

DSCPL

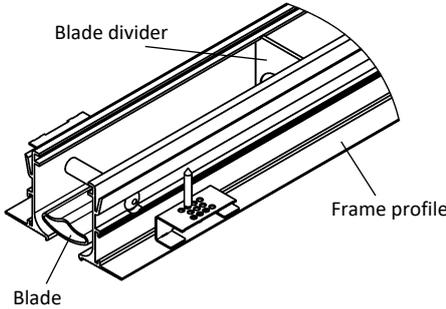
Slot diffuser for plasterboard ceilings

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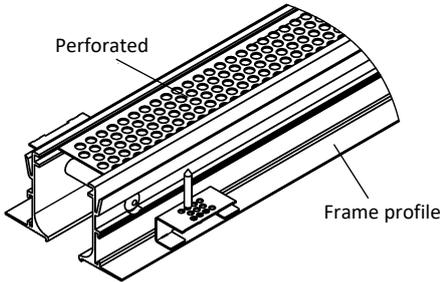
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OVERVIEW OF PRODUCT VERSIONS

DSCPL-...-Z-... (supply air)



DSCPL-...-A-... (return air)



FUNCTION AND USE

The slot diffuser type DSCPL is suitable for use in rooms with a height between 2.6 m and 4 m for direct installation in plasterboard ceilings or ceiling cavities (pressure ceilings). The special shape of the frame profile allows good installation in the plasterboard ceiling.

Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid. The air deflection blades adjustable from below allow a variety of throw adjustment options. In cooling mode, a one- or two-way air throw pattern can be set. This achieves high induction while the velocity and temperature difference of the supply air jet are effectively reduced.

Due to the central housing of the blades, the free cross-section is always the same. Pressure loss and sound power level remain therefore constant even when the blades are adjusted. A subsequent change of the air throw pattern on site is possible at any time.

If a desired blade position is specified in the order, it will be set at the factory. The large free cross-section allows a greater volumetric flow compared with other slot diffusers. Thanks to its stable air jet and high induction, the DSCPL slot diffuser can be used in cooling mode up to $\Delta T_0 \leq -8$ K.

The resistance created by the blades ensures that the supply air is distributed equally across the whole length of the slot diffuser.

The slot diffuser can be manufactured as 1- or 2-slot model and is available either as single piece or in band design.

MODELS

DSCPL-1	1-slot
DSCPL-2	2-slot
DSCPL-...-Z	Supply air (with blades).
DSCPL-...-A	Return air (without blades, with perforated plate).
DSCPL-...-PL	Frame profile PLASTER.
DSCPL-...-V	Blades with vertical throw.
DSCPL-...-L	Blades with horizontal one-way throw to the left.
DSCPL-...-R	Blades with horizontal one-way throw to the right.
DSCPL-...-B	Blades with horizontal two-way throw (standard).
DSCPL-...-O	Without blades, with perforated plate (for return air).
DSCPL-...-N	Single design (length max. 1500 mm).
DSCPL-...-B	Band design (available lengths according to SCHAKO standard for band design).

MOUNTING

-- without box mounting (-OM, standard).

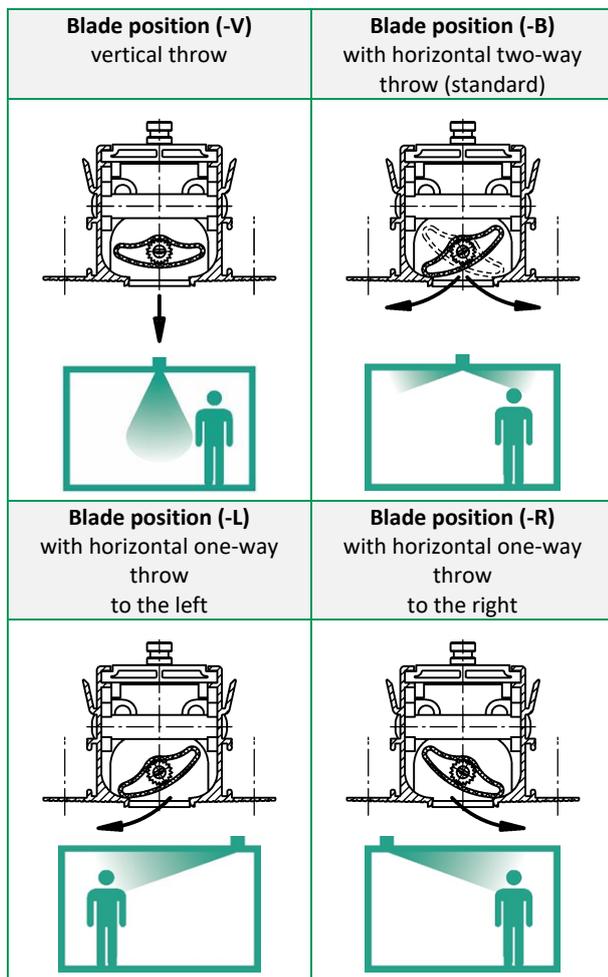
QUICK SELECTION

without plenum box, supply air model

Values for length L = 1000 mm

DSCPL-1 (1-slot)				DSCPL-2 (2-slot)			
V _{ZU}		L _{WA}	Δp _t	V _{ZU}		L _{WA}	Δp _t
(m ³ /h)	[l/s]	[dB(A)]	(Pa)	(m ³ /h)	[l/s]	[dB(A)]	(Pa)
60	16.7	< 20	5	100	27.8	< 20	5
80	22.2	21	8	130	36.1	22	8
100	27.8	28	13	160	44.4	28	13
120	33.3	33	17	200	55.6	35	17

BLADE POSITION FOR AIR JET



PROCESSING

Frame surface

- frame profile PLASTER (PL) made of:
 - natural aluminium (-ALRO) (standard).
 - Aluminium painted to:
 - RAL colour 9005 (-9005) (black).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
- central partition (only for 2-slot models):
 - for supply air
 - for frame made of natural aluminium, same RAL colour as the blade.
 - for painted frame made of aluminium, same RAL colour as the frame.
 - for return air, made of aluminium painted to RAL 9005 (black).

Blade colour

- Plastic (hard PVC):
 - Colour similar to RAL 9005 (black, standard) (-L9005).
 - Colour similar to RAL 9010 (white) (-L9010).
 - Freely selectable RAL colour (-Lxxxx, always with 5 digits).
- For return air without blade (-00000), with perforated plate made of sheet steel painted to RAL 9005 (black), as cover screen.

Blade holding device

- Aluminium ducts

Internal blade divider (standard)

- Plastic (PA type 6), same colour as the blade.

Internal blade divider (support for concealed mounting)

- Plastic (PA type 6), same colour as the blade.

External blade plates (end plates)

- Plastic (ABS), same colour as the blade.

Connecting pin

Connection diffuser - diffuser:

- made of plastic material.
- for band design only.
- supplied loose (2x for each connection).

End piece (-EP/-EB)

- with surrounding edge for plastering, mounted ex works on both sides (-EP) (standard).
 - made of galvanised sheet steel
- straight, mounted ex works on both sides (-EB).
 - made of galvanised sheet steel.

In the band design, the end piece is mounted to the left side of the section (left TS) and to the right side of the difference in length (DL) as a standard.

Mounting bracket

- made of perforated sheet steel.
- supplied loose.
- For plasterboard ceiling:
 - Ceiling depth T = 12.5 mm (-125) (standard).
 - Ceiling depth T = 9.5 mm (-095).
 - Ceiling depth (T) can be freely selected (-xxx, always with 3 digits).
- Mounting aid for screw connection.

ACCESSORIES

Plenum box (-ASK-25)

- Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
- 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) (length of box KL=1000 mm).
 - Length L = 1500 mm (-01500) (length of box KL=1500 mm).
 - Length (L/BL) in mm, freely selectable (-xxxxx, always with 5 digits) (length of box KL = L / total length of box GKL = BL).
- Mounting of box:
 - Without diffuser mounting (-OM) (standard).
- Material:
 - Galvanised sheet steel (-SV) (standard).
- Damper:
 - Without damper (-DK0) (standard).
 - With damper and cable-operated adjustment (-DK2) made of galvanised sheet steel, in the connection spigot, adjustable, for simple air volume regulation.
- 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 insulation outside (-Ia), thermal insulation at the outside of the plenum box.
- Height of plenum box:
 - Standard height of plenum box (-KHS).
 - Height of plenum box (KHS) in mm, freely selectable (-xxx, always with 3 digits) (minimum height of plenum box [KHS] with spigot position S1+S4 = spigot diameter $\varnothing D + 82$ mm / with spigot position S0 = 220 mm).
- Spigot position:
 - Spigot from above (-S0).
 - Lateral spigot (-S1) (standard).
 - Spigot front side (-S4) (not possible for band design).
- 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 air diffuser plate, made of galvanised sheet steel.

Dummy piece (-BS0/-BS1)

- without dummy piece (-BS0) (standard).
- with dummy piece (-BS1):
 - made of sheet steel painted to RAL colour 9005 (black).
 - possible from length L \geq 200 mm.
 - only possible without plenum box ASK-25 and hit-and-miss damper.
 - with fastening clips for mounting on the slot diffuser.

Corner angle (-EW-25)

- Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
- Frame profile PLASTER (-PL).
- Frame surface:
 - made of:
 - natural aluminium (-ALRO) (standard).
 - Aluminium painted to:
 - RAL colour 9005 (-9005) (black).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
 - central partition (only for 2-slot models):
 - for supply air:
 - for frame made of natural aluminium, same RAL colour as the blade.
 - for painted frame made of aluminium, same RAL colour as the frame.
 - for return air, made of aluminium painted to RAL 9005 (black).
- dummy profile colour, made of painted aluminium:
 - colour similar to RAL 9005 (black) (-B9005) (standard).
 - colour similar to RAL 9010 (white) (-B9010).
 - to a freely selectable RAL colour (Bxxxx, always with 5 digits).
- Angle between sides:
 - Angle $\alpha = 90^\circ$ (-090) (standard).
 - angle (α) as required (-xxx, always with 3 digits)
 - Angle values between $\alpha = 90^\circ$ (-090, standard) and 170° (-170) are possible.
- Left-side length (a):
 - Standard length L=250 (-000)
 - Length (L) in mm, freely selectable (-xxx, always with 3 digits) (minimum length = standard length).
- Right-side length (b):
 - Standard length L=250 (-000)
 - Length (L) in mm, freely selectable (-xxx, always with 3 digits) (minimum length = standard length).
- Including 4 fishplates (-VL, included in delivery) made of aluminium (same colour as frame), supplied loose.
- Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid.
- Ceiling depth of plaster board:
 - Ceiling depth T = 9.5 mm (-095).
 - Ceiling depth T = 12.5 mm (-125) (standard).
 - Ceiling depth (T) can be freely selected (-xxx, always with 3 digits).

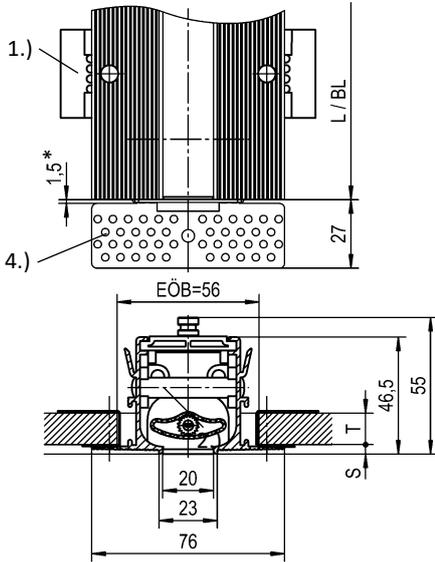
Hit-and-miss damper (-SN/-SS)

- without hit-and-miss damper (-SN) (standard).
- with hit-and-miss damper (-SS):
 - made of electrolytically galvanised sheet steel.
 - only possible without plenum box ASK-25.
 - with fastening clips for mounting on the slot diffuser.

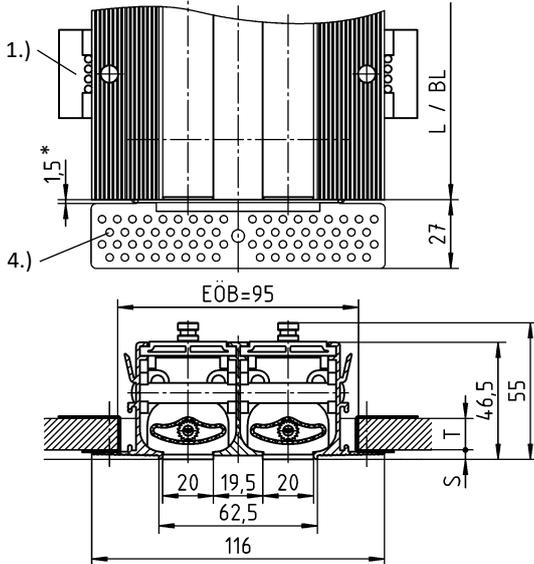
DIMENSIONS

Supply air (-Z):

DSCPL-1-Z (1-slot)



DSCPL-2-Z (2-slot)



Filling

For screw connection: **S = 4 mm**

Plasterboard ceiling

T = 9.5 mm / 12.5 mm (standard) / can be freely selected.

(See page 13)

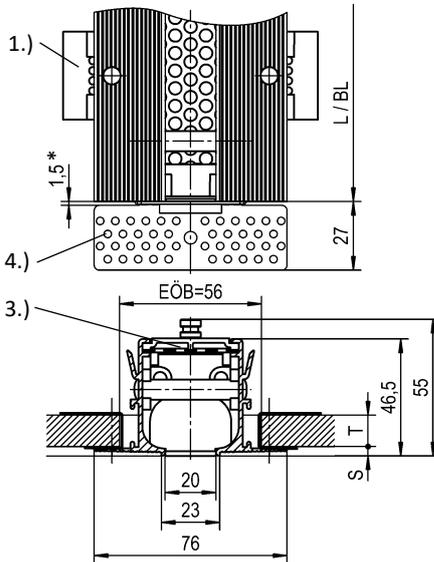
Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid (see page 11). The number of brackets depends on the length (L).

Available lengths

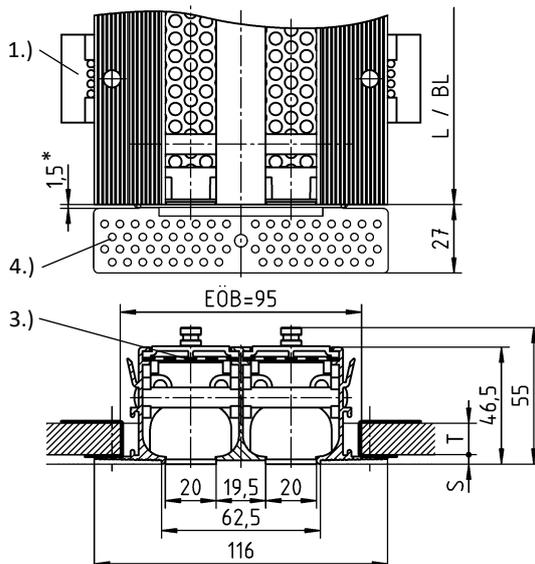
See available lengths for slot diffuser (page 6).

Return air (-A):

DSCPL-1-A (1-slot)



DSCPL-2-A (2-slot)



L = length

BL = band length

1.) Mounting bracket included in delivery

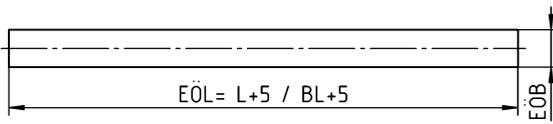
2.) Air deflection blade

3.) Perforated plate

4.) End piece

* Gap width between frame and end piece

Installation opening

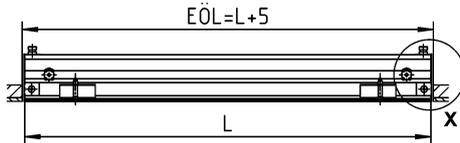


	EÖB
DSCPL-1-...	56
DSCPL-2-...	95

Available lengths for the slot diffuser

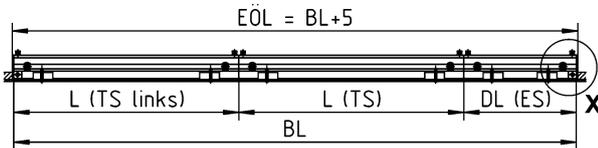
Single design (-N)

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



Band design (-B)

- Length (L) in mm, freely selectable, as band (-B-xxxxx) (always with 5 digits) (total length of box GKL = BL).



Available lengths according to SCHAKO standard:

When the slot diffuser type DSCPL is designed as a band, the total length BL is assembled from lengths (sections) of **1000 mm or 1500 mm**. The difference pieces are supplied in lengths from **≥400 mm to <1500 mm**.

A different band division is possible after consultation and when required by the customer.

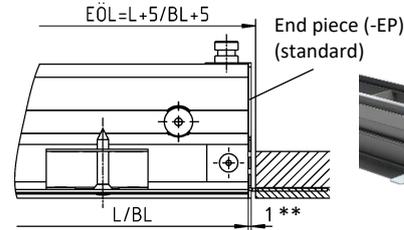
- ES = end piece
- TS = section
- Left TS = left section
- L = length
- DL = difference in length
- BL = band length
- KL = length of box
- GKL = total length of box
- EÖB = installation opening width
- EÖL = installation opening length (EÖL = L+5 / BL+5)

End piece (-EP / -EB)

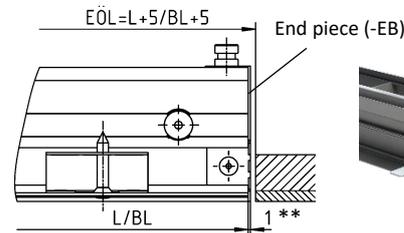
- with end piece with surrounding edge for plastering, mounted ex works on both sides (-EP) (standard).
- with straight end piece, mounted ex works on both sides (-EB).

Detail X

End piece (-EP) (standard)



End piece (-EB)



End pieces are mounted ex works on the slot diffuser, as plastering edge for elegant filling. In the single design, the end pieces are fixed to the left and right front side of the slot diffuser. In the band design, the end piece is mounted to the left side of the section (left TS) and to the right side of the difference in length (DL) as a standard.

Plasterboard ceiling

For screw connection, mounting brackets (mounting aid) are supplied loose (see page 13). The number of brackets depends on the length (L).

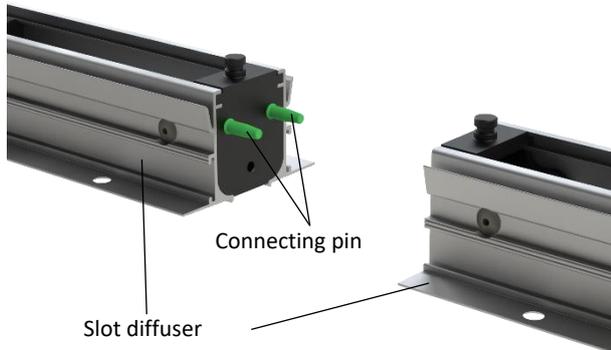
- ** Material thickness end piece
- Left TS = left section
- L = length
- DL = difference in length
- BL = band length
- EÖL = installation opening length (EÖL = L+5 / BL+5)

Slot diffuser connection in band design

Slot diffuser - slot diffuser

With connecting pin

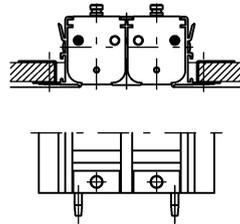
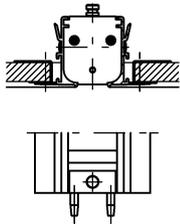
supplied loose (2x for each connection)



Arrangement of connecting pins

DSCPL-1-...

DSCPL-2-...



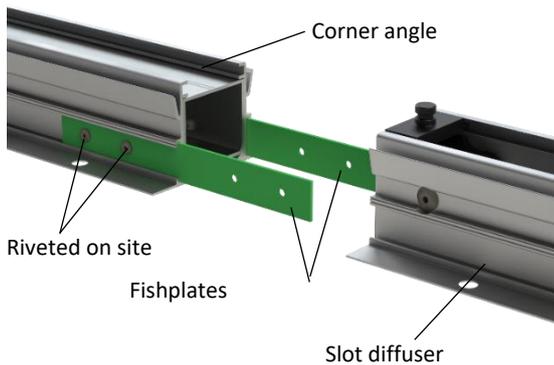
Attention:

The connecting pins are only suitable for positioning and for force transmission.

Slot diffuser - corner angle

With fishplates:

supplied loose (2x for each connection)



DIMENSIONS OF ACCESSORIES

Plenum box (-ASK-25)

Spigot position

Spigot position in the plenum box, single design:

S0 = 1 spigot from above, in the sheet housing case (in the centre of the box length KL).

S1 = 1 lateral spigot, in the sheet housing case (in the centre of the box length KL) (standard).

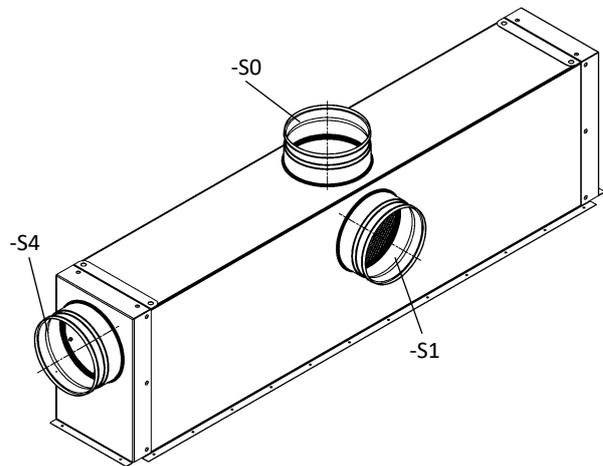
S4 = 1 spigot front side at the front side of the housing (in the centre of the box width KB).

Spigot position in the plenum box, band design:

S0 = **for standard length and difference in length:** 1 spigot from above, in the sheet housing case (in the centre of the box length KL).

S1 = **for standard length and difference in length:** 1 lateral spigot, in the sheet housing case (in the centre of the box length KL).

S4 = not possible.



For dimensions of the plenum box, see page 8+9.

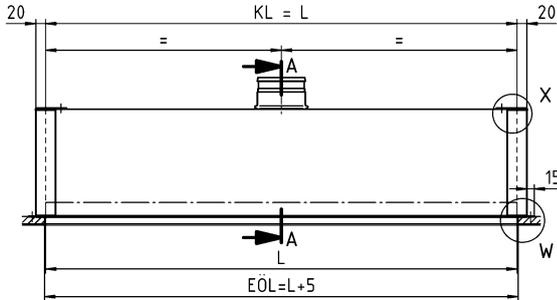
Plenum box (-ASK-25)

Plenum box (-ASK-25-...-N-...) in single design

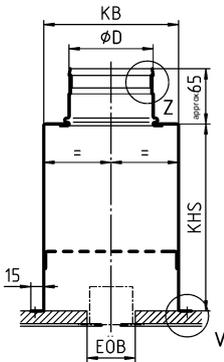
Mounting of box without diffuser mounting (-OM)

With spigot from above (-S0):

DSCPL-...-ASK-25-...-N-...-S0

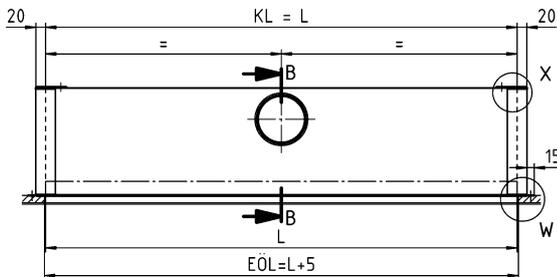


Section A-A

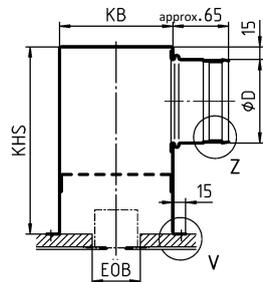


With lateral spigot (-S1, standard):

DSCPL-...-ASK-25-...-N-...-S1

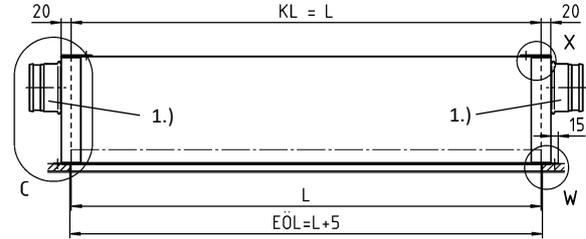


Section B-B

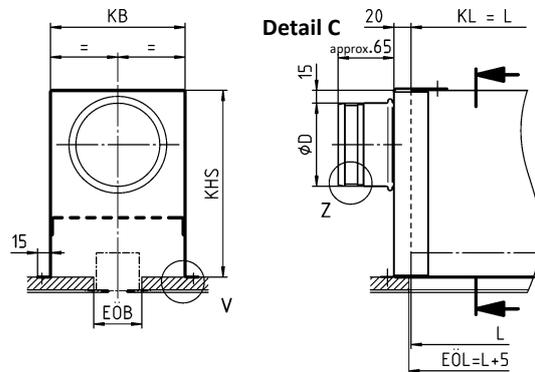


With spigot front side (-S4):

DSCPL-...-ASK-25-...-N-...-S4



1.) Connection on the left or on the right possible.



Available sizes for plenum box (-ASK-25-...-N)

EÖB	KHS	Length					
		L ≤ 1000		1000 < L ≤ 1500			
		ØD	KB	ØD	KB		
			-S1 -S4	-S0 -S4			
DSCPL-1	56	220	1x Ø98	132 157	1x Ø123	132 157	
DSCPL-2	95	280	1x Ø138	172	1x Ø138	172	

All dimensions in mm.

L	EÖL	KL	Weight (kg)	
			DSCPL-1	DSCPL-2
1000	1005	1000	4.5	5.5
1500	1505	1500	6.8	8.3

All dimensions in mm.

The plenum box ASK-25 is manufactured as standard in the box lengths $KB_{\text{ol}} = 1000$ mm or 1500 mm.

Intermediate lengths and other spigot diameters on request.

Minimum height of box [KHS] with spigot position S1+S4 = spigot diameter $\text{ØD} + 82$ mm / with spigot position S0 = 220 mm.

For rubber lip seal, detail Z, see page 10.

For fastening detail, detail V and W, see page 10.

For plenum box suspension, detail X, see page 10.

For installation opening, see page 6.

L = length

KL = length of box

EÖL = installation opening in length

EÖB = installation opening in the width section

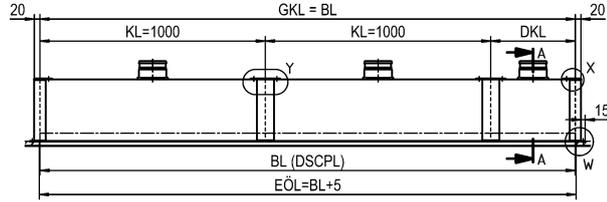
Plenum box (-ASK-25-...-B-...) in band design

Mounting of box without diffuser mounting (-OM)

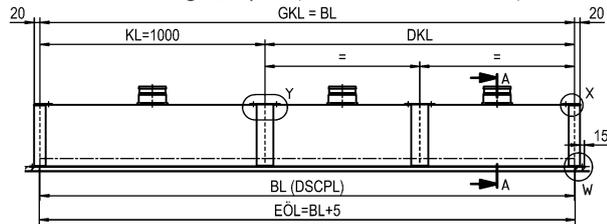
With spigot from above (-S0):

DSCPL-...-ASK-25-...-B-...-S0

Difference box length, 1-part (DKL = ≥400 to ≤1000)



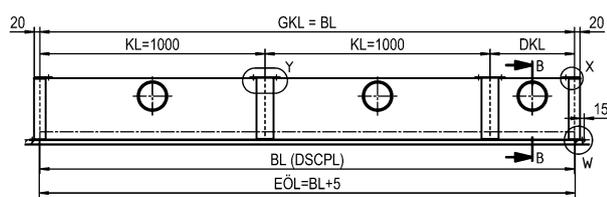
Difference box length, 2-part (DKL = >1000 to <1400)



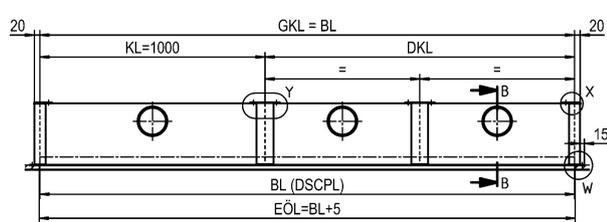
With lateral spigot (-S1):

DSCPL-...-ASK-25-...-B-...-S1

Difference box length, 1-part (DKL = ≥400 to ≤1000)



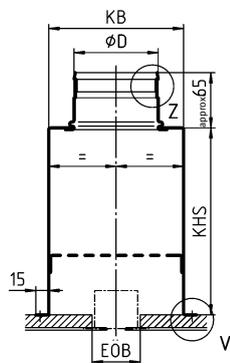
Difference box length, 2-part (DKL = >1000 to <1400)



Section A-A

With spigot from above (-S0)

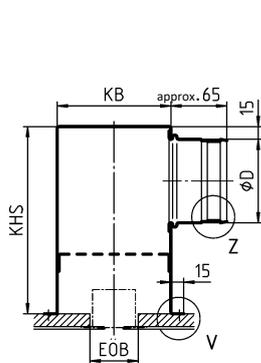
DSCPL-...-ASK-25-...-B-...-S0



Section B-B

With lateral spigot (-S1)

DSCPL-...-ASK-25-...-B-...-S1



Spigot front side position (-S4) **not possible** for band design.

Available sizes for plenum box (-ASK-25-...-B)

	KB		KHS	ØD	EÖB
	-S0	-S1			
DSCPL-1	157	132	220	Ø98	56
DSCPL-2	172	172	280	Ø138	95

All dimensions in mm.

Available lengths according to SCHAKO standard:

For the plenum box in band design (BL = > 1500 mm), the total length of the box GKL is divided into standard lengths KL=1000 mm and one or two difference boxes.

The difference box is available in one piece from a length (DKL) of ≥400 mm to ≤1000 mm and in two pieces from a length (DKL) of >1000 mm to <1400 mm.

A difference box with a length (DKL) of <400 mm is not possible.

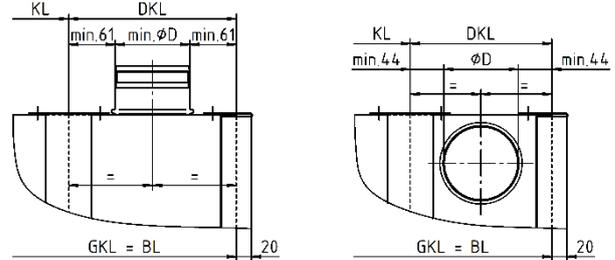
Box section and box front side fastening as well as a connecting angle must be provided on site.

Intermediate lengths and other spigot diameters on request.

Minimum height of box [KHS] with spigot position S1 = spigot diameter ØD + 82 mm / with spigot position S0 = 220 mm.

Minimum distance between spigots in the plenum box

With spigot from above (-S0): With lateral spigot (-S1):



As standard, the plenum box difference piece (DKL) has the same dimensions KHS / KB / ØD as the plenum box standard piece (KL).

For rubber lip seal, detail Z, see page 10.

For fastening detail, detail V, see page 10.

For plenum box suspension, detail X and Y, see page 10.

For installation opening, see page 5.

- KL = length of box
- DKL = difference in length of box
- GKL = total length of box
- BL = band length
- EÖL = Installation opening in length.
- EÖB = installation opening in the width section

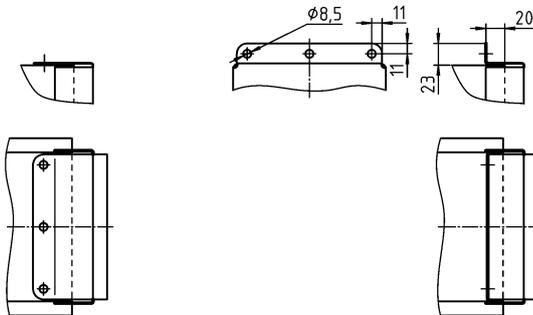
Plenum box suspension

Single design / band design

Detail X (box front side)

As-delivered condition On-site

With fitted mounting bracket With bent mounting bracket

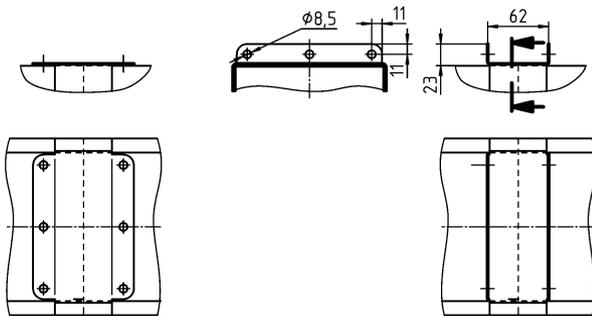


Band design

Detail Y (connecting bracket)

As-delivered condition On-site

With fitted mounting bracket With bent mounting bracket

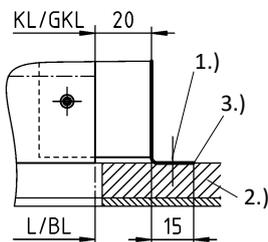


Fastening details

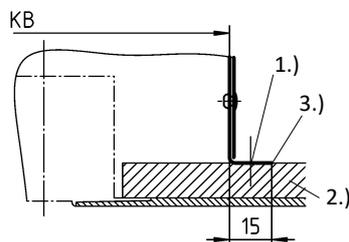
For suspension, the plenum box is provided with fixing holes. A permanent connection to the plasterboard ceiling via $\phi 3.2$ bores is also possible. In this case, the plenum box must be additionally decoupled from the plasterboard ceiling using vibration dampening material.

A suitable filling compound must be provided on site.

Detail W



Detail V



- 1.) Fastening on site $\phi 3.2$
- 2.) Plasterboard ceiling on site
- 3.) Decoupling (leak proofing on site)

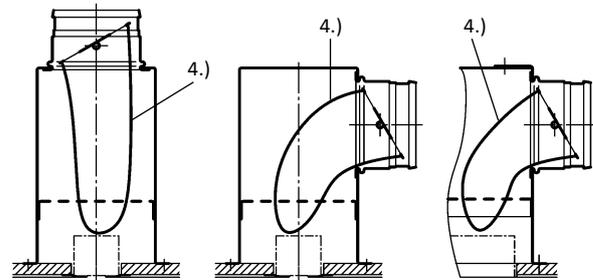
If a plenum box is used, make sure that it has no direct contact to the diffuser. The volumetric flow adjustment must be carried out on site.

Damper (-DK0/-DK2), for ASK-25

- Without damper (-DK0) (standard).
- with damper and cable-operated adjustment (-DK2).

-DK2 (with cable-operated adjustment):

Number of connection from above (-S0)	Number of connection on the side (-S1)	Number of connection on the side (-S4)
---	--	--

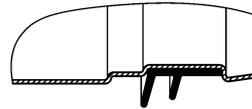


4.) With cable-operated adjustment (SZV)

Rubber lip seal (-GD0/-GD1), for ASK-25

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

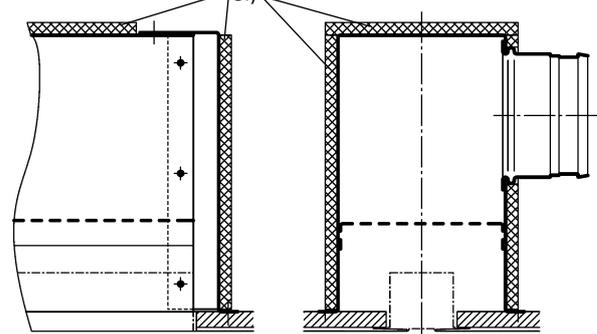
Detail Z



Insulation (-I0/-Ia), for ASK-25

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

External (-Ia)

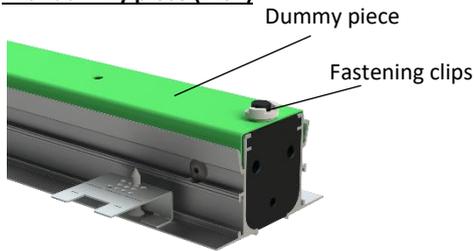


5.) Insulation outside (Ia)

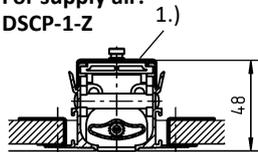
Dummy piece (-BS0/-BS1)

- without dummy piece (-BS0) (standard).
- with dummy piece (-BS1):
 - made of sheet steel painted to RAL colour 9005 (black).
 - possible from length $L \geq 200$ mm.
 - only possible without plenum box ASK-25 and hit-and-miss damper.
 - with fastening clips for mounting on the slot diffuser.

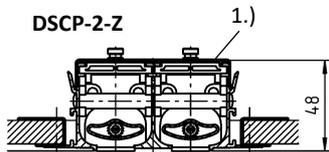
with dummy piece (-BS1)



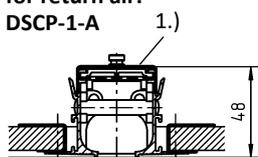
For supply air:
DSCP-1-Z



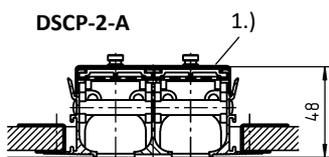
DSCP-2-Z



for return air:
DSCP-1-A



DSCP-2-A



1.) Dummy piece

Available lengths

See available lengths for slot diffuser, page 6.

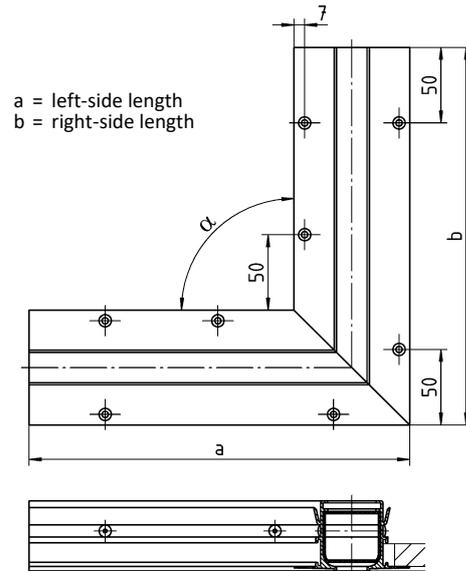
Corner angle 90° (-EW)

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

Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid (see page 13).

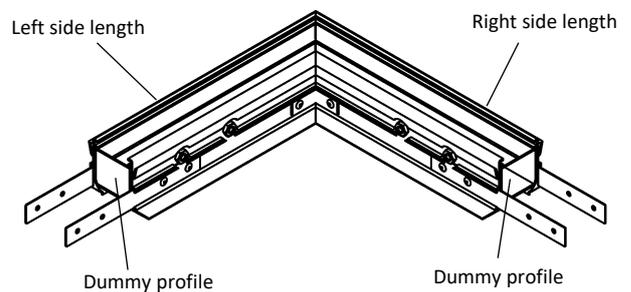
The diffuser is connected to the corner angle by means of fishplates (see page 7). 4 fishplates are included in delivery (2 for each connection). They are supplied loose.

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



	Side length (standard)		Angle α
	a (left)	b (right)	
DSCPL-1	250	250	90° (standard)
DSCPL-2	300	300	up to 170°

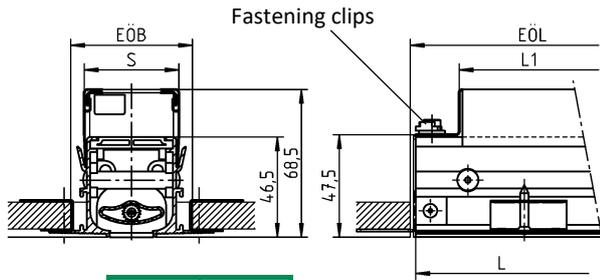
Other side lengths (a/b) on request.



Hit-and-miss damper (-SN/-SS)

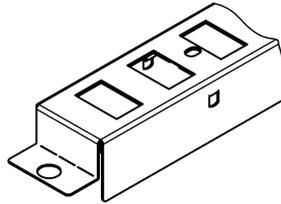
- without hit-and-miss damper (-SN) (standard).
- with hit-and-miss damper (-SS):
 - made of electrolytically galvanised sheet steel.
 - only possible without plenum box ASK-25.
 - with fastening clips for mounting on the slot diffuser.
 - Position \varnothing 8.3 for hit-and-miss damper adjustment, centre of diffuser.

with hit-and-miss damper (-SS)



	S	EÖB
DSCPL-1	43	56
DSCPL-2	82	95

L	L1	EÖL
1000	960	1010
1500	1460	1510



For fastening details regarding screw mounting, see page 13.

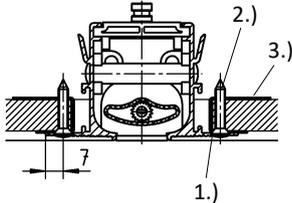
EÖB = installation opening width
 EÖL = installation opening length

FASTENING METHODS

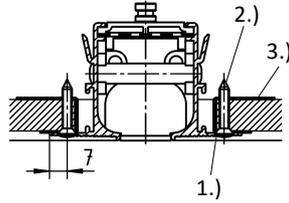
screw connection (on site)

Arrangement, number and size of the bores are the same for 1- and 2-slot models.

Supply air



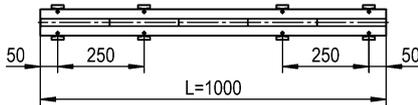
Return air



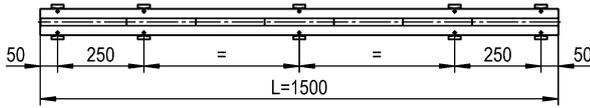
- 1.) Indentation ISO 15065-4.
- 2.) Dry wall screw 3.5x35, use according to DIN EN 14566 on site.
- 3.) Mounting bracket.

Number of indentations, single design

L= 1000 / with 8 indentations



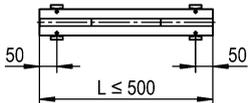
L= 1500 / with 10 indentations



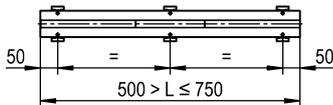
Number of indentations, band design

For compensation pieces and sections

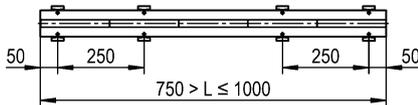
L= ≤500 / with 4 indentations



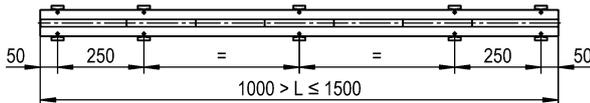
L= >500 to ≤750 / with 6 indentations



L= >750 to ≤1000 / with 8 indentations



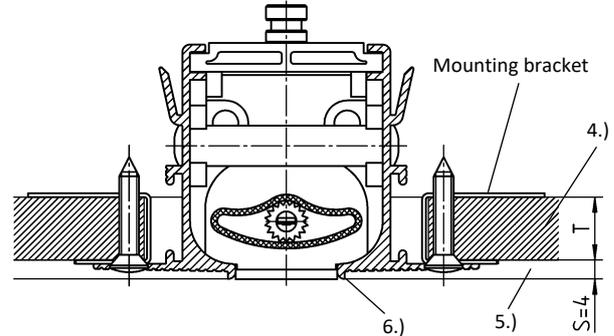
L= >1000 to ≤1500 / with 10 indentations



ASSEMBLY DETAIL

With mounting bracket:

for screw connection (on site)

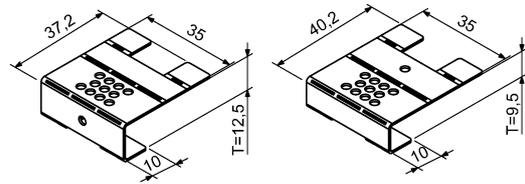


- 4.) Plasterboard ceiling
- 5.) Multiple filling on site (depending on quality level)
- 6.) Special plastering edge for elegant filling

Number of mounting brackets (mounting help)

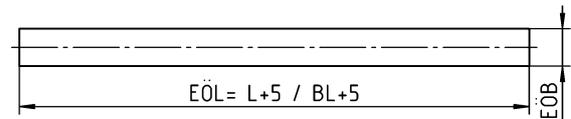
- 4 mounting brackets: L / DL = ≤500
- 6 mounting brackets: L / DL = >500 to ≤750
- 8 mounting brackets: L / DL = >750 to ≤1000
- 10 mounting brackets: L / DL = >1000 to ≤1500

Mounting bracket:



The mounting bracket is supplied loose and unbent. It will then be bented on site in order to fit the required ceiling depth. The single bore serves here as a marking for the ceiling depth T=12.5.

Plasterboard ceiling



Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid. The number of brackets depends on the length (L).

Filling

For screw connection: **S = 4 mm**

- L = length (for single / band design)
- DL = difference in length (for band design)
- EÖB = installation opening width
- EÖL = installation opening length

INSTALLATION INSTRUCTIONS

The installation of the DSCP / DSCPL / DSCL / DSCXL slot diffusers is identical (see installation instructions "DSCP / DSCPL / DSCL / DSCXL installation in plasterboard ceilings").

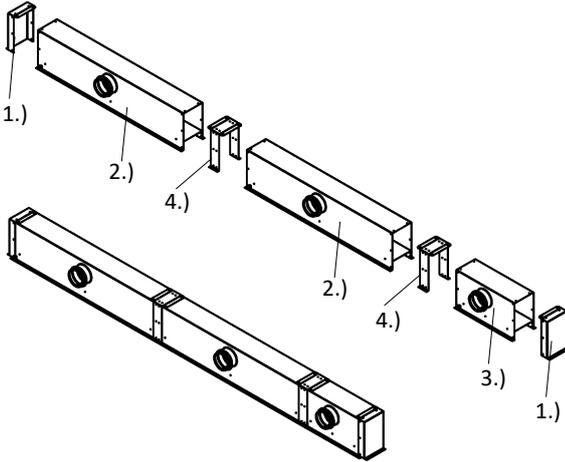


See video on YouTube:

<https://www.youtube.com/jcFsmPI0D18>

MOUNTING INSTRUCTIONS

Plenum box



- 1.) Box front side
- 2.) Plenum box, band design, standard
- 3.) Plenum box, band design, difference piece
- 4.) Connecting angle

TECHNICAL DATA

See technical documentation of SCHAKO slot diffuser type DSC.

Please consider the following correction factors (KF) in regard to the DSC basic data.

Correction factors for DSC-PLASTER-1

- x_{kr} = DSC-1 diagram value * 0.79
- v_{max} = DSC-1 diagram value * 0.62
Blade positions (-L) and (-R)
- v_{max} = DSC-1 diagram value * 0.70
Blade position (-B)

Correction factors for DSC-PLASTER-2

- x_{kr} = DSC-2 diagram value * 1.00
- v_{max} = DSC-2 diagram value * 0.62
Blade positions (-L) and (-R)
- v_{max} = DSC-2 diagram value * 0.70
Blade position (-B)

LEGEND

V_{zu} (m ³ /h)	= supply air volume
L_{WA} [dB(A)]	= A-weighted sound power level
Δp_t (Pa)	= pressure loss
ΔT_O (K)	= Temperature difference between supply air temperature and room temperature ($\Delta T_O = t_{zu} - t_R$)
x_{kr} (m)	= critical throw
v_{max} (m/s)	= maximum velocity of jet
L (mm)	= length
BL (mm)	= band length
DL (mm)	= difference in length
KH (mm)	= height of box
KL (mm)	= length of box
KB (mm)	= width of box
t_{zu} (°C)	= supply air temperature
t_R (°C)	= room temperature
EÖB (mm)	= installation opening width
EÖL (mm)	= installation opening length

SLOT DIFFUSER ORDER CODE

01	02	03	04	05	06	07
Type	Model	Air throw	Frame profile	Frame surface	Blade colour	Blade position for air jet
Example						
DSCPL	-1	-Z	-PL	-ALRO	-L9010	-B

08	09	10	11	12	13	14
Single / band design	Length	Mounting	Ceiling depth	End piece	Dummy piece	Hit-and-miss damper
Example						
-N	-01000	-OM	-125	-EB	-BS0	-SN

Sample

DSCPL-1-Z-PL-ALRO-L9010-B-N-01000-OM-125-EB-BS0-SN

DSCPL slot diffuser for plasterboard ceilings | 1-slot | Supply air | Frame profile PLASTER | Natural aluminium | Blades made of plastic material (hard PVC), similar to RAL 9010 (white) | Blades with horizontal two-way throw | Single design | Length 1000 mm | Without box mounting | Ceiling depth T = 12.5 mm | With end pieces mounted ex works on both sides | Without dummy piece | Without hit-and-miss damper

ORDER DETAILS

01 - Type

DSCPL = DSCPL slot diffuser for plasterboard ceilings

02 - Model

- 1 = 1-slot.
- 2 = 2-slot.

03 - Air throw

- Z = supply air (with blades).
- A = return air (without blades, with perforated plate).

04 - Frame shape

PL = frame profile PLASTER.

05 - Frame surface

- ALRO = natural aluminium (standard).
- 9005 = aluminium painted to RAL colour 9005 (black).
- xxxx = aluminium painted to a freely selectable RAL colour (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) (standard).
- L9010 = blades made of plastic material (hard PVC) similar to RAL 9010 (white).
- Lxxxx = blades made of plastic material (hard PVC), painted to a freely selectable RAL colour (always with 5 digits).

07 - Blade position for air jet

- 0 = Without blades, for return air, with perforated plate.
- V = blades with vertical throw.
- L = blades with horizontal one-way throw to the left.
- R = blades with horizontal one-way throw to the right.
- B = blades with horizontal two-way throw (standard).

08 - Single / band design

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

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

OM = without box mounting (standard).

11 - Ceiling depth

- 125 = Ceiling depth T = 12.5 mm (standard).
- 095 = Ceiling depth T = 9.5 mm.
- xxx = ceiling depth (T) can be freely selected (always with 3 digits).

12 - End piece

- EP = with end piece with surrounding edge for plastering, mounted ex works on both sides (standard).
- EB = with straight end piece, mounted ex works on both sides.

In the band design, the end piece is mounted to the left side of the section (left TS) and to the right side of the difference in length (DL) as a standard.

13 - Dummy piece

- BS0 = without dummy piece (standard).
- BS1 = with dummy piece made of sheet steel, painted to RAL colour 9005 (black) (possible from length L ≥ 200 mm, dummy piece only possible without plenum box, with fastening clips for mounting on the slot diffuser).

14 - Hit-and-miss damper

- SN = without hit-and-miss damper (standard).
- SS = with hit-and-miss damper (only possible with screw mounting, only possible without plenum box ASK-25, with fastening clips for mounting on the slot diffuser).

PLENUM BOX ORDER CODE

01	02	03	04	05	06	07
Type	Diffuser	Model	Single / band design	Length	Mounting of box	Material
Example						
ASK	-25	-1	-N	-01000	-OM	-SV

08	09	10	11	12	13	14
Damper	Rubber lip seal	Insulation	Height of plenum box	Spigot position	Spigot diameter	Suspension
Example						
-DK2	-GD1	-I0	-KHS	-S1	-SDS	-E0

Sample

ASK-25-1-N-01000-OM-SV-DK2-GD1-I0-KHS-S1-SDS-E0

Plenum box for slot diffuser | For DSCPL | 1-slot | Single design | Length L = 1000 mm | Without diffuser mounting | Galvanised sheet steel | With damper and cable-operated adjustment | With rubber lip seal | Without insulation | Standard height of plenum box | With lateral spigot | Standard spigot diameter | Without riveting nut

ORDER DETAILS

01 - Plenum box

ASK = plenum box for slot diffuser

02 - Diffuser

25 = for DSCPL

03 - Model

1 = 1-slot
2 = 2-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 (length of box KL = 1000 mm).
01500 = Length L = 1500 mm (length of box KL = 1500 mm).
xxxxx = length (L/BL) in mm, freely selectable (always with 5 digits).
(length of box KL = L / total length of box GKL = BL).

06 - Mounting of box

OM = without diffuser mounting (standard).

07 - Material

SV = galvanised sheet steel (standard).

08 - Damper

DK0 = without damper (standard).
DK2 = with damper and cable-operated adjustment (SZV).

09 - Rubber lip seal

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

10 - Insulation

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

11 - Height of plenum box

KHS = standard height of plenum box.
xxx = height of plenum box (KHS) in mm, freely selectable (always with 3 digits) (minimum height of plenum box [KHS] with spigot position S1+S4 = spigot diameter $\varnothing D + 82$ mm / with spigot position S0 = 220 mm).

12 - Spigot position

S0 = spigot from above.
S1 = Lateral spigot (standard).
S4 = spigot front side (not possible for band design).

13 - Spigot diameter

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

14 - Suspension

E0 = without riveting nut (standard).

ORDER CODE CORNER ANGLE

01	02	03	04	05
Type	Diffuser	Model	Frame profile	Frame surface
Example				
EW	-25	-1	-PL	-ALRO

06	07	08	09	10
Dummy plate colour	Angle between sides	Left-side length (a):	Right-side length (b)	Ceiling depth
Example				
-B9011	-090	-000	-000	-125

Sample

EW-25-1-PL-ALRO-B9011-090-000-000-125

Corner angle | For DSCXL | 1-slot with 30 mm slot width | Frame shape: frame profile PLASTER | Frame surface: natural aluminium | Dummy plate colour: RAL 9011 (graphite black) | Angle between sides: 90° | Left-side length (a): standard | Right-side length (b): standard | Ceiling depth T = 12.5 mm

ORDER DETAILS

01 - Type

EW = corner angle for slot diffuser

02 - Diffuser

25 = for DSCPL

03 - Model

1 = 1-slot

2 = 2-slot

04 - Frame shape

PL = frame profile PLASTER.

05 - Frame surface

ALRO = natural aluminium (standard).

9005 = aluminium painted to RAL colour 9005 (black).

xxxx = aluminium painted to a freely selectable RAL colour (always with 4 digits).

06 - Dummy profile colour

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).

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 (1-slot L = 250 mm / 2-slot L = 300 mm).

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

09 - Right-side length (b)

000 = standard length (1-slot L = 250 mm / 2-slot L = 300 mm).

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

10 - Ceiling depth

125 = Ceiling depth T = 12.5 mm (standard).

095 = Ceiling depth T = 9.5 mm.

xxx = ceiling depth (T) can be freely selected (always with 3 digits).

SPECIFICATION TEXT

Highly inductive slot diffuser, free cross-section, resistance and sound power level constant in all blade positions, suitable for use in rooms with a height between 2.6 m and 4 m for direct installation in plasterboard ceilings or ceiling cavities (pressure ceilings). The special shape of the frame profile allows good installation in the plasterboard ceiling.

Frame with frame profile PLASTER (-PL), made of extruded aluminium profile.

Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid.

Supply air model with pivoting air deflection blades in support profile shape made of plastic material (hard PVC):

- Colour similar to RAL 9005 (black, standard) (-L9005).
- Colour similar to RAL 9010 (white) (-L9010).
- Freely selectable RAL colour (-Lxxxx, always with 5 digits).

Product: SCHAKO type DSCPL-...-Z-PL-...

Return air model without air deflection blades (-00000), with perforated plate made of sheet steel painted to RAL 9005 (black), as cover screen.

Product: SCHAKO type DSCPL-...-A-PL-...

Model (number of slots)

- 1-slot (-1)
- 2-slot (-2)

Frame surface:

- made of:
 - natural aluminium (-ALRO) (standard).
 - Aluminium painted to:
 - RAL colour 9005 (-9005) (black).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
- central partition (only for 2-slot models):
 - for supply air
 - for frame made of natural aluminium, same RAL colour as the blade.
 - for painted frame made of aluminium, same RAL colour as the frame.
 - for return air, made of aluminium painted to RAL 9005 (black).

Blade position for air jet:

- without blades, for return air, with perforated plate (-0).
- with vertical throw (-V).
- with horizontal one-way throw to the left (-L).
- with horizontal one-way throw to the right (-R).
- with horizontal two-way throw (-B) (standard).

Length / Model:

Single design (-N)

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

Band design (-B)

- Length in mm, as band (-B-xxxxx)
(available lengths according to SCHAKO standard for band design) (total length of box GKL = BL, with connecting pins, supplied loose (2 for each connection).

Mounting:

- without box mounting (-OM) (standard).

Ceiling depth of plaster board:

- Ceiling depth T = 9.5 mm (-095).
- Ceiling depth T = 12.5 mm (standard) (-125).
- Ceiling depth (T) can be freely selected (-xxx, always with 3 digits).

End piece (-EP/-EB):

- with surrounding edge for plastering, mounted ex-works on both sides (-EP) (standard)
 - made of galvanised sheet steel.
- straight, mounted ex works on both sides (-EB)
 - made of galvanised sheet steel.

In the band design, the end piece is mounted to the left side of the section (left TS) and to the right side of the difference in length (DL) as a standard.

Accessories:

- Plenum box (-ASK-25), made of galvanised sheet steel (-SV), with mounting brackets, without riveting nut (-E0), with air diffuser plate, made of galvanised sheet steel.
 - Model:
 - 1-slot (-1).
 - 2-slot (-2).
 - 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:
 - 1000 mm (-01000) (length of box KL=1000 mm).
 - 1500 mm (-01500) (length of box KL=1500 mm).
 - Length (L/BL) in mm, freely selectable (-xxxxx, always with 5 digits) (length of box KL = L / total length of box GKL = BL).
 - Mounting of box:
 - Without diffuser mounting (-OM) (standard).
 - Damper:
 - Without damper (-DK0) (standard).
 - With damper and cable-operated adjustment (-DK2), made of galvanised sheet steel, in the connection spigot, adjustable, for simple air volume regulation.
 - 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 box insulation outside (-Ia), thermal insulation at the outside of the plenum box.
 - Height of plenum box:
 - Standard height of plenum box (-KHS).
 - Height of plenum box (KHS) in mm, freely selectable (-xxx) (always with 3 digits) (minimum height of plenum box [KHS] with spigot position S1+S4 = spigot diameter øD + 82 mm / with spigot position S0 = 220 mm).
 - Spigot position:
 - Spigot from above (-S0).
 - Lateral spigot (-S1) (standard).
 - Spigot front side (-S4) (not possible for band design).
 - Spigot diameter:
 - Standard spigot diameter (-SDS).
 - Spigot diameter (øD) in mm, freely selectable (-xxx).

- Dummy piece (-BS0/-BS1):
 - without dummy piece (-BS0) (standard).
 - with dummy piece (-BS1):
 - made of sheet steel painted to RAL colour 9005 (black).
 - possible from length $L \geq 200$ mm.
 - only possible without plenum box ASK-25 and hit-and-miss damper.
 - with fastening clips for mounting on the slot diffuser.

- Corner angle (-EW-25), frame with frame profile PLASTER (-PL), made of extruded aluminium profile. With 4 fishplates (-VL, included in delivery) made of aluminium (same colour as frame), supplied loose.
 Frame profiles are fitted with bores to allow them to be connected to the plasterboard ceiling using screws. Mounting brackets are supplied loose as a mounting aid.
 - Model (number of slots):
 - 1-slot (-1).
 - 2-slot (-2).
 - Frame surface:
 - made of:
 - natural aluminium (-ALRO) (standard).
 - Aluminium painted to:
 - RAL colour 9005 (-9005) (black).
 - a freely selectable RAL colour (-xxxx, always with 4 digits).
 - central partition (only for 2-slot models):
 - for supply air:
 - for frame made of natural aluminium, same RAL colour as the blade.
 - for painted frame made of aluminium, same RAL colour as the frame.
 - for return air, made of aluminium painted to RAL 9005 (black).
 - dummy profile colour, made of painted aluminium:
 - colour similar to RAL 9005 (black) (-B9005) (standard).
 - colour similar to RAL 9010 (white) (-B9010).
 - to a freely selectable RAL colour (Bxxxx, always with 5 digits).
 - Angle between sides:
 - Angle $\alpha = 90^\circ$ (-090) (standard).
 - angle (α) as required (-xxx, always with 3 digits)
 Angle values between $\alpha = 90^\circ$ (-090, standard) and 170° (-170) are possible.
 - Left-side length (a):
 - Standard length $L=250$ (-000)
 - Length (L) in mm, freely selectable (-xxx, always with 3 digits) (minimum length = standard length).
 - Right-side length (b):
 - Standard length $L=250$ (-000)
 - Length (L) in mm, freely selectable (-xxx, always with 3 digits) (minimum length = standard length).
 - Ceiling depth of plaster board:
 - Ceiling depth $T = 9.5$ mm (-095).
 - Ceiling depth $T = 12.5$ mm (-125) (standard).
 - Ceiling depth (T) can be freely selected (-xxx, always with 3 digits).

- hit-and-miss damper (-SN/-SS)
 - without hit-and-miss damper (-SN) (standard).
 - with hit-and-miss damper (-SS):
 - made of electrolytically galvanized sheet steel.
 - only possible without plenum box ASK-25.
 - with fastening clips for mounting on the slot diffuser.