



AUDIX® Telephony silencer box

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FUNCTION AND USE

Modern office buildings are often built without suspended ceilings. This opens up a saving potential regarding the floor heights. This means that the same building height can accommodate more floors.

To provide the possibly cheapest office space creates conflicts with the demand for comfort. Therefore, to reduce the room temperatures, in some cases component cooling systems are used for the ground load cooling.

According to the thermal isolation regulations, an air-conditioning installation is demanded for dense facades, to prevent building damage and mould fungus. The necessary supply and return air ducts are preferably installed between the false ceiling in the corridors. In doing so, the main ducts and the connection ducts for each room are installed within a very small space.

The **slot diffuser plenum box with integrated telephony silencer** has been developed for this application. The integrated telephony silencer **performs the same function as the telephony silencers previously inserted separately into the ducting system**, for which there is seldom sufficient space available. **The transmission of cross-talk sound through the ducting system is thus effectively prevented.**

The slot diffuser plenum box AUDIX® **reduces the installation costs**, as the additional telephony silencers are not required and the built-in telephony silencer **saves space in the hall area**. The **dimensions of the AUDIX® telephony silencer plenum box have been adjusted to the requirements in dry building** and can be integrated completely into lightweight partition walls, thus facilitating the cooperation between the dry builders and the air conditioning installers and saving assembly time. The diffuser can be installed subsequently with magnetic fastening, thus avoiding damage to the diffuser during the building phase. As an accessory, covers for the opening made of galvanised sheet steel are available, which can be fitted during the building phase to avoid contamination of the box. The plenum box with the structure-borne sound insulation and integrated telephony silencer is made of galvanised sheet steel and the inner lining of special soundproof plates which are laid out in a reverse labyrinth. The building sound absorption coefficient of the partition wall is not reduced by fitting the plenum box, compared with conventional solutions.

The plenum box can be combined with the proven slot diffusers from SCHAKO, thus allowing greater design freedom. This is reinforced as on each axis a partition wall can be integrated.

The slot diffusers ADSA, ADSC, ADSX and ADSXW allow the ceiling flow to be adjusted, thus contributing to increasing the efficiency of the convective performance in cooling ceilings and activated concrete ceilings.

The slot diffusers from SCHAKO integrated into the AUDIX® units achieve a draught-free air pattern with long throws. The free cross-section remains the same for all adjustable jet directions, as a result of which the pressure loss and the sound volume also stay the same. A subsequent change of the air throw direction on site is possible at any time, even when the diffuser has already been fitted. The slot diffuser ADSA, ADSC, ADSX and ADSXW are attached by means of magnetic fastening. This fastening type also allows easy dismantling, making the diffusers easy to clean, thus meeting the requirements of VDI 6022. The AUDIX® unit can also be used as combination diffuser for supply and return air as a continuous band with one slot diffuser plenum box each for supply and return air. A damper with connection spigot serves to control the air volume regulation from the hall.

Advantages:

- Prevents air from entering or escaping from the dry wall construction filled with mineral wool, thus creating a hygienically optimum situation.
- The fastening system included in the delivery facilitates mounting, allowing it to be mounted by the RLT or dry builders.
- Excellent sound-absorbing properties
- Acoustic insulating panels of building material class B1 (standard) or building material class A2 (non-flammable to DIN 4102 at an extra charge)

Transmission loss value D_{df} (dB)

L (mm)	H (mm)	D_{df} (dB)							
		f_m (Hz)							
		63	125	250	500	1000	2000	4000	8000
508	250	38	35	27	35	38	42	42	39
	300	34	34	26	29	33	42	51	44
1008	250	37	36	30	26	37	42	40	38
	300	36	36	32	27	38	41	46	42

Characteristics of the individual diffusers:

- **AUDIX®-...-ADSA:**
 The fixed (-D0) or adjustable (-VD) nozzles produce a stable core jet. Their low noise level allows a high blow velocity, resulting in correspondingly long throw distances. This ensures that fresh air is circulated through the whole room and not just near the supply air diffuser. The temperature and the velocity are broken down quickly.
- **AUDIX®-...-ADSC:**
 The support profile blades produce a stable jet set to a horizontal throw, directed slightly upwards. Due to the central housing of the support profile blades, the free cross-section is always the same size. Pressure loss and sound power level remain therefore constant even when the blades are adjusted. A subsequent change of the air throw direction is possible at any time, even when the diffuser has already been fitted.
- **AUDIX®-...-ADSX:**
 The air outflow direction can also be adjusted even after installation of the diffuser. In doing so, the free cross-section always remains constant. Likewise, the pressure loss and noise level do not change. A subsequent adjustment of the air jet pattern to changed room conditions is possible. For adjustment, single blades must be taken out and put back turned into the required air flow direction. The stable air jet means that the diffuser is suitable for VAV systems.
- **AUDIX®-...-ADSXW:**
 The air outflow direction has been set in factory to a horizontal throw, directed slightly upwards. The high induction ensures fast reduction of the air outflow velocity and of the temperature difference in the cooling mode. The stable air jet means that the diffuser is suitable for VAV systems.

PROCESSING

Plenum box housing

- galvanised sheet steel (standard) (-SV)

Insulation

- Housing inside lined with fibre-free insulating material (10 mm) formed as reverse labyrinth.
- Acoustic insulating panels of building material class B1 (standard) or building material class A2 (non-flammable to DIN 4102)

MODELS

AUDIX®-...	cross-talk sound attenuator box with round connection spigot
AUDIX®-A2-...	building material class A2, non-flammable to DIN 4102
AUDIX®-B1-...	building material class B1, flame-retardant to DIN 4102 (standard)
AUDIX®-...-Z0	supply air (standard)
AUDIX®-...-A0	return air
AUDIX®-...-ZA	supply air/return air combination

Diffusers for cross-talk sound attenuator box:

AUDIX®-...-55	for nozzle jet diffuser ADSA-D0, 1-row
AUDIX®-...-61	for nozzle jet diffuser ADSA-VD, 1-row
AUDIX®-...-62	for slot diffuser ADSC, 1-slot
AUDIX®-...-63	for slot diffuser ADSC, 2-slot
AUDIX®-...-64	for slot diffuser ADSX, 1-slot
AUDIX®-...-65	for slot diffuser ADSX, 2-slot
AUDIX®-...-66	for slot diffuser ADSX, 3-slot
AUDIX®-...-67	for slot diffuser ADSX, 4-slot
AUDIX®-...-68	for slot diffuser ADSXW, 1-slot
AUDIX®-...-69	for slot diffuser ADSXW, 2-slot

For description of diffusers, see pages 7+8.

MOUNTING

Magnetic fastening (-MB)

- Concealed fastening for subsequent mounting and dismantling of the diffusers.

ACCESSORIES

Damper (-DK0/-DK2)

- without damper (-DK0)
- with damper (-DK2)
 - manually adjustable from room side via cable
 - throttle damper made of galvanised sheet steel
 - damper fastening made of plastic material

Rubber lip seal (-GD0/-GD1)

- without rubber lip seal (-GD0)
- with rubber lip seal (-GD1)
 - made of special rubber

Box neck extension (-KVS/-xxx)

- standard box neck (-KVS).
- box neck extension in mm, freely selectable (-xxx, always with 3 digits), for wall thickness >100 mm up to max. 350 mm.

Fixing lug (-B0/-BL)

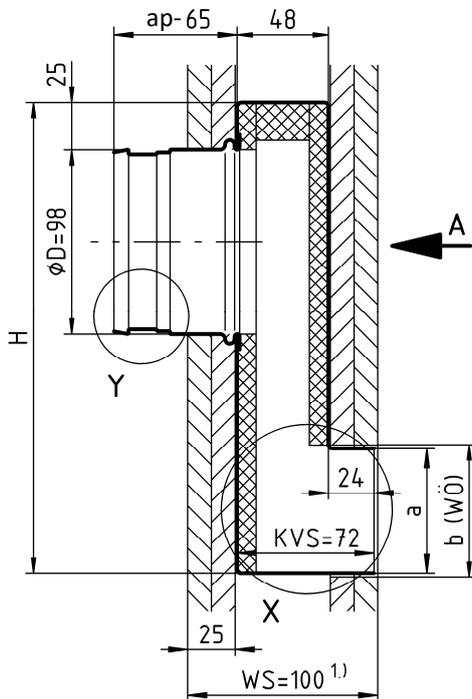
- without fixing lug (-B0)
- with fixing lug (-BL)
 - made of galvanised sheet steel

Cover (-OA0/-OA1)

- without cover (-OA0)
- with cover (-OA1)
 - made of galvanised sheet steel

DIMENSIONS AUDIX

AUDIX®



1.) For wall thickness (WS) >100 mm up to max. 350 mm, a box neck extension (KVS) is required.

Available sizes

	Diffuser	a inside	b (WÖ)
AUDIX®-...-55	ADSA-D0-...-1 (1-row)	66	70
AUDIX®-...-61	ADSA-VD-...-1 (1-row)	52	56
AUDIX®-...-62	ADSC-1 (1-slot)	54	58
AUDIX®-...-63	ADSC-2 (2-slot)	94	98
AUDIX®-...-64	ADSX-1 (1-slot)	24	28
AUDIX®-...-65	ADSX-2 (2-slot)	38	42
AUDIX®-...-66	ADSX-3 (3-slot)	52	56
AUDIX®-...-67	ADSX-4 (4-slot)	66	70
AUDIX®-...-68	ADSXW-1 (1-slot)	42	46
AUDIX®-...-69	ADSXW-2 (2-slot)	74	78

KVS = standard box neck
 WS = wall thickness
 WÖ = wall opening

wall opening in the length: L + 5

H	L	Number of connection spigots		
		AUDIX®-...-Z0	AUDIX®-...-A0	AUDIX®-...-ZA
250 300	0408	1	1	2
	0508	1	1	2
	0608	1	1	2
	0808	1	1	2
	1008	2	2	2
	1208	2	2	2

All combined lengths and heights available.
 Special height from ≥250 mm to 350 mm possible.
 Special length from ≥408 mm up to max. 1208 mm possible.

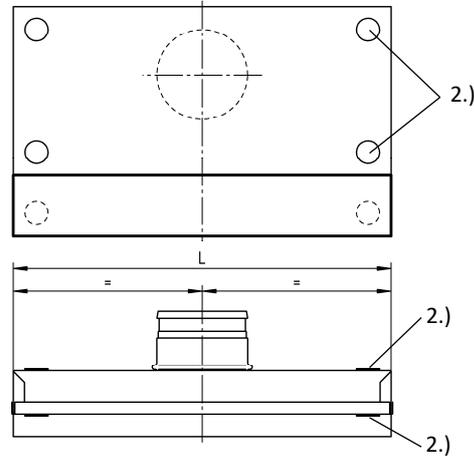
Construction subject to change
 No return possible

Spigot position / spigot number with air throw -Z0 / -A0 / -ZA

with 1 spigot

for supply or return air (-Z0 or -A0)
 Length ≥408 to <1008

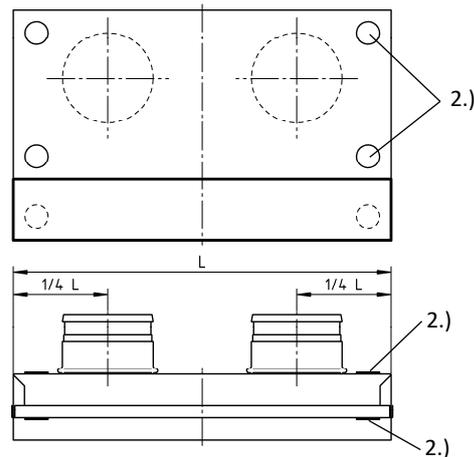
View A



with 2 spigots

for supply or return air (-Z0 or -A0)
 Length ≥1008 to ≤1208

View A

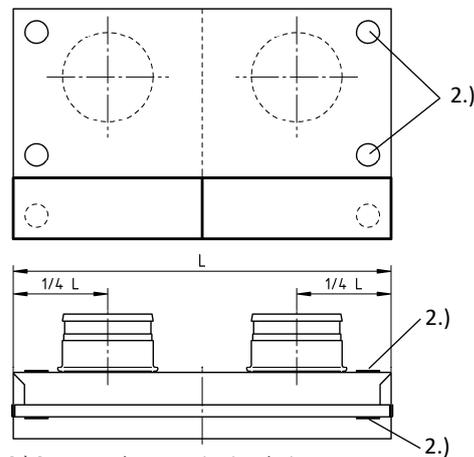


with 1 connection spigot each for supply and return air

for supply and return air (-ZA)

Length ≥408 to ≤1208

View A

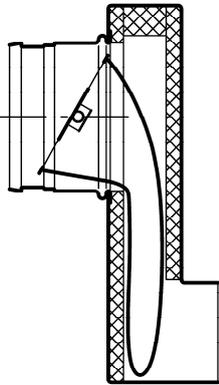


2.) Structure-borne noise insulation
 For detail X, see page 11. / For detail Y, see page 6.

DIMENSIONS OF ACCESSORIES AUDIX

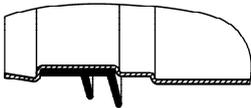
Damper (-DK2)

manually adjustable from room side via cable



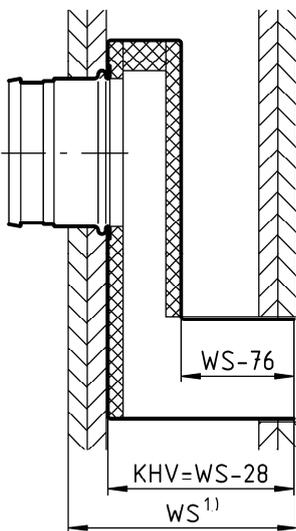
Rubber lip seal (-GD1)

Detail Y



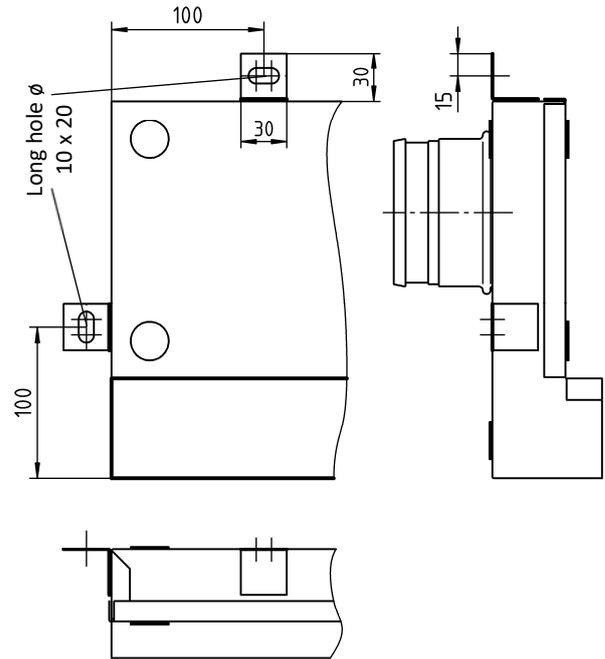
Box neck extension (-KVS /-xxx)

- standard box neck (-KVS).
- box neck extension in mm, freely selectable (-xxx)
 - 1.) For wall thicknesses (WS) >100 mm up to max. 350 mm, a box neck extension (KHV) is required.



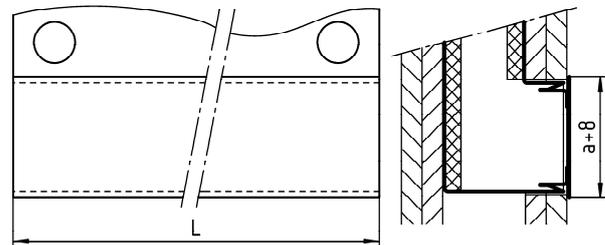
KHV = box neck extension
 WS = wall thickness

Fixing lug (-BL)



Cover (-OA1)

To prevent contamination or damage during assembly.



For dimension a, see available sizes on page 5.

DIFFUSERS

The diffusers ADSA, ADSC, ADSX and ADSXW are models especially designed for the cross-talk sound attenuator box. These diffusers can only be used with the corresponding cross-talk sound attenuator boxes. Their ventilation characteristics are identical to those of the standard diffusers DSA, DSC, DSX and DSXW.

Nozzle jet diffuser ADSA

PROCESSING

Nozzles

- made of plastic material:
 - similar to RAL 9005 (black) (-DS)
 - similar to RAL 9006 (white aluminium) (-DA)
 - similar to RAL 9010 (white) (standard) (-DW)

Faceplate

- made of sheet steel painted to:
 - RAL colour 9010 (white, standard) (-SB-9010)
 - RAL colour 9006 (white aluminium) (-SB-9006)
 - RAL colour 9005 (black) (-SB-9005)
 - RAL colour of your choice (-SB-xxxx, always with 4 digits)

MODEL

ADSA-D0-...	with fixed nozzles (standard)
ADSA-VD-...	with individually manually adjustable nozzles
ADSA-...-Z0-...	supply air
ADSA-...-1-...	nozzles 1-row
ADSA-...-N-...	single design (length max. 1200 mm)

MOUNTING

Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

Slot diffuser ADSC

PROCESSING

Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour

- Plastic (hard PVC):
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).
 - RAL colour can be freely selected (-Lxxxx)
- For return air, without blade (-00000), with perforated plate made of sheet steel painted to RAL 9005 (black), as cover screen.

Perforated plate

- for return air (-...0), sheet steel painted to the colour of the blade.

Blade holding device

- only for supply air models -Z0 and -ZA
- Aluminium ducts

Internal blade divider (standard)

- only for supply air models -Z0 and -ZA
- plastic (ABS), painted to colour similar to frame surface

External blade plates (end plates)

- only for supply air models -Z0 and -ZA
- plastic (ABS), painted to colour similar to frame surface

End pieces (pair)

- mounted ex works on both sides (-EB).
- made of aluminium (same material and colour as frame).

MODEL

ADSC-1-...	1-slot
ADSC-2-...	2-slot
ADSC-...-Z0	supply air (with blades)
ADSC-...-A0	return air (without blades)
ADSC-...-ZA	supply air/return air combination
ADSC-...-R0	with frame profile STANDARD (frame with R0 standard profile)
ADSC-...-P0	with special frame profile (frame with P0 profile)
ADSC-...-V	blades with vertical throw
ADSC-...-0	without blades, with perforated plate (for return air)
ADSC-...-N	single design (length ≥400 mm up to max. 1200 mm)

MOUNTING

Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

Slot diffuser ADSX

PROCESSING

Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour

- Plastic (hard PVC):
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).

End pieces (pair)

- mounted ex works on both sides.
 - for ADSX-...-P0 (-ES2)
 - for ADSX-...-PB (-ES3)
- made of aluminium (same material and colour as frame).

MODEL

ADSX-1-...	1-slot
ADSX-2-...	2-slot
ADSX-3-...	3-slot
ADSX-4-...	4-slot
ADSX-...-Z0	supply air
ADSX-...-A0	return air
ADSX-...-ZA	supply air/return air combination
ADSX-...-P0	with frame profile STANDARD (10 mm)
ADSX-...-PB	wide frame profile (16 mm)
ADSX-...-V	blades with vertical throw (also for return air)
ADSX-...-N	single design (length max. 1200 mm)

MOUNTING

Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

Slot diffuser ADSXW

PROCESSING

Frame surface

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour

- Plastic (hard PVC):
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).

End pieces (pair)

- mounted ex works on both sides.
 - for ADSXW-...-P0 (-ES2)
 - for ADSXW-...-PB (-ES3)
- made of aluminium (same material and colour as frame).

MODEL

ADSXW-1-...	1-slot
ADSXW-2-...	2-slot
ADSX-...-Z0	supply air
ADSX-...-A0	return air
ADSX-...-ZA	supply air/return air combination
ADSX-...-P0	with frame profile STANDARD (10 mm)
ADSX-...-PB	wide frame profile (16 mm)
ADSX-...-S	air throw diagonally upwards
ADSX-...-N	single design (length \geq 400 mm up to max. 1200 mm)

MOUNTING

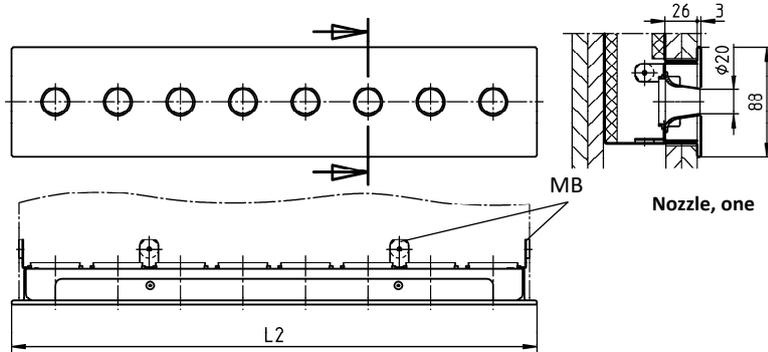
Magnetic fastening (-MB)

- made of sheet steel
- only possible for installation in the wall

DIFFUSER DIMENSIONS

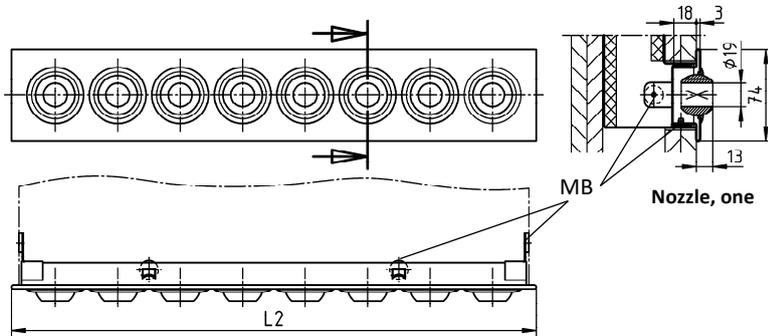
Dimensions ADSA

ADSA-D0... (standard)



Nozzle, one

ADSA-VD...



Nozzle, one

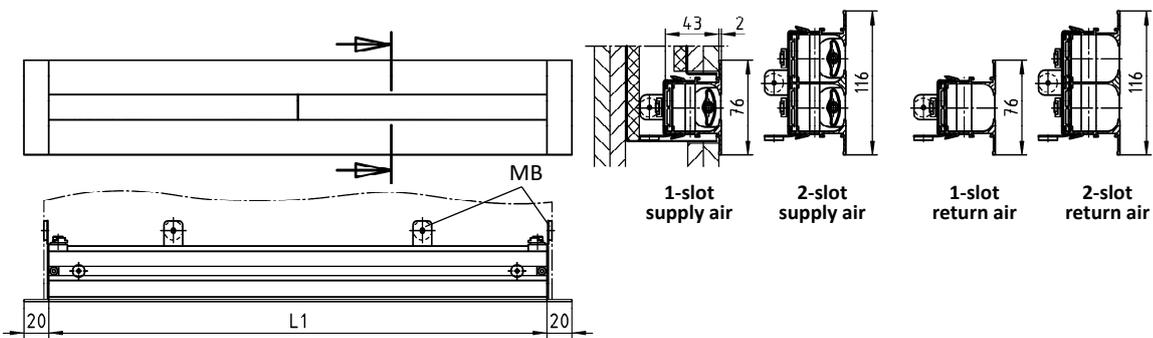
Available sizes ADSA / ADSC

L	L1	L2
0408	400	420
0508	500	520
0608	600	620
0808	800	820
1008	1000	1020
1208	1200	1220

MB = magnetic fastening

Dimensions ADSC

ADSC...-R0 (standard)



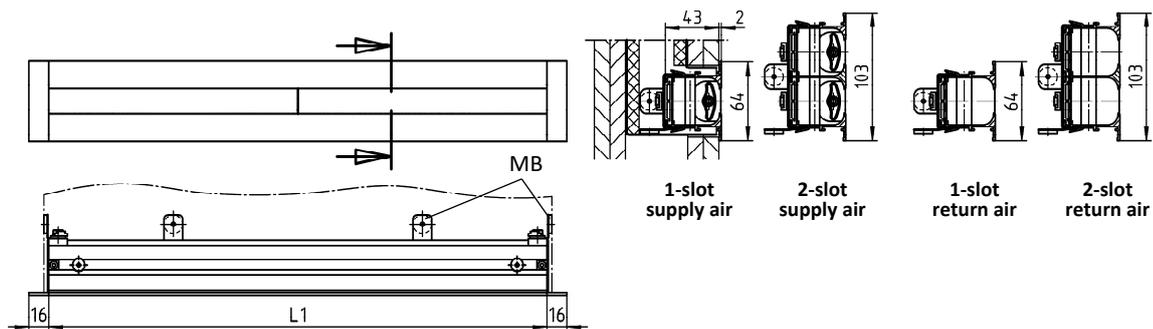
1-slot supply air

2-slot supply air

1-slot return air

2-slot return air

ADSC...-P0



1-slot supply air

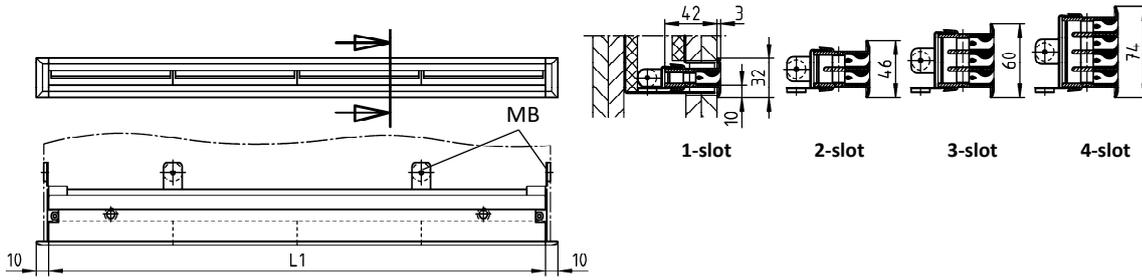
2-slot supply air

1-slot return air

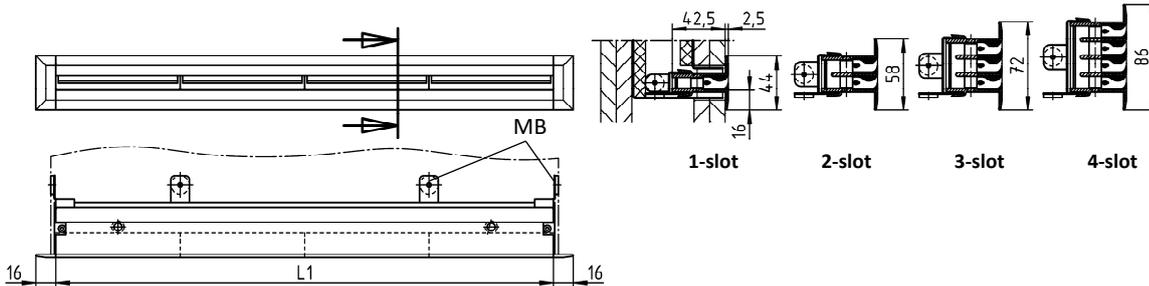
2-slot return air

Dimensions ADSX

ADSX-...-P0 (standard)

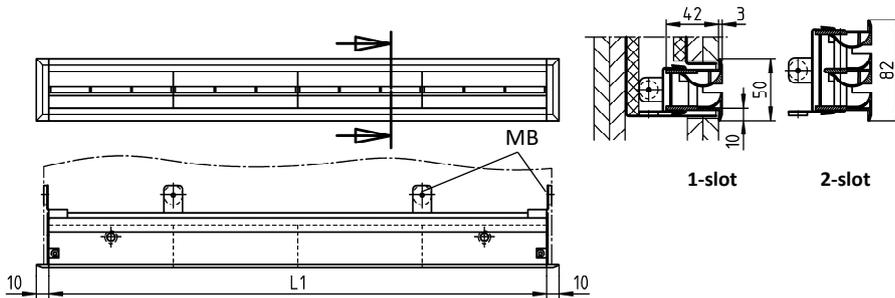


ADSX-...-PB

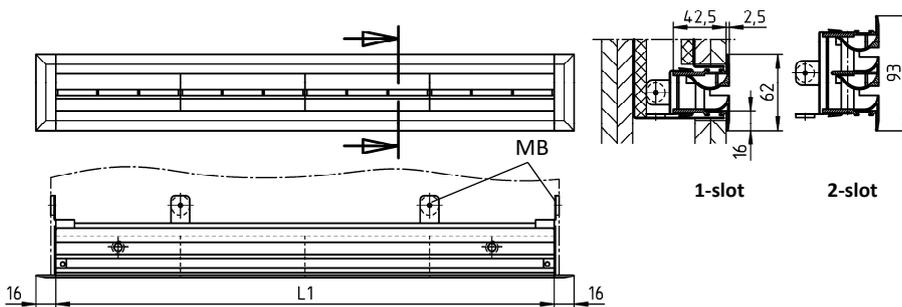


Dimensions ADSXW

ADSXW-...-P0 (standard)



ADSXW-...-PB



Available sizes ADSX / ADSXW

L	L1
0408	400
0508	500
0608	600
0808	800
1008	1000
1208	1200

MB = magnetic fastening

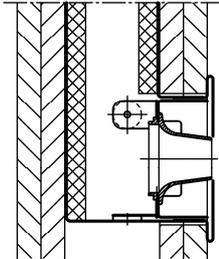
MOUNTING

Magnetic fastening (MB)

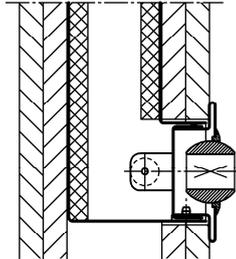
Only possible for installation in the wall.

Detail X

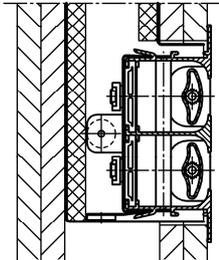
AUDIX®-...-DSA-D0-...



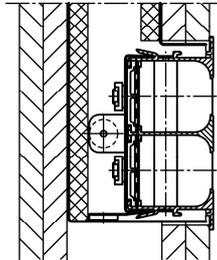
AUDIX®-...-DSA-VD-...



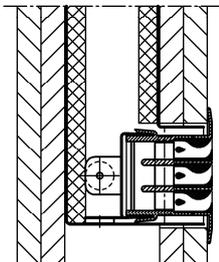
AUDIX®-...-DSC-R0/P0-...
 (supply air)



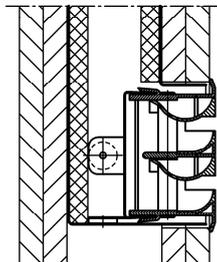
AUDIX®-...-DSA-VD-...
 (return air)



AUDIX®-...-DSX-P0/PB-...

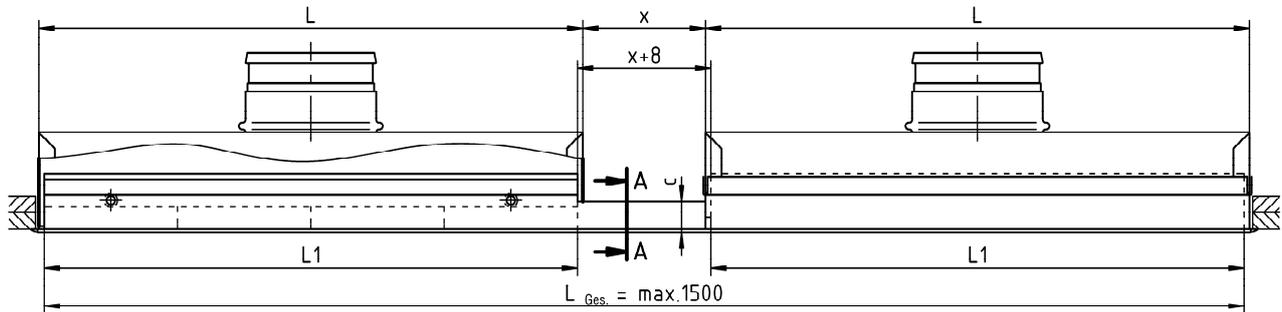


AUDIX®-...-DSXW-P0/PB-...



INSTALLATION

In lightweight partition wall at the C profile



For installation in a lightweight single-plank wall with one supply air and one return air box with continuous slot diffuser, the cut-out of the slot diffuser must be specified when ordering.

Attention: Not possible for AUDIX®-...-ADSA model!

Available sizes

	Diffuser	c
AUDIX®-...-62	ADSC-1 (1-slot)	24
AUDIX®-...-63	ADSC-2 (2-slot)	
AUDIX®-...-64	ADSX-1 (1-slot)	
AUDIX®-...-65	ADSX-2 (2-slot)	
AUDIX®-...-66	ADSX-3 (3-slot)	
AUDIX®-...-67	ADSX-4 (4-slot)	
AUDIX®-...-68	ADSXW-1 (1-slot)	
AUDIX®-...-69	ADSXW-2 (2-slot)	

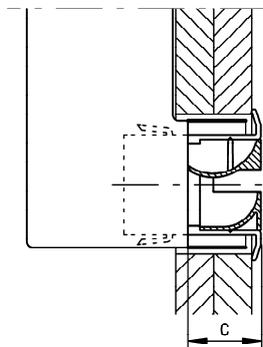
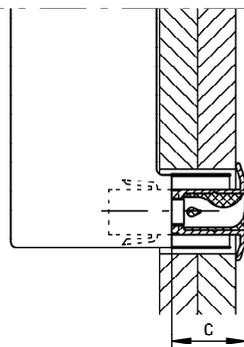
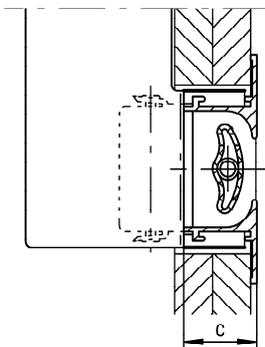
Wall opening in the length: $L + L + x + 5$

Section A-A (90° rotated):

AUDIX®-...-62-...-ADSC-1
 AUDIX®-...-63-...-ADSC-2

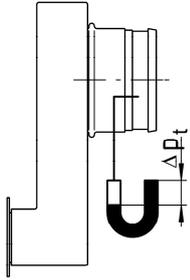
AUDIX®-...-64-...-ADSX-1
 AUDIX®-...-65-...-ADSX-2
 AUDIX®-...-66-...-ADSX-3
 AUDIX®-...-67-...-ADSX-4

AUDIX®-...-68-...-ADSXW-1
 AUDIX®-...-69-...-ADSXW-2



TECHNICAL DATA

Pressure loss and noise level



Damper position (DS):
 OPEN = 100%
 CLOSED = 0%

For further technical data, see diffusers:

ADSA ⇒ DSA
 ADSC ⇒ DSC

AUDIX sound power & pressure loss interpolation

Correction factor KF (-)

	L					
	408	508	608	808	1008	1208
Number of	1	1	1	1	2	2
V _{ZU} (m ³ /h)	1.25	1.00	0.84	0.63	0.50	0.42
L _{WA} [dB(A)]	-1	0	+1	+2	+3	+4
Δp _{ges} (Pa)	0					
	KF (-)					

At a spigot velocity of >5 m/s (≈135m³/h), the specified diagram values are no longer valid and the use of a second spigot is recommended.

Example 1:

Required: **Sound level** at at length of **1208 mm** and **150 m³/h**

Correction factor to determine the air volume with the help of the diagram for L = 508 (see table)
0.42

Calculation of the air volume for diagram L = 508 mm:
150 m³/h * 0,42 = 63 m³/h

Calculation of the sound level at L = 1208 mm and 150 m³/h (see table KF L_{WA}):
35 dB(A) + 4 = 39 dB(A) L_{WA}= approx. **35**

Result: At 150 m³/h and a length of 1208 mm a sound level of **39 dB(A)** is emitted.

Example 2:

Required: **Sound level** at at length of **408 mm** and **70 m³/h**

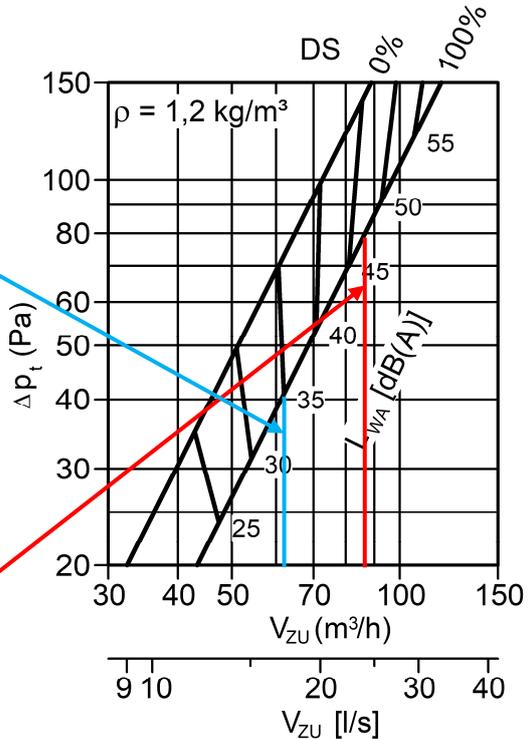
Correction factor to determine the air volume with the help of the diagram for L = 508 (see table)
1.25

Calculation of the air volume for diagram L = 508 mm:
70 m³/h * 1,25 = 87,5 m³/h

Calculation of the sound level at L = 408 mm and 70 m³/h (see table KF L_{WA}):
46 dB(A) - 1 = 45 dB(A) L_{WA}= approx. **46**

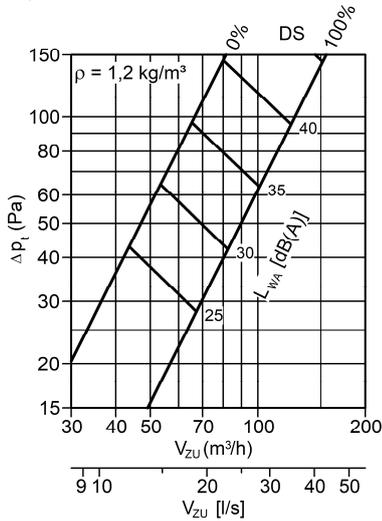
Result: At 70 m³/h and a length of 408 mm a sound level of **45 dB(A)** is emitted.

AUDIX®-...-64-Z0-300-508-...-ADSX-1-Z0-...-500-... (supply air)

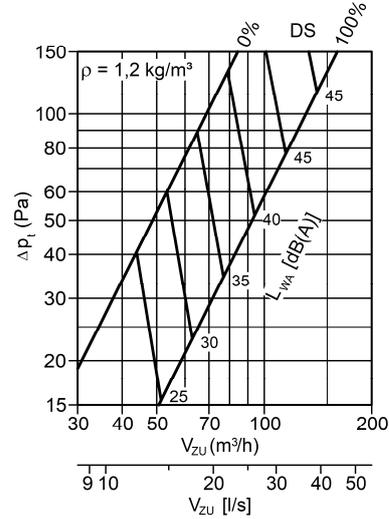


Pressure loss and noise level (supply air)

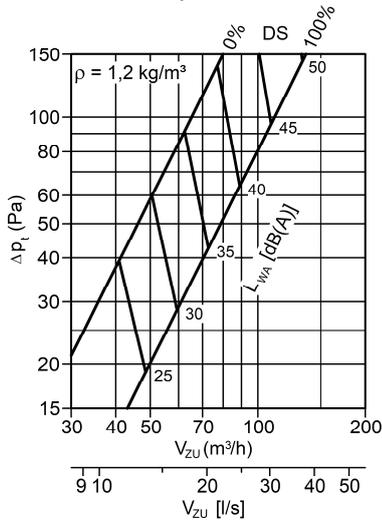
AUDIX®-...-55-Z0-300-508-...-ADSA-D0-Z0-500-1-... (supply air)



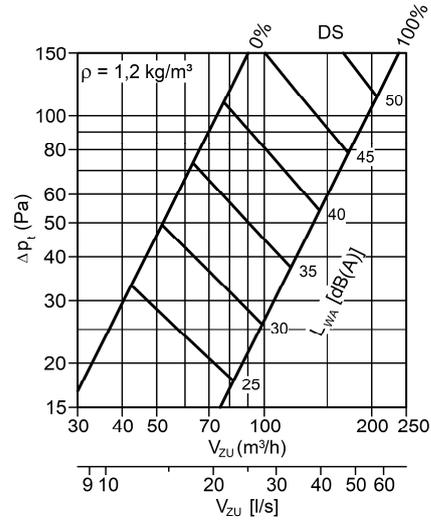
AUDIX®-...-62-Z0-300-508-...-ADSC-1-Z0-...-500-... (supply air)



AUDIX®-...-61-Z0-300-508-...-ADSA-VD-Z0-500-1-... (supply air)

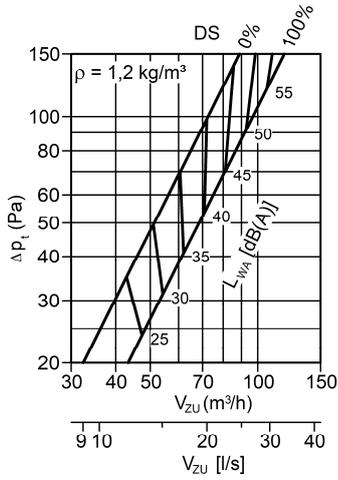


AUDIX®-...-63-Z0-300-508-...-ADSC-2-Z0-...-500-... (supply air)

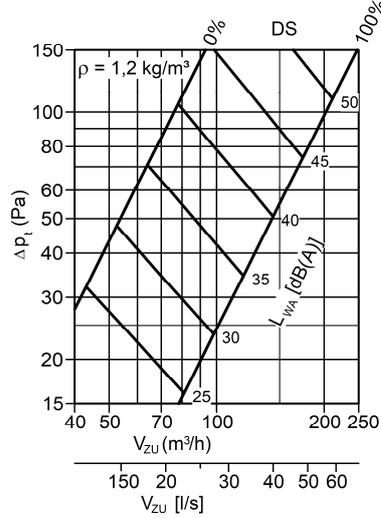


DS = damper position

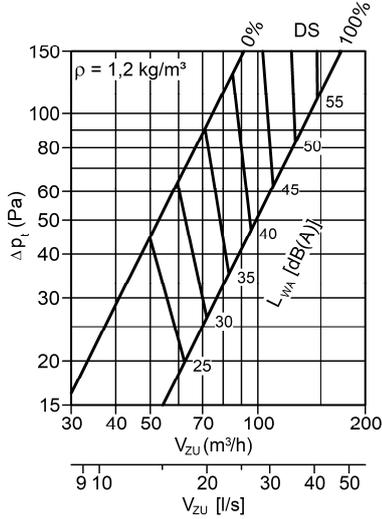
AUDIX®-...-64-Z0-300-508-...-ADSX-1-Z0-...-500-... (supply air)



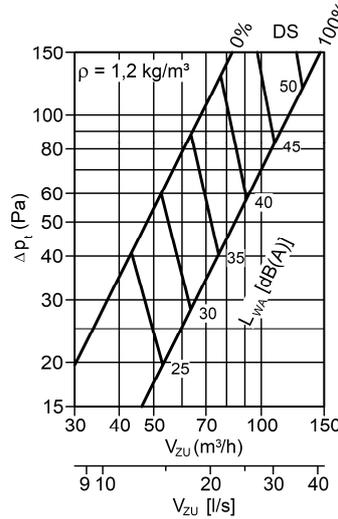
AUDIX®-...-67-Z0-300-508-...-ADSX-4-Z0-...-500-... (supply air)



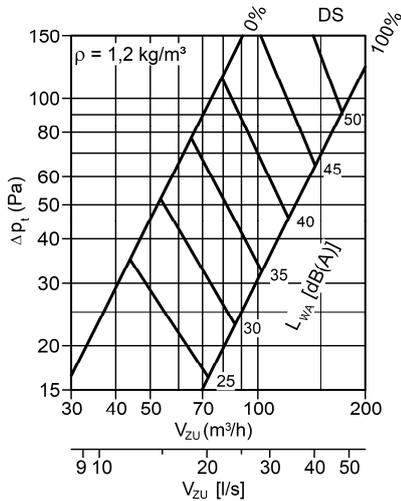
AUDIX®-...-65-Z0-300-508-...-ADSX-2-Z0-...-500-... (supply air)



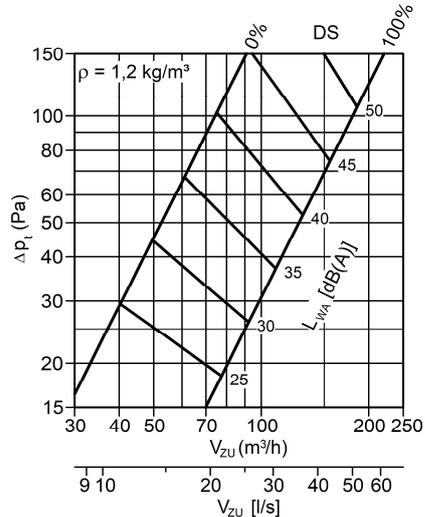
AUDIX®-...-68-Z0-300-508-...-ADSXW-1-Z0-...-500-... (supply air)



AUDIX®-...-66-Z0-300-508-...-ADSX-3-Z0-...-500-... (supply air)



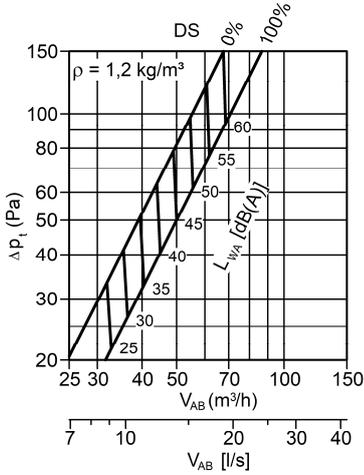
AUDIX®-...-69-Z0-300-508-...-ADSXW-2-Z0-...-500-... (supply air)



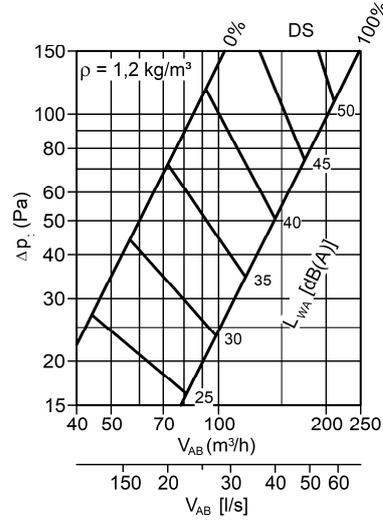
DS = damper position

Pressure loss and noise level (return air)

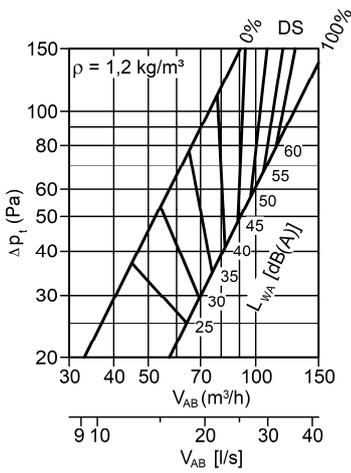
AUDIX®....-64-A0-300-508....-ADSX-1-A0....-500.... (return air)



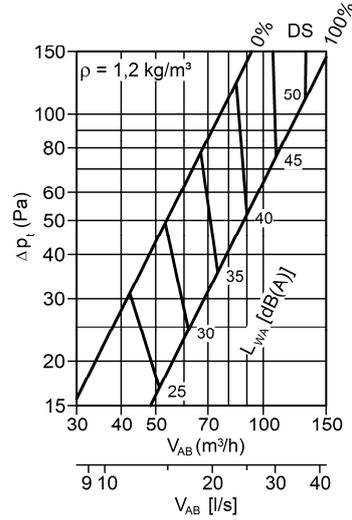
AUDIX®....-67-A0-300-508....-ADSX-4-A0....-500.... (return air)



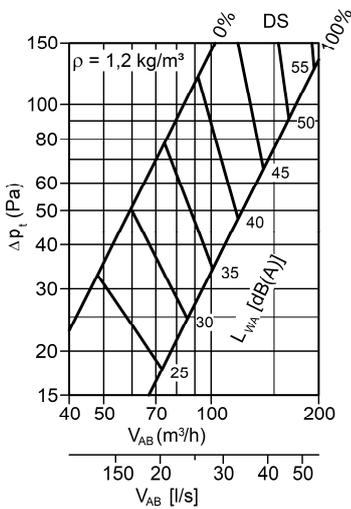
AUDIX®....-65-A0-300-508....-ADSX-2-A0....-500.... (return air)



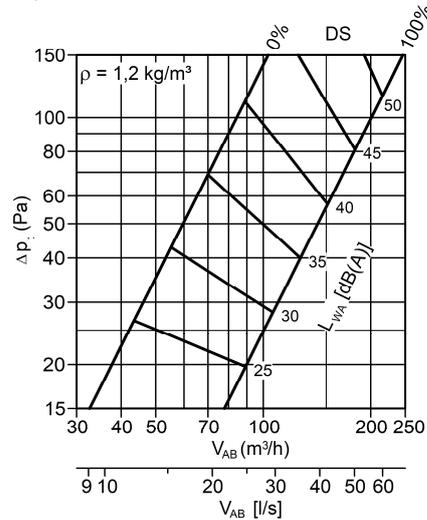
AUDIX®....-68-A0-300-508....-ADSXW-1-A0....-500.... (return air)



AUDIX®....-66-A0-300-508....-ADSX-3-A0....-500.... (return air)



AUDIX®....-69-A0-300-508....-ADSXW-2-A0....-500.... (return air)



DS = damper position

Sound reduction index (weighted, R_w)

According to DIN 4109 (Soundproofing in building engineering, requirements and certificates)

	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
R_w (dB)	36	38	36	38
A (m ²)	0.125	0.150	0.250	0.300

Normalised sound level difference, $D_{n,e}$ for type AUDIX®

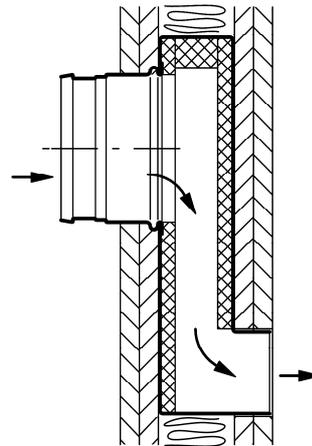
According to DIN EN ISO 10140-2 (Measurement of sound insulation of components on a test bench, air sound insulation)

Frequency f (Hz)	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
50	34	35	35	33
63	33	32	34	33
80	40	39	41	40
100	52	46	48	47
125	50	54	51	53
160	45	46	46	47
200	42	45	41	43
250	42	45	42	44
315	40	41	41	43
400	44	45	42	42
500	53	53	45	46
630	57	59	51	52
800	61	64	57	59
1000	62	63	60	60
1250	60	61	58	58
1600	61	61	57	58
2000	60	62	57	59
2500	67	68	64	66
3150	73	74	70	71
4000	70	76	69	73
5000	68	75	67	74
Third-octave band $D_{n,e}$ (dB)				

Normalised sound level difference $D_{n,e,w}$ (single-digit value)

According to DIN EN ISO 717-1 (Weighting of sound insulation in buildings and of components – air sound insulation)

	AUDIX®-...			
	L=508		L=1008	
	H=250	H=300	H=250	H=300
$D_{n,e,w}$ (dB)	55	57	52	54


LEGEND

V_{ZU}	(m ³ /h) [l/s]	=	supply air volumetric flow
V_{AB}	(m ³ /h) [l/s]	=	return air volumetric flow
Δp_t	(Pa)	=	Pressure loss
L_{WA}	[dB(A)]	=	A-weighted sound power level ($L_{WA} = L_{WA1} + KF$)
ρ	(kg/m ³)	=	Density
f_m	(Hz)	=	Octave centre frequency
$D_{n,e}$	(dB)	=	Element-normalised sound level difference
$D_{n,e,w}$	(dB)	=	Weighted normalised sound level difference
R_w	(dB)	=	Weighted sound absorption coefficient
A	(m ²)	=	Inflow area
f	(Hz)	=	Frequency
DS		=	damper position

ORDER CODE AUDIX

01	02	03	04	05	06	07
Type	Building material	Air diffuser	Type of air	Height	Length	Mounting
Example						
AUDIX®	-A2	-63	-Z0	-300	-0508	-MB

08	09	10	11	12	13
Material	Damper	Rubber lip seal	Box neck extension	Fixing lug	Cover
-SV	-DK2	-GD1	-KVS	-BL	-OA0

All fields must be filled when ordering.

Sample

AUDIX®-A2-63-Z0-300-0508-MB-SV-DK2-GD1-KVS-BL-OA0

Cross-talk sound attenuator box AUDIX | building material class A2 non-flammable to DIN 4102 | slot diffuser ADSC, 2-slot | supply air | height of plenum box 300 mm | length 508 mm | with magnetic fastening | galvanised sheet steel | with damper and cable | with rubber lip seal | standard box neck | with fixing lug | without cover

ORDER DETAILS

01 - Type

AUDIX® = cross-talk sound attenuator box AUDIX®

02 - Building material class

A2 = building material class A2, non-flammable to DIN 4102
 B1 = building material class B1, flame-retardant to DIN 4102

03 - Air diffuser (must be ordered separately)

55 = nozzle jet diffuser ADSA-D0, 1-row
 61 = nozzle jet diffuser ADSA-VD, 1-row
 62 = slot diffuser ADSC, 1-slot
 63 = slot diffuser ADSC, 2-slot
 64 = slot diffuser ADSX, 1-slot
 65 = slot diffuser ADSX, 2-slot
 66 = slot diffuser ADSX, 3-slot
 67 = slot diffuser ADSX, 4-slot
 68 = slot diffuser ADSXW, 1-slot
 69 = slot diffuser ADSXW, 2-slot

04 - Air throw

Z0 = supply air (standard)
 A0 = return air (not possible for ADSA)
 ZA = supply air/return air combination (not possible for ADSA)

05 - Height

250 = height 250 mm
 300 = height 300 mm (standard)
 xxx = height in mm, freely selectable (height ≥ 250 mm to 350 mm, always with 3 digits)

06 - Length

0408 = length 408 mm
 0508 = length 508 mm (standard)
 0608 = length 608 mm
 0808 = length 808 mm
 1008 = length 1008 mm
 1208 = length 1208 mm
 xxxx = length in mm, freely selectable (length ≥ 408 mm up to max. 1208 mm, always with 4 digits)

07 - Mounting

MB = magnetic fastening (standard)

08 - Material

SV = galvanised sheet steel (standard)

09 - Damper

DK0 = without damper (standard)
 DK2 = with damper and cable

10 - Rubber lip seal

GD0 = without rubber lip seal (standard)
 GD1 = with rubber lip seal

11 - Box neck extension

KVS = Standard box neck
 xxx = box neck extension in mm (wall thickness > 100 mm up to max. 350 mm, always with 3 digits)

12 - Fixing lug

B0 = without fixing lug (standard)
 BL = with fixing lug

13 - Cover

OA0 = without cover (standard)
 OA1 = with cover

ORDER CODE ADSA

01	02	03	04	05
Type	Model	Air throw	Length	Height
Example				
ADSA	-D0	-Z0	-1000	-1

06	07	08	09	10
Single / band design	Material	Paint	Nozzle colour	Mounting
-N	-SB	-9010	-DS	-MB

All fields must be filled when ordering.

Sample
ADSA-D0-Z0-1000-1-N-SB-9010-DS-MB

Nozzle jet diffuser DSA for AUDIX® | fixed nozzles | supply air | length 1000 mm | nozzles 1-row | single design | sheet steel | painted to the RAL colour 9010 (white) | nozzles made of plastic material similar to RAL 9005 (black) | with magnetic fastening

ORDER DETAILS
01 - Type

ADSA = nozzle jet diffuser DSA for AUDIX®

02 - Model

D0 = fixed nozzles (standard)

VD = manually individually adjustable nozzles

03 - Air throw

Z0 = supply air

04 - Length

0400 = length 400 mm

0500 = length 500 mm

0600 = length 600 mm

0800 = length 800 mm

1000 = length 1000 mm

1200 = length 1200 mm

xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

05 - Height

1 = nozzles 1-row (standard)

06 - Single / band design

N = single design (length max. 1200 mm, standard)

07 - Material

SB = sheet steel (standard)

08 - Paint

9010 = painted to the RAL colour 9010 (white, standard)

9006 = painted to the RAL colour RAL 9006 (white aluminium)

9005 = painted to the colour RAL 9005 (black)

xxxx = painted to a RAL colour of your choice (always with 4 digits)

09 - Nozzle colour

DS = nozzles made of plastic material similar to RAL 9005 (black)

DA = nozzles made of plastic material similar to RAL 9006 (white aluminium)

DW = nozzles made of plastic material similar to RAL 9010 (white) (standard)

10 - Mounting

MB = with magnetic fastening (standard)

ORDER CODE ADSC

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
Example				
ADSC	-1	-Z0	-R0	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-V	-N	-1000	-MB

All fields must be filled when ordering.

Sample
ADSC-1-Z0-R0-ELOX-L9010-V-N-1000-MB

Slot diffuser DSC for AUDIX® | 1-slot | supply air | standard frame profile | natural colour anodised aluminium | blades made of plastic material similar to RAL 9010 | blades with vertical throw | single design | length 1000 mm | magnetic fastening

ORDER DETAILS
01 - Type

ADSC = slot diffuser DSC for AUDIX®

02 - Model

1 = 1-slot
2 = 2-slot

03 - Air throw

Z0 = supply air
A0 = return air
ZA = supply air/return air combination

04 - Frame profile

R0 = standard frame profile
P0 = Special frame profile

05 - Frame surface

ELOX = Natural colour anodised aluminium (standard)
9006 = Aluminium painted to RAL colour 9006 (white aluminium).
9010 = Aluminium painted to RAL colour 9010 (white)
xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

06 - Blade colour

00000 = without blades (for return air only).
L9005 = blades made of plastic material (hard PVC) similar to RAL 9005 (black, return air with perforated plate RAL 9005)
L9006 = blades made of plastic material (hard PVC) similar to RAL 9006 (white aluminium / return air with perforated blade RAL 9006)
L9010 = blades made of plastic material (hard PVC) similar to RAL 9010 (white / return air with perforated plate RAL 9010)
Lxxxx = blades made of plastic material (hard PVC), painted to a RAL colour (freely selectable, always with 4 digits) / perforated plate painted to the same colour

07 - Blade position for air jet

0 = without blades, for return air, with perforated plate.
V = blades with vertical throw (standard)

08 - Single / band design

N = single design (length max. 1200 mm, standard)

09 - Length

0400 = length 400 mm
0500 = length 500 mm
0600 = length 600 mm
0800 = length 800 mm
1000 = length 1000 mm
1200 = length 1200 mm
xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

10 - Mounting

MB = magnetic fastening (standard)

ORDER CODE ADSX

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
Example				
ADSX	-1	-Z0	-PB	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-V	-N	-1000	-MB

All fields must be filled when ordering.

Sample

ADSX-1-Z0-PB-ELOX-L9010-V-N-1000-MB

Slot diffuser DSX for AUDIX® | 1-slot | supply air | wide frame profile | natural colour anodised aluminium | blades made of plastic material similar to RAL 9010 (white) | blades with vertical throw | single design | length 1000 mm | with magnetic fastening

ORDER DETAILS

01 - Type

ADSX = slot diffuser DSX for AUDIX®

02 - Model

1 = 1-slot
 2 = 2-slot
 3 = 3-slot
 4 = 4-slot

03 - Air throw

Z0 = supply air
 A0 = return air
 ZA = supply air/return air combination

04 - Frame profile

P0 = standard frame profile (10 mm)
 PB = wide frame profile (16 mm)

05 - Frame surface

ELOX = Natural colour anodised aluminium (standard)
 9006 = Aluminium painted to RAL colour 9006 (white aluminium).
 9010 = Aluminium painted to RAL colour 9010 (white)
 xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

06 - Blade colour

L9005 = blades made of plastic material similar to RAL 9005 (black)
 L9006 = blades made of plastic material similar to RAL 9006 (white aluminium)
 L9010 = blades made of plastic material similar to RAL 9010 (white)

07 - Blade position for air jet

V = blades with vertical throw (also for return air)

08 - Single / band design

N = single design (length max. 1200 mm, standard)

09 - Length

0400 = length 400 mm
 0500 = length 500 mm
 0600 = length 600 mm
 0800 = length 800 mm
 1000 = length 1000 mm
 1200 = length 1200 mm
 xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

10 - Mounting

MB = with magnetic fastening (standard)

ORDER CODE ADSXW

01	02	03	04	05
Type	Model	Air throw	Frame profile	Frame surface
Example				
ADSXW	-1	-Z0	-PB	ELOX

06	07	08	09	10
Blade colour	Blade position for air jet	Single / band design	Length	Mounting
-L9010	-S	-N	-1000	-MB

All fields must be filled when ordering.

Sample

ADSXW-1-Z0-PB-ELOX-L9010-S-N-1000-MB

Slot diffuser DSXW for AUDIX® | 1-slot | supply air | wide frame profile | natural colour anodised aluminium | blade colour white similar to RAL 9010 | blades air throw diagonally upwards | single design | length 1000 mm | with magnetic fastening

ORDER DETAILS

01 - Type

ADSXW = slot diffuser DSXW for AUDIX®

02 - Model

1 = 1-slot
 2 = 2-slot

03 - Air throw

Z0 = supply air
 A0 = return air
 ZA = supply air/return air combination

04 - Frame profile

P0 = standard frame profile (10 mm)
 PB = wide frame profile (16 mm)

05 - Frame surface

ELOX = Natural colour anodised aluminium (standard)
 9006 = Aluminium painted to RAL colour 9006 (white aluminium).
 9010 = Aluminium painted to RAL colour 9010 (white)
 xxxx = Aluminium painted to another RAL colour, at an extra charge (freely selectable, always with 4 digits)

06 - Blade colour

L9005 = blades made of plastic material similar to RAL 9005 (black)
 L9006 = blades made of plastic material similar to RAL 9006 (white aluminium)
 L9010 = blades made of plastic material similar to RAL 9010 (white)

07 - Blade position for air jet

S = blades air throw diagonally upwards

08 - Single / band design

N = single design (length max. 1200 mm, standard)

09 - Length

0400 = length 400 mm
 0500 = length 500 mm
 0600 = length 600 mm
 0800 = length 800 mm
 1000 = length 1000 mm
 1200 = length 1200 mm
 xxxx = length in mm, freely selectable (length ≥400 mm up to max. 1200 mm, always with 4 digits)

10 - Mounting

MB = with magnetic fastening (standard)

SPECIFICATION TEXT AUDIX

Cross-talk sound attenuator box for supply air, with round connection spigot, with integrated silencer for installation in lightweight walls to connect one diffuser.

Airtight plenum box made of galvanized sheet steel (-SV), with structure-borne noise insulation and integrated silencer to prevent cross-talk sound and for silencing in the duct. With abrasion-resistant absorption material attached on both sides inside. Fastening system for installation into the posts of lightweight walls.

Product: SCHAKO type **AUDIX®-...-Z0**

- Cross-talk sound attenuator box for return air, with round connection spigot, with integrated silencer for installation in lightweight walls to connect one diffuser.

Product: SCHAKO type **AUDIX®-...-A0**

- Cross-talk sound attenuator box for supply and return air, with one round connection spigot each for supply and return air, with integrated silencer for installation in lightweight walls to connect one diffuser.

Product: SCHAKO type **AUDIX®-...-ZA**

Building material class:

- non-flammable to DIN 4102 (-A2)
- flame-retardant to DIN 4102 (-B1) (standard)

Diffusers (for supply air and return air):

- nozzle jet diffuser ADSA-D0 (-55), 1-row
- nozzle jet diffuser ADSA-VD (-61), 1-row
- slot diffuser ADSC (-62), 1-slot
- slot diffuser ADSC (-63), 2-slot
- slot diffuser ADSX (-64), 1-slot
- slot diffuser ADSX (-65), 2-slot
- slot diffuser ADSX (-66), 3-slot
- slot diffuser ADSX (-67), 4-slot
- slot diffuser ADSXW (-68), 1-slot
- slot diffuser ADSXW (-69), 2-slot

Simple assembly and disassembly for maintenance purposes

Accessories:

- Damper
 - without damper (-DK0) (standard).
 - with damper, made of galvanized sheet steel, in the connection spigot, manually adjustable from room side via cable, for simple air volume regulation (-DK2).
- Rubber lip seal
 - without rubber lip seal (-GD0)
 - with rubber lip seal (-GD1) made of special rubber, at the connection spigot.
- Box neck extension
 - standard box neck (-KVS).
 - box neck extension in mm, freely selectable (-xxx, always with 3 digits), for wall thickness >100 mm up to max. 350 mm.
- Fixing lug
 - without fixing lug (-B0)
 - with fixing lug (-BL), made of galvanized sheet steel.
- Cover
 - without cover (-OA0)
 - with cover (-OA1), made of galvanized sheet steel.

SPECIFICATION TEXT DIFFUSERS

Nozzle jet diffuser ADSA (-55 / -61)

Nozzle jet diffuser ADSA-..., for installation in lightweight walls, with magnetic fastening (-MB).

- With fixed plastic nozzles made of plastic material (standard).
Product: SCHAKO **type ADSA-D0-... (-55)**
- With individually manually adjustable nozzles made of plastic material.
Product: SCHAKO **type ADSA-VD-... (-61)**

Air throw:

- supply air (-Z0)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)

Height:

- nozzles 1-row (-1) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Faceplate:

- made of sheet steel painted to:
 - RAL colour 9010 (white, standard) (-SB-9010)
 - RAL colour 9006 (white aluminium) (-SB-9006)
 - painted to the colour RAL 9005 (black) (-SB-9005)
 - RAL colour of your choice (-SB-xxxx, always with 4 digits)

Nozzle colour:

- Nozzles made of plastic material:
 - similar to RAL 9005 (black) (-DS)
 - similar to RAL 9006 (white aluminium) (-DA)
 - similar to RAL 9010 (white) (standard) (-DW)

Slot diffuser ADSC (-62 / -63)

Slot diffuser ADSC-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.
Product: SCHAKO **type ADSC-1-... (-62)**
- 2-slot model.
Product: SCHAKO **type ADSC-2-... (-63)**

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (-R0)
- special frame profile (-P0)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- Plastic (hard PVC):
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).
 - RAL colour can be freely selected (-Lxxxx)
- without blade (-00000), only for return air, with perforated plate made of sheet steel painted to the colour of the blade, as screen.

Blade position for air jet:

- without blades(-0), for return air, with perforated plate.
- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length ≥400 mm up to max. 1200 mm, always with 4 digits)

Slot diffuser ADSX (-64 / -65 / -66 / -67)

Slot diffuser ADSX-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.
Product: SCHAKO type ADSX-1-... (-64)
- 2-slot model.
Product: SCHAKO type ADSX-2-... (-65)
- 3-slot model.
Product: SCHAKO type ADSX-3-... (-66)
- 4-slot model.
Product: SCHAKO type ADSX-4-... (-67)

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (10 mm) (-P0)
- special frame profile (16 mm) (-PB)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- plastic:
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).

Blade position for air jet:

- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length \geq 400 mm up to max. 1200 mm, always with 4 digits)

Slot diffuser ADSXW (-68 / -69)

Slot diffuser ADSXW-..., for installation in lightweight walls, with magnetic fastening (-MB).

- 1-slot model.
Product: SCHAKO type ADSXW-1-... (-64)
- 2-slot model.
Product: SCHAKO type ADSXW-2-... (-65)

Air throw:

- supply air (-Z0)
- return air (-A0)
- supply air/return air combination (-ZA)

Frame profile:

- standard frame profile (10 mm) (-P0)
- special frame profile (16 mm) (-PB)

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard).
- Aluminium painted to:
 - RAL 9006 (white aluminium) (-9006).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx).

Blade colour:

- plastic:
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9006 (white aluminium) (-L9006).
 - Colour similar to RAL 9010 (white) (-L9010).

Blade position for air jet:

- blades with vertical throw (-V) (standard)

Single / band design:

- single design (-N) (length max. 1200 mm, standard)

Length:

- 400 mm (-0400)
- 500 mm (-0500)
- 600 mm (-0600)
- 800 mm (-0800)
- 1000 mm (-1000)
- 1200 mm (-1200)
- length in mm, freely selectable (-xxxx) (length \geq 400 mm up to max. 1200 mm, always with 4 digits)