



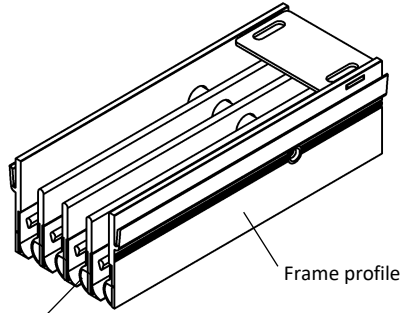
DSX
Slot diffuser

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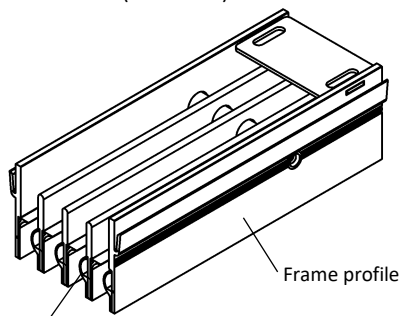
OVERVIEW OF PRODUCT VERSIONS

DSX-...-Z-... (supply air)



Air guide element for supply air

DSX-...-A-... (return air)



Air guide element for return air

FUNCTION AND USE

The small slot diffuser DSX-...-S0 is suitable **for installation in closed ceiling systems**, in rooms of heights 2.6 to 4 m. In panelled ceilings, the use of the black (RAL 9005) air guide element allows an **approximately invisible installation** of the slot diffuser. The models DSX-...-P0 and DSX-...-PB with support profile are suitable for installation in ceiling panels.

Adjustments of the blades enable the diffuser to be used for cooling and heating applications. The **high induction** ensures **fast reduction of the air outflow velocity and of the temperature difference** in the cooling mode. In heating mode, the vertical air throw guarantees a **high penetration depth**. Thus, the room can be heated quickly and effectively.

The air throw direction can be adjusted from below, even after installation. In doing so, the free cross-section always remains constant. This does not affect the noise level or pressure loss. A subsequent adjustment of the air jet pattern to changed room conditions is possible. To adjust the position, each air guide element must be pulled out and inserted rotated in accordance with the desired air direction. **One- or two-way horizontal air throw and vertical air throw are possible.**

If, on ordering, the desired air throw direction is specified, it will be set ex works. Unless stated otherwise, air guide element position B (horizontal throw in alternating directions) will be set.

The stable air jet means that the diffuser is suitable for VAV systems. Even at a volumetric flow of 40%, the jet still remains stable.

The attached plenum box ensures a uniform distribution of the supply air over the whole area of the diffuser. At an extra charge, a damper adjustable from below can be installed in the spigot for air volume regulation. The plenum box can also be insulated either internally or externally. Connection to diffusers combined with lighting is possible (price on request).

The slot diffuser DSX is delivered with concealed mounting as standard.

For slot diffusers in band design with concealed mounting, the fastening effort is reduced by half, compared with the model without concealed mounting.

The slot diffuser DSX has been tested successfully by TÜV SÜD in accordance with the following regulations:

- VDI 6022, Sheet 1: Hygienic requirements for ventilation and air-conditioning systems
- VDI 6022, Sheet 2: Hygienic requirements of ventilation and air-conditioning systems - Measurement methods and investigations during hygienic controls and hygienic inspections
- VDI 6022 Sheet 2: Air conditioning technology - Health requirements

Diffuser mounting

Fixing lugs are provided in the plenum box to allow the diffuser to be suspended (see pages 12 + 13). These fixing lugs can be provided with M4 (-EM) riveting nuts at an extra charge.

MODELS

| | |
|------------|---|
| DSX-1-... | 1-slot |
| DSX-2-... | 2-slot |
| DSX-3-... | 3-slot |
| DSX-4-... | 4-slot |
| DSX-...-Z | supply air |
| DSX-...-A | return air (with air guide elements) |
| DSX-...-S0 | with narrow frame profile, without support profile, for invisible installation (standard). |
| DSX-...-P0 | with frame profile P0, with support profile, for visible installation. |
| DSX-...-PB | with frame profile PB, with support profile, for visible installation. |
| DSX-...-V | air guide elements with vertical throw (standard for return air). |
| DSX-...-L | air guide elements with one-way horizontal throw on the left. |
| DSX-...-R | air guide elements with one-way horizontal throw on the right. |
| DSX-...-B | air guide elements with two-way horizontal throw (standard for supply air). |
| DSX-...-N | single design (length max. 1500 mm). |
| DSX-...-B | Band design (available lengths according to SCHAKO standard for band design, single element length max. 1500 mm). To lock the slot diffusers, double air guide elements are used at the butt joints (supplied loose, installation on site). |

MOUNTING

Without connection (-00)

- Slot diffuser and plenum box are **not** connected to one another.
- Standard with dummy piece (-BS) and with mounting bracket (-BW).

Concealed mounting with plenum box (-VM, standard)

- Slot diffuser and plenum box are connected to one another ex works.
- The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.

Clamp strap (-KB)

- Only possible without plenum box.
- Screws and clamp straps are supplied loose (pair).
- Possible for the models DSX-...-P0 and DSX-...-PB.
- Not possible for model DSX-...-S0.
- The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).
- **For mounting, access on the rear is not required!**

Suspension via fastening holes

- Model:
 - dummy piece design (-BS).
 - mounting bracket design (-BW, pair).
- Only possible without plenum box.
- The slot diffuser is fastened to 4 suspension brackets.

BLADE POSITION FOR AIR JET

all adjacent blades will be set in one direction when ordering multi slot models

For supply air: Air guide element with air guide bar.

| |
|--|
| <p>Air guide element position (-V) vertical throw Installation position of air guide element rotated by 180°.</p> |
| <p>Air guide element position (-B) horizontal two-way throw (standard for supply air) Installation position of air guide element (standard)</p> |
| <p>Air guide element position (-L) horizontal one-way throw to the left Installation position of air guide element (standard)</p> |
| <p>Air guide element position (-R) horizontal one-way throw to the right Installation position of air guide element (standard)</p> |

For return air: Air guide element without air guide bar.

| |
|--|
| <p>Air guide element position (-V) vertical throw (standard for return air) Installation position of air guide element rotated by 180°.</p> |
|--|

- 1.) Air guide element
- 2.) Air guide bar
- 3.) Lateral spigot (-S1)
- 4.) Lateral spigot located on the opposite side (-S2).

Construction subject to change
No return possible

PROCESSING

Frame surface

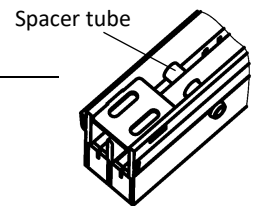
- Natural colour anodised aluminium (-ELOX, standard for DSX-...-P0 and DSX-...-PB models).
- Painted aluminium (standard for DSX-...-S0 model and painted to the same colour as blade colour of air guide element):
 - RAL 9005 (black) (-9005).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx, always with 4 digits).

Blade colour (air guide element)

- Plastic:
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9010 (white) (-L9010).
- Installation position for air guide element:
 - for supply air, with air guide bar:
 - Installation position rotated by 180° (Air guide element position -V).
 - Installation position, standard (Air guide element position -B / -L / -R)
 - for return air, without air guide bar:
 - Installation position rotated by 180° (Air guide element position -V).
- Double air guide elements for band design (supplied loose).

Spacer tube

- Aluminium



Connection element

- for band design.
- for connection between (see page 15):

| | | | |
|-------------|------|-------------|--------------------------|
| DSX-...-ASK | with | DSX-...-ASK | active - active |
| DSX-...-ASK | with | DSX-...-BW | active - active |
| DSX-...-ASK | with | DSX-...-BS | active - passive |
| DSX-...-BW | with | DSX-...-BW | active - active |
| DSX-...-BW | with | DSX-...-BS | active - passive |
| DSX-...-BS | with | DSX-...-BS | passive - passive |

- made of galvanised sheet steel.
- supplied loose as standard.

ACCESSORIES

Plenum box (-ASK-21)

- Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
 - 3-slot (-3).
 - 4-slot (-4).
- Single / band design:
 - Single design (-N, length of box KL max. 1500 mm).
 - Band design (-B, available lengths according to SCHAKO standard for band design).
- Length:
 - Length L = 1000 mm (-01000) (KL = 997 mm).
 - Length L = 1500 mm (-01500) (KL = 1497 mm).
 - Length (L/BL) in mm, freely selectable (-xxxx, always with 5 digits) (length of box KL = L-3 / total length of box GKL = BL-3, can be fitted with a plenum box in case of single design lengths L = ≥400 mm to ≤1500 mm).
- Mounting of box:
 - without connection (-00) (not connected to the slot diffuser, screws supplied loose).
 - Concealed mounting (-VM) (connected to the slot diffuser ex works).
- Material:
 - Galvanised sheet steel (-SV) (standard).
- Damper:
 - Without damper (-DK0) (standard).
 - With damper made of galvanised sheet steel, adjustable, for simple air volume regulation:
 - in the plenum box housing (only with lateral spigot position [-S1/-S2]) (-DK1).
 - in the connection spigot, with cable-operated adjustment (with spigot position from above [-S0]) (-DK2).
- Rubber lip seal:
 - without rubber lip seal (-GD0) (standard).
 - with rubber lip seal (-GD1) made of special rubber, at the connection spigot.
- Insulation:
 - without insulation (-I0) (standard).
 - with internal insulation (-li), thermal insulation inside the plenum box.
 - with external insulation (-Ia), thermal insulation at the outside of the plenum box.
- Height of plenum box:
 - Standard height of plenum box (-KHS).
 - Height of plenum box in mm, freely selectable (-xxx, always with 3 digits) (minimum height [GH] with spigot position S1+S2 and standard box neck = spigot diameter $\varnothing D + 82$ mm / with spigot position S0 = 180 mm).
- Box neck:
 - Box neck standard (-KVS) (KVS = 45 mm).
 - Box neck extension in mm, freely selectable (-xxx, always with 3 digits). Box neck (not adjustable) from ≥45 mm to 200 mm possible.
- Spigot position:
 - Spigot from above (-S0).
 - Lateral spigot (-S1) (standard).
 - Lateral spigot located on the opposite side (-S2).
- Spigot diameter:
 - Standard spigot diameter (-SDS).
 - Spigot diameter ($\varnothing D$) in mm, freely selectable (-xxx, always with 3 digits).
- Suspension:
 - without riveting nut (-E0) (standard).
 - With riveting nut (-EM), made of brass.
- With air diffuser plate, made of galvanised steel, only for models with spigot from above.
- Connection plate for band design (2x per butt joint), made of galvanised sheet steel. Number of suspension (without / with riveting nuts) per butt joint is reduced from 4x to 2x.

Construction subject to change
No return possible

Corner angle (-EW-21)

- Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
 - 3-slot (-3).
 - 4-slot (-4).
- Frame profile:
 - narrow frame profile without support profile, for invisible installation (-S0, standard).
 - Frame profile P0, with support profile, for visible installation (-P0).
 - Frame profile PB, with support profile, for visible installation (-PB).
- Frame surface:
 - Natural colour anodised aluminium (-ELOX, standard for DSX-...-P0 and DSX-...-PB models).
 - Painted aluminium (standard for DSX-...-S0 model and painted to the same colour as dummy profile / air guide element):
 - RAL 9005 (black) (-9005).
 - RAL 9010 (white) (-9010).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
- Dummy profile colour (air guide elements)
 - Dummy profile made of painted aluminium:
 - colour similar to RAL 9005 (black) (-B9005) (standard).
 - colour similar to RAL 9010 (white) (-B9010).
 - RAL colour freely selectable (-Bxxxx) (always with 5 digits).
 - Air guide element (double), mounted ex works, made of plastic material similar to dummy profile colour.
- Angle between sides:
 - Angle $\alpha = 90^\circ$ (-090) (standard).
 - angle (α) as required (-xxx), values between $\alpha = 90^\circ$ (-090, standard) and 170° (-170) are possible (always with 3 digits).
- Left-side length (a):
 - standard length L = 250 (-000).
 - length (L) in mm, freely selectable (-xxx) (minimum length = standard length) (always with 3 digits).
- Right-side length (b):
 - standard length L = 250 (-000).
 - length (L) in mm, freely selectable (-xxx) (minimum length = standard length) (always with 3 digits).
- with connecting element, firmly screwed:
 - made of galvanised sheet steel.

End pieces (-E0/-ES/-EB/-EL/-ER)

- Without end pieces (-E0) (standard).
- with end pieces, made of aluminium (same colour as frame):
 - Supplied loose (-ES, pair) (standard).
 - Mounted ex works on both sides (-EB).
 - Mounted ex works on the left side (-EL).
 - Mounted ex works on the right side (-ER).

Mounting bracket (pair) / dummy piece (-B0/-BW/-BS)

- without mounting bracket / without dummy piece (-B0).
- with mounting bracket (-BW), for overflow operation:
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length L ≥ 200 mm.
- with dummy piece (-BS):
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length L ≥ 200 mm.

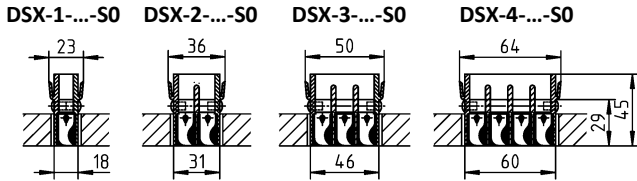
With models -BW and -BS as a band, additional connecting fishplates are supplied loose.

DIMENSIONS

Dimensions of frame profile

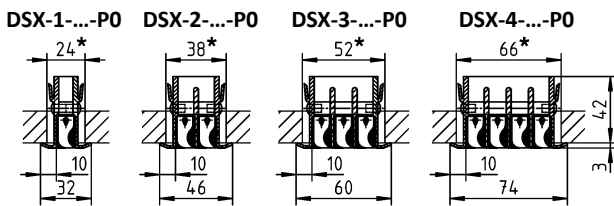
Narrow frame profile "S0" (standard)

For invisible installation in the joint of panelled ceilings.



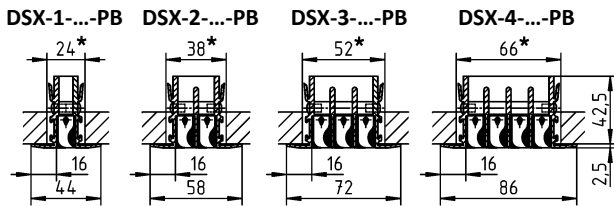
Frame profile "P0" (with support profile)

For visible installation in panelled ceilings.



Frame profile "PB" (with support profile)

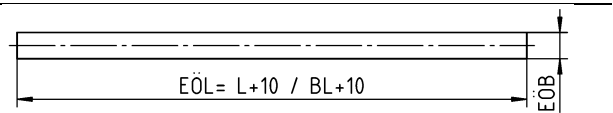
For visible installation in panelled ceilings.



For the return air model, the air guide element is inserted rotated by 180° and the air guide bar is no longer needed.

* EÖB = installation opening width (minimum dimension)

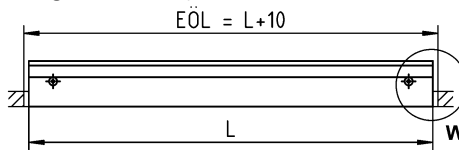
Installation opening



Available lengths for the slot diffuser

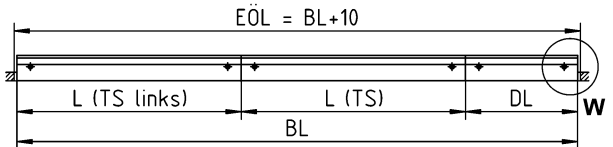
Single design (-N)

- Length L= 1000 mm (-N-01000).
- Length L= 1500 mm (-N-01500).
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)
 (in case of single design, length L ≥ 400 mm to ≤ 1500 mm can be fitted with plenum box, dummy piece possible from length ≥ 200 mm).



Band design (-B)

- Length (L) in mm, freely selectable, as band (-B-xxxxx) (always with 5 digits).



Available lengths according to SCHAKO standard:

When the slot diffuser type DSX is designed as a band, the total length BL is assembled from lengths (sections) of **1000 mm or 1500 mm** (standard). The difference pieces DL are supplied in lengths **≥400 mm to <1500 mm**. The difference pieces **from ≥200 mm to <400 mm** are supplied as dummy pieces without plenum box.

To lock the slot diffusers, double air guide elements are used at the butt joints (supplied loose, installation on site).

- TS = section
- Left TS = left section
- L = length
- DL = difference in length
- BL = band length
- EÖB = installation opening width
- EÖL = installation opening length (EÖL = L+10 / BL+10)

End pieces, for detail W see page 7.

DIMENSIONS OF ACCESSORIES

End pieces (-E0/-ES/-EB/-EL/-ER)

- Without end pieces (-E0) (standard).
- with end pieces, made of aluminium (same colour as frame):
 - Supplied loose (-ES, pair) (standard).
 - Mounted ex works on both sides (-EB).
 - Mounted ex works on the left side (-EL).
 - Mounted ex works on the right side (-ER).

To give the impression of a continuous frame, lateral front end pieces can be fitted.

for DSX-...-S0:



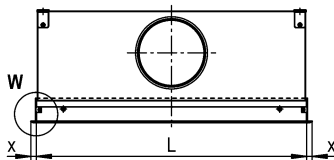
for DSX-...-P0:



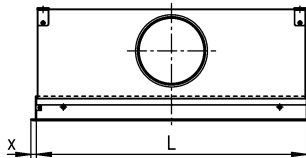
for DSX-...-PB:



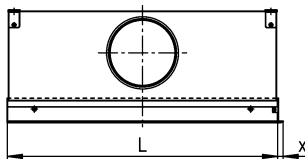
End piece on both sides (-EB)



End piece on the left (-EL)



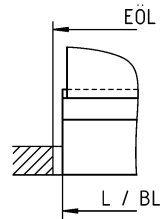
End piece on the right (-ER)



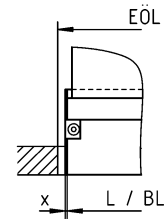
Detail W

DSX-...-S0

without end pieces

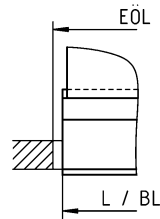


with end pieces

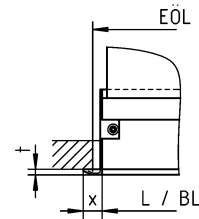


DSX-...-P0 / DSX-...-PB

without end pieces



with end pieces



| | x | t |
|------------|----|-----|
| DSX-...-S0 | 1 | - |
| DSX-...-P0 | 10 | 3 |
| DSX-...-PB | 16 | 2.5 |

Installation opening in the length section:

EÖL = L + 10 or BL + 10

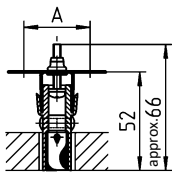
Mounting bracket (pair) / dummy piece (-B0/-BW/-BS)

- without mounting bracket / without dummy piece (-B0)
- with mounting bracket (-BW), for overflow operation:
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length $L \geq 200$ mm.
- with dummy piece (-BS):
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length $L \geq 200$ mm.

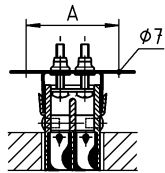
With models -BW and -BS as a band, additional connecting fishplates are supplied loose.
 Mounting with suspension via fastening holes (4x) (see page 14).

Mounting bracket (-BW)

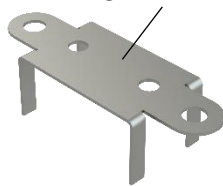
DSX-1-...-BW



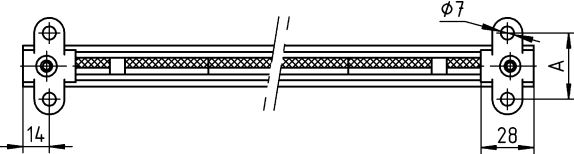
DSX-2 to 4-...-BW



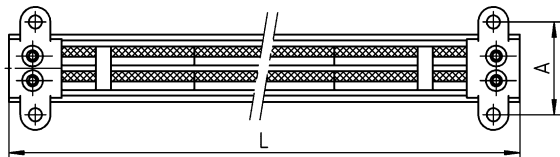
Mounting bracket



DSX-1-...-BW

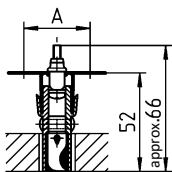


DSX-2 to 4-...-BW

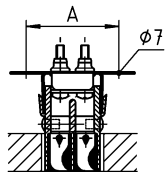


Dummy piece (-BS)

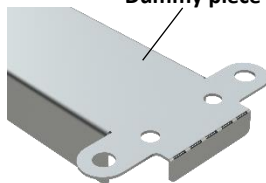
DSX-1-...-BS



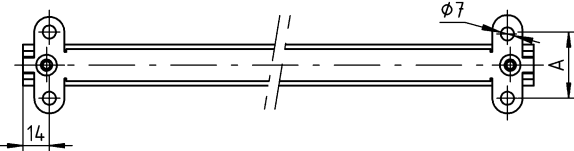
DSX-2 to 4-...-BS



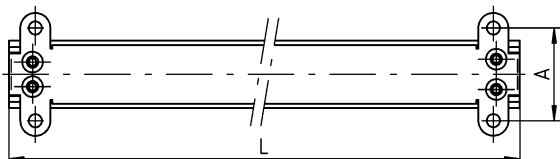
Dummy piece



DSX-1-...-BS



DSX-2 to 4-...-BS

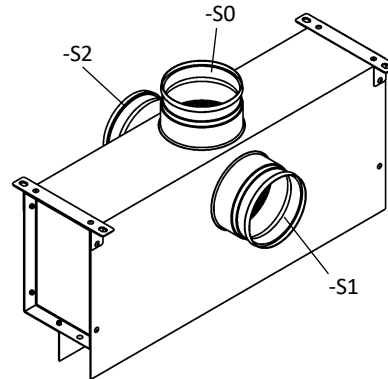


| | DSX-1-... | DSX-2-... | DSX-3-... | DSX-4-... |
|---|-----------|-----------|-----------|-----------|
| A | 35 | 49 | 63 | 77 |

Plenum box (-ASK-21)

Spigot position

- S0 = spigot from above
- S1 = Lateral spigot (standard)
- S2 = Lateral spigot located on the opposite side



Dimensions of the plenum box: see pages 9 to 11.

PLENUM BOX – SINGLE DESIGN (-N)

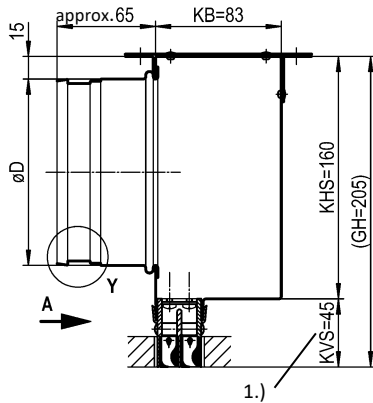
Plenum box (-ASK-21-...-N-...-VM-...-S1/S2-...)

With concealed mounting. With lateral spigot or lateral spigot located on the opposite side.

The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.

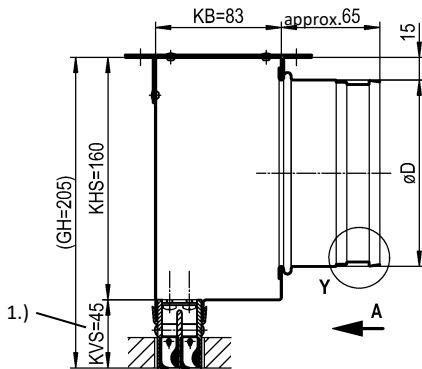
With lateral spigot (-S1, standard)

DSX-...-ASK-21-...-N-...-VM-...-S1-...



With lateral spigot located on the opposite side (-S2)

DSX-...-ASK-21-...-N-...-VM-...-S2-...



1.) Box neck

Available sizes for plenum box (ASK-21-...-N-...-VM-...-S1/S2-...)

| | øD | | |
|-------|--------------------|---------------------|----------------------|
| | L ≥ 400 to L ≤ 500 | L > 500 to L ≤ 1000 | L > 1000 to L ≤ 1500 |
| DSX-1 | 1 x ø98 | 1 x ø98 | 1 x ø123 |
| DSX-2 | 1 x ø98 | 1 x ø123 | 2 x ø123 |
| DSX-3 | 1 x ø123 | 1 x ø123 | 2 x ø123 |
| DSX-4 | 1 x ø123 | 2 x ø123 | 2 x ø123 |

| L | KL | EÖL |
|------|------|------|
| 1000 | 997 | 1010 |
| 1500 | 1497 | 1510 |

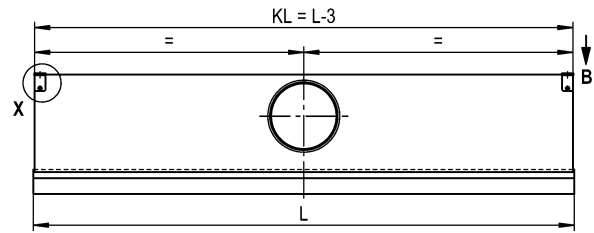
Available lengths of plenum box (-ASK-21-...-N)

- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm).
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm).
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits).
(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths L = ≥400 mm to ≤1500 mm.)

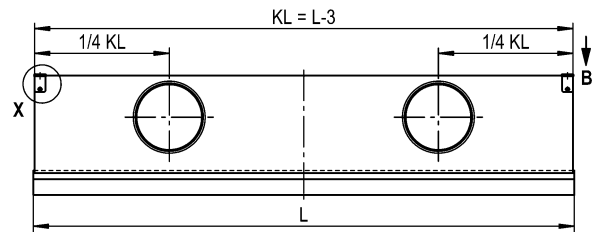
Spigot position:

lateral spigot (-S1) / lateral spigot located on the opposite side (-S2)

View A / with 1 spigot



View A / with 2 spigots



Plenum box height reduction (at an extra charge)

- for spigot position -S1/-S2 and standard box neck: Minimum height [GH] = spigot diameter øD + 82 mm.

Box neck extension

- Standard box neck (KVS = 45 mm) (-KVS).
- Box neck extension in mm, freely selectable (-xxx, always with 3 digits), box neck (not adjustable) from ≥45 mm to 200 mm possible.

Spigot diameter:

- Standard spigot diameter (-SDS).
- Spigot diameter (øD) in mm, freely selectable (-xxx, always with 3 digits).

Intermediate lengths and other spigot diameters on request.

Attention: The max. torque of the fastening screw is 0.5 Nm.

- EÖB = installation opening width (see page 6)
- EÖL = installation opening length (EÖL = L+10 / BL+10)

For the position of suspension view B, see page 12.

For plenum box suspension, detail X, see page 13.

For rubber lip seal, detail Y, see page 15.

See page 18 for mounting.

For plenum box in band design, see page 11.

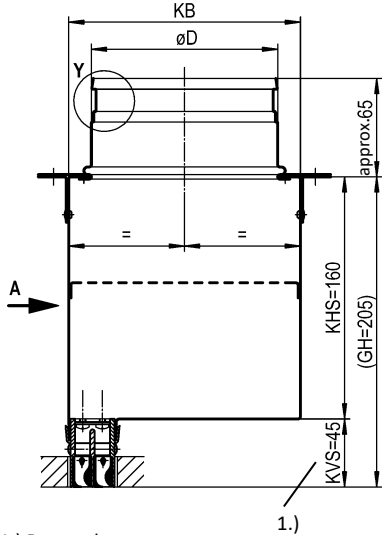
PLENUM BOX - SINGLE DESIGN (-N)

Plenum box (-ASK-21-...-N-...-VM-...-S0-...)

With concealed mounting. With spigot from above.
The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.

with spigot from above (-S0)

DSX-...-ASK-21-...-N-...-VM-...-S0-...



1.) Box neck

Available sizes for plenum box (ASK-21-...-N-...-VM-...-S0-...)

| | L ≥ 400 to L ≤ 500 | | L > 500 to L ≤ 1000 | | L > 1000 to L ≤ 1500 | |
|-------|--------------------|----------|---------------------|----------|----------------------|----------|
| | KB | øD | KB | øD | KB | øD |
| DSX-1 | 128 | 1 x ø98 | 128 | 1 x ø98 | 153 | 1 x ø123 |
| DSX-2 | | | | | | 1 x ø123 |
| DSX-3 | 153 | 1 x ø123 | 153 | 2 x ø123 | | |
| DSX-4 | | | | | | 2 x ø123 |

| L | KL | EÖL |
|------|------|------|
| 1000 | 997 | 1010 |
| 1500 | 1497 | 1510 |

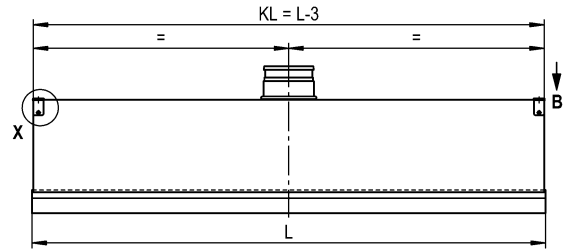
Available lengths of plenum box (-ASK-21-...-N)

- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm).
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm).
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 3 digits).
(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths L = ≥400 mm to ≤1500 mm.)

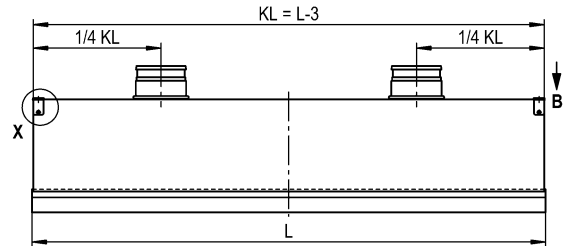
Spigot position:

Spigot from above (-S0)

View A / with 1 spigot



View A / with 2 spigots



Plenum box height reduction (at an extra charge)

- for spigot position -S0 and standard box neck:
The height of plenum box [GH] can be reduced to 180 mm.

Box neck extension

- Standard box neck (KVS = 45 mm) (-KVS).
- Box neck extension in mm, freely selectable (-xxx, always with 3 digits), box neck (not adjustable) from ≥45 mm to 200 mm possible.

Spigot diameter:

- Standard spigot diameter (-SDS).
- Spigot diameter (øD) in mm, freely selectable (-xxx, always with 3 digits).

Intermediate lengths and other spigot diameters on request.

Attention: The max. torque of the fastening screw is 0.5 Nm.

- EÖB = installation opening width (see page 6)
- EÖL = installation opening length (EÖL = L+10 / BL+10)

For the position of suspension view B, see page 12.
For plenum box suspension, detail X, see page 13.
For rubber lip seal, detail Y, see page 15.
See page 18 for mounting.
For plenum box in band design, see page 11.

PLENUM BOX – BAND DESIGN (-B)

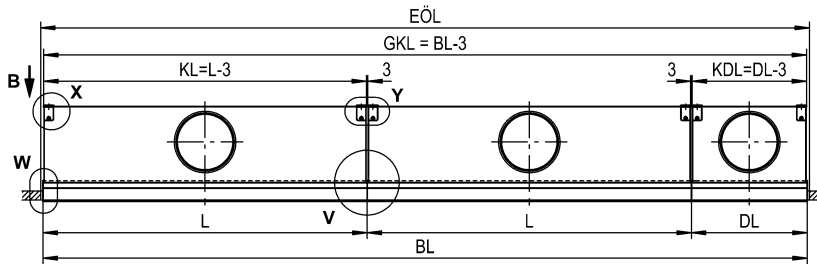
Plenum box (-ASK-21-...-B-...-VM-...)

With concealed mounting.
 The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.

Available lengths of plenum box (-ASK-21-...-B)

DSX-...-ASK-21-...-B-...-VM-...-S1/-S2-...-E0

(with lateral spigot or lateral spigot located on the opposite side, without riveting nut)



Available lengths according to SCHAKO standard

BL >1500 to <2000:

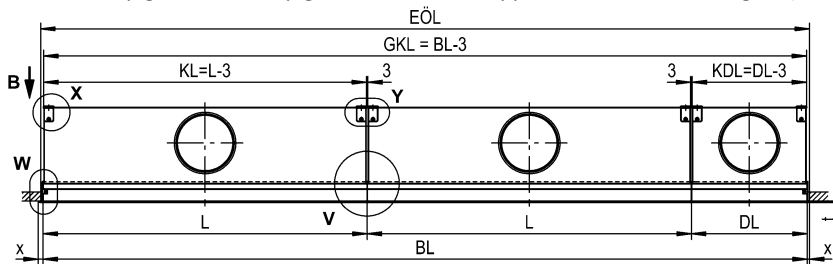
For models designed as a band (BL > 1500 mm to <2000 mm), the total length BL is divided individually (division upon request).

BL ≥2000:

For models designed as a band (BL ≥ 2000 mm), the total length BL is assembled from standard lengths of **1500 mm**.

DSX-...-ASK-21-...-B-...-VM-...-S1/-S2-...-ES/-EB/-EL/-ER

(with lateral spigot or lateral spigot located on the opposite side, with riveting nut)



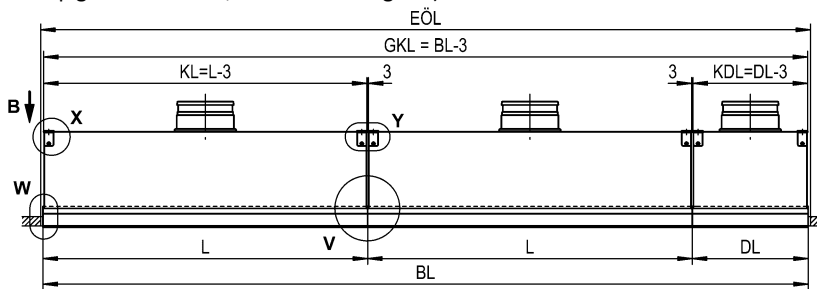
The difference pieces DL with length <1500 mm to ≥ 400 mm can be fitted with a plenum box.

A plenum box (KL/KDL) with a length of < 400 mm is not possible.

The difference pieces from <400 mm to ≥200 mm are supplied as dummy pieces without plenum box. A different band division is possible after consultation and when required by the customer. Individual sections are connected (for mounting on site, see detail V) by using double air guide elements.

DSX-...-ASK-21-...-B-...-VM-...-S0-...-E0

(with spigot from above, without riveting nut)



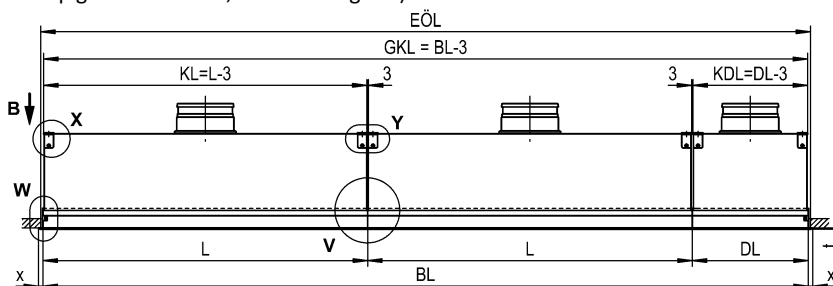
| | x | t |
|------------|----|-----|
| DSX-...-S0 | 1 | - |
| DSX-...-P0 | 10 | 3 |
| DSX-...-PB | 16 | 2.5 |

Installation opening in the length section:
EÖL = BL + 10

- L = length
- DL = difference in length
- BL = band length
- KL = length of plenum box (KL = L-3)
- KDL = difference in length, plenum box (KDL = DL-3)
- GKL = total length of box (GKL = BL-3)
- EÖL = ceiling opening dimensions

DSX-...-ASK-21-...-B-...-VM-...-S0-...-ES/-EB/-EL/-ER

(with spigot from above, with riveting nut)

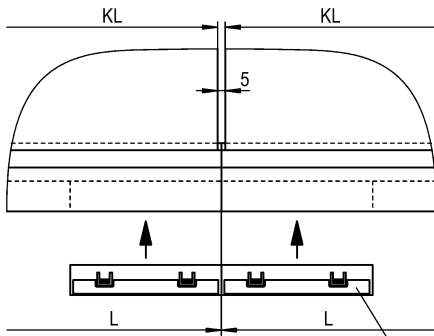


Butt joint of concealed mounting, for detail V see page 12.
 For plenum box suspension, detail X / detail Y, see page 13.
 End pieces, for detail W see page 7.

For the position of suspension holes view B, see page 12.
 Available sizes for plenum box see pages 9 + 10.

Butt joint of concealed mounting (-VM)

Detail V

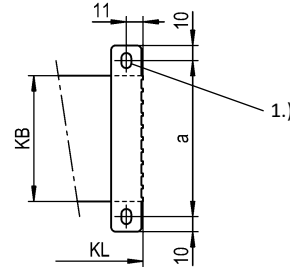


Double air guide element,
 supplied loose (assembly on
 site)

Position of the suspension holes

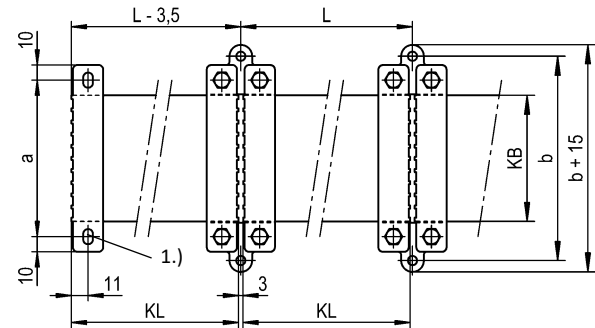
SINGLE DESIGN

View B



BAND DESIGN

View B



1.) Long hole $\varnothing 6.5 \times 10$

Available sizes

Lateral connection (-S1/-S2)

| | L \geq 400 - L \leq 1500 | | |
|-------|------------------------------------|-----|-----|
| | KB | a | b |
| DSX-1 | 83 | 103 | 134 |
| DSX-2 | | | |
| DSX-3 | | | |
| DSX-4 | | | |

Connection plate



Available sizes

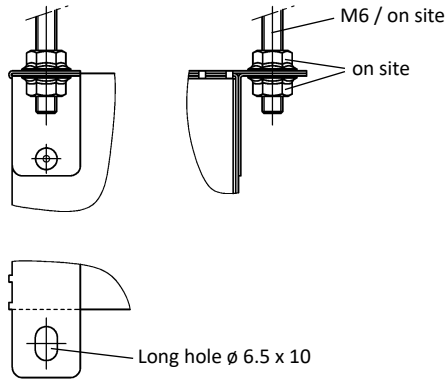
Connection from above (-S0)

| | L \geq 400 - L \leq 500 | | | L > 500 - L \leq 1000 | | | L > 1000 - L \leq 1500 | | |
|-------|-----------------------------------|-----|-----|-------------------------------|-----|-----|--------------------------------|-----|-----|
| | KB | a | b | KB | a | b | KB | a | b |
| DSX-1 | 128 | 148 | 180 | 128 | 148 | 180 | 153 | 173 | 205 |
| DSX-2 | | | | | | | | | |
| DSX-3 | 153 | 173 | 205 | 153 | 173 | 205 | 153 | 173 | 205 |
| DSX-4 | | | | | | | | | |

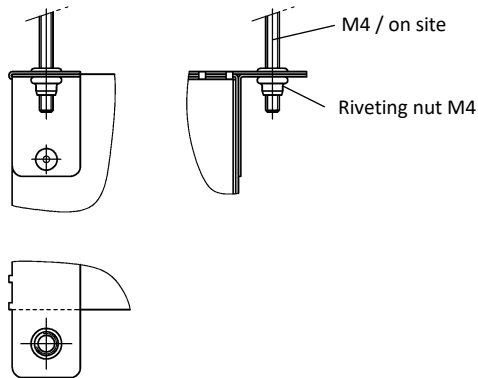
Plenum box suspension

SINGLE DESIGN / BAND DESIGN

Detail X
 with long hole $\varnothing 6.5 \times 10$ (-E0, standard):

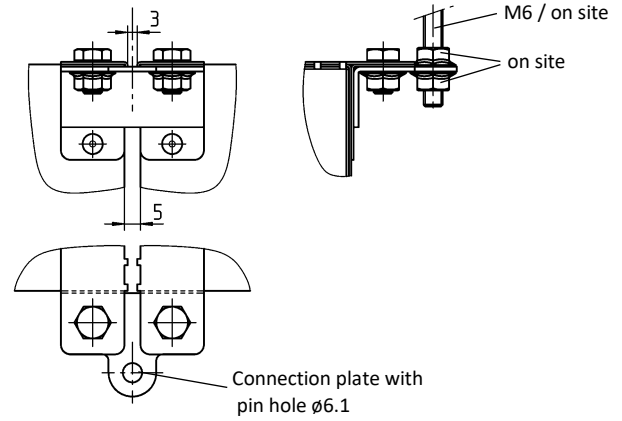


with riveting nut M4 (-EM, at an extra charge):
 At an extra charge, the plenum boxes can be fitted with M4 riveting nuts to facilitate ceiling mounting.

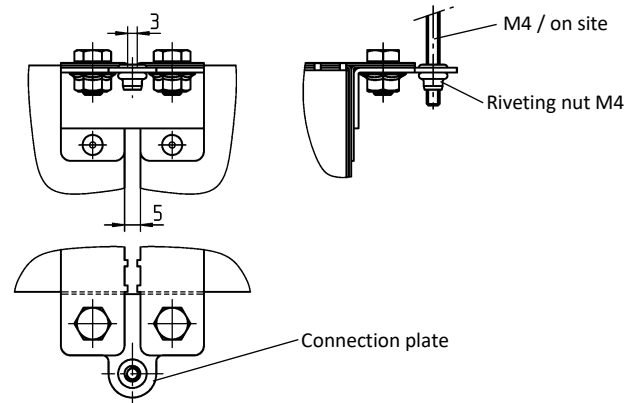


BAND DESIGN

Detail Y
 with pin hole $\varnothing 6.1$ (-E0, standard):



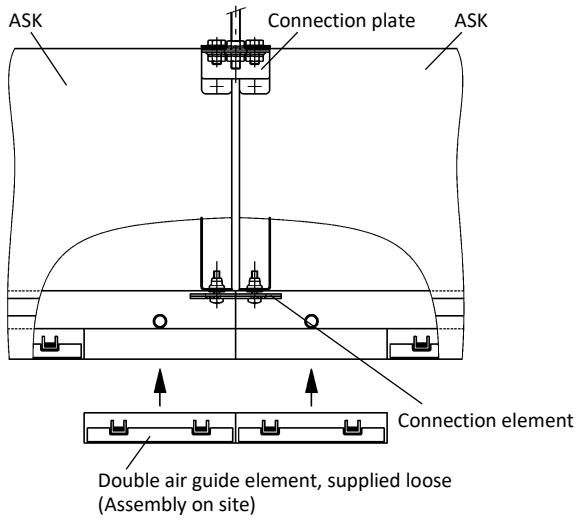
with riveting nut M4 (-EM, at an extra charge):
 At an extra charge, the connection plates can be provided with M4 riveting nuts to facilitate ceiling mounting.



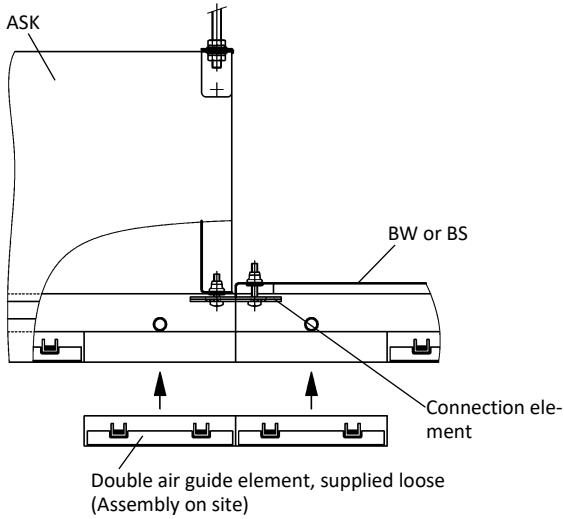
Connection element for band design

(supplied loose as standard)

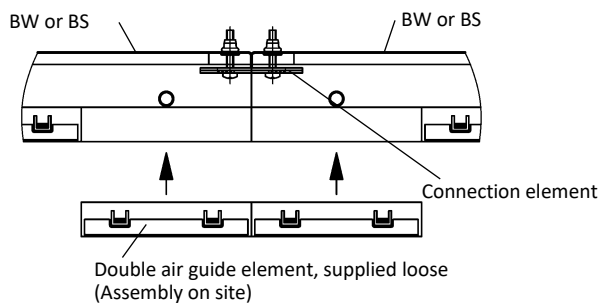
DSX-...-ASK with DSX-...-ASK (active – active)



DSX-...-ASK with DSX-...-BW (active – active)
DSX-...-ASK with DSX-...-BS (active – passive)



DSX-...-BW with DSX-...-BW (active – active)
DSX-...-BW with DSX-...-BS (active – passive)
DSX-...-BS with DSX-...-BS (passive – passive)



Connection element for the connection between:

| | | | |
|-------------|------|-------------|--------------------------|
| DSX-...-ASK | with | DSX-...-ASK | active - active |
| DSX-...-ASK | with | DSX-...-BW | active - active |
| DSX-...-ASK | with | DSX-...-BS | active - passive |
| DSX-...-BW | with | DSX-...-BW | active - active |
| DSX-...-BW | with | DSX-...-BS | active - passive |
| DSX-...-BS | with | DSX-...-BS | passive - passive |

Detail of connection element



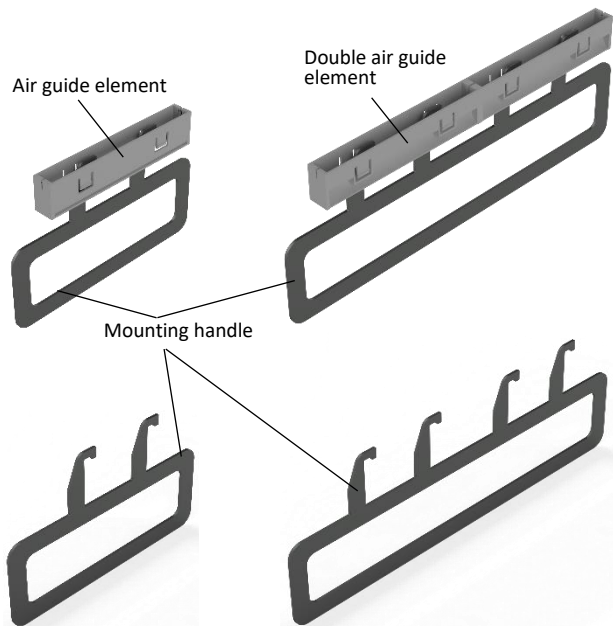
Detail of connection plate (connecting ASK to ASK)



Mounting handle for air guide element

Air guide element (Standard)

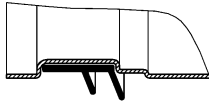
Double air guide element (for band design)



Rubber lip seal (-GD0/-GD1), for ASK-21

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

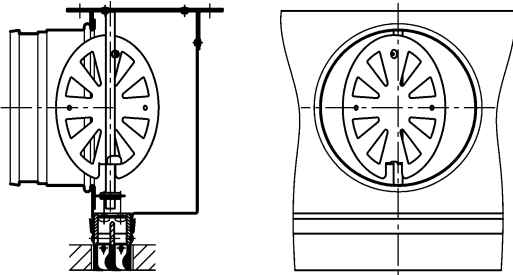
Detail Y



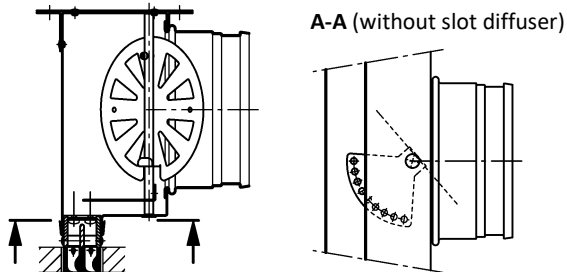
Damper (-DK0/-DK1/-DK2), for ASK-21

- Without damper (-DK0) (standard).
- with damper in the plenum box housing (-DK1) (with spigot position S1 and S2).
- with damper in the connection spigot, with cable-operated adjustment (-DK) (only with spigot position S0).

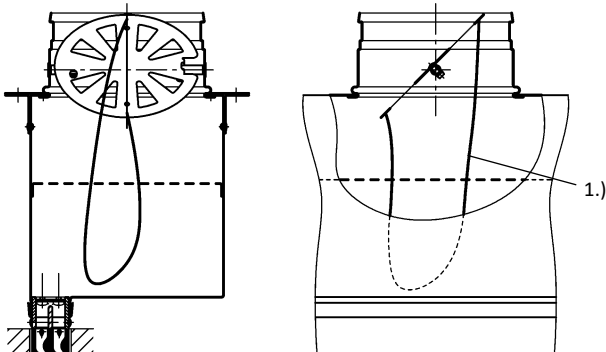
-DK1, lateral connection (-S1, standard)



-DK1, lateral connection located on the opposite side (-S2)



-DK2, connection from above (-S0, with cable-operated adjustment)

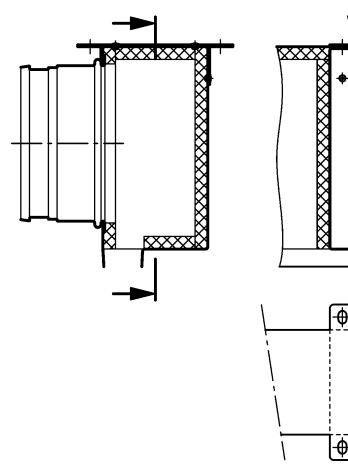


1.) With cable-operated adjustment (SZV)

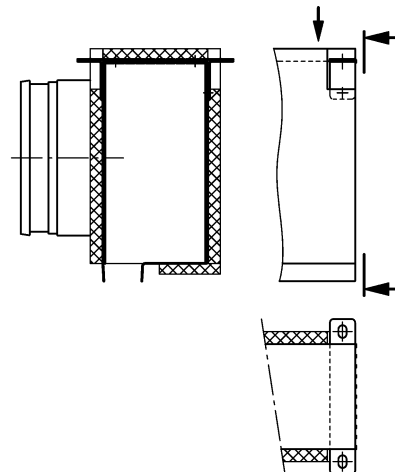
Insulation (-I0 / -li / -Ia), for ASK-21

- without insulation (-I0) (standard).
- with internal insulation (-li).
- with external insulation (-Ia).

Internal (-li)



External (-Ia)

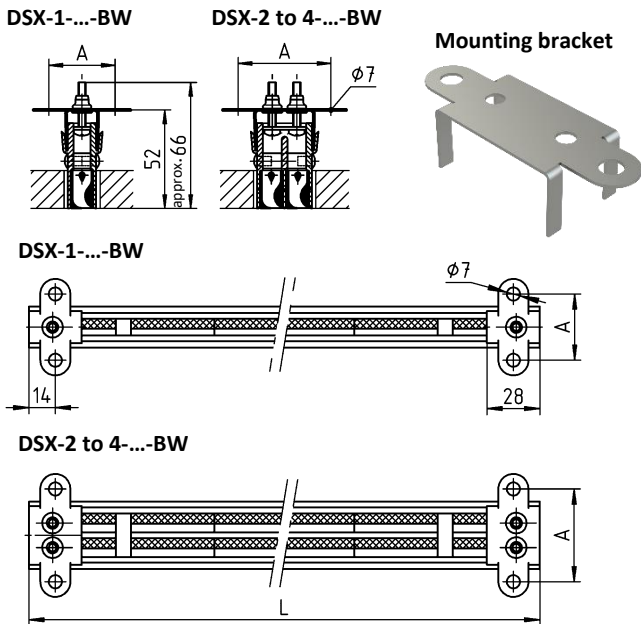


Mounting bracket / dummy piece (-BS0/-BW/-BS)

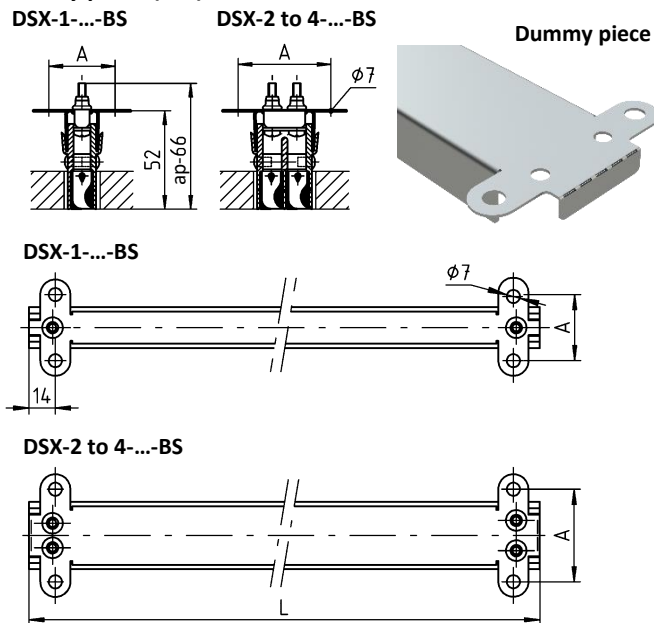
- without mounting bracket / without dummy piece (-B0).
 - with mounting bracket (-BW), for overflow operation:
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - with dummy piece (-BS):
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length $L \geq 200$ mm.
- Operation with overflow air is impossible, since the slot diffuser is completely closed at the back

With models -BW and -BS as a band, additional connecting fishplates are supplied loose.

Mounting bracket (-BW)



Dummy piece (-BS)



| | DSX-1-... | DSX-2-... | DSX-3-... | DSX-4-... |
|---|-----------|-----------|-----------|-----------|
| A | 35 | 49 | 63 | 77 |

Corner angle 90° (-EW-21-...-090-...)

Corner angles can only be produced as dummy pieces, i.e., without a plenum box.

The double air guide element is mounted ex works.

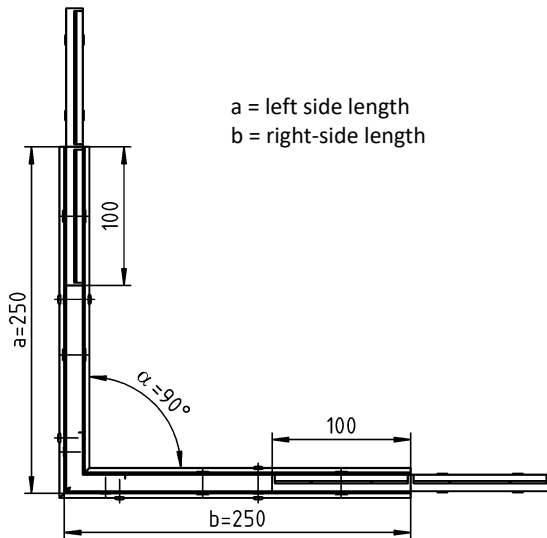
The connecting element is firmly screwed with the corner angle, for on-site connection to the slot diffuser.

The corner angle is supplied loose as standard.

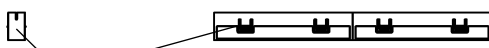
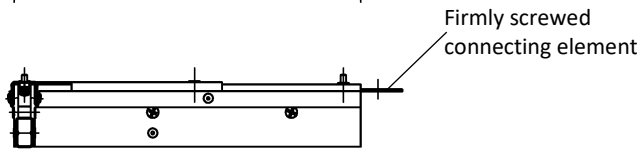
Standard left-side length (a) L = 250 (-000) / right-side length (b)

L = 250 (-000). Other side lengths (a/b) are available upon request (minimum length = standard length).

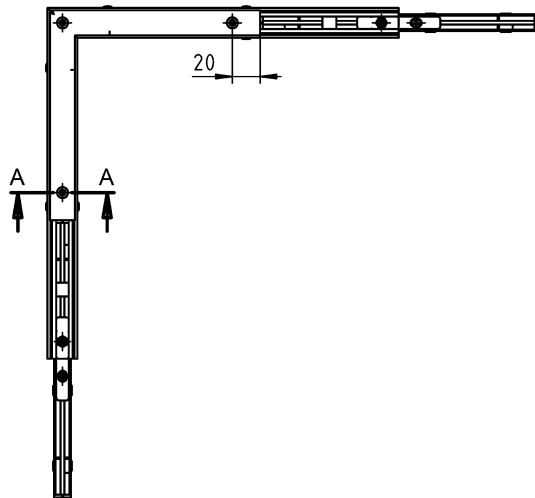
Angle values between $\alpha = 90^\circ$ (-090, standard) and 170° (-170) are possible.



a = left side length
 b = right-side length

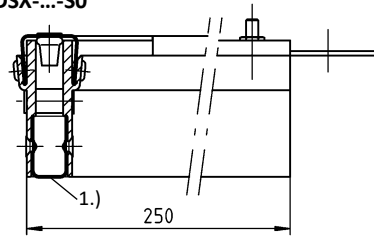


Double air guide elements mounted ex works

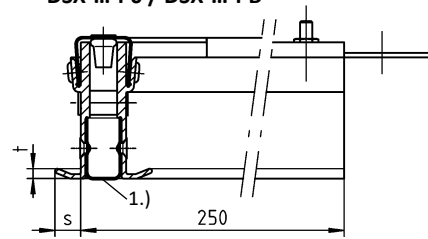


Section A-A

DSX-...-S0



DSX-...-P0 / DSX-...-PB



1.) Dummy profile

| | s | t |
|------------|------|-----|
| DSX-...-S0 | - | - |
| DSX-...-P0 | 8.5 | 3 |
| DSX-...-PB | 14.5 | 2.5 |

Connection element



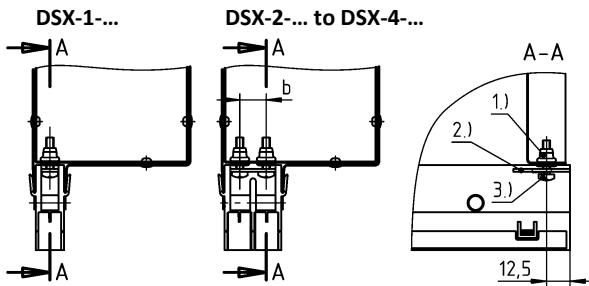
MOUNTING

Without connection (-00)

- Slot diffuser and plenum box are **not** connected to one another.
- Standard with dummy piece (-BS) and with mounting bracket (-BW).

Concealed mounting with plenum box (-VM)

- Slot diffuser and plenum box are connected to one another ex works.
- The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.



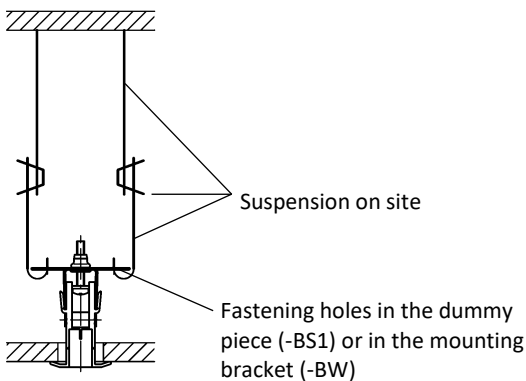
Number of fastening screws:
 DSX-1-... with 2 screws
 DSX-2-... to DSX-4-... with 4 screws

- 1.) Riveting nut M4
- 2.) Connecting plate
- 3.) Torx screw M4 DIN 7991-TX

| | b |
|-------|----|
| DSX-1 | - |
| DSX-2 | 14 |
| DSX-3 | 28 |
| DSX-4 | 42 |

Suspension via fastening holes

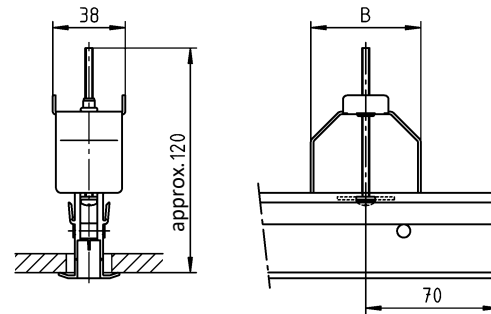
- for model:
 - Dummy piece (-BS).
 - mounting bracket (-BW, pair).
- Only possible without plenum box.
- slot diffuser fastened to 4 suspension brackets.



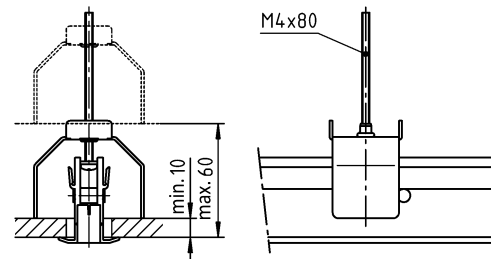
Clamp strap (-KB)

- for room side installation in finished pressure ceilings.
- Only possible without plenum box.
- Screws and clamp straps are supplied loose (pair).
- Possible for the models DSX-...-P0 and DSX-...-PB. (not possible for model DSX-...-S0)
- the slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).
- **for mounting, access on the rear is not required!**

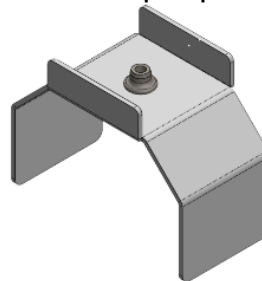
In mounting position



In clamping position



Detail of clamp strap



| | B |
|--------------|-----|
| DSX-1-...-P0 | 58 |
| DSX-1-...-PB | 58 |
| DSX-2-...-P0 | 72 |
| DSX-2-...-PB | 72 |
| DSX-3-...-P0 | 86 |
| DSX-3-...-PB | 86 |
| DSX-4-...-P0 | 100 |
| DSX-4-...-PB | 100 |

Mounting instructions

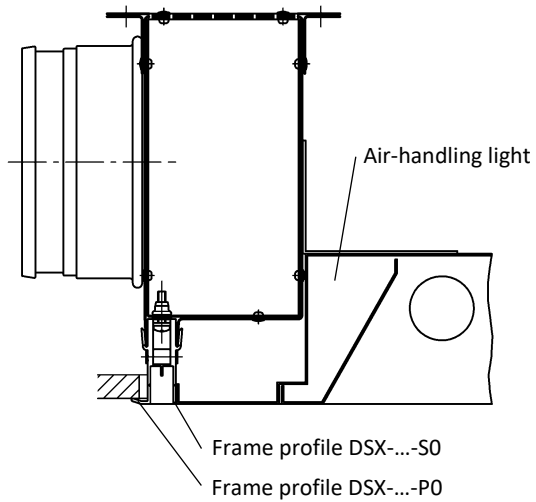
As standard, the clamp straps are delivered loose.

1. Take out the air guide elements at the ends.
2. Fasten the clamp strap with the screw such that it is positioned in the direction of the slot diffuser (see installation position).
3. Then introduce the slot diffuser into the pressure ceiling.
4. Then rotate the clamp strap by about 90° by rotating the screw and lower it over the slot diffuser profile (see clamping position).
5. Tighten the screw until the slot diffuser is firmly locked at the ceiling.
6. Finally, re-insert the air guide elements.

TYPE OF INSTALLATION

Fitting to air-handling lights

When attaching to diffusers combined with lighting, the external profile of the DSX-...-S0 is attached to the mounting side to ensure a perfectly flush fit. Otherwise the measurements correspond to the standard plenum box.

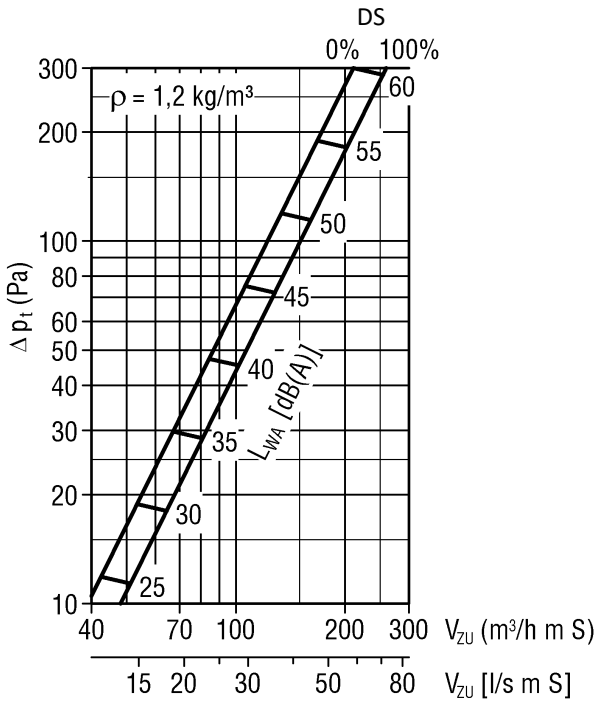


TECHNICAL DATA

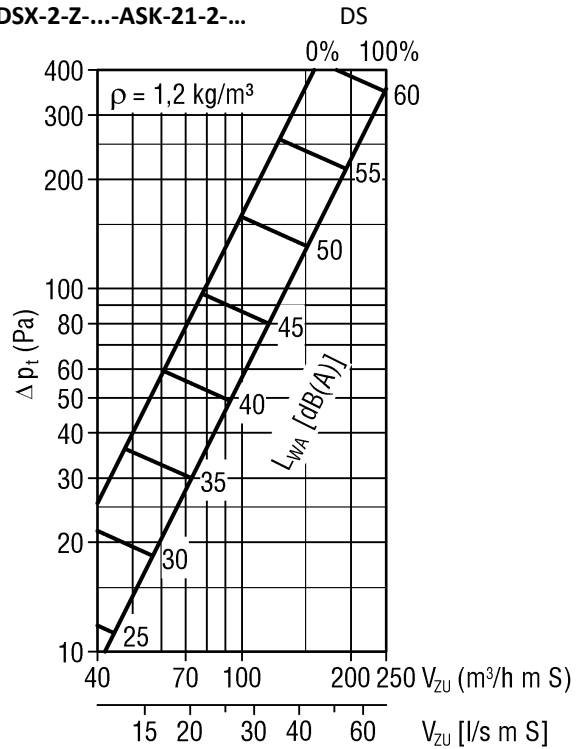
Pressure loss and noise level

L = 1000 mm (supply air, with plenum box)

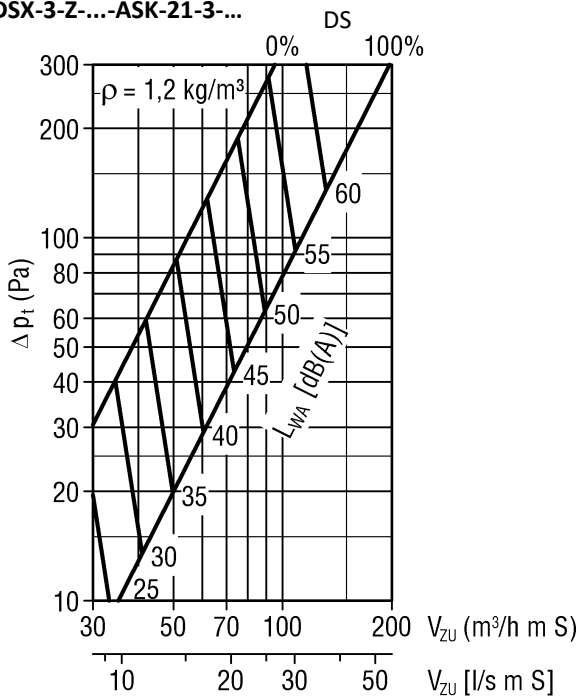
DSX-1-Z-...-ASK-21-1-...



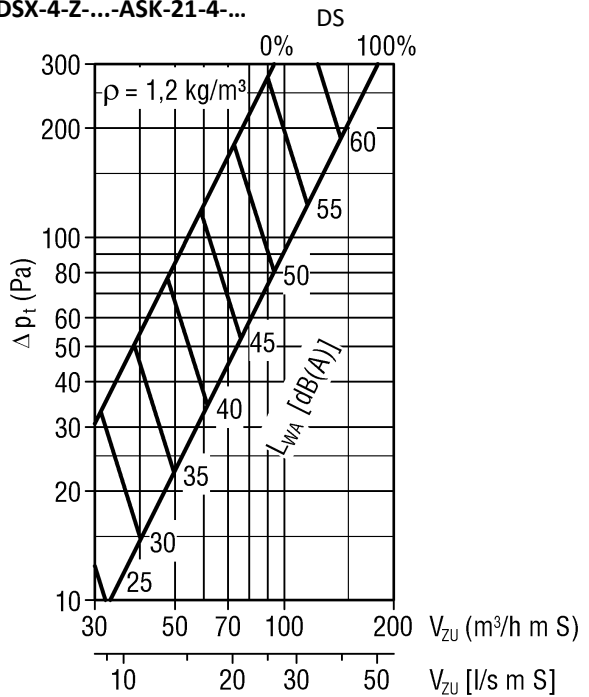
DSX-2-Z-...-ASK-21-2-...



DSX-3-Z-...-ASK-21-3-...



DSX-4-Z-...-ASK-21-4-...



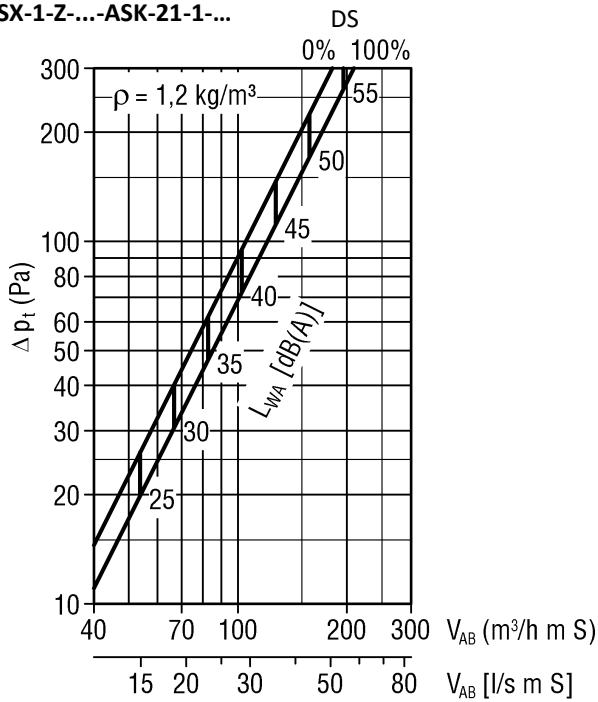
Damper position (DS):

CLOSED = 0 %

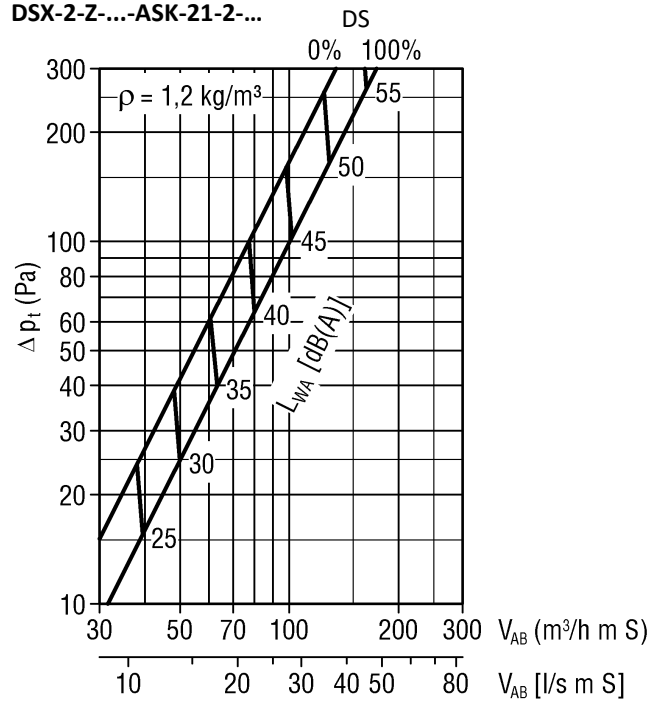
OPEN = 100 %

**L = 1000 (return air, with plenum box)
 with air guide elements**

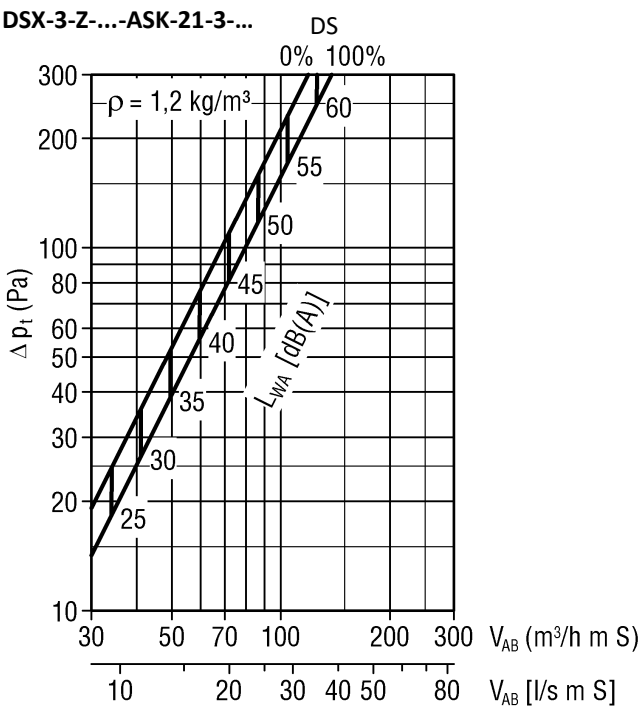
DSX-1-Z-...-ASK-21-1-...



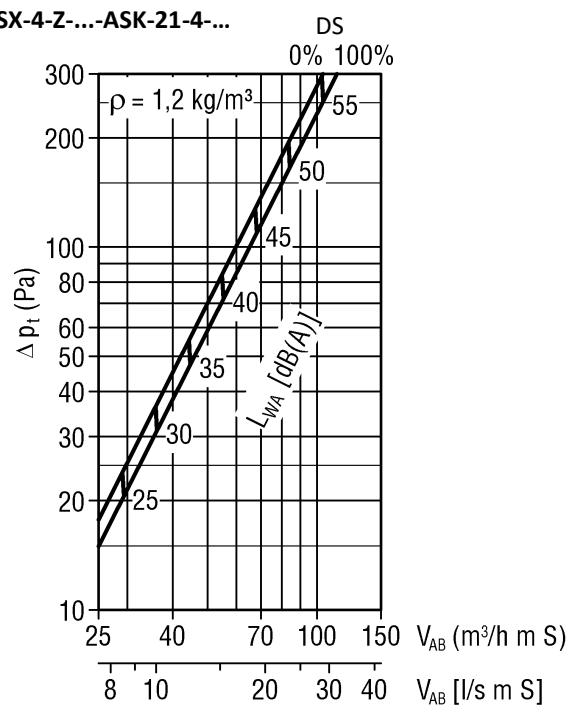
DSX-2-Z-...-ASK-21-2-...



DSX-3-Z-...-ASK-21-3-...



DSX-4-Z-...-ASK-21-4-...



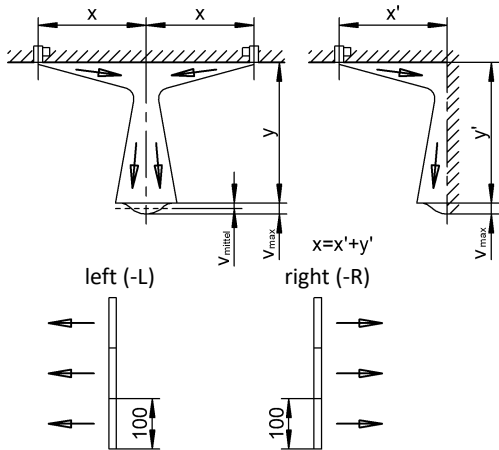
Length correction factor
 for noise level (supply and exhaust air)
 with air guide elements

| | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|-----|
| L (m) | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 5 |
| KF (-) | 0.0 | 1.8 | 3.0 | 4.0 | 4.7 | 6.0 | 7.0 |

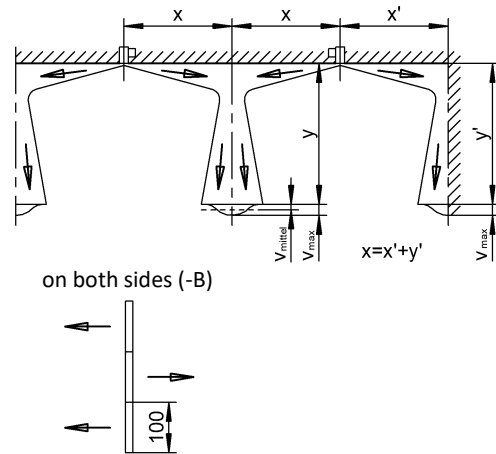
Damper position (DS):
 CLOSED = 0 %
 OPEN = 100 %

Maximum final jet velocity

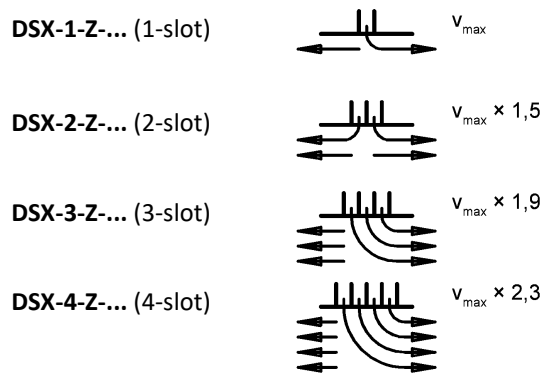
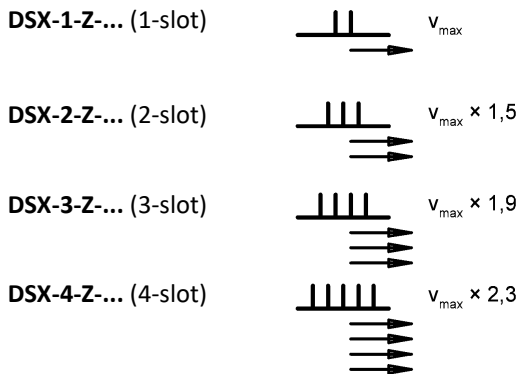
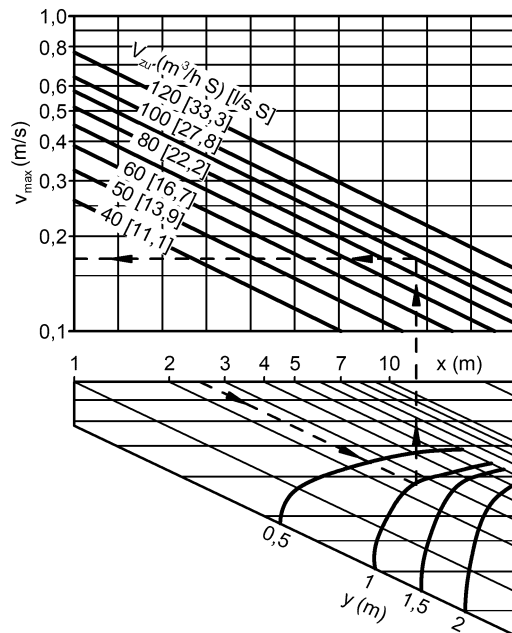
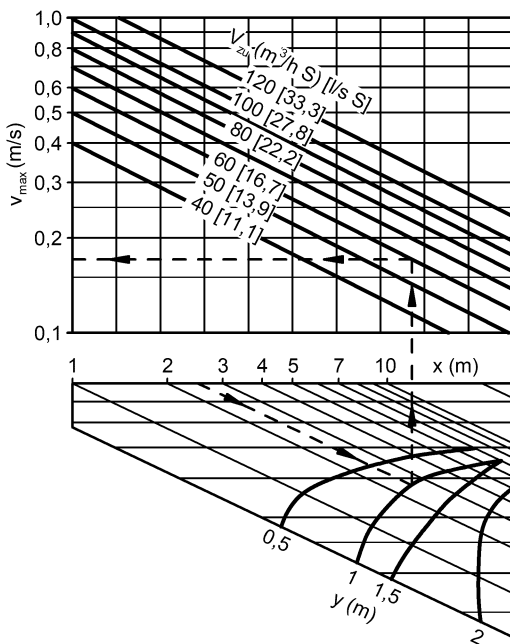
Blade position for air jet -L / -R (supply air):
 Blades with horizontal one-way throw to the left /
 Blades with one-way horizontal throw to the right



Blade position for air jet -B (supply air):
 Blades with horizontal two-way throw

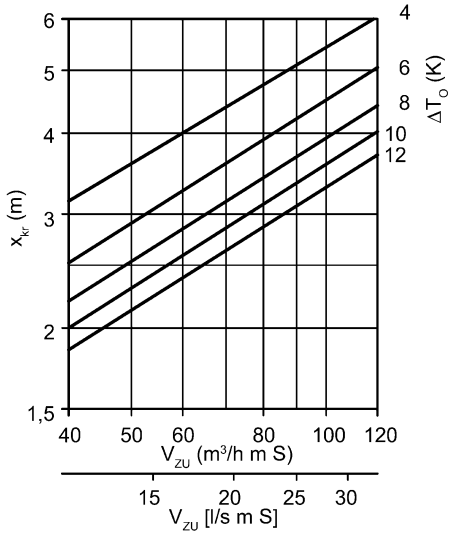


In the case of multi-slot models, all air guide elements which are side by side are inserted for one-way throw direction.



Critical throw

Blade position for air jet -L / -R / -B

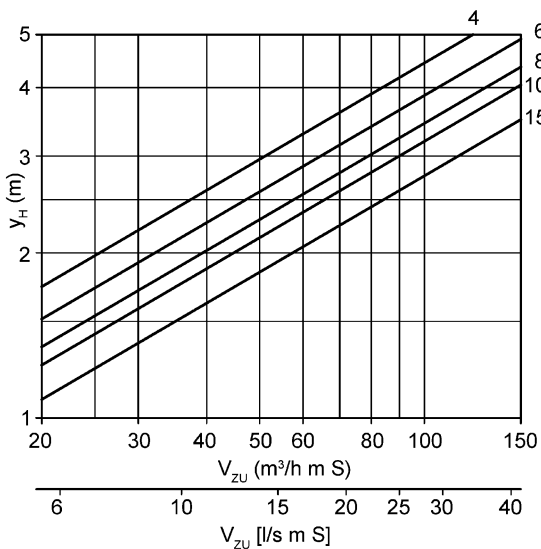
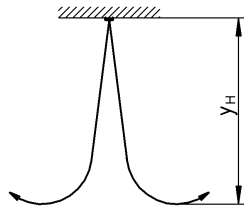


- DSX-2-... (2-slot): $x_{kr} \times 1.5$
- DSX-3-... (3-slot): $x_{kr} \times 1.8$
- DSX-4-... (4-slot): $x_{kr} \times 2.2$

Maximum penetration

In heating mode

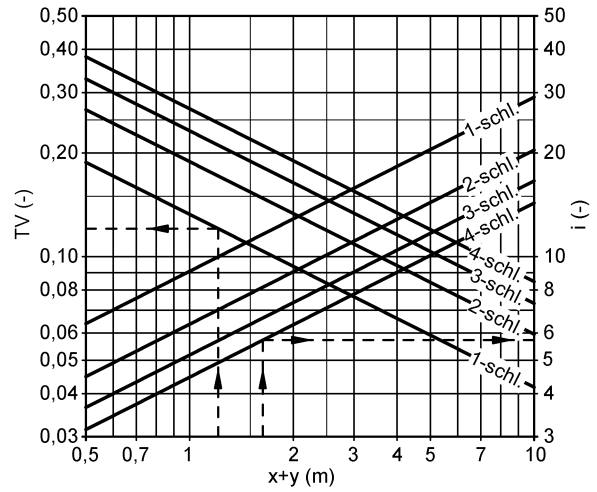
Blade position for air jet -V



Induction ratio

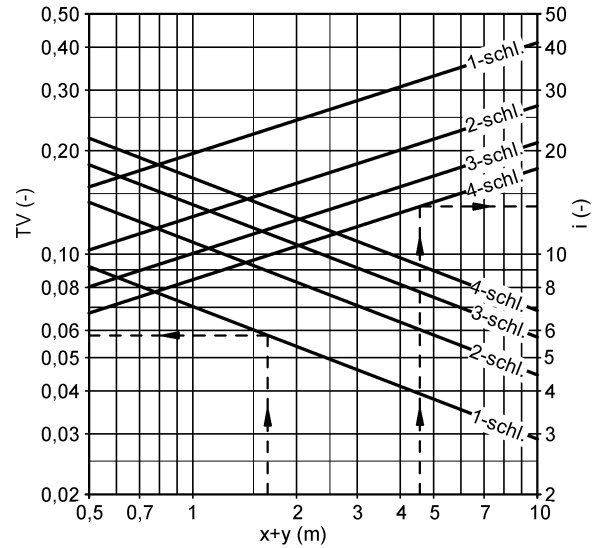
Blade position for air jet -L / -R

(one-way horizontal throw left or right)



Blade position for air jet -B

(two-way horizontal throw)



LEGEND

| | | |
|--------------|--------------------------|--|
| V_{ZU} | (m^3/h m S) [l/s m S] | = Supply air volumetric flow per metre per slot |
| V_{ZU} | (m^3/h S) [l/s S] | = Supply air volumetric flow per slot |
| V_{AB} | (m^3/h m S) [l/s m S] | = Exhaust air volumetric flow per metre per slot |
| Δp_t | (Pa) | = pressure loss |
| ρ | (kg/m^3) | = Density |
| L_{WA} | [dB(A)] | = A-weighted sound power level ($L_{WA} - L_{WA1} + KF$) |
| L_{WA1} | [dB(A)] | = A-weighted sound power level relative to $L = 1000$ mm |
| x_{kr} | (m) | = critical throw |
| ΔT_O | (K) | = Temperature difference between supply air and room temperature ($\Delta T_O = t_{ZU} - t_R$) |
| ΔT_x | (K) | = temperature difference at point x |
| v_{max} | (m/s) | = max. End velocity of jet |
| v_{mittel} | (m/s) | = Average end velocity of jet ($v_{mittel} = v_{max} \times 0.5$) |
| TV | (-) | = Temperature ratio ($TV = \Delta T_x / \Delta T_O$) |
| i | (-) | = Induction ratio ($i = V_x / V_{ZU}$) |
| x | (m) | = horizontal throw |
| y | (m) | = vertical throw |
| x+y | (m) | = horizontal + vertical throw |
| y_H | (m) | = maximum penetration depth in heating mode |
| t_{ZU} | (°C) | = supply air temperature |
| t_R | (°C) | = room temperature |
| KF | (-) | = Correction factor |
| V_x | (m^3/h) [l/s] | = total air jet volume at point x |
| KL | (mm) | = Length of box |
| KB | (mm) | = Width of box |
| KH | (mm) | = Height of box |
| GH | (mm) | = total height |
| L | (mm) | = length |
| DS | (%) | = Damper position |

SLOT DIFFUSER ORDER CODE

| 01 | 02 | 03 | 04 | 05 | 06 |
|----------------|-------|-----------|---------------|---------------|--------------|
| Type | Model | Air throw | Frame profile | Frame surface | Blade colour |
| Example | | | | | |
| DSX | -2 | -Z | -S0 | -9010 | -L9005 |

| 07 | 08 | 09 | 10 | 11 | 12 |
|----------------------------|----------------------|--------|----------|-----------|--------------------------------|
| Blade position for air jet | Single / band design | Length | Mounting | End piece | Mounting bracket / dummy piece |
| | | | | | |
| -V | -N | -01000 | -VM | -ES | -B0 |

Sample

DSX-2-Z-S0-9010-L9005-V-N-01000-VM-ES-B0

Slot diffuser DSX | 2-slot | supply air | narrow frame profile, without support profile, for invisible installation | aluminium painted to RAL colour 9010 (white) | air guide element made of plastic material, similar to RAL 9005 (black) | air guide element with vertical throw | single design | length L = 1000 mm | concealed mounting | with end piece | without dummy piece

ORDER DETAILS

01 - Type

DSX = Slot diffuser DSX

02 - Model

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

03 - Air throw

- Z = supply air
- A = return air (with air guide elements)

04 - Frame profile

- S0 = Narrow frame profile, without support profile, for invisible installation (standard, in same colour as blade colour).
- P0 = Frame profile P0, with support profile, for visible installation.
- PB = Frame profile PB, with support profile, for visible installation.

05 - Frame surface

- ELOX = Natural colour anodised aluminium (standard for DSX-...-P0 and DSX-...-PB).
 - 9005 = Aluminium painted to RAL colour 9005 (black).
 - 9010 = Aluminium painted to RAL colour 9010 (white).
 - xxxx = aluminium painted to a freely selectable RAL colour (at an extra charge, always with 4 digits).
- (Painted aluminium, standard for model DSX-...-S0.)

06 - Blade colour (air guide element)

- L9005 = Air guide element made of plastic material, similar to RAL colour 9005 (black) (standard).
- L9010 = Air guide element made of plastic material similar to RAL 9010 (white).

07 - Blade position for air jet

- V = Air guide element with vertical throw (standard for return air).
- L = air guide element with horizontal one-way throw to the left.
- R = air guide element with horizontal one-way throw to the right.
- B = air guide element with horizontal two-way throw (standard for supply air).

08 - Single / band design

- N = single design (length max. 1500 mm).
 - B = Band design (available lengths according to SCHAKO standard for band design, single element length max. 1500 mm).
- To lock the slot diffusers, double air guide elements are used at the butt joints (supplied loose, installation on site).

09 - Length

- 01000 = length L = 1000 mm.
 - 01500 = length L = 1500 mm.
 - xxxxx = length (L/BL) in mm, freely selectable (always with 5 digits).
- (Can be fitted with a plenum box in case of single design lengths L = ≥400 mm to ≤1500 mm.)

10 - Mounting

- 00 = without connection (not connected to the plenum box, standard for BS and BW).
- VM = concealed mounting (standard, connected to the plenum box ex works).
- KB = clamp strap (not for use with plenum box), screws and clamp strap supplied loose (pair), only possible for DSX-...-P0 and DSX-...-PB.

11 - End piece

- E0 = without end piece (standard).
- ES = with end piece (pair, supplied loose).
- EB = with end piece mounted ex works on both sides.
- EL = with end piece mounted ex works on the left side.
- ER = with end piece mounted ex works on the right side.

12 - Mounting bracket / dummy piece

- B0 = without mounting bracket / without dummy piece
- BW = with mounting bracket made of galvanised sheet steel, for overflow operation (only possible without plenum box, possible from length L ≥ 200 mm). Mounting through suspension via fastening holes.
- BS = with dummy piece, made of sheet steel (only possible without plenum box, possible from length L ≥ 200 mm). Mounting through suspension via fastening holes.

With models -BW and -BS as a band, additional connecting fishplates are supplied loose.

PLENUM BOX ORDER CODE

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|----------------|----------|-------|----------------------|--------|-----------------|----------|--------|
| Type | Diffuser | Model | Single / band design | Length | Mounting of box | Material | Damper |
| Example | | | | | | | |
| ASK | -21 | -2 | N | -01000 | -VM | -SV | -DK1 |

| 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|-----------------|------------|----------------------|----------|-----------------|-----------------|------------|
| Rubber lip seal | Insulation | Height of plenum box | Box neck | Spigot position | Spigot diameter | Suspension |
| | | | | | | |
| -GD1 | -I0 | -KHS | -KVS | -S1 | -SDS | -E0 |

Sample

ASK-21-2-N-01000-VM-SV-DK1-GD1-I0-KHS-KVS-S1-SDS-E0

Plenum box for slot diffuser | for DSX | 2-slot | single design | length L = 1000 mm | concealed mounting | galvanised sheet steel | with damper | with rubber lip seal | without insulation | standard height of plenum box | standard box neck | lateral spigot | standard spigot diameter | without riveting nut

ORDER DETAILS

01 - Type

ASK = plenum box for slot diffuser (rectangular design)

02 - Diffuser

21 = for DSX (air diffuser must always be ordered separately)

03 - Model

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

04 - Single / band design

N = single design (length of box KL max. 1500 mm).
 B = band design (available lengths according to SCHAKO standard for band design).

05 - Length

01000 = length L = 1000 mm.
 01500 = length L = 1500 mm.
 xxxxx = length (L/BL) in mm, freely selectable (always with 5 digits).
 (length of box KL = L-3 / total length of box GKL = BL-3, length min. 400 mm / max. 1500 mm).

06 - Mounting of box

00 = without connection (not connected to the slot diffuser, screws supplied loose).
 VM = concealed mounting (standard, connected to the slot diffuser ex works).

07 - Material

SV = galvanised sheet steel (standard).

08 - Damper

DK0 = without damper (standard).
 DK1 = with damper (only with lateral spigot position [-S1/-S2], in the plenum box housing).
 DK2 = With damper and cable-operated adjustment (SZV) (with spigot position from above [-S0], in connection spigot).

09 - Rubber lip seal

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

10 - Insulation

I0 = without insulation (standard).
 Ii = with internal insulation.
 Ia = with external insulation.

11 - Height of plenum box

KHS = standard height of plenum box.
 xxx = Height of plenum box in mm, freely selectable (always with 3 digits) (minimum height [GH] with spigot position S1+S2 and standard box neck = spigot diameter $\varnothing D + 82$ mm / with spigot position S0 = 180 mm).

12 - Box neck

KVS = Standard box neck.
 xxx = box neck extension in mm, freely selectable (always with 3 digits). Box neck (not adjustable) from ≥ 45 mm to 200 mm possible.

13 - Spigot position

S0 = spigot from above.
 S1 = Lateral spigot (standard).
 S2 = Lateral spigot located on the opposite side.

14 - Spigot diameter

SDS = spigot diameter standard.
 xxx = spigot diameter ($\varnothing D$) in mm, freely selectable (always with 3 digits).

15 - Suspension

E0 = without riveting nut (standard).
 EM = with riveting nut.

ORDER CODE CORNER ANGLE

| 01 | 02 | 03 | 04 | 05 |
|----------------|----------|-------|---------------|---------------|
| Type | Diffuser | Model | Frame profile | Frame surface |
| Example | | | | |
| EW | -21 | -2 | -S0 | -ELOX |

| 06 | 07 | 08 | 09 |
|---|---------------------|-----------------------|-----------------------|
| Dummy profile colour (air guide elements) | Angle between sides | Left-side length (a): | Right-side length (b) |
| | | | |
| -B9005 | -090 | -000 | -000 |

Sample

EW-21-2-S0-ELOX-B9005-090-000-000

Corner angle for slot diffuser | for DSX | 2-slot | narrow frame profile, without support profile, for invisible installation | natural colour anodised aluminium | aluminium painted to RAL colour 9005 (black) | angle $\alpha = 90^\circ$ | standard length (L=250 mm) | standard length (L=250 mm)

ORDER DETAILS

01 - Type

EW = corner angle for slot diffuser

02 - Diffuser

21 = for DSX

03 - Model

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

04 - Frame profile

S0 = Narrow frame profile, without support profile, for invisible installation (standard, in same colour as air guide element).
 P0 = Frame profile P0, with support profile, for visible installation.
 PB = Frame profile PB, with support profile, for visible installation.

05 - Frame surface

ELOX = Natural colour anodised aluminium (standard for DSX-...-P0 and DSX-...-PB).
 9005 = Aluminium painted to RAL colour 9005 (black).
 9010 = Aluminium painted to RAL colour 9010 (white).
 xxxx = aluminium painted to a freely selectable RAL colour (at an extra charge, always with 4 digits).
 (Painted aluminium, standard for model DSX-...-S0.)

06 - Dummy profile colour (air guide elements)

B9005 = aluminium painted similar to RAL colour 9005 (black) (standard).
 B9010 = aluminium painted similar to RAL colour 9010 (white).
 Bxxxx = aluminium painted to a freely selectable RAL colour (always with 5 digits).
 Air guide elements (double), mounted ex works, made of plastic material similar to dummy profile colour.

07 - Angle between sides

090 = Angle $\alpha = 90^\circ$ (standard).
 xxx = angle (α) as required (value between 90° [090] and 170° [170] possible) (always with 3 digits).

08 - Left-side length (a)

000 = Standard length (L=250 mm).
 xxx = Length (L) in mm, freely selectable (minimum length = standard length) (always with 3 digits).

09 - Right-side length (b)

000 = Standard length (L=250 mm)
 xxx = Length (L) in mm, freely selectable (minimum length = standard length) (always with 3 digits).

SPECIFICATION TEXT

The slot diffuser DSX is suitable for installation in closed ceiling systems, in rooms of heights 2.6 to 4 m. It can be used in cooling or heating mode by adjusting the air guide elements which can also be adjusted from below when installed. Free cross-section, resistance and noise level remain constant in all air guide element positions.

| Volumetric flows in m ³ /h per m at: | 30 dB(A) | 35 dB(A) |
|---|----------|----------|
| DSX-1 | 65 | 80 |
| DSX-2 | 115 | 145 |
| DSX-3 | 125 | 150 |
| DSX-4 | 160 | 200 |

Supply air model with air guide elements (with air guide bar).

Installation position of air guide elements:

- Standard (air guide element position -B / -L / -R).
- Rotated by 180° (air guide element position -V).

Product: SCHAKO type **DSX-...-Z-...**

Return air model with air guide elements (without air guide bar).

Installation position of air guide elements:

- Rotated by 180° (air guide element position -V).

Product: SCHAKO type **DSX-...-A-...**

Model (number of slots):

- 1-slot (-1).
- 2-slot (-2).
- 3-slot (-3).
- 4-slot (-4).

Frame profile:

- narrow frame profile, without support profile, for invisible installation (-S0, standard).
- Frame profile P0, with support profile, for visible installation (-P0).
- Frame profile PB, with support profile, for visible installation (-PB).

Frame surface:

- Natural colour anodised aluminium (-ELOX, standard for DSX-...-P0 and DSX-...-PB models).
- Painted aluminium (standard for DSX-...-S0 model and painted to the same colour as blade colour of air guide element):
 - RAL 9005 (black) (-9005).
 - RAL 9010 (white) (-9010).
 - painted to a different RAL colour (freely selectable, at an extra charge) (-xxxx, always with 4 digits).

Blade colour (air guide element)

Air guide element made of plastic material:

- Colour similar to RAL 9005 (black, standard) (-L9005).
- Colour similar to RAL 9010 (white) (-L9010).

Blade position for air jet:

- vertical throw (-V, standard for return air).
- one-way horizontal throw on the left (-L).
- one-way horizontal throw on the right (-R).
- two-way horizontal throw (-B, standard for supply air).

Length / Model:

Single design (-N)

- length L= 1000 mm (-N-01000)
- length L= 1500 mm (-N-01500)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits).
(in case of single design length L ≥ 400 mm to ≤ 1500 mm can be fitted with plenum box, dummy piece possible from length ≥ 200 mm).

Band design (-B)

- Length (L) in mm, freely selectable, as band (-B-xxxxx) (always with 5 digits).
(Available lengths according to SCHAKO standard).
Single element length max. 1500 mm. With double air guide element (1x per connection) and connecting element, supplied loose. To lock the slot diffusers, double air guide elements are used at the butt joints (supplied loose, installation on site).

Mounting:

- without connection (-00)
 - Slot diffuser is **not** connected to the plenum box.
 - Standard with dummy piece (-BS) and with mounting bracket (-BW).
- Concealed mounting with plenum box (-VM, standard)
 - Slot diffuser is connected to the plenum box ex works.
 - The slot diffuser is screwed to the plenum box housing (face part) with concealed screws.
- Clamp strap (-KB)
 - Only possible without plenum box.
 - Screws and clamp straps are supplied loose (pair).
 - Possible for the models DSX-...-P0 and DSX-...-PB.
 - Not possible for model DSX-...-S0.
 - The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).
 - For mounting, access on the rear is not required!
- Suspension via fastening holes
 - Model:
 - dummy piece design (-BS).
 - mounting bracket design (-BW, pair).
 - Only possible without plenum box.
 - The slot diffuser is fastened to 4 suspension brackets.

Accessories:

- Plenum box (-ASK-21), made of galvanised sheet steel (-SV).
 - Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
 - 3-slot (-3).
 - 4-slot (-4).
 - Single / band design:
 - Single design (-N, length of box KL max. 1500 mm).
 - Band design (-B, available lengths according to SCHAKO standard for band design).
 - Length:
 - Length L = 1000 mm (-01000) (KL = 997 mm).
 - Length L = 1500 mm (-01500) (KL = 1497 mm).
 - Length (L/BL) in mm, freely selectable (-xxxx, always with 5 digits) (length of box KL = L-3 / total length of box GKL = BL-3, can be fitted with a plenum box in case of single design lengths L = ≥400 mm to ≤1500 mm).
 - Mounting of box:
 - without connection (-00) (not connected to the slot diffuser, screws supplied loose).
 - Concealed mounting (-VM, standard) (connected to the slot diffuser ex works).
 - Material:
 - Galvanised sheet steel (-SV) (standard).
 - Damper:
 - Without damper (-DK0) (standard).
 - With damper made of galvanised sheet steel, adjustable, for simple air volume regulation:
 - in the plenum box housing (only with lateral spigot position [-S1/-S2]) (-DK1).
 - in the connection spigot, with cable-operated adjustment (with spigot position from above [-S0]) (-DK2).
 - Rubber lip seal:
 - without rubber lip seal (-GD0) (standard).
 - with rubber lip seal (-GD1) made of special rubber, at the connection spigot.
 - Insulation:
 - without insulation (-I0) (standard).
 - with internal insulation (-Ii), thermal insulation inside the plenum box.
 - with external insulation (-Ia), thermal insulation at the outside of the plenum box.
 - Height of plenum box:
 - Standard height of plenum box (-KHS).
 - Height of plenum box in mm, freely selectable (-xxx, always with 3 digits) (minimum height [GH] with spigot position S1+S2 and standard box neck = spigot diameter ØD + 82 mm / with spigot position S0 = 180 mm).
 - Box neck:
 - Standard box neck (KVS = 45 mm) (-KVS).
 - Box neck extension in mm, freely selectable (-xxx, always with 3 digits). Box neck (not adjustable) from ≥45 mm to 200 mm possible.
 - Spigot position:
 - Spigot from above (-S0).
 - Lateral spigot (-S1) (standard).
 - Lateral spigot located on the opposite side (-S2).
 - Suspension with mounting brackets:
 - without riveting nut (-E0) (standard).
 - With riveting nut (-EM), made of brass.
 - With air diffuser plate made of galvanised steel, only for models with spigot from above.
 - Connection plate for band design (2x per butt joint), made of galvanised sheet steel. Number of suspension (without / with riveting nuts) per butt joint is reduced from 4x to 2x.
- Corner angle (-EW-21), frame and dummy profile made of extruded aluminium profile. Firmly screwed to the connecting elements, made of galvanised sheet steel.
 - Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
 - 3-slot (-3).
 - 4-slot (-4).
 - Frame profile:
 - narrow frame profile, without support profile, for invisible installation, (-S0, standard).
 - Frame profile P0, with support profile, for visible installation (-P0).
 - Frame profile PB, with support profile, for visible installation (-PB).
 - Frame surface:
 - Natural colour anodised aluminium (-ELOX, standard for DSX-...-P0 and DSX-...-PB models).
 - Painted aluminium (standard for DSX-...-S0 model and painted to the same colour as dummy profile / air guide element):
 - RAL 9005 (black) (-9005).
 - RAL 9010 (white) (-9010).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
 - Dummy profile colour (air guide elements)
 - Dummy profile made of painted aluminium:
 - colour similar to RAL 9005 (black) (-B9005) (standard).
 - colour similar to RAL 9010 (white) (-B9010).
 - RAL colour freely selectable (-Bxxxx) (always with 5 digits).
 - Air guide elements (double), mounted ex works, made of plastic material similar to dummy profile colour.
 - Angle between sides:
 - Angle $\alpha = 90^\circ$ (-090) (standard).
 - angle (α) as required (-xxx), values between $\alpha = 90^\circ$ (-090, standard) and 170° (-170) are possible (always with 3 digits).
 - Left-side length (a):
 - standard length L = 250 (-000).
 - length (L) in mm, freely selectable (-xxx) (minimum length = standard length) (always with 3 digits).
 - Right-side length (b):
 - standard length L = 250 (-000).
 - length (L) in mm, freely selectable (-xxx) (minimum length = standard length) (always with 3 digits).
- End pieces (-E0/-ES/-EB/-EL/-ER)
 - without end piece (-E0) (standard).
 - with end pieces:
 - Supplied loose (-ES, pair) (standard).
 - Mounted ex works on both sides (-EB).
 - Mounted ex works on the left side (-EL).
 - Mounted ex works on the right side (-ER).
- Made of aluminium (same colour as frame).
- Mounting bracket (pair) / dummy piece (-B0/-BW/-BS)
 - without mounting bracket / without dummy piece (-B0).
 - with mounting bracket (-BW), for overflow operation:
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length L ≥ 200 mm.
 - with dummy piece (-BS):
 - made of galvanised sheet steel.
 - Only possible without plenum box.
 - possible from length L ≥ 200 mm.
- With models -BW and -BS as a band, additional connecting fishplates are supplied loose.