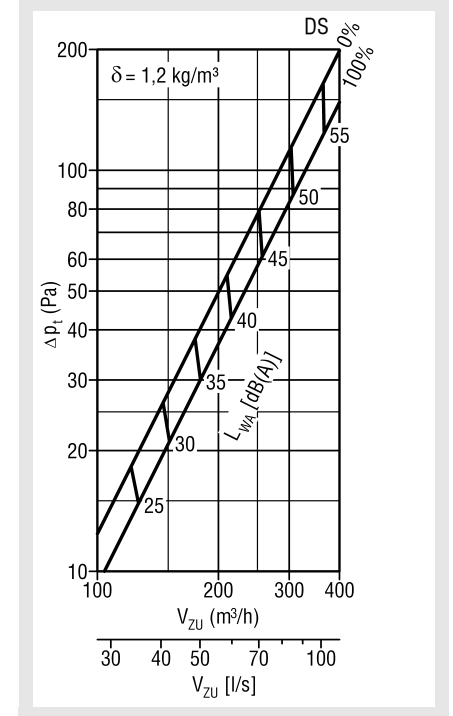
DHV-Q/R-Z-100-... with SK-R-09-Z-...



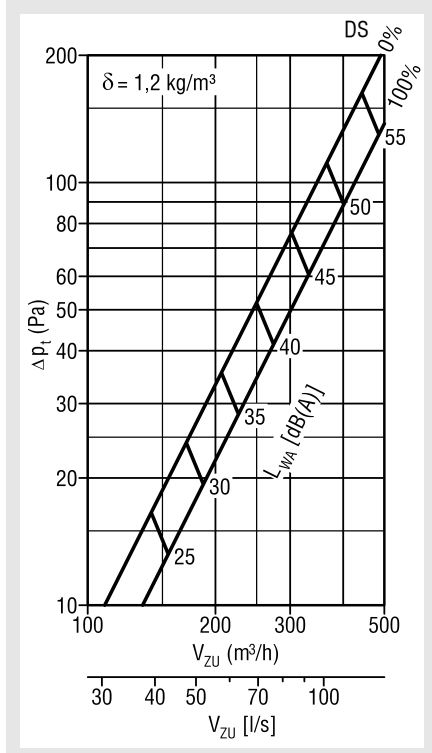
DHV-Q/R-Z-125-... with SK-R-09-Z-...



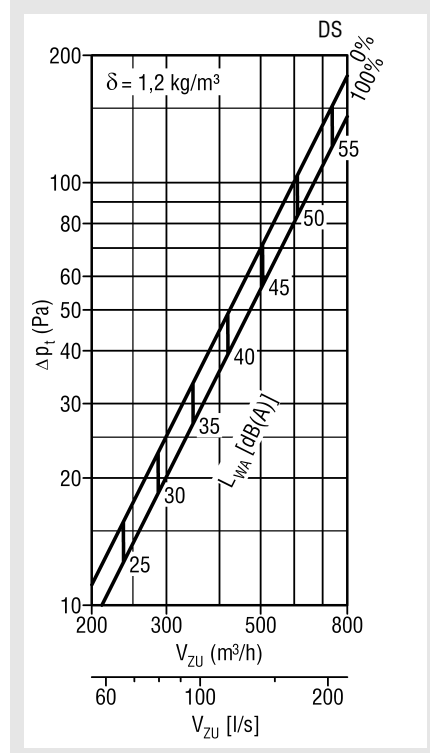
DHV-Q/R-Z-160-... with SK-R-09-Z-...



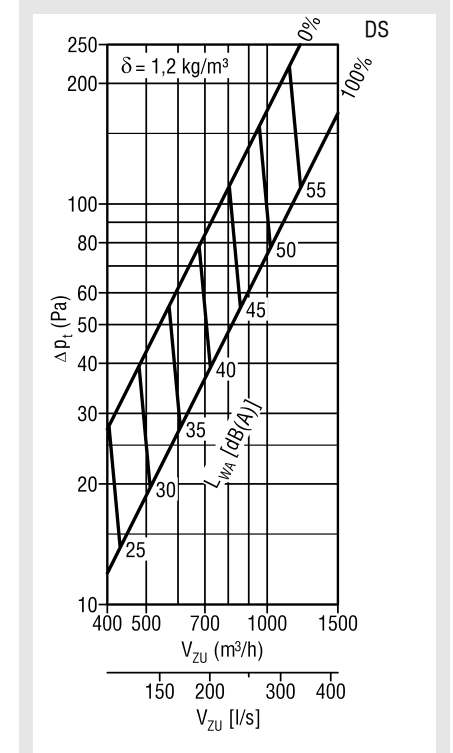
DHV-Q/R-Z-200-... with SK-R-09-Z-...



DHV-Q/R-Z-250-... with SK-R-09-Z-...

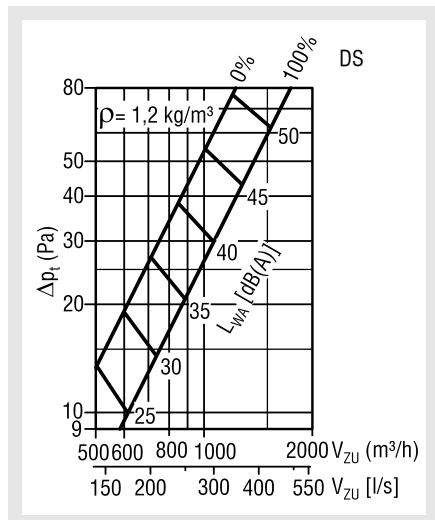


DHV-Q/R-Z-315-... with SK-R-09-Z-...

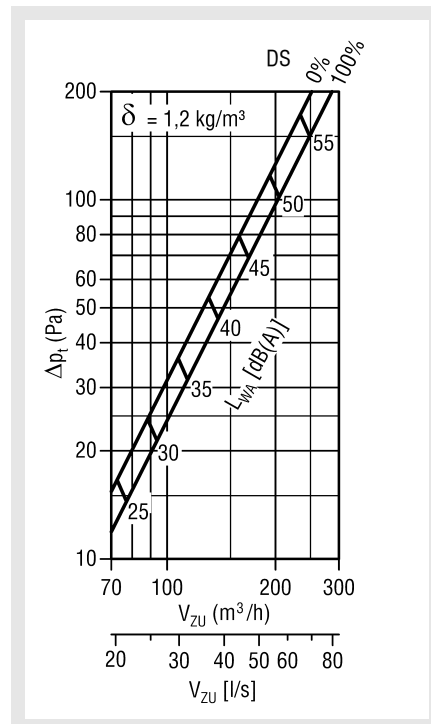


Ceiling swirl diffuser DHV

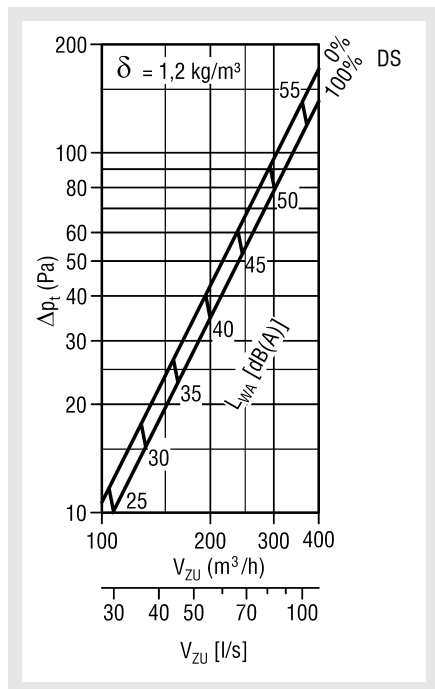
DHV-Q/R-Z-400-... with SK-R-09-Z-...



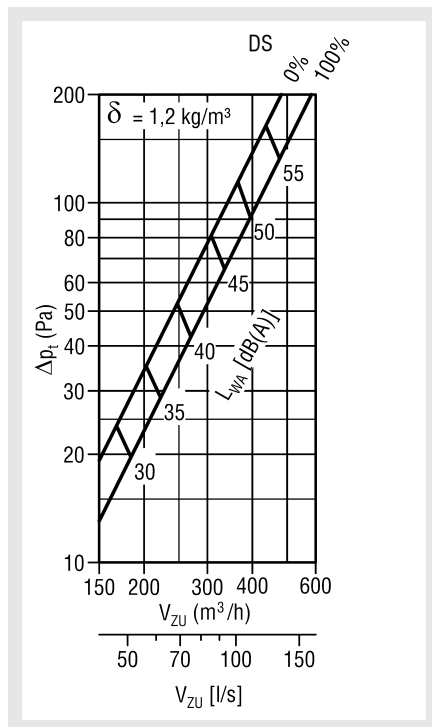
DHV-K-125-... with SK-R-09-Z-...



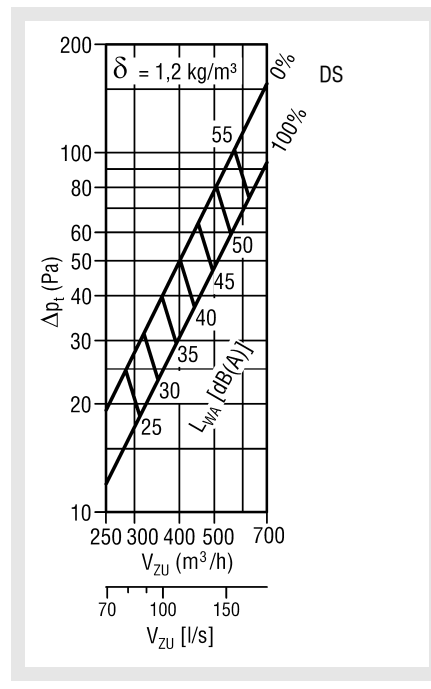
DHV-K-160-... with SK-R-09-Z-...



DHV-K-200-... with SK-R-09-Z-...



DHV-K-250-... with SK-R-09-Z-...



Damper position (DS):

OPEN = 100%

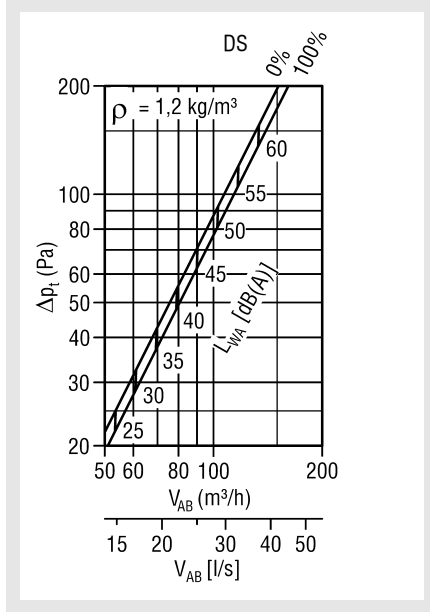
CLOSED = 0%

Ceiling swirl diffuser DHV

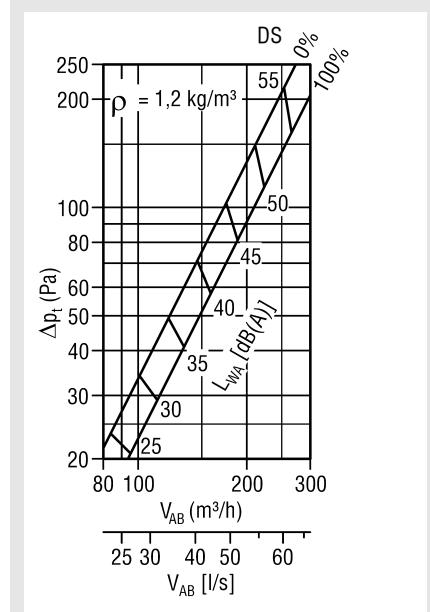
Pressure loss and noise level
with plenum box for return air

Relative sound power spectrum (dB)							
Frequency Hz	125	250	500	1000	2000	4000	8000
Correction value K_L	7	1	-4	-6	-10	-15	-21

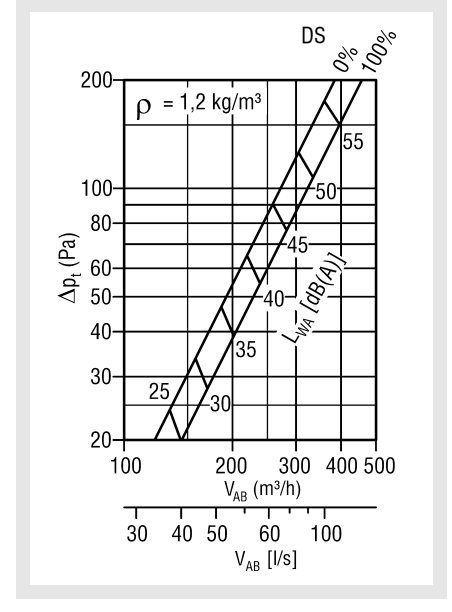
DHV-...-A-100-... with SK-R-09-A-...



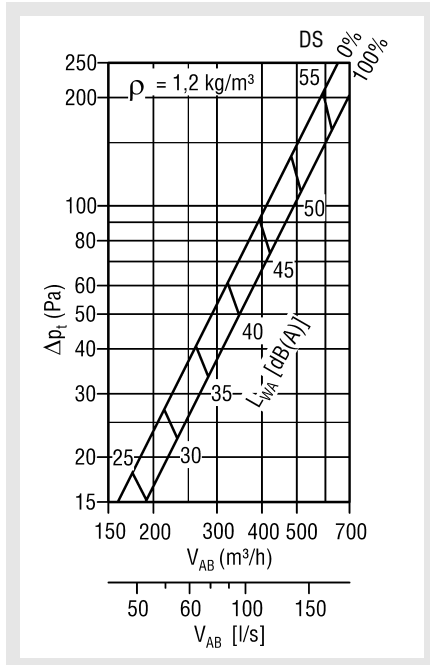
DHV-...-A-125-... with SK-R-09-A-...



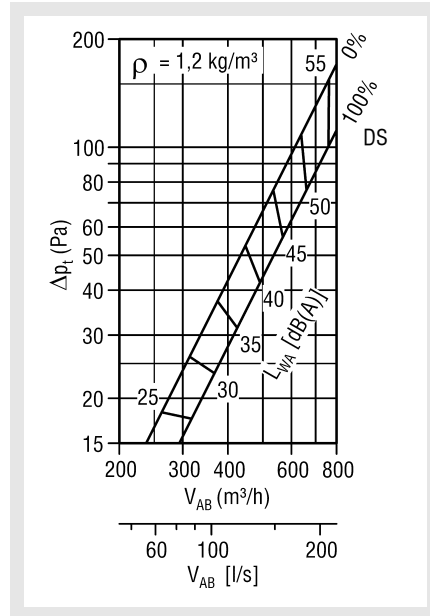
DHV-...-A-160-... with SK-R-09-A-...



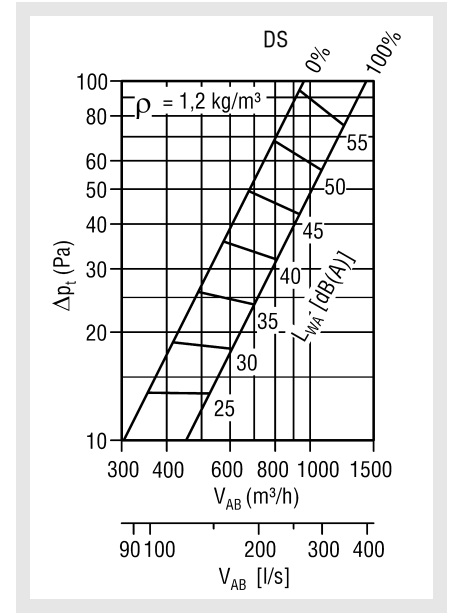
DHV-...-A-200-... with SK-R-09-A-...



DHV-...-A-250-... with SK-R-09-A-...



DHV-...-A-315-... with SK-R-09-A-...



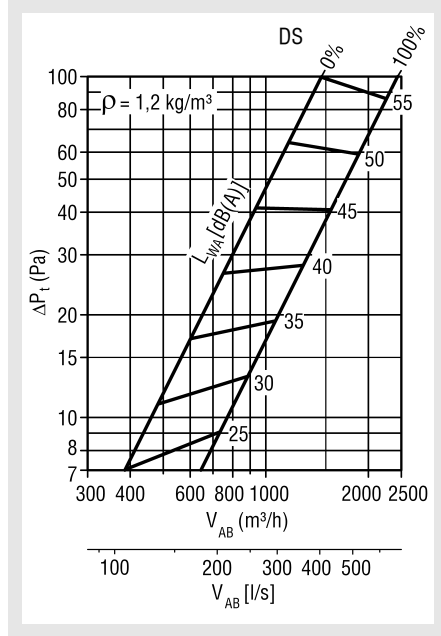
Damper position (DS):

OPEN = 100%

CLOSED = 0%

Ceiling swirl diffuser DHV

DHV-...-A-400-... with SK-R-09-A-...



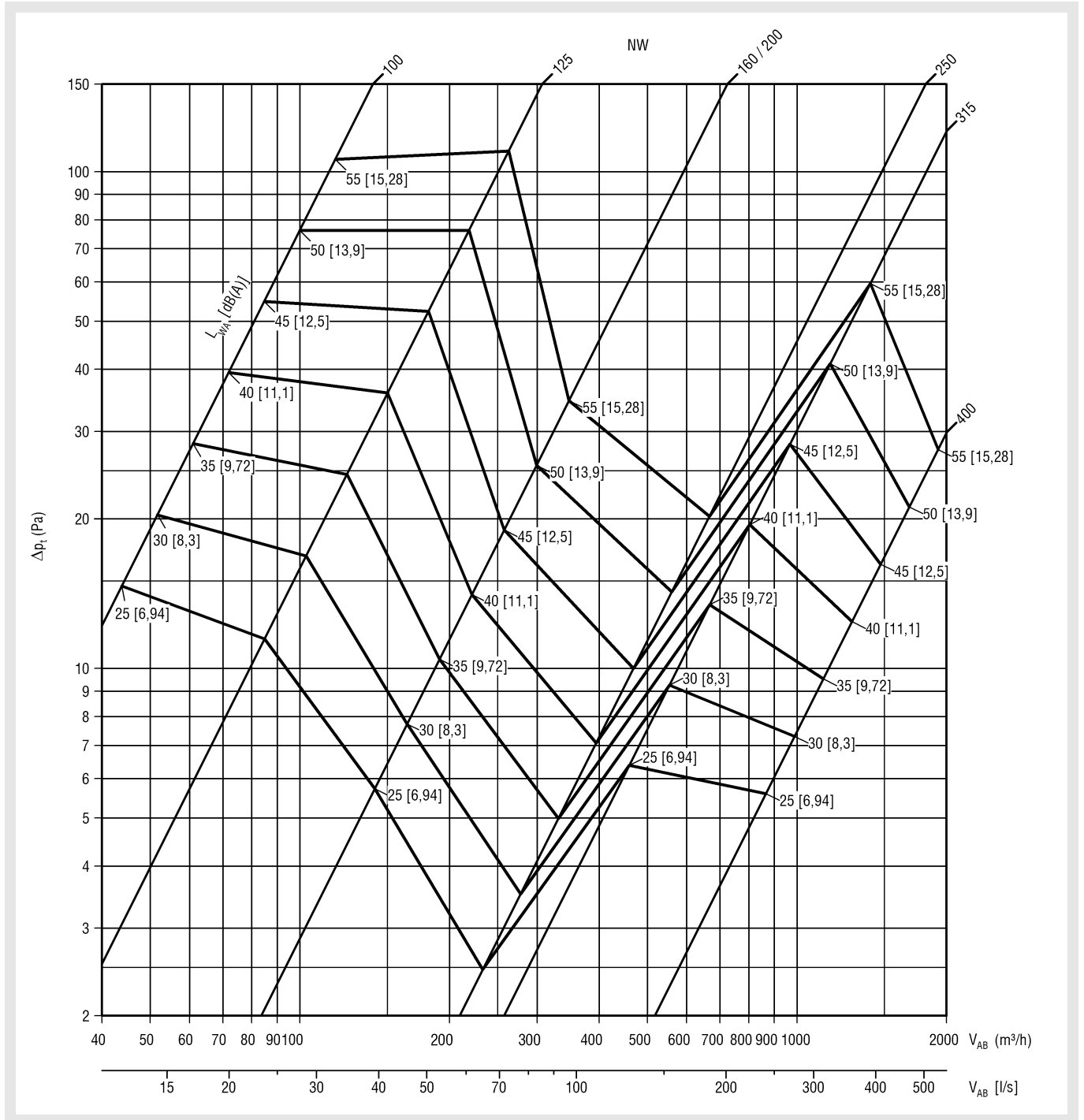
Damper position (DS):

OPEN = 100%

CLOSED = 0%

Ceiling swirl diffuser DHV

Pressure loss and noise level without plenum box for return air
Direct connection

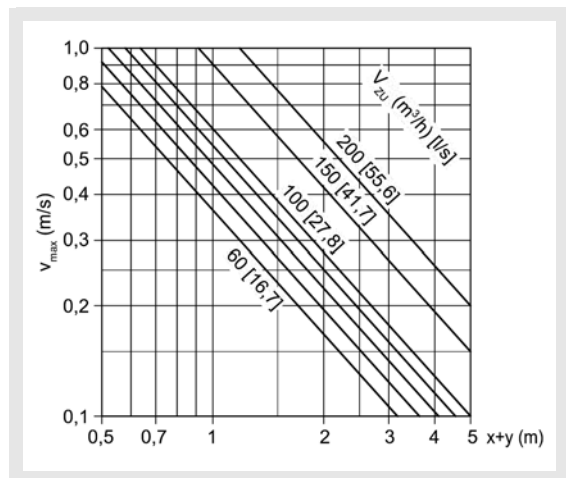


Relative sound power spectrum (dB)							
Frequency Hz	125	250	500	1000	2000	4000	8000
Correction value K_L	-7	-6	-7	-5	-7	-14	-20

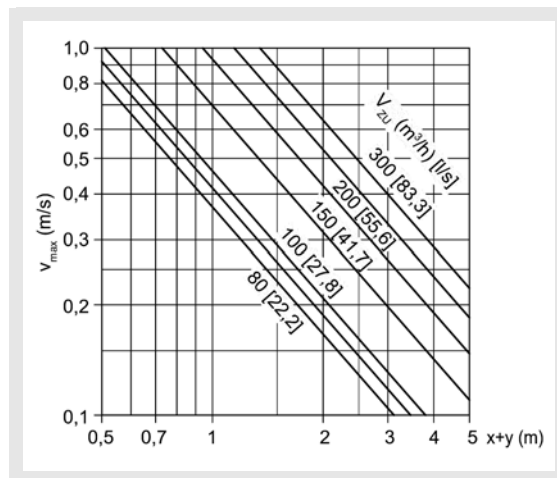
Ceiling swirl diffuser DHV

Maximum end velocity of jet

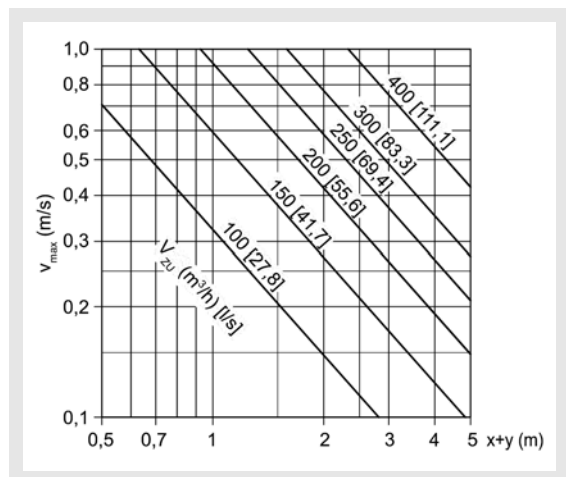
DHV-...-100-...



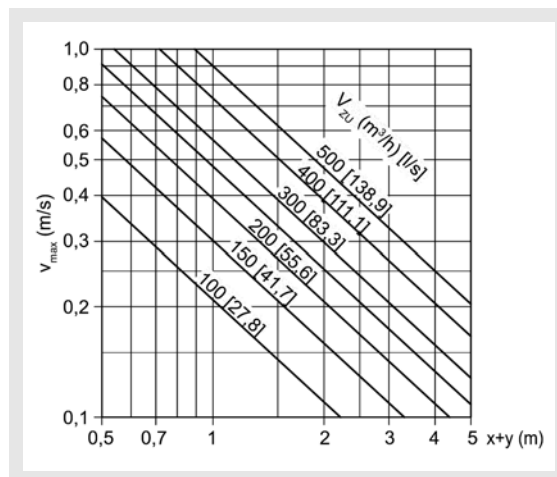
DHV-...-125-...



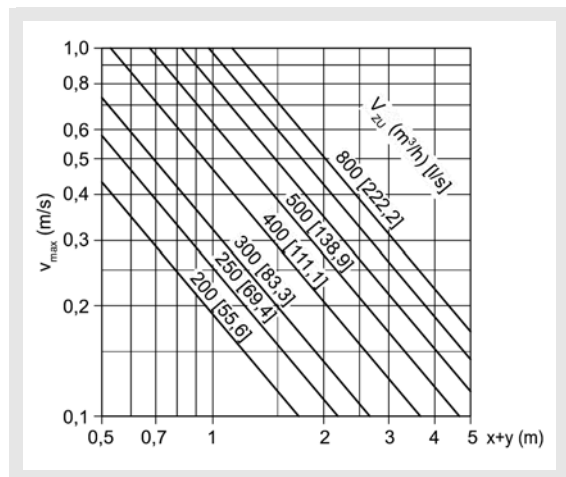
DHV-...-160-...



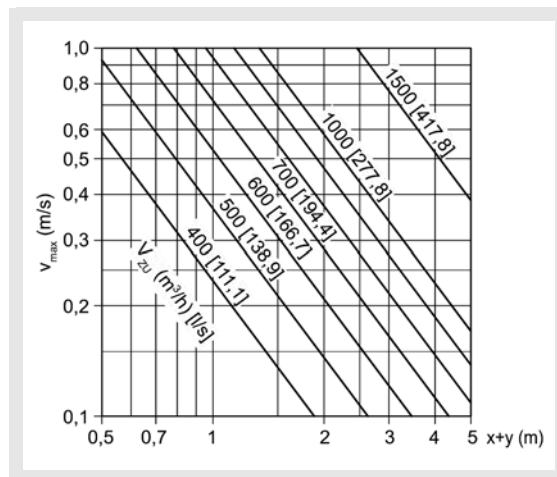
DHV-...-200-...



DHV-...-250-...

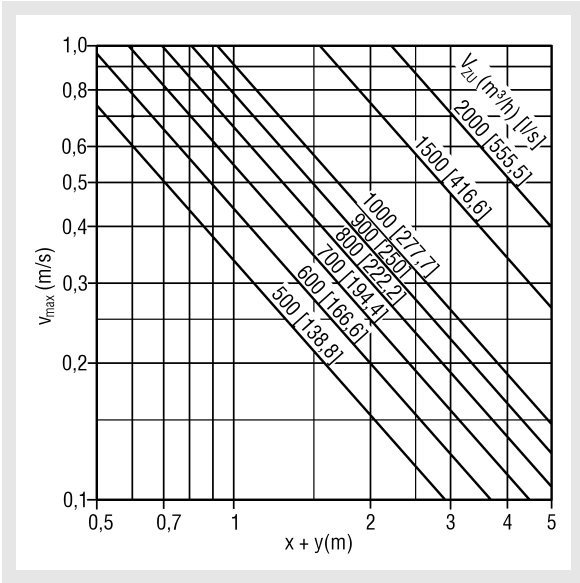


DHV-...-315-...



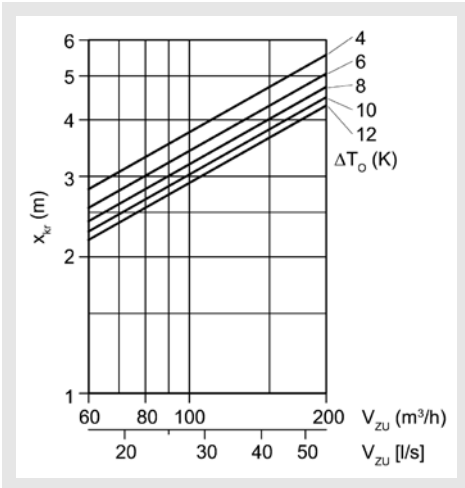
Ceiling swirl diffuser DHV

DHV-...-400-...

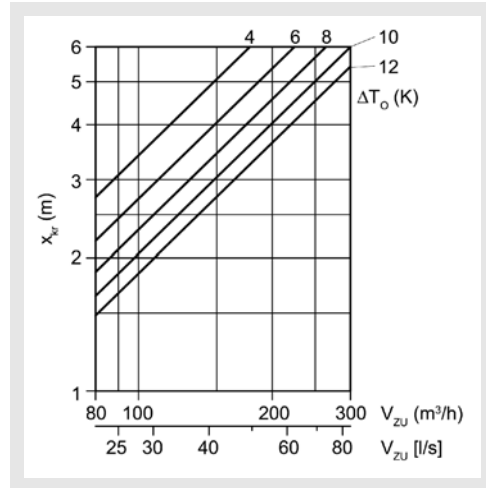


Critical jet path

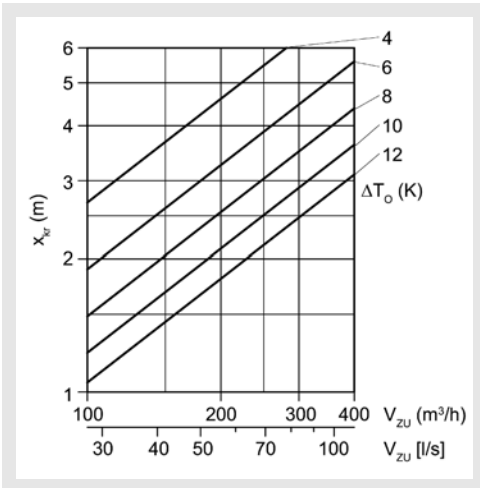
DHV-...-100-...



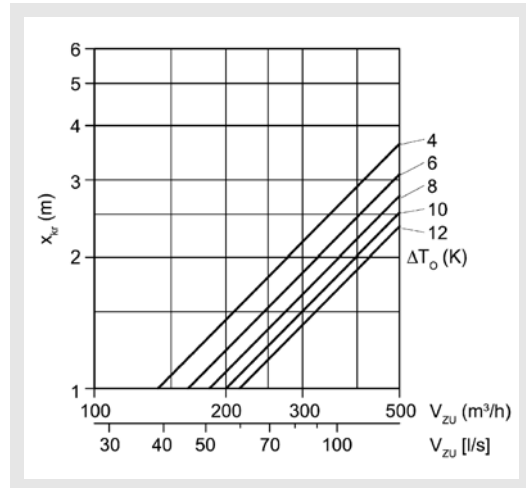
DHV-...-125-...



DHV-...-160-...

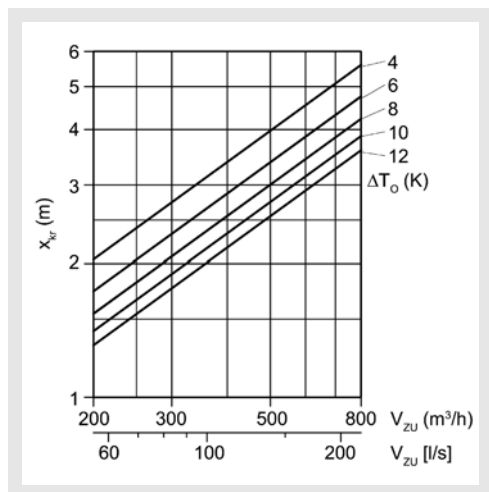


DHV-...-200-...

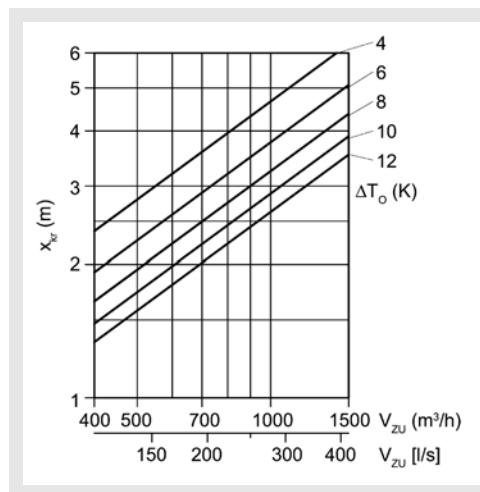


Ceiling swirl diffuser DHV

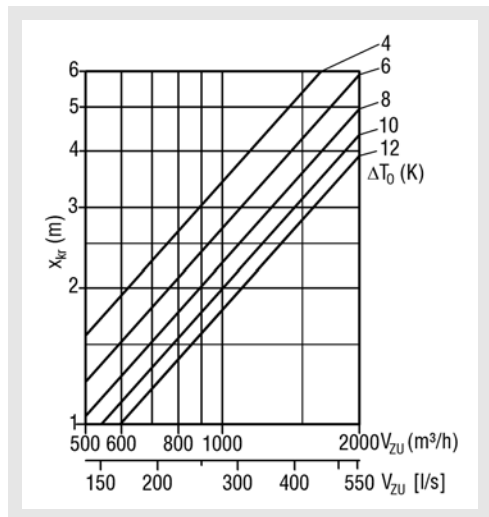
DHV-...-250-...



DHV-...-315-...



DHV-...-400-...



Legend

V_{ZU} (m ³ /h)	=	Supply air volume
V_{ZU} [l/s]	=	Supply air volume
V_{AB} (m ³ /h)	=	Return air volume
V_{AB} [l/s]	=	Return air volume
L_{WA} [dB(A)]	=	A-weighted sound power level
Δp_t (Pa)	=	Pressure loss
ρ (kg/m ³)	=	Density
v_{max} (m/s)	=	Maximum end velocity of jet
$x+y$ (m)	=	Horizontal + vertical throw
x_{kr} (m)	=	Critical jet path
ΔT_0 (K)	=	Temperature difference between supply air temperature and room temperature ($\Delta T_0 = t_{ZU} - t_R$)
t_{ZU} (°C)	=	Supply air temperature
t_R (°C)	=	Room temperature
NW (mm)	=	Nominal value
DS (-)	=	Damper position

Ceiling swirl diffuser DHV

Order details DHV

01	02	03	04	05	06	07	08	09
Type	Model	Air throw	Nominal size	Material	Paint	Mounting	Panelled cover plate	Transition piece
Example								
DHV	-Q	-Z	-100	-SB	-9010	-VM	-PA000	-U0

Sample

DHV-Q-Z-100-SB-9010-VM-PA000-U0

Ceiling swirl diffuser DHV | square faceplate | supply air | NW 100 | sheet steel | painted to RAL colour 9010 (white) | concealed mounting | without panelled cover plate | without transition piece

Order details

01 - Type

DHV = Ceiling swirl diffuser DHV

02 - Model

Q = square faceplate and inlet nozzle,
NW 100-400 (NW 100 made of galvanised sheet steel / NW 125-400 made of aluminium)

R = round faceplate and inlet nozzle,
NW 100-400 (NW 100 made of galvanised sheet steel / NW 125-400 made of aluminium)

K = round faceplate and inlet nozzle,
NW 125-250 (made of plastic material, colour similar to RAL 9010)

03 - Air throw

Z = supply air

A = return air

04 - Nominal size

100 = NW 100

125 = NW 125

160 = NW 160

200 = NW 200

250 = NW 250

315 = NW 315

400 = NW 400

05 - Material

SB = sheet steel (only for DHV-Q/R-... NW 100)

AL = aluminium (only for DHV-Q/R-... NW 125-400)

KU = plastic (only for DHV-K-... NW 125-250)

06 - Paint

9010 = RAL colour 9010 (white) (standard)

xxxx = RAL colour can be freely selected (not possible for DHV-K-...) (always with 4 digits)

07 - Mounting

VM = concealed mounting (standard, without SK-R-..., the counter pole brace to be provided by customer)

SM = screw mounting (standard for panelled cover and for connection to flexible duct without SK-R-..., not possible for transition piece -US)

KB = clamp fastening (only for connection to flexible duct without SK-R-...)

08 - Panelled cover plate

PA000 = without panelled cover plate (standard)

PA310 = with panelled cover plate 310 (NW100-200), sheet steel painted to the selected colour

PA400 = with panelled cover plate 400 (NW100-250), sheet steel painted to the selected colour

PA500 = with panelled cover plate 500 (NW100-315), sheet steel painted to the selected colour

PA600 = with panelled cover plate 600 (NW100-400), sheet steel painted to the selected colour

PA625 = with panelled cover plate 625 (NW100-400), sheet steel painted to the selected colour

09 - Transition piece

U0 = without transition piece (standard)

US = with transition piece (natural aluminium, with internal counter pole brace for concealed mounting (VM), with integrated perforated straightener, for ceiling panels up to 20 mm thick (not possible for NW 400) (only possible with concealed mounting VM)

Ceiling swirl diffuser DHV

Order details SK

01	02	03	04	05	06	07	08
Plenum box	Model	Air diffuser	Type of air	Nominal size	Fastening	Material	Damper
Example							
SK	-R	-09	-Z	-200	-VM	-SV	-DK2

09	10	11	12	13	14	15
Rubber lip seal	Volumetric flow meter	ROB version	Insulation	Height of box	Spigot diameter	Spigot position
-GD1	-VME1	-ROB0	-I0	-KHS	-SDS	-S1

Sample

SK-R-09-Z-200-VM-SV-DK2-GD1-VME1-ROB0-I0-KHS-SDS-S1

Plenum box, square design | for round air diffusers | suitable for DHV-... | supply air | NW 200 | with concealed mounting | galvanised sheet steel | with damper with cable | with rubber lip seal | with volumetric flow meter | without ROB version | without insulation | standard height of box | standard spigot diameter | 1 lateral spigot

Order details

01 - Plenum box

SK = Plenum box, square design

02 - Model

R = for round air diffusers with round diffuser support

03 - Air diffuser (must be ordered separately)

09 = suitable for DHV-...

04 - Type of air

Z = supply air, with air diffuser plate

A = return air

05 - Nominal size

100 = NW 100

125 = NW 125

160 = NW 160

200 = NW 200

250 = NW 250

315 = NW 315

400 = NW 400

06 - Fastening

VM = Concealed mounting (standard)

07 - Material

SV = Galvanised sheet steel (standard)

08 - Damper

DK0 = without damper (standard)

DK1 = with damper

DK2 = with damper with cable-operated adjustment

09 - Rubber lip seal

GD0 = without rubber lip seal (standard)

GD1 = with rubber lip seal

10 - Volumetric flow meter

VME0 = without volumetric flow meter (standard)

VME1 = with volumetric flow meter (not for use with a damper)

11 - ROB version

ROB0 = Without ROB version (standard)

12 - Insulation

I0 = without insulation (standard)

Ii = With internal insulation

Ia = with external insulation

13 - Height of box

KHS = Height of plenum box standard

xxx = height of box in mm, freely selectable (always with 3 digits)

(Min. height of plenum box [KHS] for NW 100-315 = spigot diameter $\varnothing D + 137$ mm, but at least 235 mm, for NW 400 = spigot diameter $\varnothing D + 242$ mm, but at least 340 mm) (With SK-R-09-Z-...-DK1/-DK2-...-S0, observe special height of plenum box for NW 100)

14 - Spigot diameter

SDS = Standard spigot diameter

xxx = spigot diameter ($\varnothing D$) in m, freely selectable (always with 3 digits)

15 - Spigot position

S0 = Spigot from above

S1 = 1 lateral spigot on the box (standard)

S2 = 2 spigots offset by 90°

S3 = 2 spigots offset by 180°

S5 = 2 spigots arranged next to each other

Ceiling swirl diffuser DHV

Specification texts

Ceiling swirl diffuser **type DHV** for connection to flexible ducts, consisting of faceplate, inlet and fixed nozzle-like swirl impellers.

Product: SCHAKO **type DHV-...**

Model:

- with square faceplate and inlet nozzle, NW 100-400 (NW 100 made of sheet steel / NW 125-400 made of aluminium) **(-Q)**
- with round faceplate and inlet nozzle NW 100-400 (NW 100 made of sheet steel / NW 125-400 made of aluminium) **(-R)**
- with round faceplate and inlet nozzle NW 125-250 (made of plastic material) **(-K)**

Air throw:

- supply air **(-Z)**
- return air **(-A)**

Nominal size:

- NW 100 **(-100)**
- NW 125 **(-125)**
- NW 160 **(-160)**
- NW 200 **(-200)**
- NW 250 **(-250)**
- NW 315 **(-315)**
- NW 400 **(-400)**

Material (faceplate):

- made of sheet steel **(-SB)** (only for DHV-Q/R-... NW 100)
- made of aluminium **(-AL)** (only for DHV-Q/R-... NW 125-400)
- made of plastic material **(-KU)** (only for DHV-K-... NW 125-250)

Paint:

- RAL colour 9010 (white) (standard) **(-9010)**
- RAL colour can be freely selected **(-xxxx)**, always with 4 digits (not possible for DHV-K-...)

Mounting:

- concealed mounting **(-VM)**, standard
 - Counter pole brace on site (without plenum box or transition piece)
 - with pole brace fixing (with plenum box or transition piece)
- with screw mounting **(-SM)**, standard for panelled cover and for connection to flexible ducts (without plenum box). (not possible for transition piece -US)
- with clamp fastening **(-KB)**, only for connection to flexible ducts (without plenum box)

Accessories:

- Panelled cover plate (-PA000/-PA...)
 - without panelled cover plate (-P0000) (standard)
 - with panelled cover plate, made of sheet steel, painted to the selected colour (not possible for DHV-R)
 - NW 310 (-PA310), for DHV NW 100-200.
 - NW 400 (-PA400), for DHV NW 100-250.
 - NW 500 (-PA500), for DHV NW 100-315.
 - NW 600 (-PA600), for DHV NW 100-400.
 - NW 625 (-PA625), for DHV NW 100-400.
- Transition piece (-U0/-US)
 - without transition piece (-U0) (standard)
 - with transition piece (-US) (natural aluminium, with internal counter pole brace for concealed mounting (VM), with integrated perforated straightener, for ceiling panels up to 20 mm thick (not possible for NW 400) (only possible with concealed mounting VM))
- Plenum box (SK-R-09-...) with square design, for round air diffusers with round diffuser support, suitable for DHV-..., made of galvanised sheet steel (-SV), with fixing lugs.
 - Type of air:
 - supply air (-Z), with air diffuser plate.
 - return air (-A)
 - Nominal size:
 - NW 100 (-100)
 - NW 125 (-125)
 - NW 160 (-160)
 - NW 200 (-200)
 - NW 250 (-250)
 - NW 315 (-315)
 - NW 400 (-400)
 - Fastening:
 - Concealed mounting (-VM, standard)
 - Damper:
 - Without damper (-DK0) (standard)
 - with damper in plenum box/connection spigot, adjustable from below, for easy air volume regulation without dismantling the faceplate.
 - without cable-operated adjustment (-DK1)
 - with cable-operated adjustment (-DK2)
 - Rubber lip seal:
 - without rubber lip seal (-GD0) (standard)
 - with rubber lip seal (-GD1), made of special rubber, at the connection spigot
 - Volumetric flow meter:
 - Without volumetric flow meter (-VME0) (standard)
 - with volumetric flow meter (-VME1) (not for use with a damper)

Ceiling swirl diffuser DHV

- ROB version:
 - without ROB version (-ROB0) (standard)
- Insulation:
 - without insulation (-I0) (standard)
 - with internal insulation (-Ii), thermal insulation inside the plenum box
 - with external insulation (-Ia), thermal insulation on the outside of the plenum box
- Height of box:
 - Standard height of plenum box (-KHS)
 - height of box in mm, freely selectable (always with 3 digits)
(Min. height of plenum box [KHS] for NW 100-315 = spigot diameter $\varnothing D + 137$ mm, but at least 235 mm, for NW 400 = spigot diameter $\varnothing D + 242$ mm, but at least 340 mm) (With SK-R-09-Z-...-DK1/-DK2-...-S0, observe special height of plenum box for NW 100)
- Spigot diameter:
 - Standard spigot diameter (-SDS)
 - spigot diameter (D) in mm, freely selectable (-xxx, always three digits)
- Spigot position:
 - Spigot from above (-S0)
 - 1 lateral spigot on the plenum box (-S1) (standard)
 - 2 lateral spigots, offset by 90° (-S2)
 - 2 lateral spigots, offset by 180° (-S3)
 - 2 spigots arranged next to each other (-S5)