



SLOT DIFFUSER

SR

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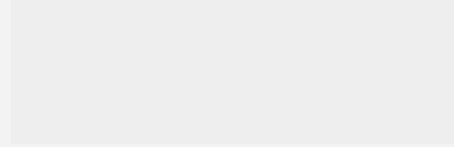


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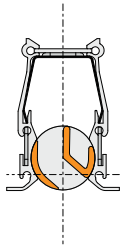
Definition of symbols:

V [m ³ /h]	- Airflow rate
V^p [m ³ /hm]	- Airflow rate per meter length
V_2 [m ³ /hm ²]	- Airflow rate per room area
A_{ef} [m ²]	- Effective outlet area
v_L [m/s]	- Core velocity
v_h [m/s]	- Air velocity between two diffusers
L [m]	- Diffuser length
B [m]	- Distance between two diffusers
h^{min} [m]	- Installation height
L_{WA} [dB(A)]	- Sound power level
Δp [Pa]	- Pressure drop

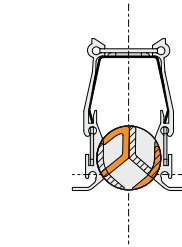
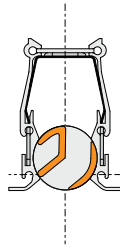


SR

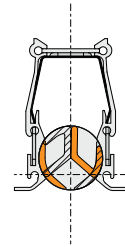
- Ceiling diffuser for room heights from 2,7 to 5m.
- Made out of anodized aluminium profiles
- 1-row, 2-row, 3-row and 4-row version
- Length from 300 to 2000 mm (step 100 mm).
- Individually adjustable discharge elements SR30 and SR50.



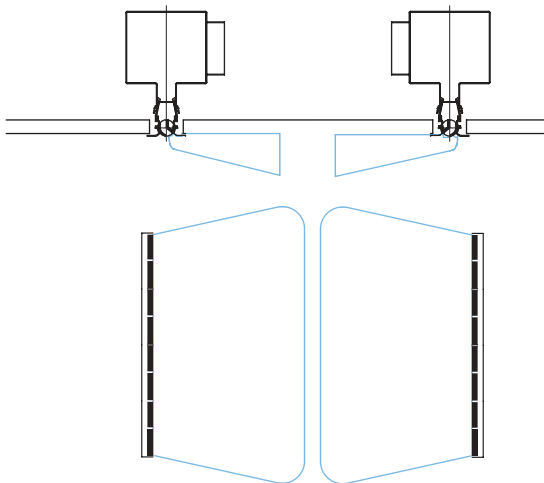
Horizontal one-sided discharge



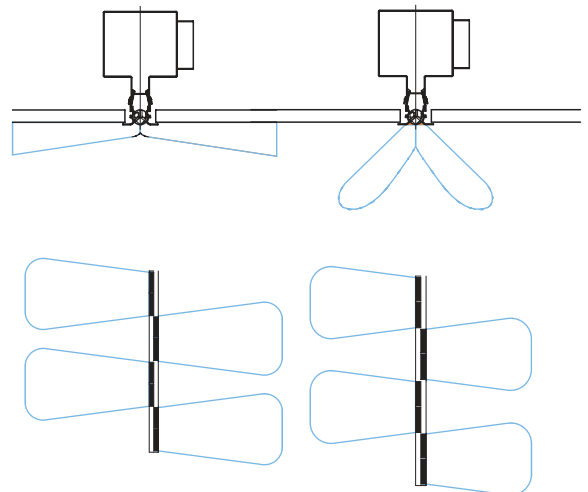
Horizontal two-sided discharge



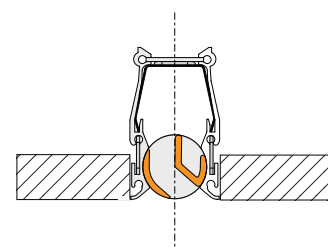
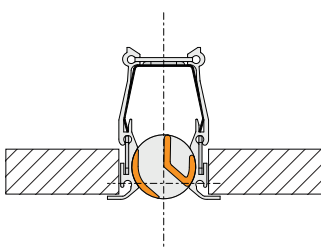
Two-sided discharge at an angle



Slot diffuser



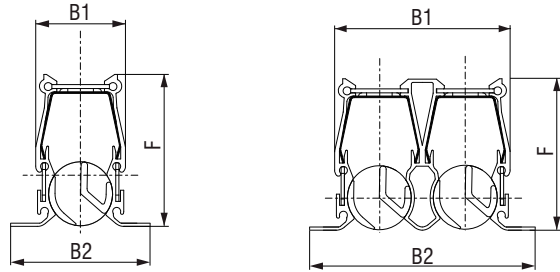
Narrow slot diffuser



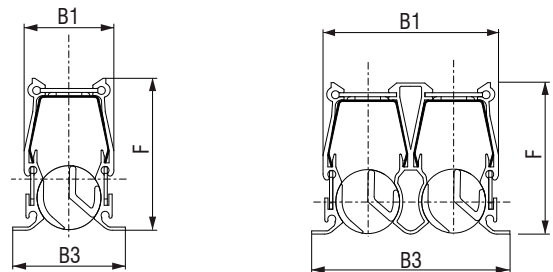
SLOT DIFFUSER

Dimensions

Slot diffuser



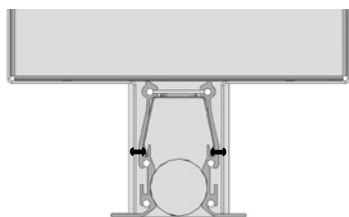
Narrow slot diffuser



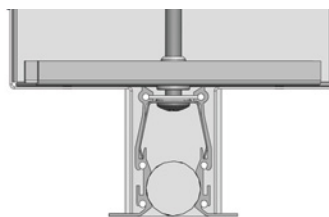
Type	No. of rows	A _{ef} [m²/m]	L [mm]	V [m³/h m]	h [m]	B1 [mm]	B2 [mm]	B3 [mm]	A [mm]	B [mm]	C [mm]	øD [mm]	No. of connections	E [mm]	F [mm]	G [mm]	
SR 30	1	0,00752	do 1000	40 -130	2,7 -4,0	28	47,5	35	221	120	174	98	1	L / 2	47,5	47	
			1100-1500									98	2	300			
			1600-2000									123	2	400			
	2	0,01504	do 1000	70 -240	2,7 -4,5	55	74,5	62	236	150	189	138	1	L / 2		47	
												1100-1500	123	2			300
												1600-2000	138	2			400
	3	0,02256	do 1000	120 -320	3,0 -5,0	82	101,5	89	261	179	215	158	1	L / 2		47	
												1100-1500	138	2			300
												1600-2000	158	2			400
	4	0,03008	do 1000	160 -400	3,5 -5,0	109	128,5	119	301	210	255	198	1	L / 2		47	
												1100-1500	158	2			300
												1600-2000	198	2			400

Type	No. of rows	A _{ef} [m²/m]	L [mm]	V [m³/h m]	h [m]	B1 [mm]	B2 [mm]	B3 [mm]	A [mm]	B [mm]	C [mm]	øD [mm]	No. of connections	E [mm]	F [mm]	G [mm]	
SR 50	1	0,01504	do 1000	75 -210	2,7 -4,0	43,5	71	51	252	130	195	123	1	L / 2	57,5	57	
			1100-1500									123	2	300			
			1600-2000									138	2	400			
	2	0,03008	do 1000	130 -390	2,7 -4,5	93,5	121	101	272	180	215	158	1	L / 2		57	
												1100-1500	138	2			300
												1600-2000	158	2			400
	3	0,04512	do 1000	195 -520	3,0 -5,0	143,5	171	151	312	230	255	198	1	L / 2		57	
												1100-1500	158	2			300
												1600-2000	198	2			400
	4	0,06016	do 1000	260 -650	3,5 -5,0	193,5	221	201	337	280	280	223	1	L / 2		57	
												1100-1500	198	2			300
												1600-2000	223	2			400

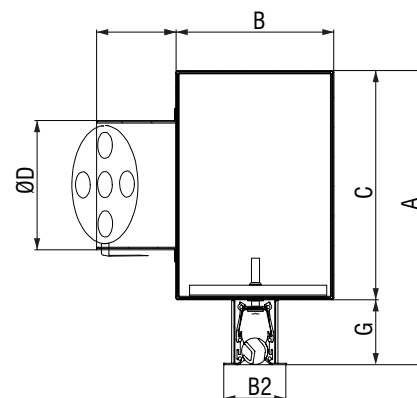
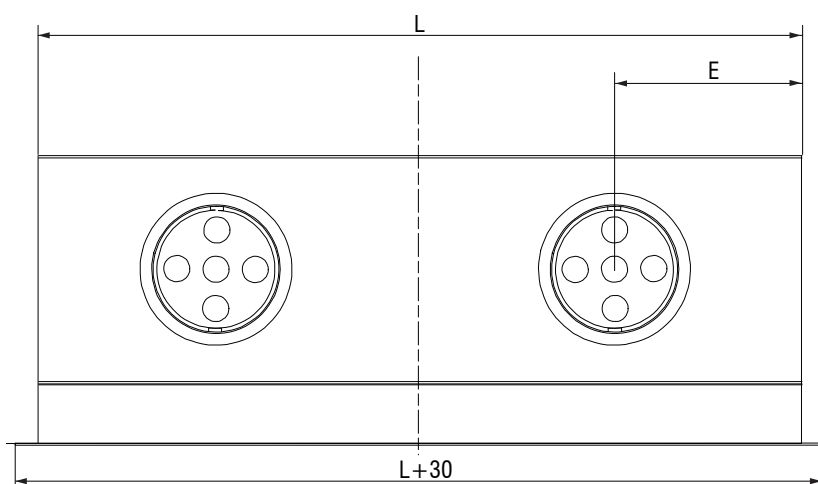
Fixing onto plenum box



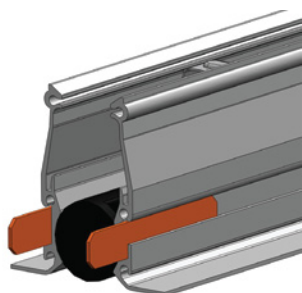
- fixing with rivets



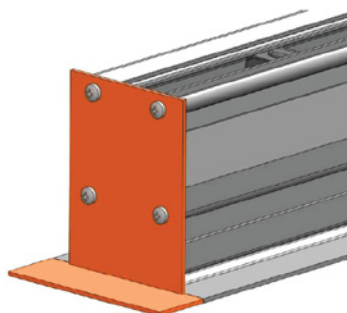
- fixing with cross-member



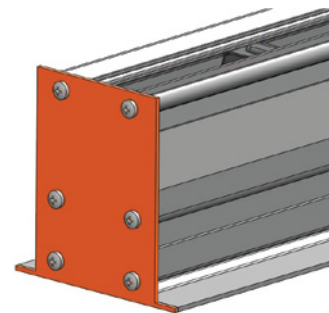
Connecting slot diffusers in series with connecting plate



End profile L1 (L2)



End plate I1 (I2)



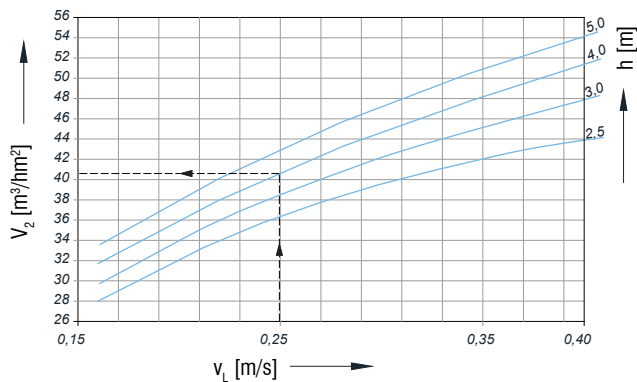
SLOT DIFFUSER

SELECTION DIAGRAM - SR30

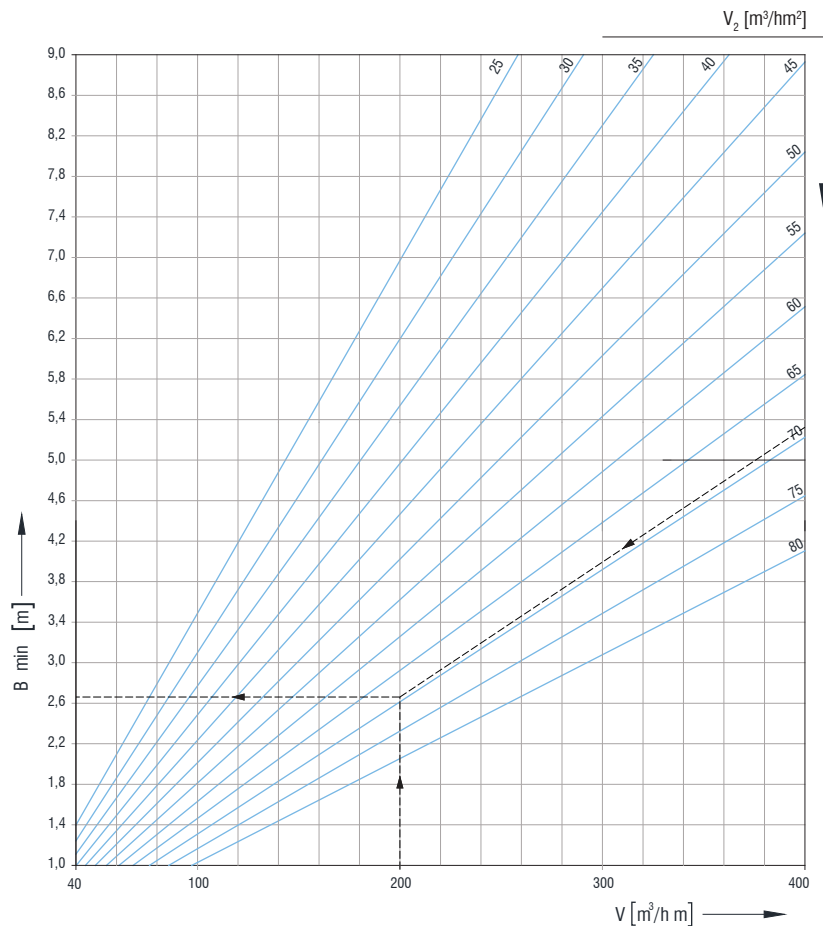
Maximum flow correction factor per 1 m² of room area, in regards to maximum temperature difference Δt

	$\Delta t = -12K$	$\Delta t = -10K$	$\Delta t = -8K$	$\Delta t = -6K$	$\Delta t = -6K$
$\Delta V_p =$	x 1,00	x 1,00	x 1,15	x 1,35	x 1,70

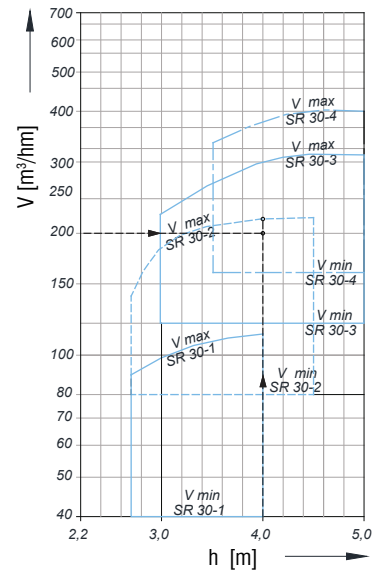
Maximum airflow rate of SR30 per 1m² of room area, for maximum temperature difference $\Delta t = -12K$



Minimum distance between two slot diffusers SR30



Airflow rate per 1 meter length



Example:

Given:

SR 30-2

$V = 400$ m³/h $L = 2$ m
 $v_L = 0,25$ m/s $\Delta t_z = -4^\circ C$
 $h = 4$ m Supply

Solution:

Diagram 1:

$V_2 = 40,5$ m³/hm²

Correction = $40,5 \times 1,70 = 68,85$ m³/hm²

Diagram 2:

$V_{max} = 210$ m³/hm

$V = 200$ m³/hm

Diagram 3:

$B_{min} = 2,7$ m

Diagram 4:

$L_{WA} = 36$ dB(A)

Correction (damper open 50%):

$36 + 2 = 38$ dB(A)

Diagram 5:

$\Delta p = 33$ Pa

Correction (damper open 50%):

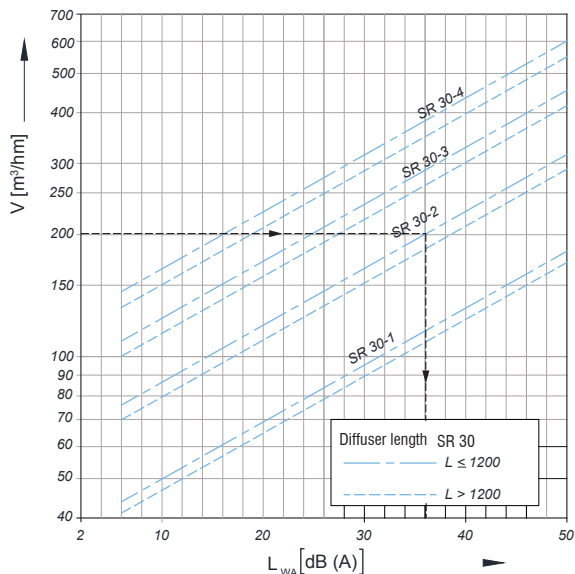
$33 \times 1,4 = 46,2$ Pa

Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta L_{WA} =$	+0	+1	+2	+4	+6

For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

SR 30 Sound power level - Supply air
(damper position 100% open)
- Non insulated plenum box

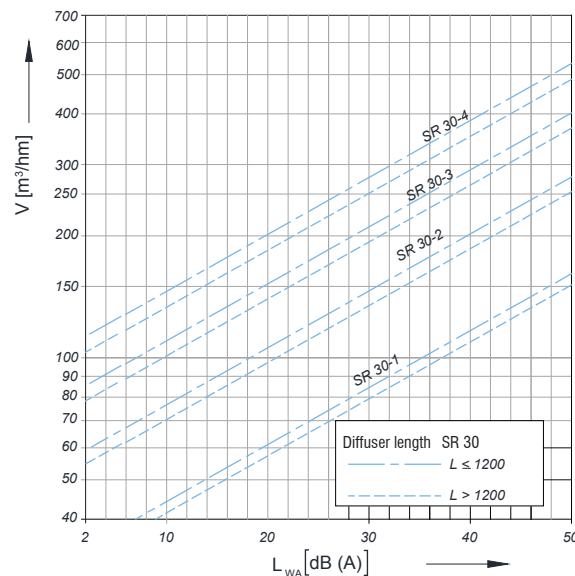


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

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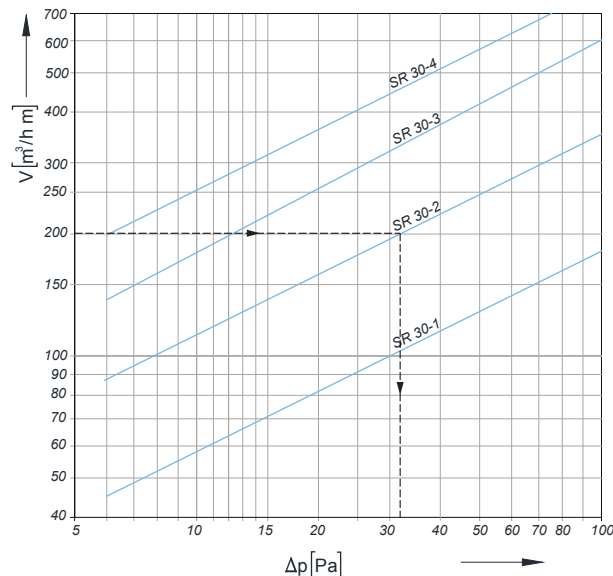
SR 30 Sound power level - Exhaust air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x1,4	x1,7	x2,2

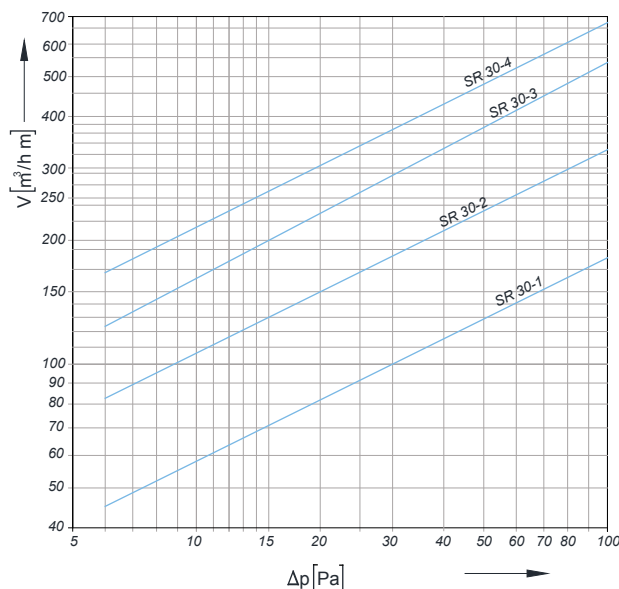
SR 30 Pressure drop - Supply air
(damper position 100% open)



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,6	x2,0	x2,4	x3,0

SR 30 Pressure drop - Exhaust air
(damper position 100% open)



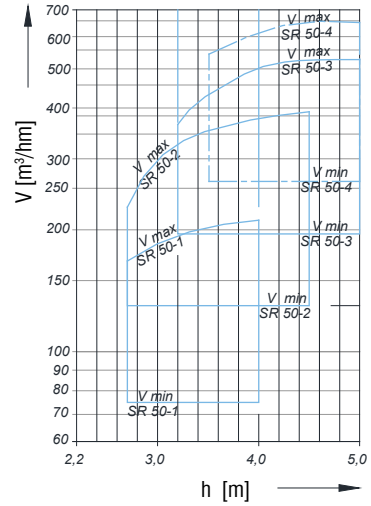
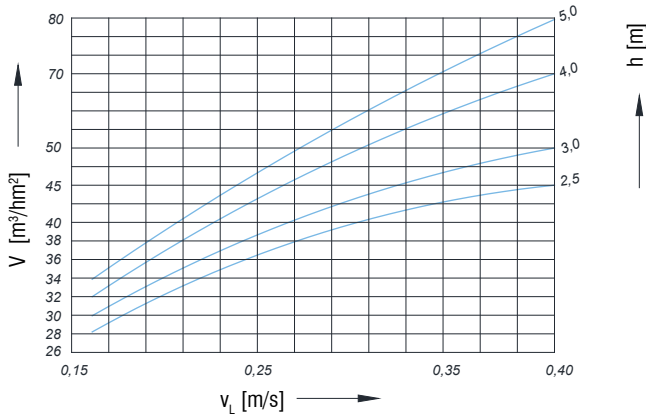
SELECTION DIAGRAM - SR 50

Maximum flow correction factor per 1 m² of room area, in regards to maximum temperature difference Δt

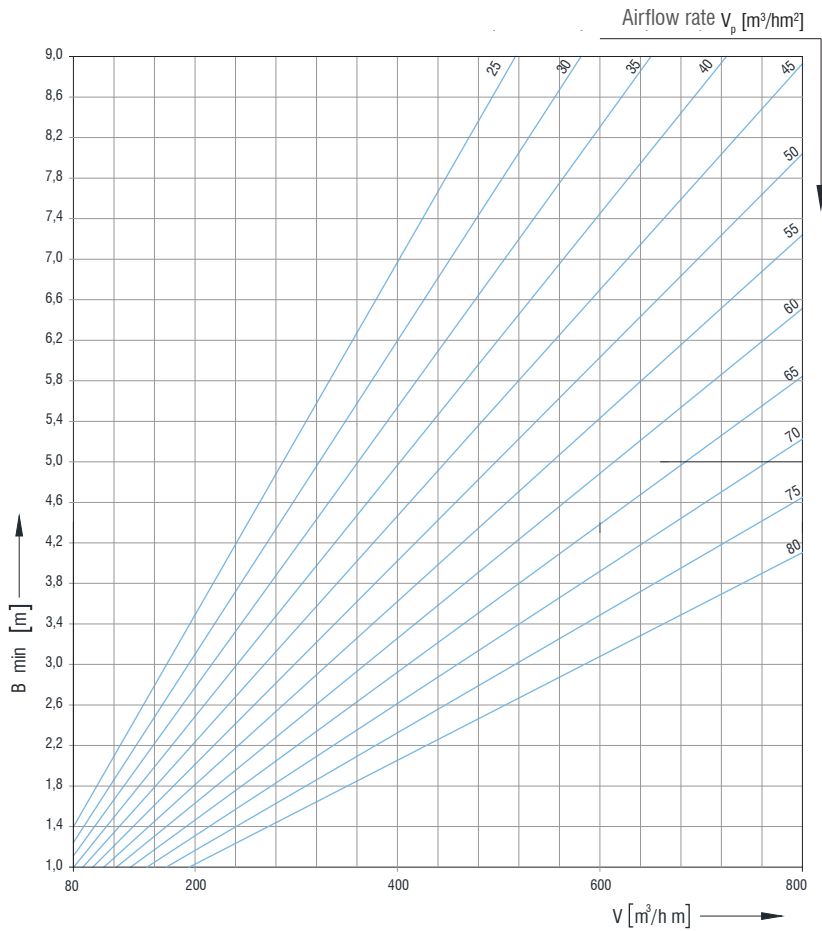
	$\Delta t = -12K$	$\Delta t = -10K$	$\Delta t = -8K$	$\Delta t = -6K$	$\Delta t = -6K$
$\Delta V_p =$	x 1,00	x 1,00	x 1,15	x 1,35	x 1,70

Airflow rate per 1 meter length

Maximum airflow rate of SR50 per 1 m² of room area, for maximum temperature difference $\Delta t = -12K$



Minimum distance between two slot diffusers SR50

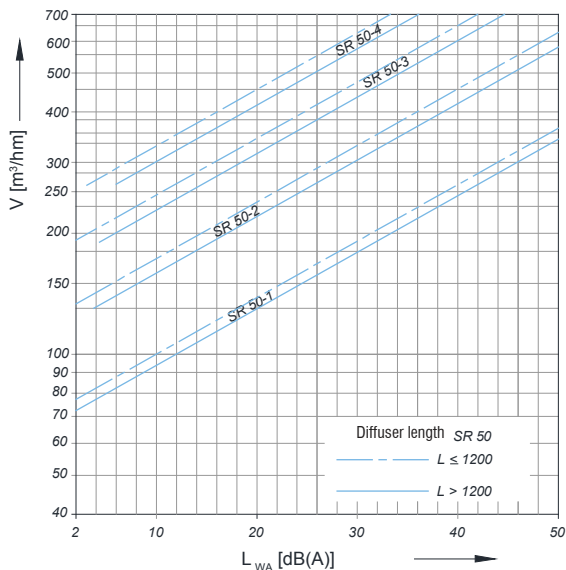


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta L_{WA} =$	+0	+1	+2	+4	+6

For insulated plenum boxes sound power level is decreased by additional 2 dB(A)

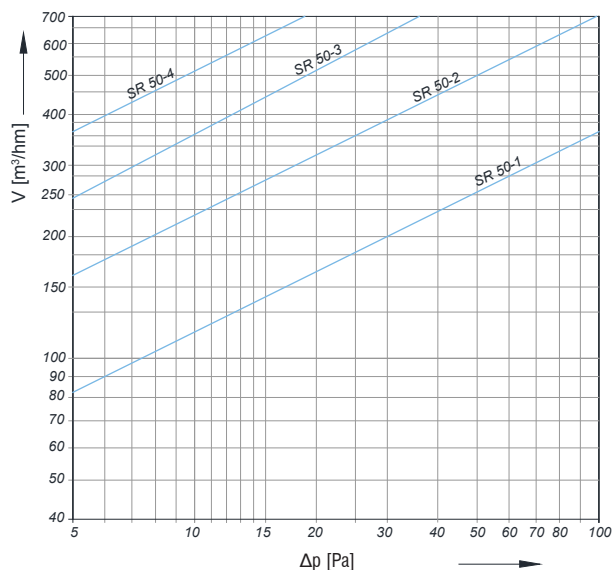
SR 50 Sound power level - Supply air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x1,4	x1,7	x2,2

SR 50 Pressure drop - Supply air
(damper position 100% open)

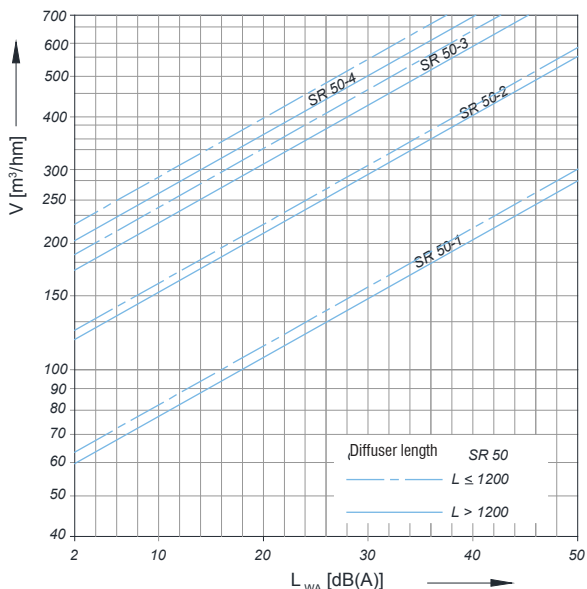


Sound power level correction factor L_{WA} [dB(A)] in regard to airflow damper position

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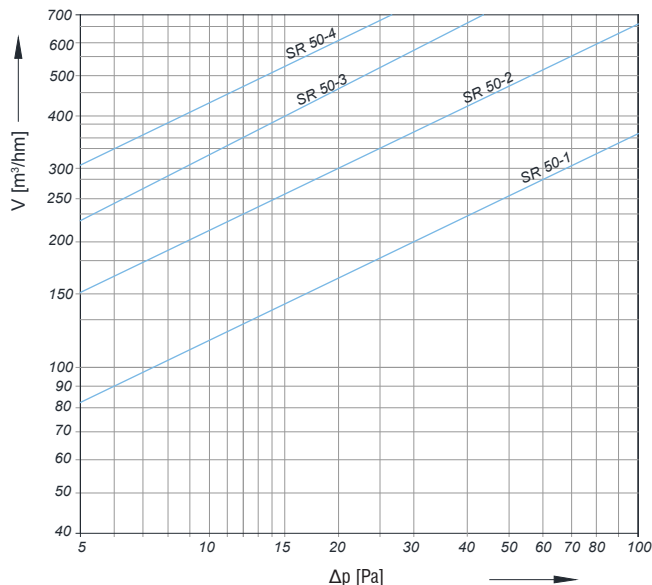
SR 50 Sound power level - Exhaust air
(damper position 100% open)
- Non insulated plenum box



Pressure drop correction factor L_{WA} [dB(A)] in regard to airflow damper position

Damper position	100% open	75% open	50% open	25% open	0% open
$\Delta p =$	x1,00	x1,2	x2,0	x2,4	x3,0

SR 50 Pressure drop - Exhaust air
(damper position 100% open)



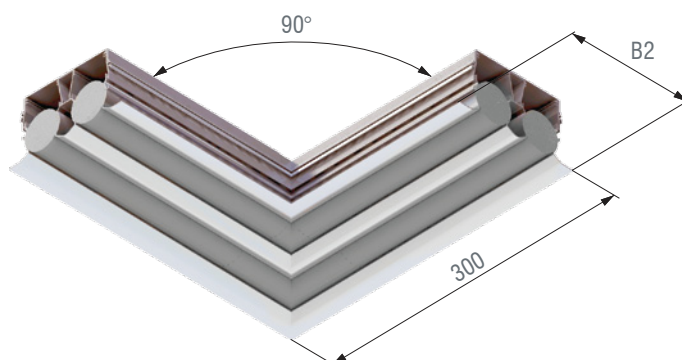
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ORDERING KEY

Type (SR30, SR50)	SR30	- 2	- 1,4	- KZ	- T	- N	- B	- L2	- RAL..
Number of slots (1, 2, 3, 4)									
Diffuser length (1..2m, in increments of 0,1m)									
K - plenum box									
Z - insulation									
T - cross-member fixing									
F - fixing with rivets									
N - slot diffuser									
U - narrow slot diffuser									
C - black discharge elements									
B - white discharge elements									
S - grey discharge elements									
L1 - end profile on one side									
L2 - end profile on both sides									
I1 - end plate on one side									
I2 - end plate on both sides									

Corner section

- Corner section doesn't have air supply function
- Outer dimensions:
 - L=300 / 300 mm
 - Angle 90°
- Dimensions are referred to maximum outer dimensions (see image)



Corner section ordering key:

Type (SR30, SR50)	SR30	- 2	- 90	- B	- RAL..
Number of slots (1, 2, 3, 4)					
Corner section angle					
C - black discharge elements					
B - white discharge elements					
S - grey discharge elements					

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