



Displacement systems



Air diffusion systems

Standard displacement diffusers Type SQ

Construction and design

Displacement diffusers series SQ are built in standard construction, sizes and surface finishes. The casing is made from zinc plated sheet steel with circular inlet spigot. The surfaces finish is powder coated RAL 9010.

On request the SQ displacement diffusers can be supplied with zinc plated sheet steel surface. The outer active casing is made from perforated sheet steel plate with 3 mm diameter holes. An inner cylinder with integrated elements guarantees equal air distribution over the whole surface.

Types of construction

Displacement diffusers series SQ are manufactured in four standard configurations.



Rectangular-form SQ-RE



Halfround-form SQ-HR



Quarterround-form SQ-VR



Round-form SQ-R

Sizes

The size of a diffuser is defined by the diameter of the inlet spigot connection. For the different construction types the following sizes are available.

Size DN	Type of construction			
	SQ-RE	SQ-HR	SQ-VR	SQ-R
125	●	●	●	
200	●	●	●	
250	●	●	●	
315	●	●	●	●
400	●	●	●	●
500	●	●	●	●
630	●	●	●	●

Accessories

The following accessories are available for standard displacement diffusers:

Plinth GS

supplied loose, surface white (9010) or black (9005)

Noise reduction unit LP

Outer casing either from sheet steel or perforated plate

Decor panel IK

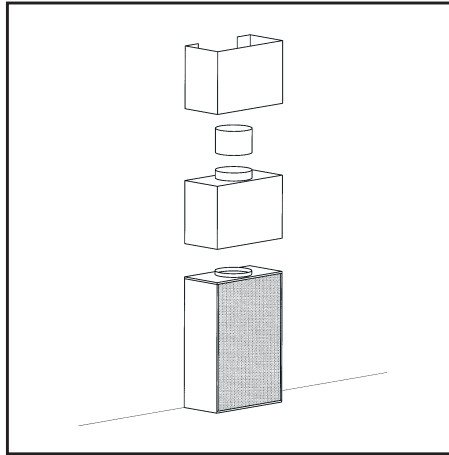
Cover panel for ducting from top of diffuser to ceiling either from sheet steel or perforated plate

Calibrated damper SMC

Damper for measuring and setting the air flow rate

Tender text

Position	Description	No. of units	Unit price	Extended price
	<p>Standard displacement diffuser SQ for an equal distribution of the supply air with low induction. Casing from zinc plated steel with circular inlet spigot. Diffusion surface from perforated steel with integrated elements for an equal distribution of the supply air over the whole of the diffusion surface.</p> <p>Type of construction:</p> <p><input type="checkbox"/> Rectangular-form, Type SQ-RE <input type="checkbox"/> Halfround-form, Type SQ-HR <input type="checkbox"/> Quarterround-form, Type SQ-VR <input type="checkbox"/> Round-form, Type SQ-R</p> <p>Size: _____</p> <p>Dimensions: Height: _____ mm Width: _____ mm Depth: _____ mm Diameter: _____ mm Corner dimensions: _____ mm</p> <p>Inlet spigot: DN _____</p> <p>Surface:</p> <p><input type="checkbox"/> Powder coated RAL 9010 <input type="checkbox"/> Zinc plated sheet steel</p> <p>Accessories to Standard displacement diffusers SQ</p> <p>Plinth GS:</p> <p><input type="checkbox"/> RAL 9010 (white) <input type="checkbox"/> RAL 9005 (black)</p> <p>Noise reduction unit LP:</p> <p><input type="checkbox"/> Outer casing sheet steel <input type="checkbox"/> Outer casing perforated plate <input type="checkbox"/> Surface RAL 9010 <input type="checkbox"/> Surface zinc plated steel</p> <p>Decor panel IK: Height _____ mm (max. = 2000 mm)</p> <p><input type="checkbox"/> Outer casing sheet steel <input type="checkbox"/> Outer casing perforated plate <input type="checkbox"/> Surface RAL 9010 <input type="checkbox"/> Surface zinc plated steel</p> <p>Calibrated damper SMC: Size: _____</p>			



Air diffusion systems

Standard displacement diffuser Type SQ-RE Rectangular-form Type PFG

Construction and design

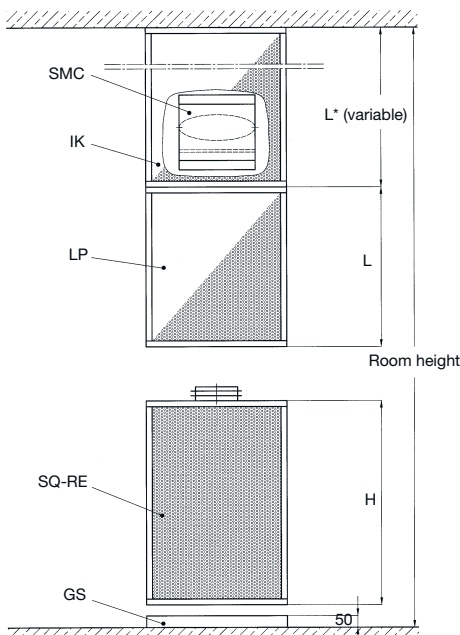
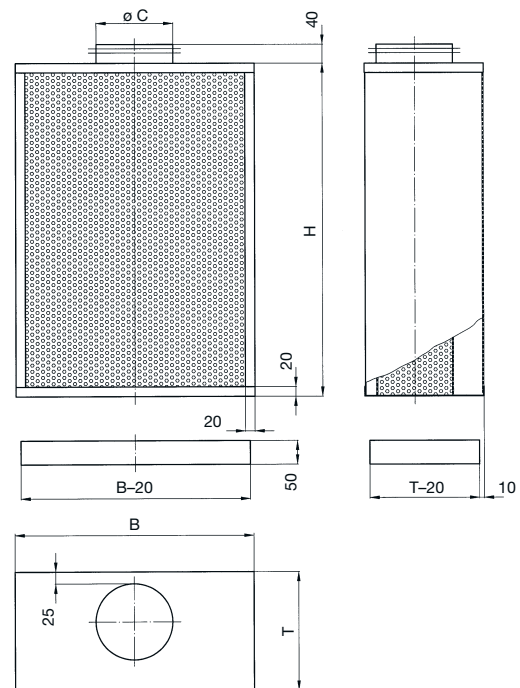
Displacement diffusers series SQ-RE are built in standard construction, sizes and surface finishes. The casing is made from zinc plated sheet steel with circular inlet spigot. The surface finish is powder coated RAL 9010.

On request the SQ displacement diffusers can be supplied with zinc plated sheet steel surface. The outer active casing is made from perforated sheet steel plate with 3 mm diameter holes. An inner casing with integrated elements guarantees equal air distribution over the whole surface.

Accessories

The following accessories are available for standard displacement-diffusers:

- **Plinth GS**
supplied loose, surface white (9010) or black (9005)
- **Noise reduction unit LP**
Outer casing either from sheet steel or perforated plate
- **Decor panel IK**
Cover panel for ducting from top of diffuser to ceiling either from sheet steel or perforated plate
- **Calibrated damper SMC**
Damper for measuring and setting the air flow rate



*max. production length = 2 m

Dimensions

Type SQ-RE Size	Dimensions mm				
	Height H	Width B	Depth T	Spigot C	Height LP L
125	500	350	200	125	300
200	800	600	300	200	400
250	900	700	325	250	500
315	1000	850	375	315	600
400	1500	1000	460	400	700
500	2000	1250	560	500	800
630	2000	1500	690	630	900

Standard displacement diffuser SQ-RE
Rectangular-form
Type PFG

Technical data

Technical data

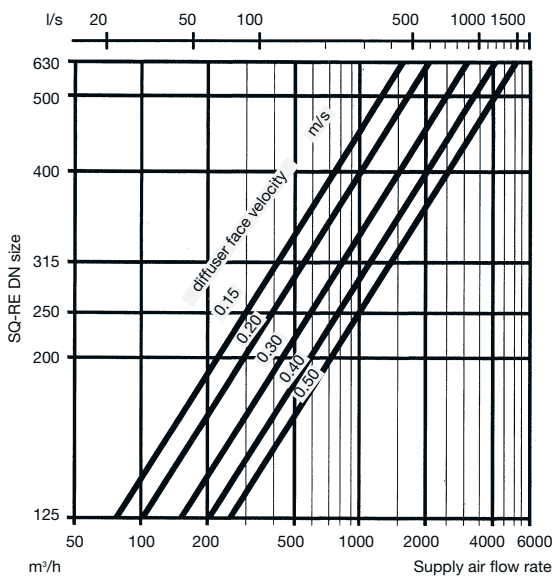


Fig. 1 Diffuser size selection chart

The diffuser size can be determined from air flow rate (m³/h or l/s) and the required face velocity (m/s)

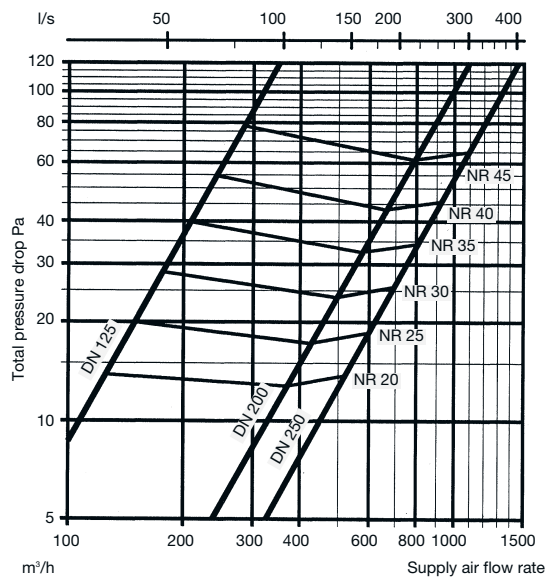


Fig. 3.1 Total pressure drop and noise level sizes DN 125 to DN 250

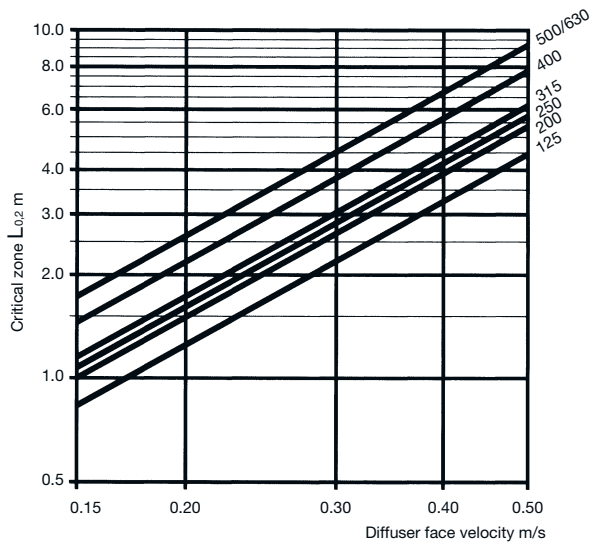


Fig. 2 Critical zone L_{0.2} vs diffuser face velocity at $\Delta t = 3$ K

Correction factor of critical zone: 0.7 for $\Delta t = 0$ K, 1.3 for $\Delta t = 6$ K

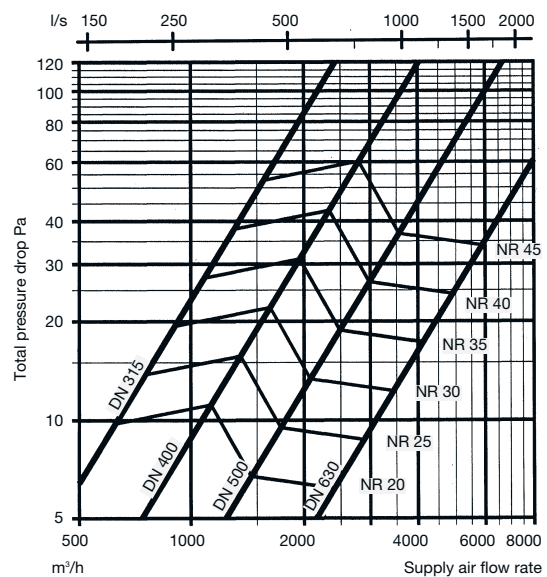


Fig. 3.2 Total pressure drop and noise level sizes DN 315 to DN 630

Standard displacement diffuser SQ-RE
Rectangular-form Type PFG

Technical data

Noise reduction unit LP

Type SQ-RE Size	Third octave band (Hz)						
	125	250	500	1000	2000	4000	8000
125	10	14	26	35	44	35	22
200	8	13	23	31	38	24	16
250	7	12	21	30	36	23	15
315	7	11	19	26	28	20	15
400	6	10	18	24	24	18	14
500	5	9	16	20	18	16	12
630	5	8	14	18	10	15	11

Fig. 4 Noise reduction per octave band

Decor panel IK

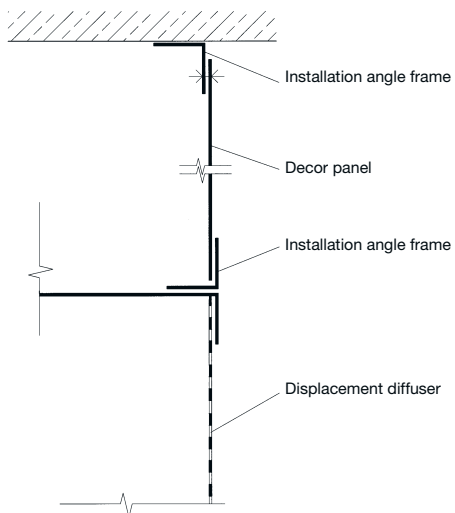
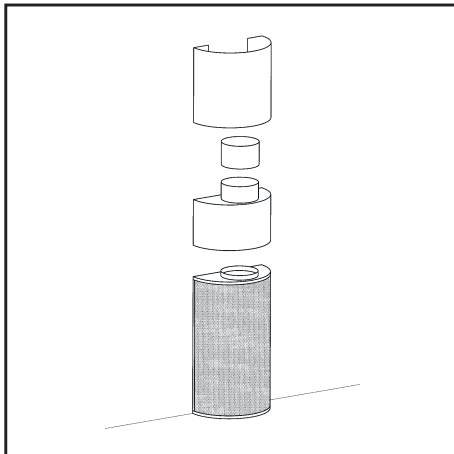


Fig. 5 Installation detail of Decor panel IK



Air diffusion systems

Standard displacement diffuser Type SQ

Halfround-form Type SQ-HR

Construction and design

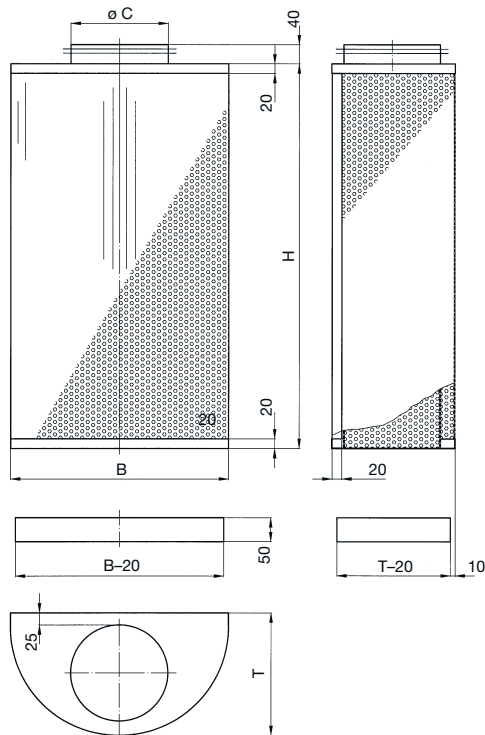
Displacement diffusers series SQ-HR are built in standard construction, sizes and surface finishes. The casing is made from zinc plated sheet steel with circular inlet spigot. The surface finish is powder coated RAL 9010.

On request the SQ displacement diffusers can be supplied with zinc plated sheet steel surface. The outer active casing is made from perforated sheet steel plate with 3 mm diameter holes. An inner casing with integrated elements guarantees equal air distribution over the whole surface.

Accessories

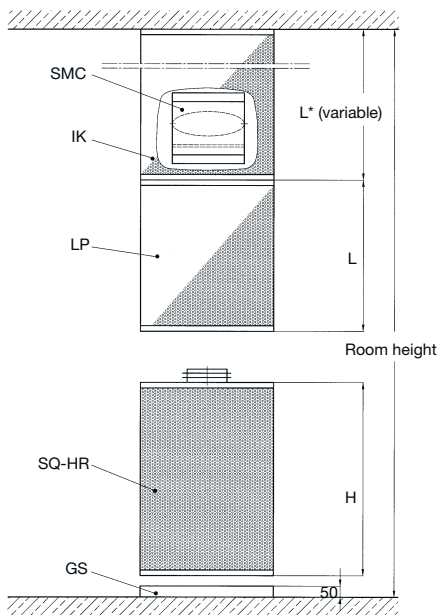
The following accessories are available for standard displacement diffusers:

- **Plinth GS**
supplied loose, surface white (9010) or black (9005)
- **Noise reduction unit LP**
Outer casing either from sheet steel or perforated plate
- **Decor panel IK**
Cover panel for ducting from top of diffuser to ceiling either from sheet steel or perforated plate
- **Calibrated damper SMC**
Damper for measuring and setting the air flow rate



Dimensions

Type SQ-HR size	Dimensions mm				
	Height H	Width B	Depth T	Spigot C	Height LP
125	600	350	205	125	300
200	800	450	255	200	400
250	1000	550	315	250	500
315	1200	650	375	315	600
400	1500	800	460	400	700
500	1800	1000	560	500	800
630	2000	1260	700	630	900



*max. production length = 2 m

The company reserves the right of design change without notice.

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Standard displacement diffuser SQ-HR
Halfround-form
Type SQ-HR

Technical data

Technical data

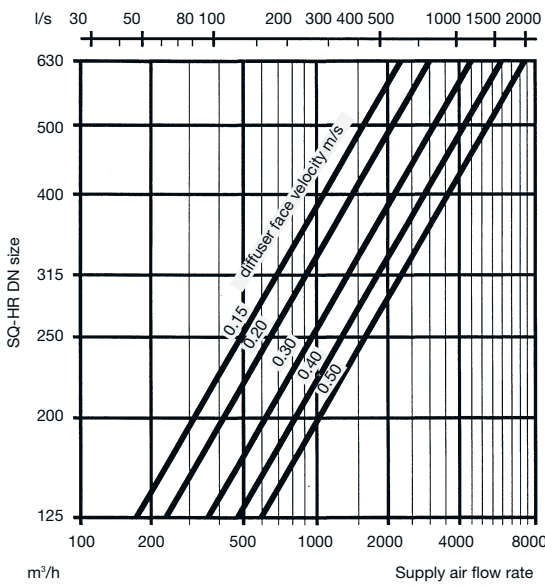


Fig. 1 Diffuser size selection chart

The diffuser size can be determined from air flow rate (m^3/h or l/s) and the required face velocity (m/s)

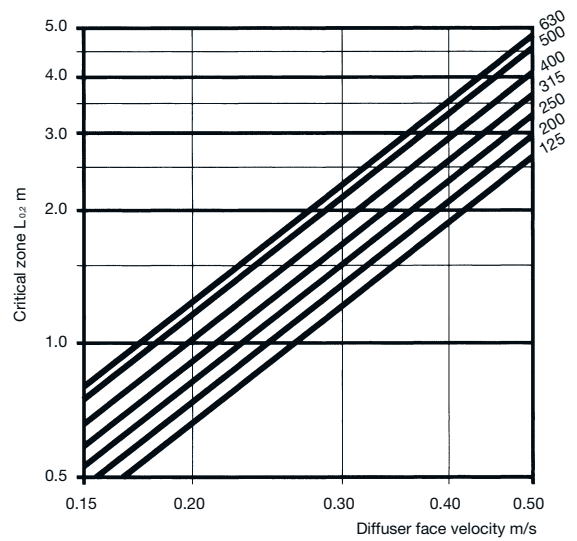


Fig. 2 Critical zone $L_{0,2}$ vs diffuser face velocity at $\Delta t = 3 K$

Correction factor of critical zone: 0.7 for $\Delta t = 0 K$, 1.3 for $\Delta t = 6 K$

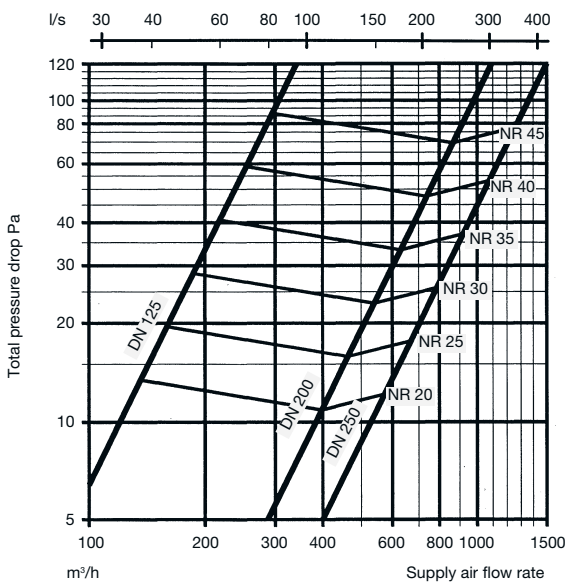


Fig. 3.1 Total pressure drop and noise level sizes DN 125 to DN 250

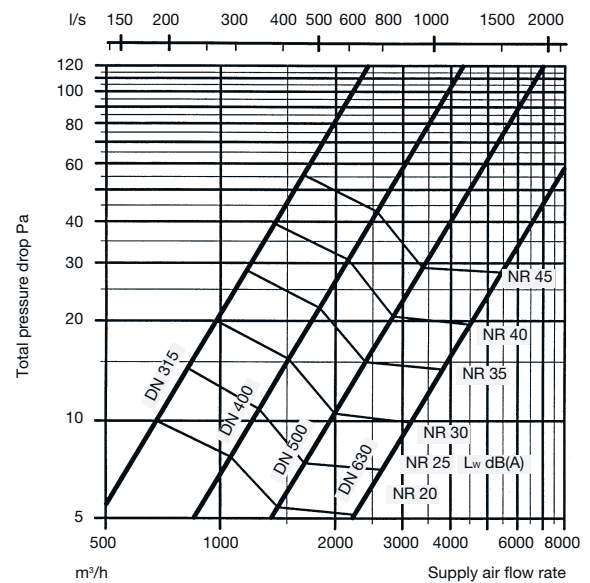


Fig. 3.2 Total pressure drop and noise level sizes DN 315 to DN 630

Standard displacement diffuser SQ-HR

Halfround-form
Type SQ-HR

Technical data

Noise reduction unit LP

Type SQ-HR Size	Third octave band Hz						
	125	250	500	1000	2000	4000	8000
125	9	13	24	34	38	27	17
200	7	11	19	28	30	20	15
250	7	11	18	25	26	18	15
315	5	8	15	21	19	13	12
400	4	7	14	18	16	12	11
500	3	6	12	15	14	11	10
630	3	5	12	14	13	10	9

Fig. 4 Noise reduction per octave band

Decor panel IK

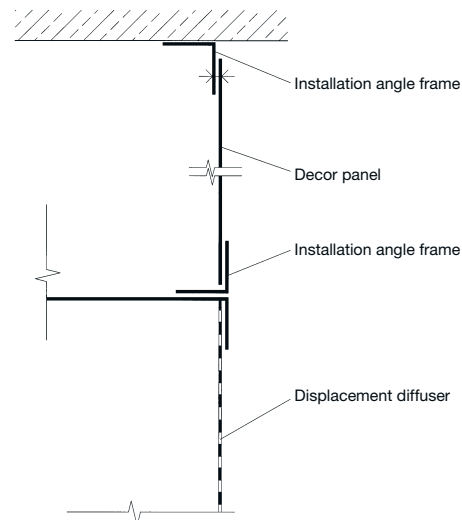
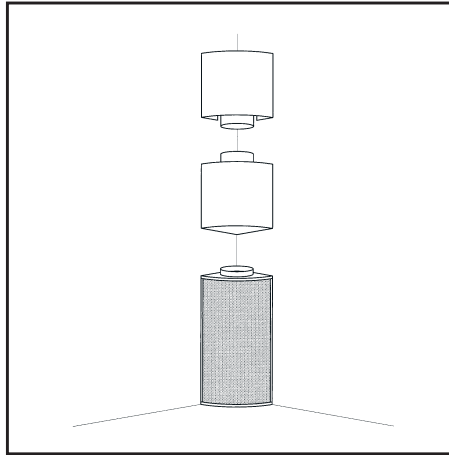


Fig. 5 Installation detail of Decor panel IK



Construction and design

Displacement diffusers series SQ-VR are built in standard construction, sizes and surface finishes. The casing is made from zinc plated sheet steel with circular inlet spigot. The surface finish is powder coated RAL 9010.

On request the SQ displacement diffusers can be supplied with zinc plated sheet steel surface. The outer active casing is made from perforated sheet steel plate with 3 mm diameter holes. An inner casing with integrated elements guarantees equal air distribution over the whole surface.

● **Accessories**

The following accessories are available for standard displacement diffusers:

● **Plinth GS**

supplied loose, surface white (9010) or black (9005)

● **Noise reduction unit LP**

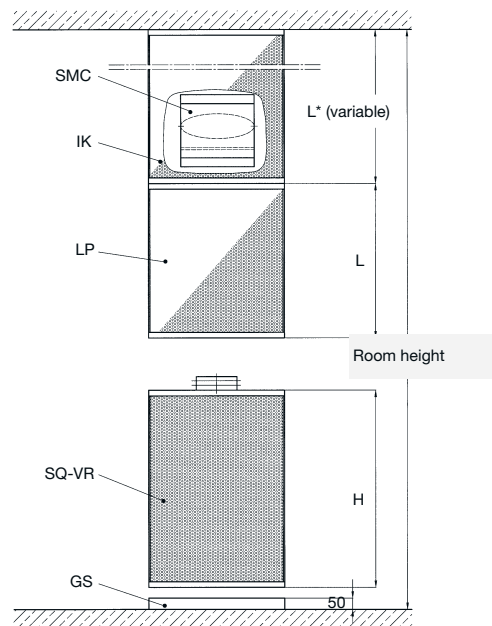
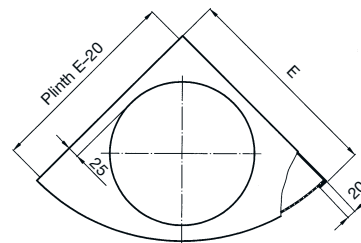
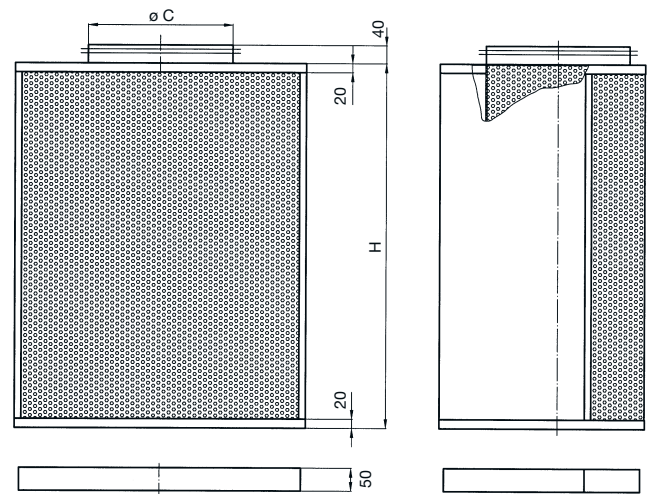
outer casing either from sheet steel or perforated plate

● **Decor panel IK**

Cover panel for ducting from top of diffuser to ceiling either from sheet steel or perforated plate

● **Calibrated damper SMC**

Damper for measuring and setting the air flow rate



*max. production length = 2 m

Dimensions

Type SQ-VR Size	Dimensions mm			
	Height H	E	Spigot C	Height LP
125	600	260	125	300
200	800	335	200	400
250	1000	385	250	500
315	1500	450	315	600
400	1750	560	400	700
500	2000	680	500	800
630	2000	800	630	900

Standard displacement diffuser SQ-VR

Quarter-round-form
Type SQ-VR

Technical data

Technical Data

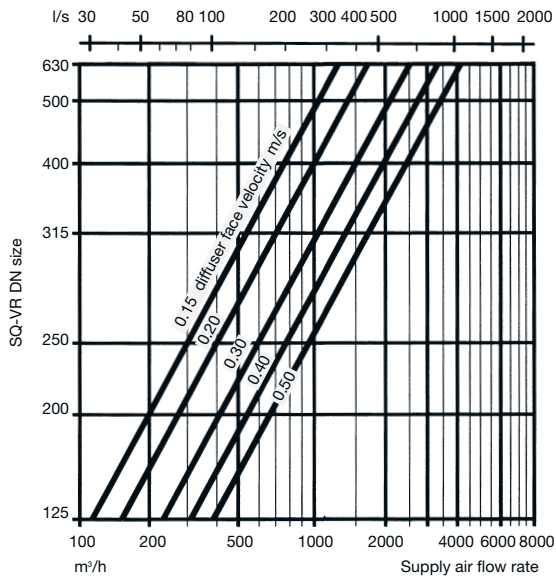


Fig. 1 Diffuser size selection chart

The diffuser size can be determined from air flow rate (m^3/h or l/s) and the required face velocity (m/s)

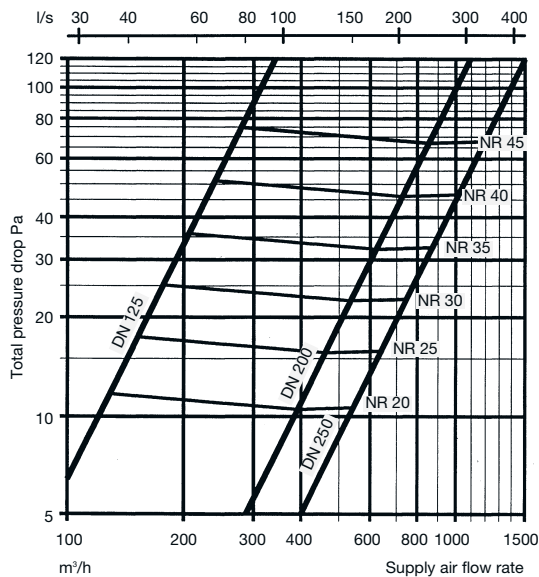


Fig. 3.1 Total pressure drop and noise level sizes DN 125 to DN 250

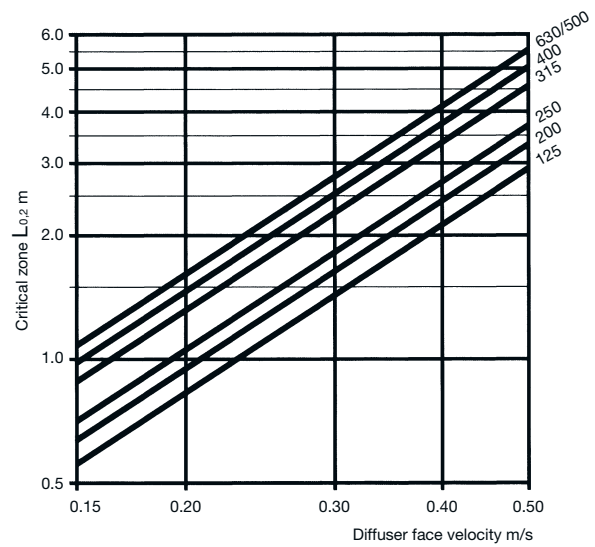


Fig. 2 Critical zone $L_{0,2}$ vs diffuser face velocity at $\Delta t = 3 K$

Correction factor of critical zone: 0.7 for $\Delta t = 0 K$, 1.3 for $\Delta t = 6 K$

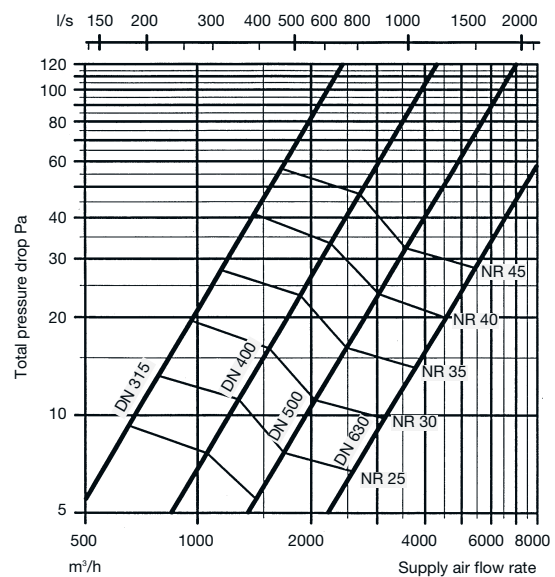


Fig. 3.2 Total pressure drop and noise level sizes DN 315 to DN 630

Standard displacement diffuser SQ-VR

Quarter-round-form
Type SQ-VR

Technical data

Noise reduction unit LP

Type SQ-VR Size	Third octave band (Hz)						
	125	250	500	1000	2000	4000	8000
125	9	13	24	34	38	27	17
160	8	12	22	31	36	25	16
200	7	11	19	28	30	20	15
250	7	11	18	25	26	18	15
315	5	8	15	21	19	13	12
400	4	7	14	18	16	12	11
500	3	6	12	15	14	11	10
630	3	5	12	14	13	10	9

Fig. 4 Noise reduction per octave band for each unit

Decor panel IK

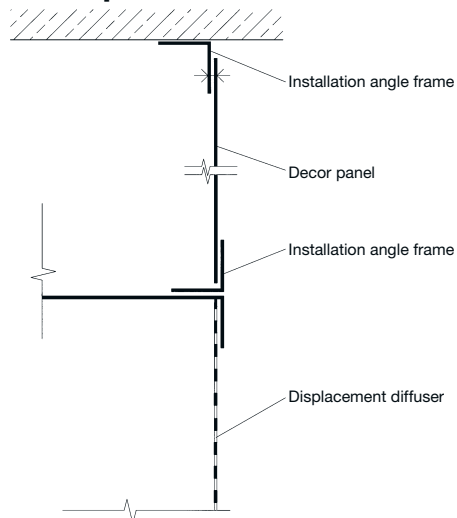
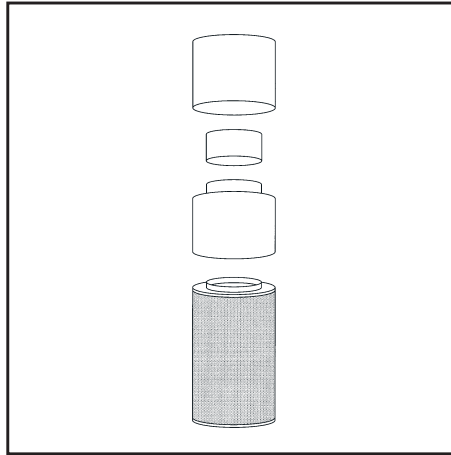


Fig. 5 Installation detail of Decor panel IK



Construction and design

Displacement diffusers series SQ-R are built in standard construction, sizes and surface finishes. The casing is made from zinc plated sheet steel with circular inlet spigot. The surface finish is powder coated RAL 9010.

On request the SQ displacement diffusers can be supplied with zinc plated sheet steel surface. The outer active casing is made from perforated sheet steel plate with 3 mm diameter holes. An inner casing with integrated elements guarantees equal air distribution over the whole surface.

● **Accessories**

The following accessories are available for standard displacement diffusers:

● **Plinth GS**

supplied loose, surface white (9010) or black (9005)

● **Noise reduction unit LP**

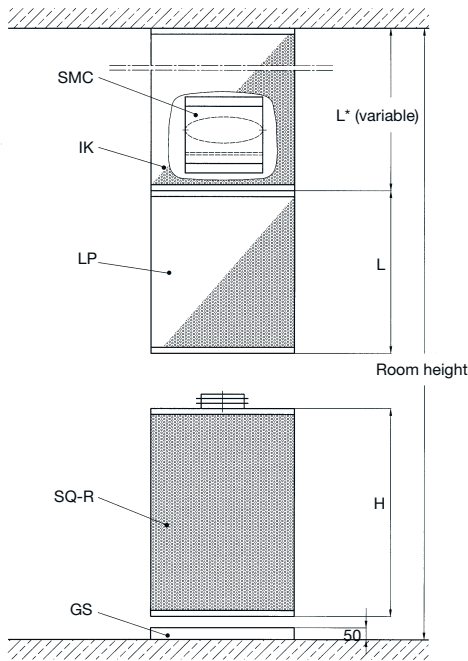
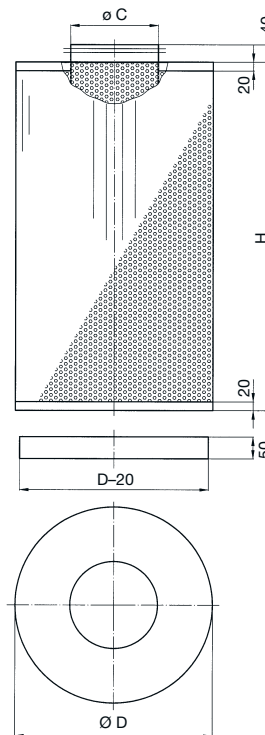
Outer casing either from sheet steel or perforated plate

● **Dekor panel IK**

Cover panel for ducting from top of diffuser to ceiling either from sheet steel or perforated plate

● **Calibrated damper SMC**

Damper for measuring and setting the air flow rate



*max. production length = 2 m

Dimensions

Type SQ-R Size	Dimensions mm			
	Height H	Diameter D	Spigot C	Height LP L
315	750	500	315	600
400	1000	600	400	700
500	1250	700	500	800
630	1500	850	600	900

Standard displacement diffuser SQ-R

Round-form Type SQ-R

Technical data

Technical data

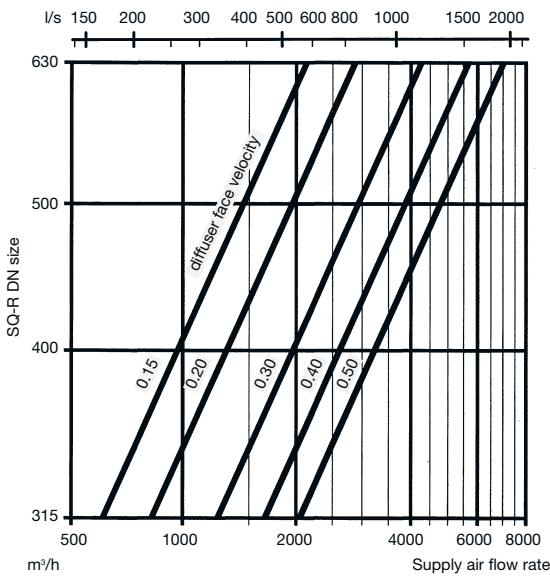


Fig. 1 Diffuser size selection chart

The diffuser size can be determined from air flow rate (m³/h or l/s) and the required face velocity (m/s)

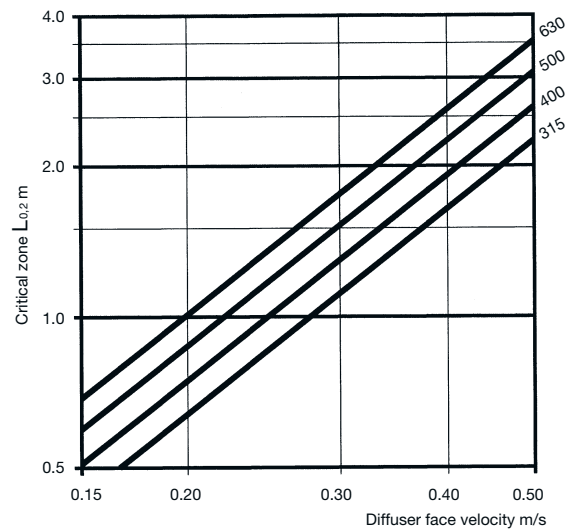


Fig. 2 Critical zone $L_{0.2}$ vs diffuser face velocity at $\Delta t = 3 K$

Correction factor of critical zone: 0.7 for $\Delta t = 0 K$, 1.3 for $\Delta t = 6 K$

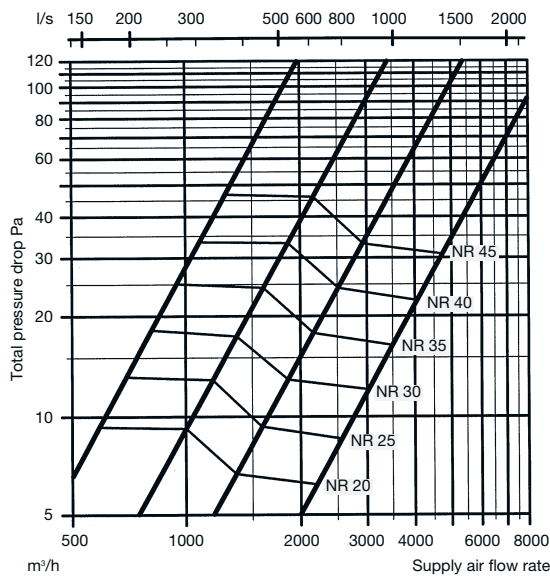


Fig. 3 Total pressure drop and noise level sizes DN 315 to DN 630

Standard displacement diffuser SQ-R

Round-form Type SQ-R

Technical data

Noise reduction unit LP

Type SQ-R Size	Third octave band (Hz)						
	125	250	500	1000	2000	4000	8000
315	8	14	18	24	26	20	16
400	6	12	15	22	24	18	14
500	4	10	14	20	23	17	12
630	4	8	13	16	17	12	10

Fig. 4 Noise reduction per octave band

Decor panel IK

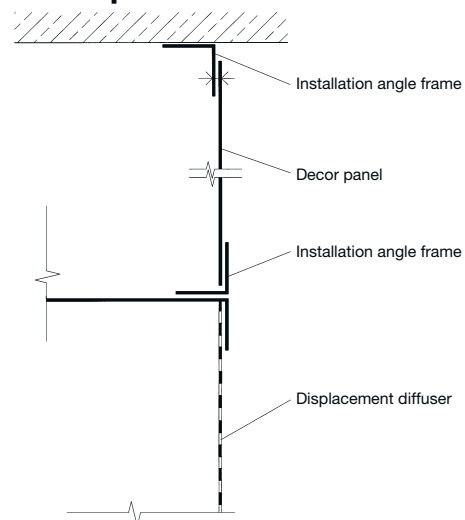


Fig. 5 Installation detail of Decor panel IK

Standard displacement diffuser SQ

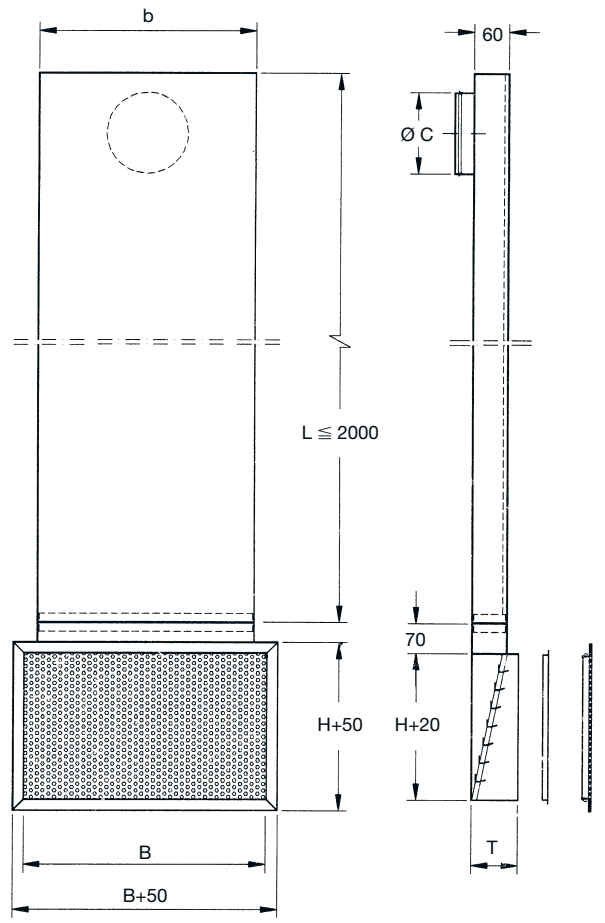
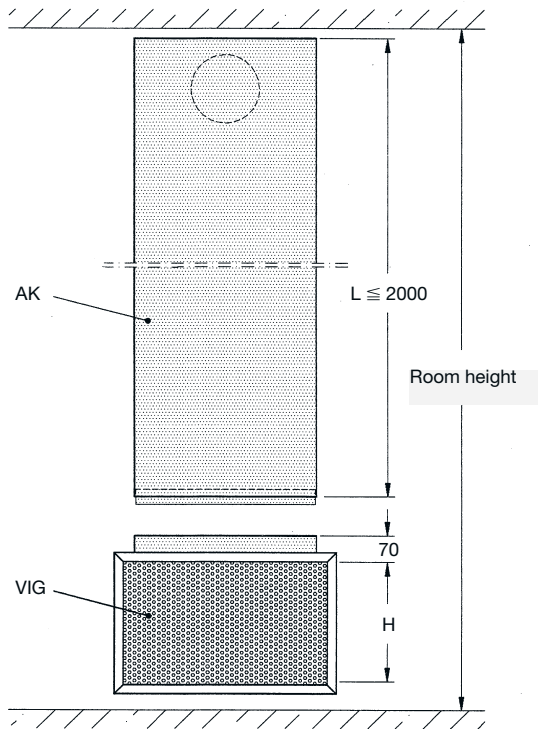
Rectangular (in-wall) type SQ-VIG

Construction and design

Casing with rectangular inlet spigot and installation frame are from zinc plated sheet steel. Diffuser front plate from perforated sheet steel plate with 3 mm diameter holes and a steel frame, fixed to the casing by means of spring clips. The surface finish of the front plate is powder coated RAL 9010, on request front plate can be supplied with zinc plated sheet steel surface. Special elements, integrated into the casing, guarantee equal air distribution over the whole surface.

Accessory

- **Connecting duct – AK**
Rectangular supply duct to diffuser housing with circular inlet spigot and internal insulation. Material: Zinc plated sheet steel.



Plenum box:
Height: H + 20 mm
Width: B + 20 mm

Dimensions

Model VIG	Dimensions mm				
	Height H	Width B	Depth T	Duct Width b	Spigot Ø C
VIG 5030	300	500	82	300	125
VIG 5040	400	500	82	400	160
VIG 5050	500	500	82	450	200
VIG 5560	600	550	82	450	200

Standard displacement diffuser SQ

Rectangular (in-wall) type SQ-VIG

Technical data

Technical data

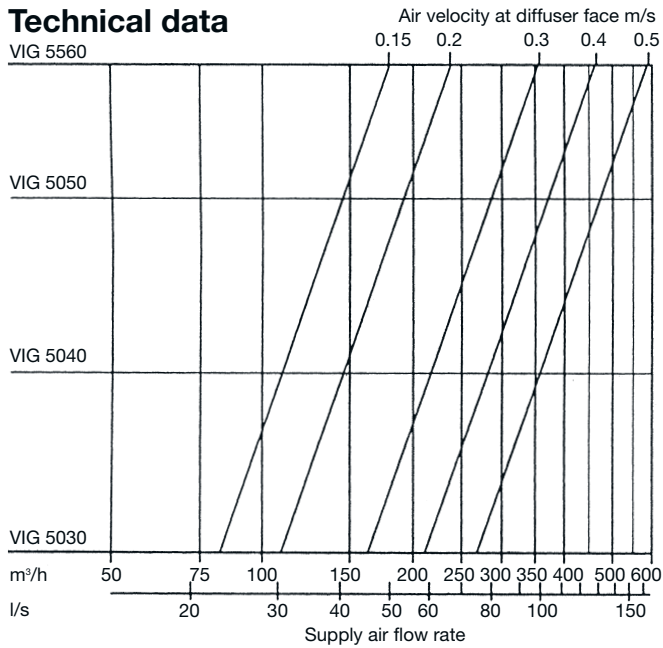


Fig. 1 Diffuser size selection chart

The diffuser size can be determined from air flow rate (m³/h or l/s) and the required face velocity (m/s)

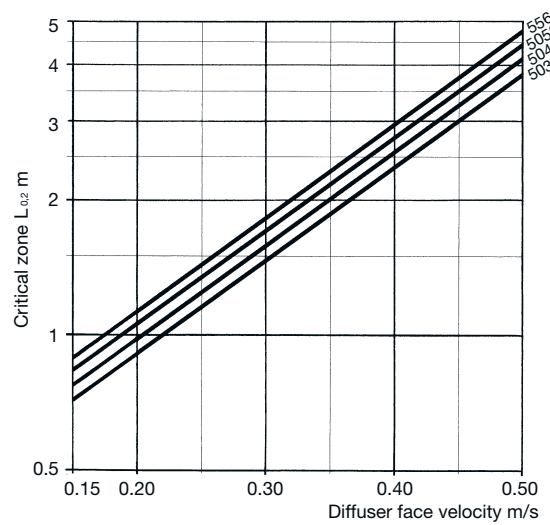


Fig. 2 Critical zone $L_{0.2}$ vs diffuser face velocity at $\Delta t = 3$ K

Correction factor of critical zone: 0.7 for $\Delta t = 0$ K, 1.3 for $\Delta t = 6$ K

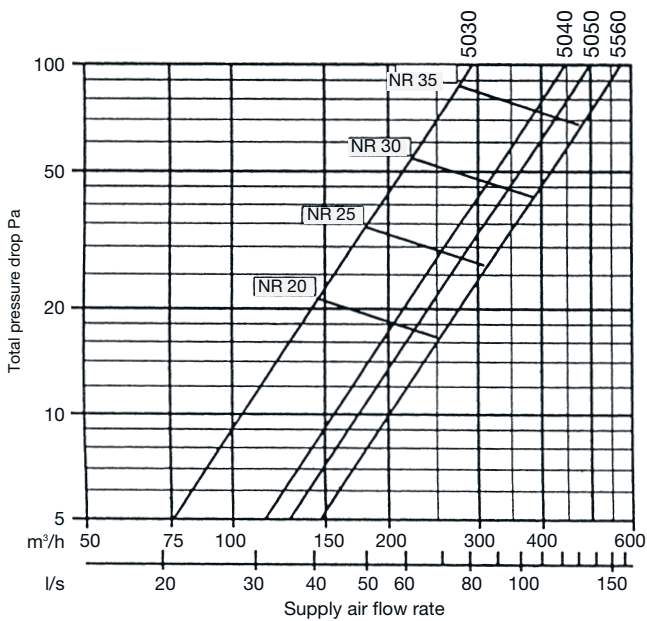


Fig. 3 Total pressure drop and noise level

Tender text

Position	Description	No. of units	Unit price	Extended price
	<p>Standard displacement diffuser SQ Rectangular (in-wall) type</p> <p>for an equal distribution of the supply air with low induction. Casing from zinc plated steel with rectangular connection spigot. Diffusion surface from perforated steel with integrated elements for an equal distribution of the supply air over the whole of the diffusion surface.</p> <p>Type: VIG _____</p> <p>Surface:</p> <p><input type="checkbox"/> Powder coated RAL 9010</p> <p><input type="checkbox"/> Zinc plated sheet steel</p> <p>Connection duct AK:</p> <p>Length: _____ mm (max. length of duct 2000 mm)</p> <p>Connection spigot: DN _____</p>			