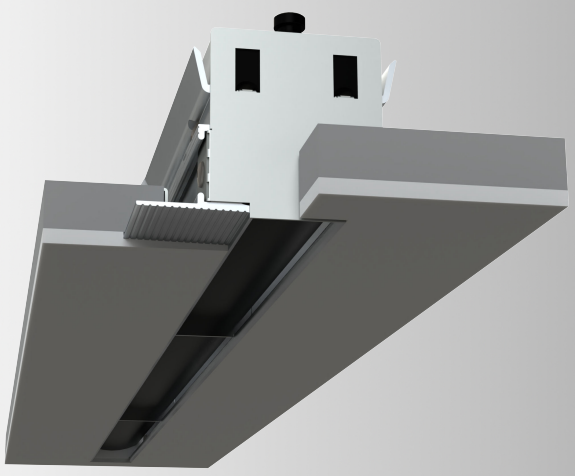


DSCPL

Slot diffuser for plasterboard ceilings

SCHAKO KG
Steigstraße 25-27
D-78600 Kolbingen

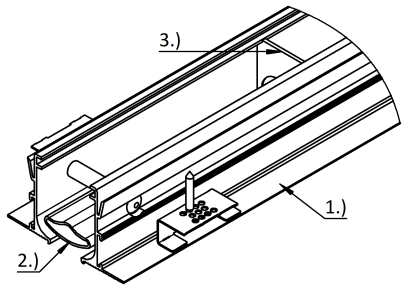
+49 (0) 7463-980-0
info@schako.de
schako.com

Table of Contents

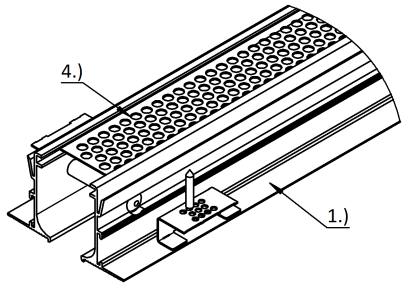
Overview of product versions 3
Function and use 3
Models 3
Mounting 3
Quick selection 4
Blade position for air jet 4
Processing 4
Accessories 5
Dimensions 7
Supply air (-Z): 7
Return air (-A): 7
Installation opening 8
Available lengths for the slot diffuser 8
End piece (-EP / -EB) 8
Slot diffuser connection in band design 9
Dimensions of accessories 10
Plenum box (-ASK-25) 10
Damper (-DK0/-DK2), for ASK-25 13
Rubber lip seal (-GD0/-GD1), for ASK-25 13
Insulation (-I0/-Ia), for ASK-25 13
Dummy piece (-BS0/-BS1) 13
Corner angle 90° (-EW) 14
Hit-and-miss damper (-SN/-SS) 15
Fastening methods 16
screw connection (on site) 16
Assembly detail 17
With mounting bracket: 17
Installation instructions 18
Mounting instructions 18
Technical data 19
Legend 20
Slot diffuser order code 21
Plenum box order code 23
Order code corner angle 24
Specification text 25

OVERVIEW OF PRODUCT VERSIONS

DSCPL-…-Z-… (supply air)



DSCPL-…-A-… (return air)



1.) Frame profile

2.) Blade

3.) Blade divider

4.) Perforated plate

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 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 single-slot or two-slots model and is available either as single piece or in band design.

Models

DSCPL-1	single-slot
DSCPL-2	two-slots
DSCPL-…-Z	supply air (with blades)
DSCPL-…-A	return air (without blades, with perforated plate)
DSCPL-…-PL	frame profile PLASTER
DSCPL-...-V	blades vertical throw
DSCPL-...-L	blades with horizontal one-way throw to the left
DSCPL-...-R	Blades with one-way horizontal throw to the right
DSCPL-...-B	blades with horizontal two-way throw (standard)
DSCPL-…-0	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 mounting of box (-OM)

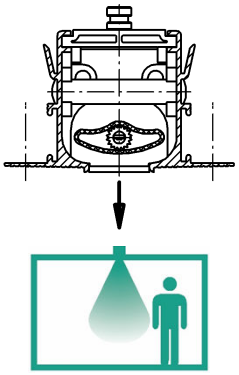
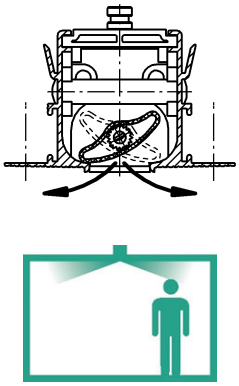
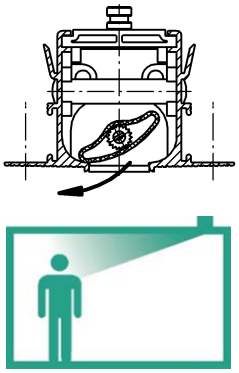
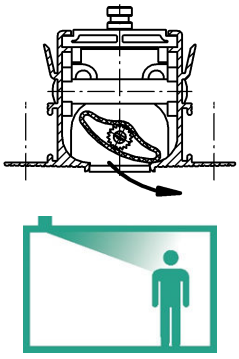
Quick selection

without plenum box, supply air model

Values for length L = 1000 mm

DSCPL-1 (single-slot)				**DSCPL-2** (two-slots)			
V_{ZU}		L_{WA}	Δp_t	V_{ZU}		L_{WA}	Δp_t
(m³/h)	[l/s]	[dB(A)]	(Pa)	(m³/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

Blade position (-V) vertical throw	**Blade position (-B)** two-way horizontal throw (standard)
	
Blade position (-L) one-way horizontal throw to the left	**Blade position (-R)** one-way horizontal throw to the right
	

Processing

Frame surface

- frame profile PLASTER (-PL) made of:
  - natural aluminium (-ALRO) (standard)
  - aluminium painted to:
  - RAL colour 9005 (-9005) (black)
  - a different RAL colour, freely selectable (-xxxx, always with four digits)
- central partition (only for two-slots 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)
  - a freely selectable RAL colour (-Lxxxx, always with five digits)
- for return air without blade (-00000), with perforated plate made of sheet steel painted to RAL 9005 (black), as a 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
- 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 three digits)
- mounting aid for screw connection

Accessories

Plenum box (-ASK-25)

- Model (number of slots):
  - single-slot (-1)
  - two-slots (-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 five digits) (length of box KL = L / total length of box GKL = BL)
- Mounting of box:
  - without diffuser mounting (-OM)
- Material:
  - Galvanised sheet steel (-SV)
- 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) on the connection spigot
- Insulation:
  - without insulation (-I0) (standard)
  - with external insulation (-Ia), thermal insulation at the outside of the plenum box
- Height of box:
  - Standard height of box (-KHS)
  - Height of box (KHS) in mm, freely selectable (-xxx, always with three 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, always with three 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 ≥ 300 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):
  - single-slot (-1)
  - two-slots (-2)
- Frame profile PLASTER (-PL)
- Frame surface:
  - consisting of:
    - natural aluminium (-ALRO) (standard)
    - aluminium painted to:
    - RAL colour 9005 (-9005) (black)
    - a different RAL colour, freely selectable (-xxxx, always with four digits)
  - central partition (only for two-slots 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)
  - any RAL colour, freely selectable (-Bxxxx, always with five digits)
- Angle between sides:
  - angle α = 90° (-090) (standard)
  - angle (α) as required (always with three digits)
    Values between α = 90° (-090, standard) and 170° (-170) are possible
- Left side length (a):
  - standard length L = 250 (-000)
  - length (L) in mm can be freely selected (-xxx, always with three digits) (minimum length = standard length)

- Right side length (b):
  - standard length L = 250 (-000)
  - length (L) in mm can be freely selected (-xxx, always with three digits) (minimum length = standard length)
- 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.
- 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 three digits)

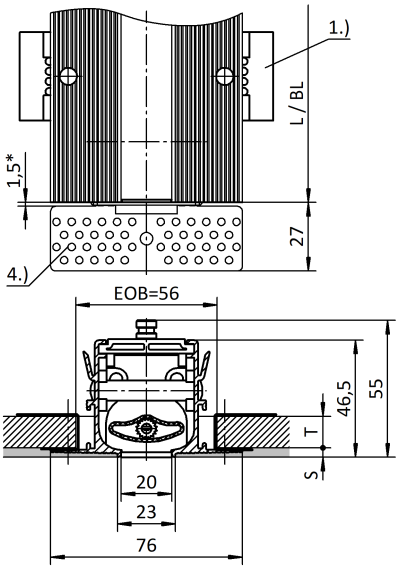
Hit-and-miss damper (-SN/-SS)

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

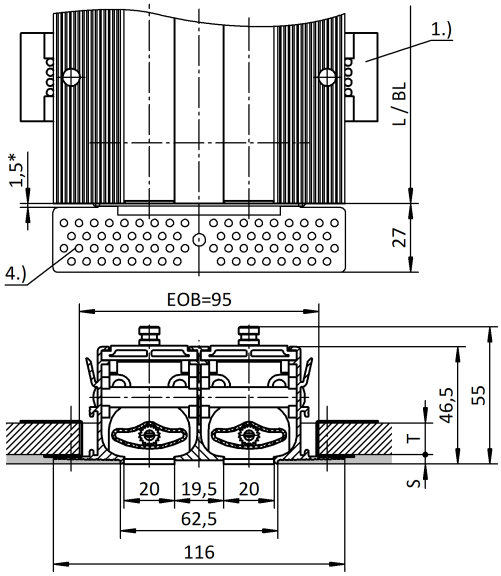
DIMENSIONS

Supply air (-Z):

DSCPL-1-Z (single-slot)

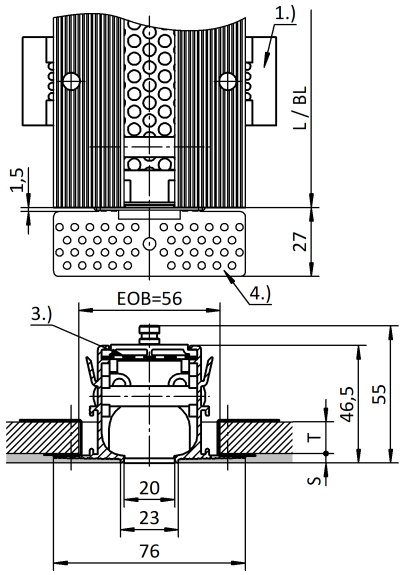


DSCPL-2-Z (two-slots)

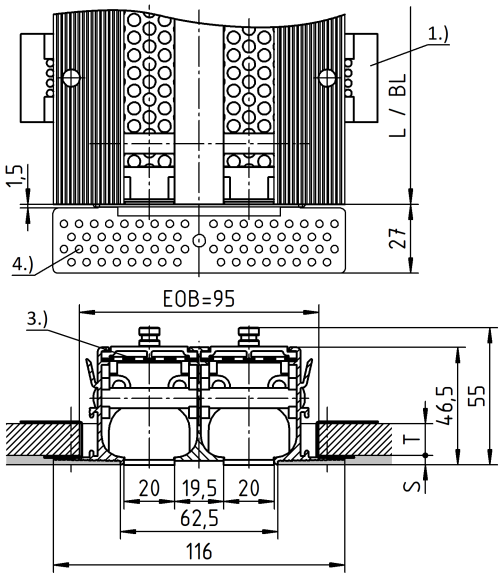


Return air (-A):

DSCPL-1-A (single-slot)



DSCPL-2-A (two-slots)



Filling

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

Plasterboard ceiling

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

(see Page 17)

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 17). The number of brackets depends on the length (L).

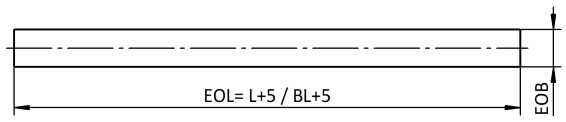
Available lengths

see available lengths of slot diffuser (see Page 8).

Construction subject to change. No return possible.

L = Length
BL = Length of band
1.) Mounting bracket included in delivery
2.) Blade
3.) Perforated plate
4.) End piece
* Gap width between frame and end piece

Installation opening

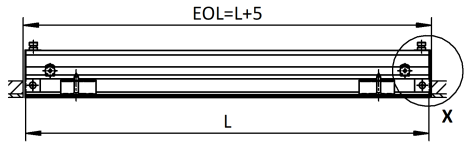


	EOB
DSCPL-1-...	56
DSCPL-2-...	95

Available lengths for the slot diffuser

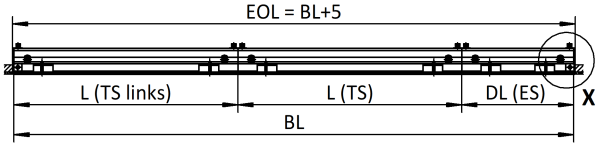
Single design (-N)

- 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 five digits)
  (Length of box KL = L, can be fitted with a plenum box in case of single design lengths L = ≥300 mm to ≤1500 mm)



Band design (-B)

- Length (L) in mm, freely selectable, as band (-B-xxxxx) (always with five 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 **≥300 mm to <1500 mm**.

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

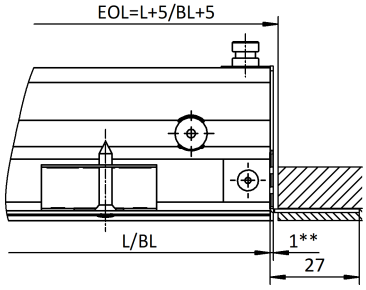
ES = End piece
TS = Section
TS links = Left section
L = Length
DL = Difference distance
BL = Length of band
KL = Length of box
GKL = Total length of box
EOB = Installation opening width
EOL = Installation opening length (EOL = L+5/BL+5)

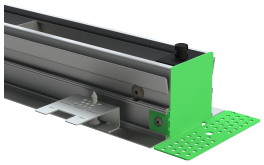
End piece (-EP / -EB)

- 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)

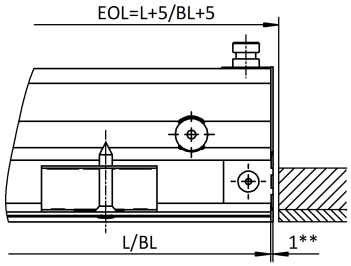
Detail X

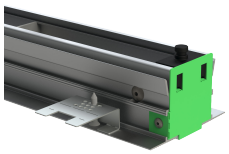
End piece (-EP) (standard)





End piece (-EB)





End pieces (shown in green in the ISO illustration) 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 16).

The number of brackets depends on the length (L).

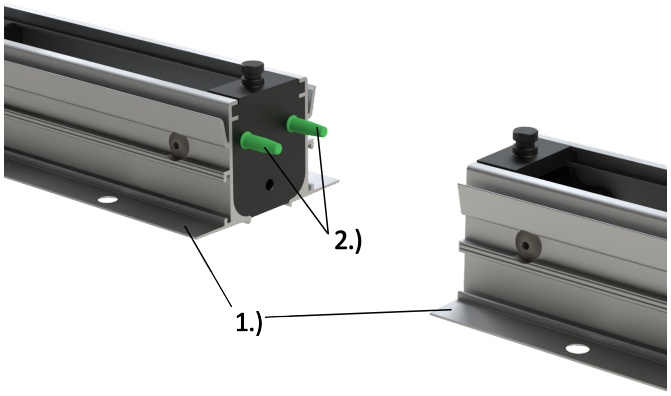
** Material thickness end piece
TS links = Left section
L = Length
DL = Difference distance
BL = Length of band
EOL = Installation opening length (EOL = L+5/BL+5)

Slot diffuser connection in band design

Slot diffuser - slot diffuser

With connecting pin:

Supplied loose (2x for each connection)

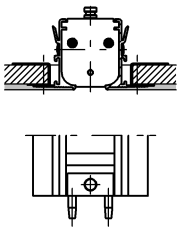


1.) Slot diffuser

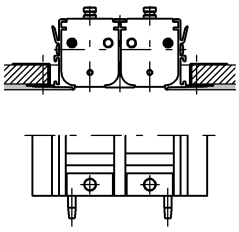
2.) Connecting pin

Arrangement of connecting pins

DSCPL-1-...



DSCPL-2-...



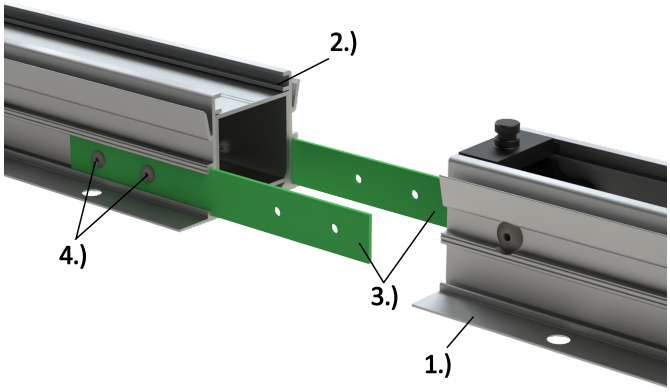
Attention:

The connecting pins are only suitable for positioning and not for force transmission.

Slot diffuser - corner angle

With fishplates:

Supplied loose (2x for each connection)



1.) Slot diffuser

2.) Corner angle

3.) Fishplates

4.) Riveted on site

DIMENSIONS OF ACCESSORIES

Plenum box (-ASK-25)

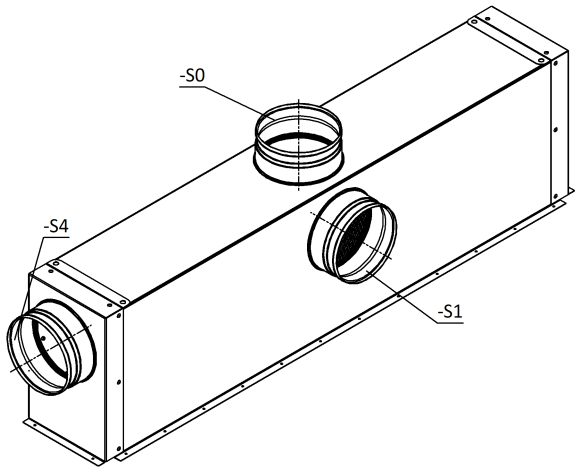
Spigot position

Spigot position in the plenum box, single design:

S0 = 1 spigot from above
S1 = 1 lateral spigot (standard)
S4 = 1 spigot front side

Spigot position in the plenum box, band design:

S0 = **for standard length and difference in length**: 1 spigot from above
S1 = **for standard length and difference in length**: 1 lateral spigot
S4 = not possible



Dimensions of the plenum box: see following pages.

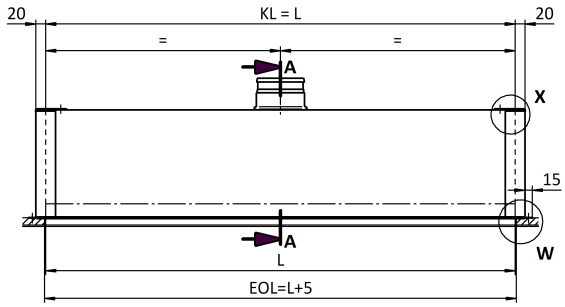
Plenum box (-ASK-25)

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

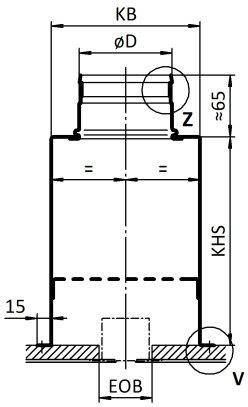
Box mounted without diffuser mounting (-OM)

with spigot from above (-S0):

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

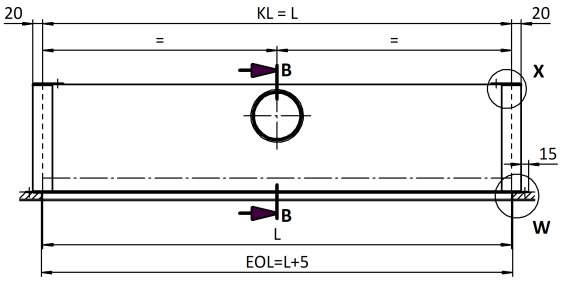


Section A-A

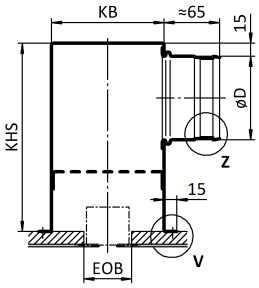


With lateral spigot (-S1, standard):

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

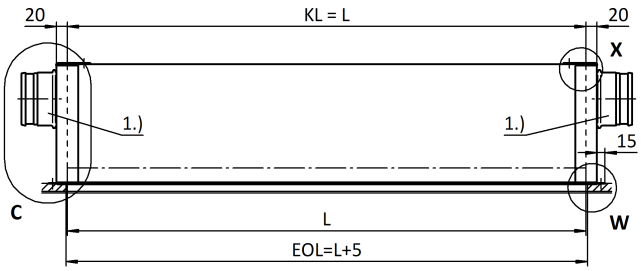


Section B-B



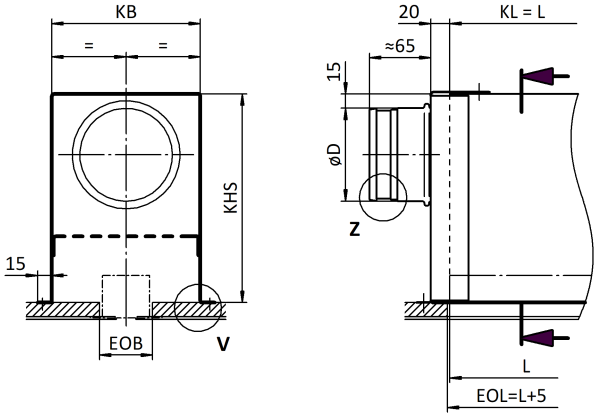
With spigot front side (-S4):

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



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

Detail C



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

	EOB	KHS	Length					
			L ≤ 1000			1000 < L ≤ 1500		
			øD	KB		øD	KB	
				-S1	-S0 -S4		-S1	-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	EOL	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 KL = 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 øD + 82 mm / with spigot position S0 = 220 mm.

For rubber lip seal, detail Z, see Page 13.

For fastening detail, detail V and W, see Page 13.

Construction subject to change. No return possible.

For plenum box suspension, detail X, see Page 12.

For installation opening, see Page 8.

L = Length
KL = Length of box
EOL = Installation opening in the length section
EOB = Installation opening in the width section

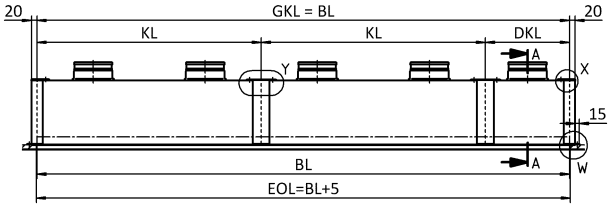
Plenum box (-ASK-25-...-B-...) in band design

Box mounted without diffuser mounting (-OM)

with spigot from above (-S0):

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

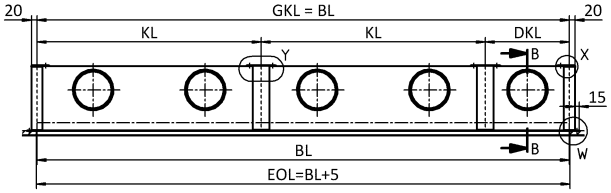
Difference box length, one-piece (DKL = ≥ 300 to ≤ 1500)



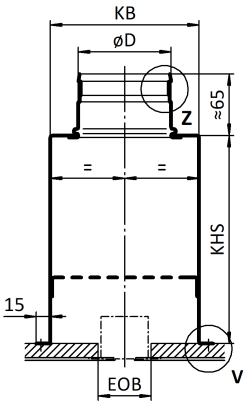
With lateral spigot (-S1):

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

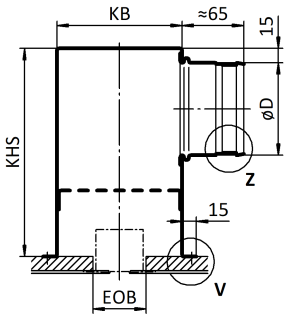
Difference box length, one-piece (DKL = ≥ 300 to ≤ 1500)



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	EOB
	-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 or KL=1500 mm and one difference box.

A difference box is available with a length (DLK) of ≥ 300 mm to ≤1500 mm in one piece.

A difference box with a length (DKL) of <300 mm is not possible.

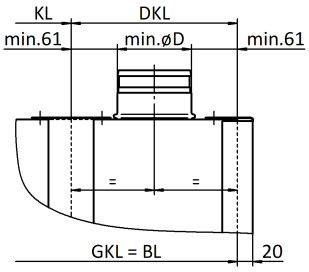
Box section and box front side fastening as well as a connecting angle must be provided on site.

Intermediate lengths and other spigot diameters on request.

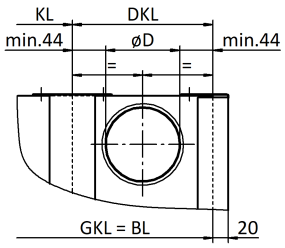
Minimum height of box [KHS] with spigot position S1 = spigot diameter øD + 82 mm / with spigot position S0 = 220 mm.

Minimum distance spigot 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 13.

For fastening detail, detail V, see Page 13.

For plenum box suspension, detail X and Y, see Page 12.

For installation opening, see Page 8.

KL = Length of box
DKL = Difference in length of box
GKL = Total length of box
BL = Length of band
EOL = Installation opening in the length section
EOB = Installation opening in the width section

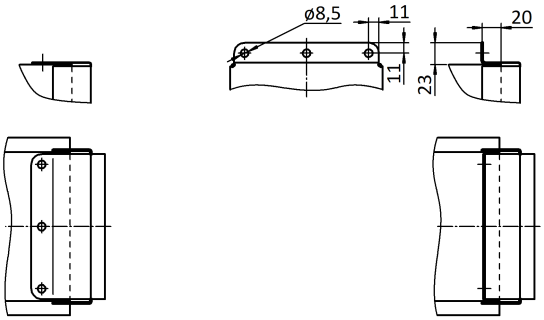
Plenum box suspension

Single design / band design

Detail X (box front side)

As-delivered condition With fitted fixing lug

On site With bent mounting bracket

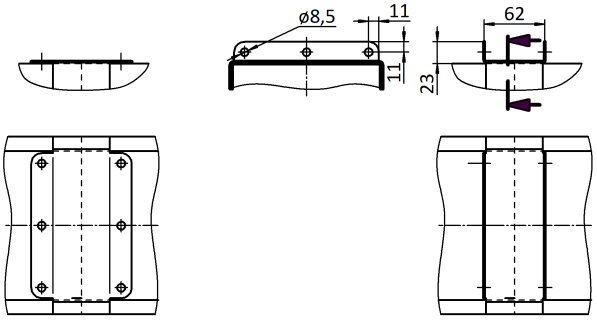


band design

Detail Y (connecting bracket)

As-delivered condition With fitted fixing lug

On site With bent mounting bracket

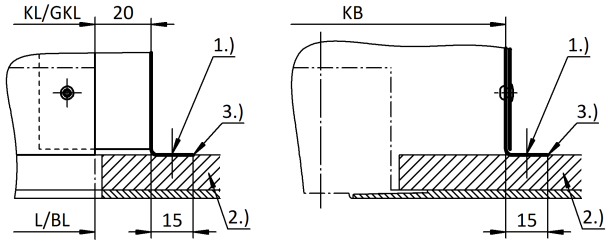


Fastening details

For suspension, the plenum box is provided with fixing holes. A permanent connection to the plasterboard ceiling via Ø 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 ø3.2

2.) Plasterboard ceiling

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.

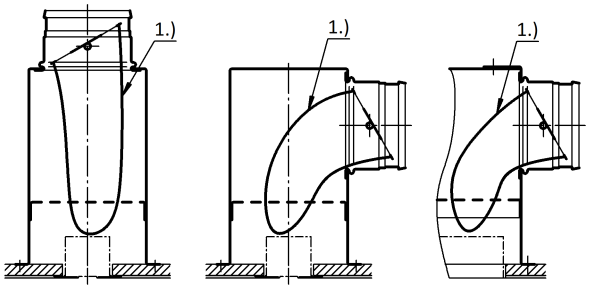
Damper (-DK0/-DK2), for ASK-25

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

-DK2 (with cable-operated adjustment):

Spigot from above (- Lateral spigot (-S1) S0)

Spigot front side (- S4)

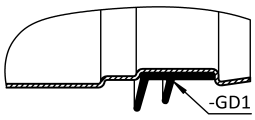


1.) with cable-operated adjustment (-SZV)

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

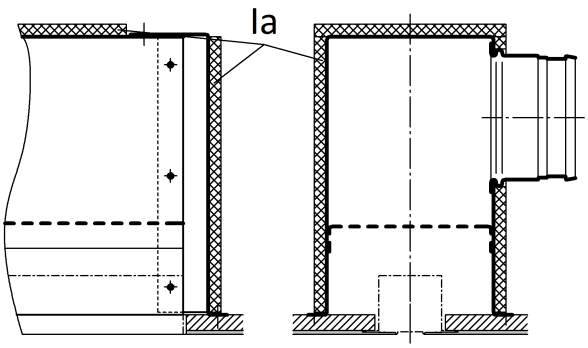
- without rubber lip seal (-GD0) (standard)
- With rubber lip seal (-GD1) on the connection spigot

Detail Z



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

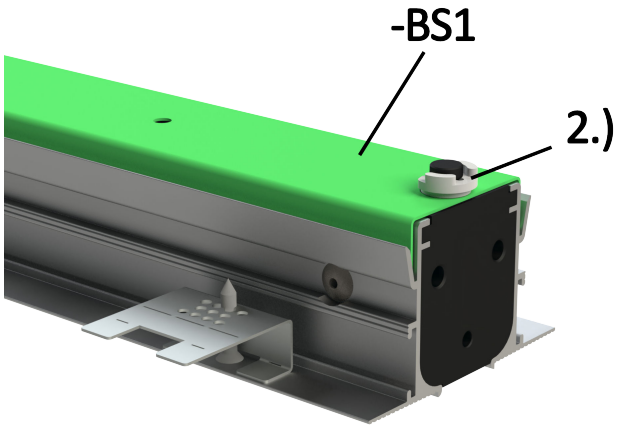
- without insulation (-I0) (standard)
- with external insulation (-Ia)



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 ≥ 300 mm
  - only possible without plenum box ASK-25 and hit-and-miss damper
  - with fastening clips for mounting on the slot diffuser

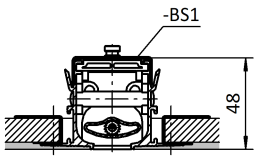
with dummy piece (-BS1)



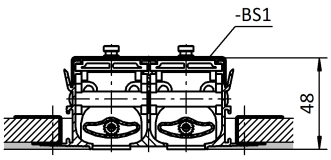
2.) Fastening clip

for supply air:

DSCP-1-Z

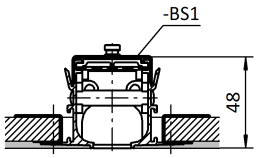


DSCP-2-Z

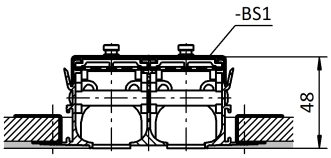


for return air:

DSCP-1-A



DSCP-2-A



Available lengths

see available lengths of slot diffuser, see Page 8.

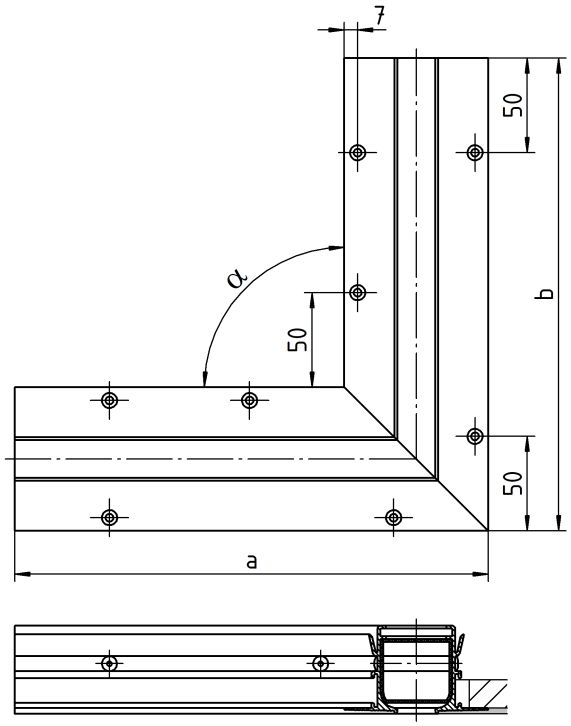
Corner angle 90° (-EW)

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 17).

The connection between the diffuser and corner angle is performed by means of fishplates (see Page 9). 4 fishplates are included in delivery (2 for each connection). They are supplied loose.

Values between α = 90° (-090, standard) and 170° (-170) are possible.

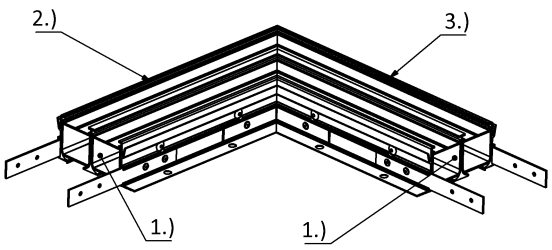


a = left side length

b = right side length

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

Other side lengths (a/b) on request.



1.) Dummy profile

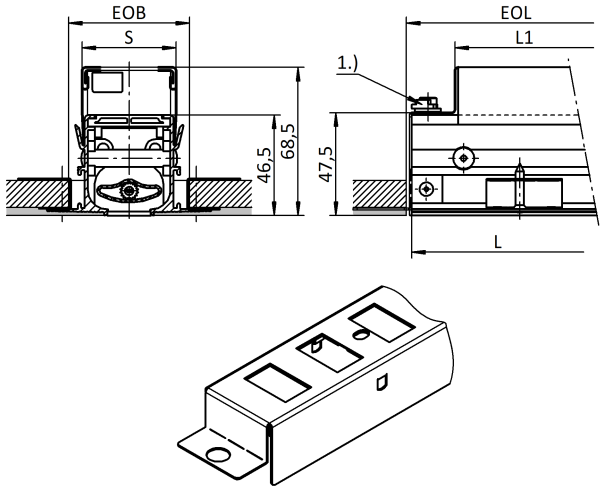
2.) Left side length

3.) Right side length

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

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

with hit-and-miss damper (-SS)



1.) Fastening clip

	S	EOB
DSCPL-1	43	56
DSCPL-2	82	95

L	L1	EOL
1000	960	1010
1500	1460	1510

For fastening details regarding screw mounting, see Page 16.

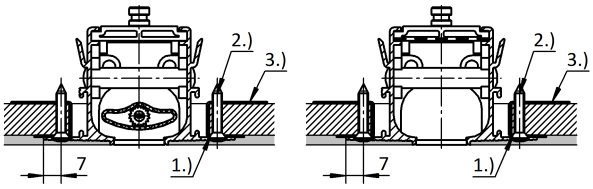
EOB = Installation opening width
EOL = Installation opening length

FASTENING METHODS

screw connection (on site)

Arrangement, number and size of the bores are the same for single-slot and two-slots models.

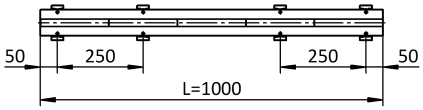
Supply air **Return air**



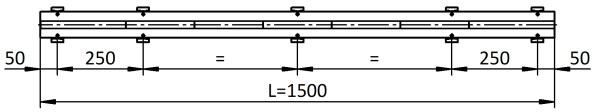
1.) Indentation ISO 15065-4
2.) Dry wall screw 3.5 x 35, use according to DIN EN 14566 on site
3.) Mounting bracket

Number of indentations, single design

L= 1000 / with 8 indentations



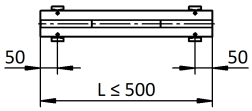
L= 1500 / with 10 indentations



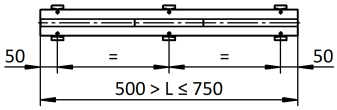
Number of indentations, band design

For compensation pieces and sections

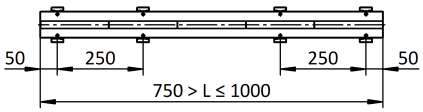
L= ≤500 / with 4 indentations



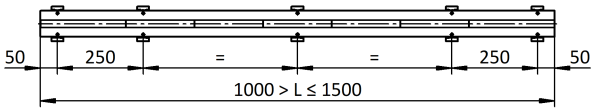
L= >500 to ≤750 / with 6 indentations



L= >750 to ≤1000 / with 8 indentations



L= >1000 to ≤1500 / with 10 indentations

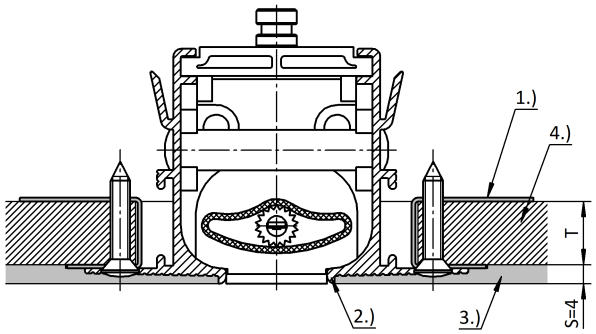


Construction subject to change. No return possible.

ASSEMBLY DETAIL

With mounting bracket:

for screw connection (on site)

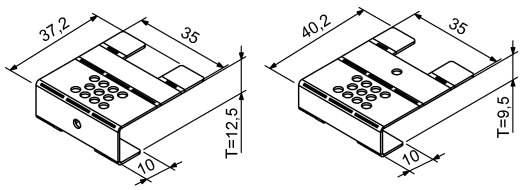


1.) Mounting bracket
2.) Special plastering edge for elegant filling
3.) Multiple filling on site (depending on quality level)
4.) Plasterboard ceiling

Number of mounting brackets (mounting help)

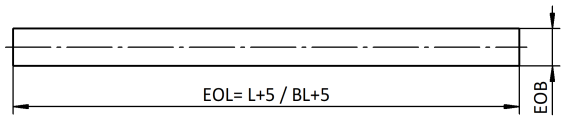
4	Mounting bracket:	L / DL = ≤500
6	Mounting bracket:	L / DL = >500 to ≤750
8	Mounting bracket:	L / DL = >750 to ≤1000
10	Mounting bracket:	L / DL = >1000 to ≤1500

Mounting bracket:



The mounting bracket is supplied loose and unbent. It will then be canted 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)
EOB	=	Installation opening width
EOL	=	Installation opening length

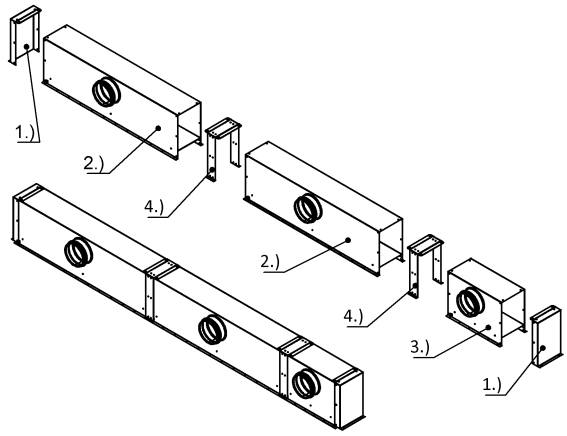
INSTALLATION INSTRUCTIONS

The installation of the DSCP / DSCPL / DSCL / DSCXL slot diffusers is identical (see installation instructions “DSCP / DSCPL / DSCL / DSCXL installation in plasterboard ceilings“).
Film see YouTube:
https://www.youtube.com/jcFsmPI0D18

Note: Before applying the filler, a quartz primer should be applied to the bare aluminium profile to ensure better adhesion. For painted profiles, special primers should be used which are particularly suitable for low-porosity surfaces.

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 observe the following correction factors (KF) with the DSC slot diffuser basic data.

Correction factors for DSCPL-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 DSCPL-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) [l/s]	=	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 jet velocity
L	(mm)	=	Length
BL	(mm)	=	Length of band
DL	(mm)	=	Difference distance
KH	(mm)	=	Height of box
KL	(mm)	=	Length of box
KB	(mm)	=	Width of plenum box
t_{zu}	(°C)	=	Supply air temperature
t_R	(°C)	=	Room temperature
EOB	(mm)	=	Installation opening width
EOL	(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
-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 | single-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 = single-slot
2 = two-slots

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 = untreated aluminium (standard)
9005 = aluminium painted to RAL colour 9005 (black)
xxxx = aluminium painted to a RAL colour, freely selectable (always with four digits)

06 - Blade colour

00000 = without blades (only for return air)
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 five digits)

07 - Blade position for air jet

0 = without blades, for return air with perforated plate
V = blades vertical throw
L = blades with horizontal one-way throw to the left
R = Blades with one-way horizontal 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 five digits) (can be fitted with a plenum box in case of single design lengths L = ≥300 mm to ≤1500 mm)

10 - Mounting

OM = without mounting of box

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 three 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 ≥ 300 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 box	Spigot position	Spigot diameter	Suspension
-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 | single-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 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 = single-slot
2 = two-slots

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 five digits)
(length of box KL = L / total length of box GKL = BL)

06 - Mounting of box

OM = without diffuser mounting

07 - Material

SV = Galvanised sheet steel

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 box

KHS = Height of plenum box standard
xxx = Height of box (KHS) in mm, freely selectable (always with three digits) (minimum height of plenum box [KHS] with spigot position S1+S4 = spigot diameter øD + 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 (øD) in mm, freely selectable (always with three digits)

14 - Suspension

E0 = without riveting nut

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
-B9005	-090	-000	-000	-125

Sample

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

Corner angle | For DSCPL | single-slot | Frame shape: frame profile PLASTER | Natural aluminium | RAL 9005 (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 = single-slot
2 = two-slots

04 - Frame shape

PL = frame profile PLASTER

05 - Frame surface

ALRO = untreated aluminium (standard)
9005 = aluminium painted to RAL colour 9005 (black)
xxxx = aluminium painted to a RAL colour, freely selectable (always with four 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 five digits)

07 - Angle between sides

090 = Angle α = 90° (standard)
xxx = angle (α) as required (value between 90° [090] and 170° [170] possible) (always with three digits)

08 - Left-side length (a)

000 = Standard length (single-slot L = 250 mm / two-slots L = 300 mm)
xxx = length (L) in mm can be freely selected (minimum length = standard length) (always with three digits)

09 - Right-side length (b)

000 = Standard length (single-slot L = 250 mm / two-slots L = 300 mm)
xxx = length (L) in mm can be freely selected (minimum length = standard length) (always with three 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 three 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 blades in support blade profile shape made of plastic (hard PVC):

- colour similar to RAL 9005 (black, standard) (**-L9005**)
- colour similar to RAL 9010 (white) (**-L9010**)
- a freely selectable RAL colour (**-Lxxxx**, always with five digits)

Product: SCHAKO type **DSCPL-…-Z-PL-…**

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

Product: SCHAKO type **DSCPL-…-A-PL-…**

Model (number of slots):

- single-slot (**-1**)
- two-slots (**-2**)

Frame surface:

- consisting of:
  - natural aluminium (-ALRO) (standard)
  - aluminium painted to:
    - RAL colour 9005 (-9005) (black)
    - a different RAL colour, freely selectable (-xxxx, always with four digits)
- central partition (only for two-slots 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**)
- 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 five digits)
  (Length of box KL = L, can be fitted with a plenum box in case of single design lengths L = ≥300 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 mounting of box (-OM)

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 three 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:
    - single-slot (-1)
    - two-slots (-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 five digits) (length of box KL = L / total length of box GKL = BL)

- Mounting of box:
  - without diffuser mounting (-OM)
- 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) on the connection spigot
- Insulation:
  - without insulation (-I0) (standard)
  - with box insulation outside (-Ia), thermal insulation at the outside of the plenum box
- Height of box:
  - Standard height of box (-KHS)
  - Height of box (KHS) in mm, freely selectable (-xxx) (always with three 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 ≥ 300 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):
    - single-slot (-1)
    - two-slots (-2)
  - Frame surface:
    - consisting of:
      - natural aluminium (-ALRO) (standard)
      - aluminium painted to:
        - RAL colour 9005 (-9005) (black)
        - a different RAL colour, freely selectable (-xxxx, always with four digits)
  - central partition (only for two-slots 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)
    - any RAL colour, freely selectable (-Bxxxx, always with five digits)
  - Angle between sides:
    - angle α = 90° (-090) (standard)
    - angle (α) as required (always with three digits)
      Values between α = 90° (-090, standard) and 170° (-170) are possible
  - Left side length (a):
    - standard length L = 250 (-000)
    - length (L) in mm can be freely selected (-xxx, always with three digits) (minimum length = standard length)
  - Right side length (b):
    - standard length L = 250 (-000)
    - length (L) in mm can be freely selected (-xxx, always with three 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 three digits)
- Hit-and-miss damper (-SN/-SS)
  - without hit-and-miss damper (-SN) (standard)
  - with hit-and-miss damper (-SS):
    - made of galvanised sheet steel
    - only possible without plenum box ASK-25
    - with fastening clips for mounting on the slot diffuser