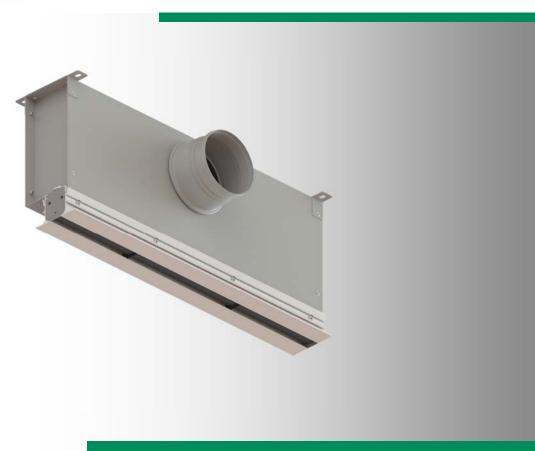


# **Technical documentation**



**DSC**Slot diffuser

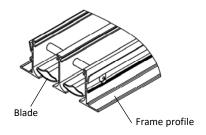
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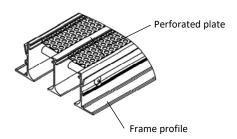


#### **OVERVIEW OF PRODUCT VERSIONS**

DSC-...-Z-... (supply air)



DSC-...-A-... (return air)



DSC

#### **TECHNICAL DOCUMENTATION**

Overview of product versions | Function and use

#### **FUNCTION AND USE**

The slot diffuser type DSC is suitable for use in rooms with a height between 2.6 and 4 m. The air deflection blades adjustable from below allow a versatile application. The outflow direction can be adjusted from a vertical throw in heating mode to a horizontal throw in cooling mode. In cooling mode, a one- or two-way air throw pattern or a multi-direction throw pattern can be set. The support profile section blades create such a stable jet that, for the two-way air throw or multi-direction air throw, just one blade has to be set alternately in one throw direction. 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 support profile blades, the free cross-section is always the same size. Pressure loss and sound power level remain therefore constant even when the blades are adjusted. A subsequent change of the air throw direction on site is possible at any time, even when the diffuser has already been fitted. If the desired air throw is specified in the order, it will be set at the factory. Unless stated otherwise, the blade position -D (multi-direction throw) will be set. The large free cross-section allows a high volumetric flow compared with other slot diffusers. The stable air jet and high induction mean that the DSC slot diffuser can be used in cooling mode up to  $\Delta T_0 \le -12$  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-, 2-, 3- or 4-slot model and is available either as single piece or in band design. Accessories such as end pieces and corner angles enable a versatile use of the slot diffuser. The slot diffuser can be integrated into different ceiling types and also into air-handling lights by using various additional profiles.

The return air model is fitted with a black perforated plate for easy cleaning from below through the slots instead of air deflection blades.

The connection to the ductwork is done via the plenum box. At an extra charge, a damper adjustable from below can be installed in the connection spigot for air volume regulation. The plenum box can also be insulated either internally or externally. If there is not enough space in the intermediate ceiling area, the slot diffuser, fitted with a hit-and-miss damper for volume regulation, can be installed directly in the ductwork.

Due to the stable air throw pattern, it can also be used in VAV systems from 100 to 40%.



## **MODELS**

DSC-1	1-slot
DSC-2	2-slot
DSC-3	3-slot
DSC-4	4-slot
DSCZ	Supply air (with blades)
DSCA	Return air (without blades, with perforated plate)
DSCR0	With frame profile STANDARD
	(frame with R0 standard profile)
DSCS0	With narrow frame profile
	(frame with S0 profile)
DSCP0	With special frame profile
	(frame with P0 profile)
DSCV	Blades with vertical throw
DSCL	Blades one-way horizontal throw left
DSCR	Blades one-way horizontal throw right
DSCB	Blades two-way horizontal throw
DSCD	Blades horizontal diverging throw (multi-direc-
	tion throw) (standard)
DSC0	Without blades, with perforated plate (for return
	air)
DSCN	Single design (length max. 1500 mm).
DSCB	Band design (available lengths according to
	SCHAKO standard for band design)

#### **MOUNTING**

## Without connection (-00)

 Only possible without plenum box and without hit-and-miss damper.

#### Permanent connection with plenum box (-FV, standard)

- -- Only possible with plenum box.
- -- As standard for the models DSC-...-R0 / DSC-...-S0 and DSC-...-P0.
- The slot diffuser is permanently connected to the plenum box.

### Concealed mounting with plenum box (-VM)

- -- Only possible with plenum box.
- Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-Z2 (with additional profile).
- -- Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-Z3.
- -- The slot diffuser is screwed to the pole brace in the plenum box housing with concealed screws.
- -- Frame with foam gasket.
- -- Plenum box supplied loose from the factory.

#### Mounting with counter pole brace (-GT)

- -- Only possible without plenum box.
- Screws and counter pole brace are supplied loose (2 pieces).
- Pole brace traps consisting of folded galvanised sheet steel and pole brace made of extruded aluminium profile with DIN thread.
- Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
- -- Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.
- The slot diffuser is screwed to the counter pole brace (pole brace strap) with concealed screws (included in delivery).
- -- For mounting, access on the rear is required!

#### DSC

#### **TECHNICAL DOCUMENTATION**

Models | Mounting

#### Mounting with clamp strap (-KB)

- -- Only possible without plenum box.
- Screws and clamp straps are supplied loose (2 pieces).
- -- Clamp strap made of galvanised sheet steel.
- Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
- -- Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.
- The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).
- -- For mounting, access on the rear is not required!

#### Screw mounting (-SM)

- -- Only possible without plenum box.
- -- Screws must be provided on-site.
- -- Possible for the models DSC-...-R0 and DSC-...-P0.
- -- Not possible for the model DSC-...-S0.
- -- The slot diffuser is fixed with visible screws.

### Mounting with suspension lugs (-AL)

- -- Only possible without plenum box.
- -- 4 pieces supplied loose.
- -- Possible for the models DSC-...-R0 and DSC-...-P0.
- -- Not possible for the model DSC-...-S0.
- -- The slot diffuser is fastened to 4 suspension brackets.
- Suspension lug made of galvanised sheet steel, with holes for hook mounting.

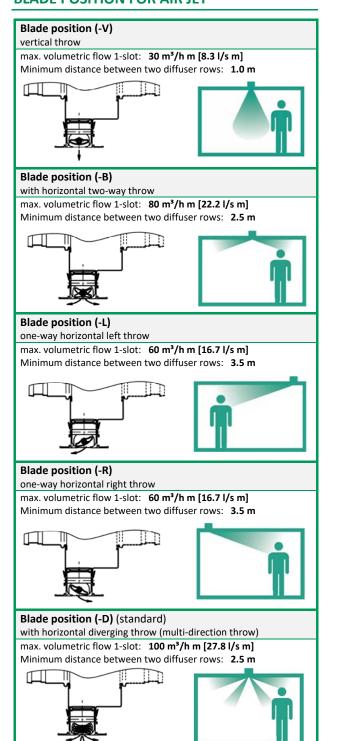
#### Fishplate (-VL)

- -- 4 pieces, supplied loose.
- -- made of aluminium sheet.

- -- Only for connection of the corner angle to the slot diffuser in band design.
- -- The corner angle is fixed with the help of the fishplates (2 on each side).



## **BLADE POSITION FOR AIR JET**



DSC

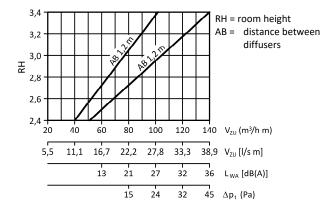
#### **TECHNICAL DOCUMENTATION**

Blade position for air jet | Quick selection

## **QUICK SELECTION**

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## blade position D





#### **PROCESSING**

## Frame surface

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

#### **Blade colour**

- -- Plastic (hard PVC):
  - Colour similar to RAL 9005 (black, standard) (-L9005).
  - Colour similar to RAL 9006 (white aluminium) (-L9006).
  - Colour similar to RAL 9010 (white) (-L9010).
  - painted to a 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):
  - for supply air painted to blade colour

#### Internal blade divider (support for concealed mounting)

- -- Plastic (PA type 6):
  - for supply air painted to blade colour

### External blade plates (end plates)

- -- Plastic (ABS):
  - for supply air painted to blade colour
  - for return air painted to RAL 9005 (black)

### Connecting pin

Connection diffuser - diffuser

- -- Made of plastic material
- -- For band design only
- -- Supplied loose (2x for each connection)

#### DSC

## **TECHNICAL DOCUMENTATION**

Processing | Accessories

#### **ACCESSORIES**

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

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

#### Additional profile (-Z0 / -Z1 / -Z2 / -Z3)

- -- without additional profile (-Z0) (standard)
- -- with additional profile made of aluminium (same colour as frame, only possible for DSC-...-SO):
  - ZI (-Z1): connection of ceiling panels.
  - Z II (-Z2): connection of panelled ceilings.
  - Z III (-Z3): connection of ceiling panels.

## Dummy piece (-BS0 / -BS1)

- -- without dummy piece (-BS0) (standard)
- -- with dummy piece (-BS1):
  - made of sheet steel painted to RAL 9005 (black).
  - only possible without plenum box and hit-and-miss damper.
  - with fastening clip for mounting on the slot diffuser.
  - possible from length L ≥ 200 mm.
  - Mounting only possible with suspension lugs (-AL, standard in connection with active diffuser DSC-...-FV-...), counter pole brace (-GT) or clamp strap (-KB).

## 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.
  - Mounting:
    - DSC-...-R0 / DSC-...-P0:
      - with screw mounting (-SM, standard)
      - Mounting with counter pole brace (-GT)
    - DSC-...-S0:
      - Screw mounting not possible.
      - Mounting with counter pole brace (-GT)
    - Only possible for models with additional profile -Z2.
       Not possible for models without additional profile and models with additional profiles -Z1 and -Z3.

## Plenum box (-ASK-24)

- -- Model (number of slots):
  - 1-slot (-1)
  - 2-slot (-2)
  - 3-slot (-3)
  - 4-slot (-4)
- -- Single / band design:

- Single design (-N, length of box KL max. 1500 mm)
- Band design (-B, available lengths according to SCHAKO standard for band design)
- -- Length:
  - Length L = 1000 mm (-01000) (KL = 997 mm)
  - Length L = 1500 mm (-01500) (KL = 1497 mm)
  - Length (L/BL) in mm, freely selectable (-xxxxx, always with 5 digits) (length of box KL = L-3 / total length of box GKL = BL-3, can be fitted with a plenum box in case of single design lengths L = ≥ 400 mm to ≤ 1500 mm.)



#### -- Mounting of box:

- Permanent connection (-FV) (standard)
- concealed mounting (-VM) (only possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-Z2)
- without fastening (only possible without diffuser) (-00)

#### -- Material:

- Galvanised sheet steel (-SV) (standard)

#### -- Damper:

- without damper (-DK0) (standard)
- With damper made of galvanised sheet steel, adjustable, for simple air volume regulation:
  - in the plenum box housing (only with lateral spigot position [-S1/-S2]) (-DK1).
  - in the connection spigot, with cable-operated adjustment (with spigot position from above [-S0]) (-DK2).

#### -- Rubber lip seal:

- without rubber lip seal (-GD0) (standard)
- With rubber lip seal (-GD1) made of special rubber, at the connection spigot.

#### -- Insulation:

- without insulation (-I0) (standard)
- with internal insulation (-li), thermal insulation inside the plenum box.
- with external insulation (-la), thermal insulation at the outside of the plenum box.

#### -- Height of plenum box:

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

#### -- Box neck:

- standard box neck (-KVS) (KVS = 45 mm)
- Box neck extension in mm, freely selectable (-xxx, always with 3 digits) box neck (not adjustable) from ≥ 45 mm to 200 mm possible.
  - Can only be used with 1-slot models, 2-, 3- and 4-slot models don't have a box neck.

## -- Spigot position:

- spigot from above (-S0)
- lateral spigot (-S1) (standard)
- Lateral spigot located on the opposite side (-S2) (only possible for 1-slot models)

## -- Spigot diameter:

- standard spigot diameter (-SDS)
- spigot diameter (ØD) in mm, freely selectable (-xxx, always with 3 digits).

## -- Suspension:

- without riveting nut (-E0) (standard)
- With riveting nut (-EM), made of brass.
- -- with air diffuser plate (FQ = 46%), made of galvanised sheet steel, only for models with spigot from above.

#### DSC

#### **TECHNICAL DOCUMENTATION**

**L** Accessories

#### Corner angle (-EW-24)

- -- Model (number of slots):
  - 1-slot (-1)
  - 2-slot (-2)
  - 3-slot (-3)
  - 4-slot (-4)
- -- Frame profile:
  - STANDARD frame profile (-R0)
  - Narrow frame profile (-S0)
  - Special frame profile (-P0)
- -- Frame surface:
  - Natural colour anodised aluminium (-ELOX, standard)
  - Aluminium painted to:
    - RAL colour 9006 (white aluminium) (-9006)
    - RAL colour 9010 (white) (-9010)
    - a freely selectable RAL colour (-xxxx, always with 4 digits).
- -- Dummy profile colour:
  - Dummy profile made of painted aluminium:
    - colour similar to RAL 9005 (black) (-B9005, standard).
    - colour similar to RAL 9006 (white aluminium) (-B9006).
    - colour similar to RAL 9010 (white) (-B9010).
  - RAL colour freely selectable (-Bxxxx) (always with 5 digits).

## -- Angle between sides:

- angle  $\alpha$  = 90° (-090) (standard)
- angle ( $\alpha$ ) as required (-xxx), values between  $\alpha$  = 90° (-090, standard) and 170° (-170) are possible (always with 3 digits).
- -- Left-side length (a):
  - standard length, 1- / 2- / 3-slot L = 250 mm / 4-slot L = 400 mm (-000).
  - Length (L) in mm, freely selectable (-xxx) (minimum length
  - = standard length) (always with 3 digits).
- Right-side length (b):
  - standard length, 1- / 2- / 3-slot L = 250 mm / 4-slot L = 400 mm (-000).
  - Length (L) in mm, freely selectable (-xxx) (minimum length
    - = standard length) (always with 3 digits).
- -- Including 4 fishplates (-VL, included in delivery) made of aluminium (same colour as frame), supplied loose.
- -- Additional profile:
  - without additional profile (-Z0)

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-- Mounting with suspension lugs (-AL), supplied loose.

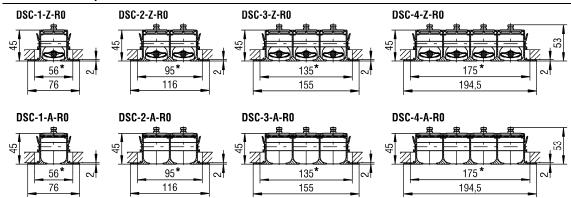


Dimensions |

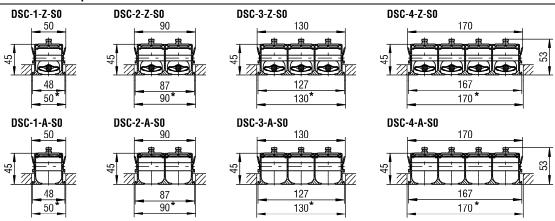
## **DIMENSIONS**

## Dimensions of frame profile

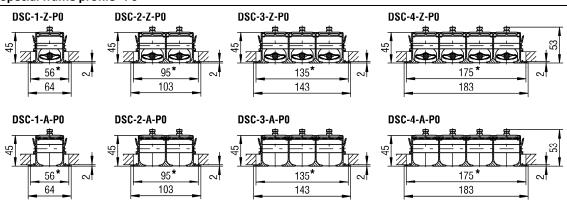
## Standard frame profile "R0"



## Narrow frame profile "S0"



## Special frame profile "P0"



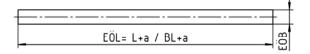
In the return air model, a perforated plate is mounted instead of the air deflection blades.

\* EÖB = installation opening width

For the available lengths of the slot diffuser, see page 8.



#### Installation opening



		n	EÖB	а
		-1	56	
	ъ.	-2	95	10
	-R0	-3	135	10
		-4	175	
Frame profile	- <b>S</b> 0	-1	50	
pro		-2	90	15
me		-3	130	15
Fra		-4	170	
		-1	56	
		-2	95	15
	-P0	-3	135	15
		-4	175	

n = number of slots

DSC

## **TECHNICAL DOCUMENTATION**

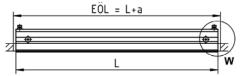
Dimensions |

## Available lengths for the slot diffuser

#### Single design (-N)

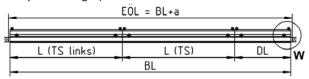
- Length L = 1000 mm (-N-01000)
- Length L = 1500 mm (-N-01500)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)

(In case of single design length L =  $\geq$  400 mm to  $\leq$  1500 mm can be fitted with plenum box, dummy piece possible from length  $\geq$  200 mm.)



#### Band design (-B)

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



## Available lengths according to SCHAKO standard:

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

TS = section Left TS = left section L = length

DL = difference in length
BL = band length

EÖB = installation opening width

EÖL = installation opening length (EÖL = L+a / BL+a)

End pieces, for detail W see page 10.



#### DSC

## **TECHNICAL DOCUMENTATION**

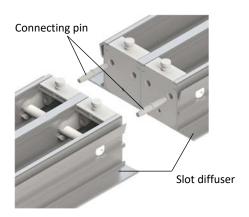
Dimensions |

## Slot diffuser connection in band design

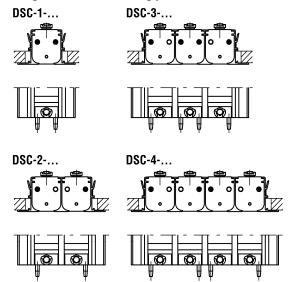
## Slot diffuser - slot diffuser

## With connecting pin

supplied loose (2x for each connection)



## Arrangement of connecting pins



## Attention:

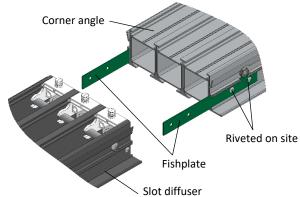
The connecting pins are only suitable for positioning and for force transmission.

## Slot diffuser - corner angle

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## With fishplates:

supplied loose (2x for each connection)





## **DIMENSIONS OF ACCESSORIES**

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

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

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

for DSC-...-R0 / DSC-...-P0:



for DSC-...-S0-...-Z0:



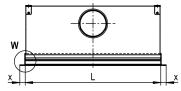
for DSC-...-SO-...-Z1:



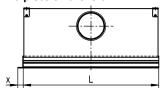
for DSC-...-S0-...-Z2 / DSC-...-S0-...-Z3:



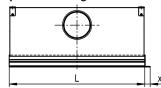
#### End piece on both sides



## End piece on the left



#### End piece on the right



#### **Detail W**

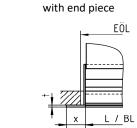
DSC-...-R0 / DSC-...-P0 /

EÖL

L / BL

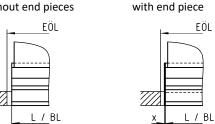
DSC-...-S0-...-Z2 / DSC-...-S0-...-Z3

without end pieces



## DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1

without end pieces



	х	t
DSCR0	20	2
DSCP0	16	2
DSCS0Z2 / DSCS0Z3	20	2
DSCS0Z0 / DSCS0Z1	1	-

## Installation opening in the length section:

EÖL = L+a or BL+a

	а
DSCR0	10
DSCP0	15
DSCSO	15



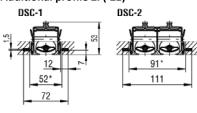
Dimensions of accessories

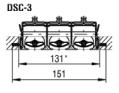
## Additional profiles (-Z0 / -Z1 / -Z2 / -Z3)

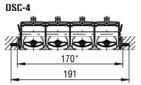
- -- without additional profile (-Z0) (standard)
- -- with additional profile made of aluminium (same colour as frame, only possible for DSC-...-S0):
  - ZI (-Z1): connection of ceiling panels.
  - Z II (-Z2): connection of panelled ceilings.
  - Z III (-Z3): connection of ceiling panels.

To be fitted to the supply and return air models. In the return air model, a perforated plate is mounted instead of the air deflection blades.

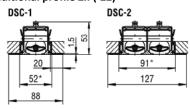
## Additional profile ZI (-Z1)

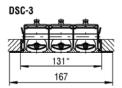


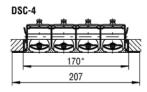




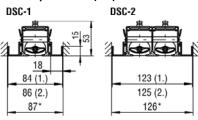
#### Additional profile ZII (-Z2)

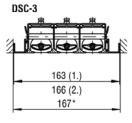


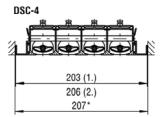




## Additional profile ZIII (-Z3)







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- 1.= anodised model
- 2. = painted model
- \* EÖB = installation opening width

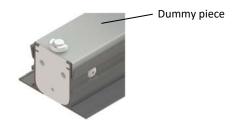
For the available lengths of the slot diffuser, see page 8.

Dimensions of accessories

## Dummy piece (-BS0 / -BS1)

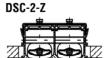
- -- without dummy piece (-BS0) (standard)
- -- with dummy piece (-BS1):
  - made of sheet steel painted to RAL 9005 (black).
  - only possible without plenum box and hit-and-miss damper.
  - possible for all frame shapes (-R0 / -S0 / -P0).
  - with fastening clip for mounting on the slot diffuser.
  - possible from length L ≥ 200 mm.
  - Mounting only possible with suspension lugs (-AL, standard in connection with active diffuser DSC-...-FV-...), counter pole brace (-GT) or clamp strap (-KB).

## with dummy piece (-BS1)

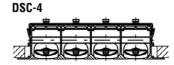


## For supply air:

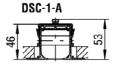


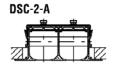


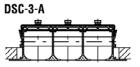




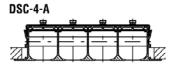
For return air:







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For the available lengths of the slot diffuser, see page 8.



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

- -- without hit-and-miss damper (-SN) (standard)
- -- with hit-and-miss damper (-SS), only possible without plenum box.

### Mounting the hit-and-miss damper:

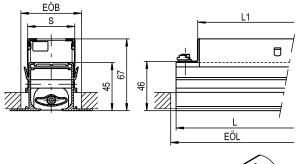
DSC-...-R0 / DSC-...-P0:

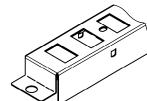
- with screw mounting (-SM, standard).
- Mounting with counter pole brace (-GT)

DSC-...-S0:

- Screw mounting not possible
- Mounting with counter pole brace (-GT)
- only possible for models with additional profile -Z2. Not possible for models without additional profile -Z0 and with additional profiles -Z1 and -Z3.

#### with hit-and-miss damper (-SS)





	S	EÖB		
		Standard	Min. *	
DSC-1	43	56	51	
DSC-2	82	95	91	
DSC-3	122	135	131	
DSC-4	162	175	171	

<sup>\*</sup> recommended ceiling cutout for screw mounting (-SM)

L	L1		
1000	960		
1500	1460		

	а
DSCR0	10
DSCP0	15
DSCSO	15

## Installation opening in the length section:

#### EÖL = L+a or BL+a

For fastening details regarding screw mounting, see page 26. For fastening details regarding the mounting to the counter pole brace, see page 27.

DSC

### **TECHNICAL DOCUMENTATION**

Dimensions of accessories

## Suspension lugs (-AL)

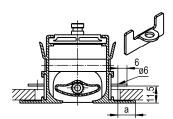
4 pieces, supplied loose.

Only possible without plenum box.

Possible for the models DSC-...-R0 and DSC-...-P0.

Not possible for the model DSC-...-S0.

The slot diffuser is fastened to 4 suspension brackets (for fastening details, see page 25)



	а
DSCR0	11.5
DSCP0	5

## Plenum box (-ASK-24)

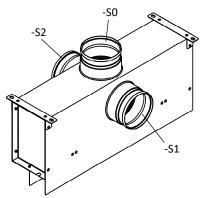
### **Spigot position**

Spigot position in the plenum box for single and band design:

SO = spigot from above

S1 = Lateral spigot (standard)

S2 = lateral spigot located on the opposite side (only possible for 1-slot models)



Dimensions of the plenum box: see pages 14 to 20.



## PLENUM BOX - SINGLE DESIGN (-N)

## Plenum box (-ASK-24-...-N-...-FV-...-S1/S2-...)

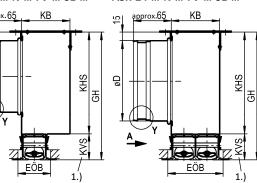
- With permanent connection.
- With lateral spigot / lateral spigot located on the opposite side.
- As standard for the models DSC-...-R0 / DSC-...-S0 and DSC-...-P0.
- The slot diffuser is permanently connected to the plenum box.

#### With lateral spigot (-S1, standard)

DSC-1-...ASK-24-...-N-...-FV-...-S1-...

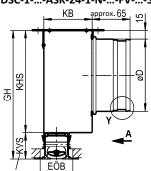
a

DSC-2/3/4-...-ASK-24-...-N-...-FV-...-S1-...



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

(only possible for DSC-1-...)
DSC-1-...-ASK-24-1-N-...-FV-...-S2-...



1.) Box neck

Available sizes for plenum box (ASK-24-...-N-...-FV-...-S1/S2-...)

		KB	GH	KHS	KVS	EÖB	
						R0 P0	S0
DSC-	1	83	220	175	45	56	50
DSC-	2	83	220	175	45	95	90
DSC-	.3	122	220	175	45	135	130
DSC-	4	162	280	235	45	175	170

**Number of connection spigots** 

realiser of connection spigots				
	øD			
	L ≤ 1000	L > 1000 to L ≤ 1500		
DSC-1	1x ø98	1 x ø123		
DSC-2	1 x ø138	1 x ø138		
DSC-3	1 x ø138	2 x ø138		
DSC-4	1 x ø158	2 x ø138		

L	KL	ΕĊ	ÖL	Weigh	t incl. pl	enum b	ox (kg)
		R0	P0				
			S0	DSC-1	DSC-2	DSC-3	DSC-4
1000	997	1010	1015	5.5	6.0	7.0	9.0
1500	1497	1510	1515	8.0	8.5	10.0	12.5

#### DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories |

## Available lengths plenum box (-ASK-24-...-N)

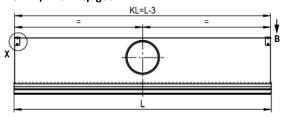
- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm)
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)

(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm}$  to  $\le 1500 \text{ mm}$ .)

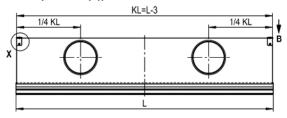
#### **Spigot position:**

lateral spigot  $\overline{\text{(-S1)}}$  / lateral spigot located on the opposite side (-S2)

### View A / with 1 spigot



#### View A / with 2 spigots



#### Plenum box height reduction (at an extra charge)

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

## Box neck extension

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

## Spigot diameter:

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

Intermediate lengths and other spigot diameters on request.

For installation opening length, see page 8.
For plenum box in band design, see page 19.
For suspension position, view B, see page 21.
For plenum box suspension, detail X, see page 22.
For rubber lip seal, detail Y, see page 23.
For fastening methods, see page 24.
EÖB = installation opening width

EÖL = installation opening length



## Plenum box (-ASK-24-...-N-...-FV-...-S0-...)

- With permanent connection.
- With spigot from above.
- As standard for the models DSC-...-R0 / DSC-...-S0 and DSC-...-P0.
- The slot diffuser is permanently connected to the plenum box.

## With spigot from above (-S0)

DSC-1/2-...ASK-24-...-N-...-FV-...-S0-...

KB

ØD

Y

Y

EÖB

DSC-3/4-...
ASK-24-...-N-...-FV-...-S0-...

KB

ØD

Y

EÖB

1.) Box neck

## Available sizes for plenum box

(ASK-24-...-N-...-FV-...-S0-...)

	KB	GH	KHS	KVS	EÖB	
					R0 P0	S0
DSC-1	128	220	175	45	56	50
DSC-2	128	220	175	45	95	90
DSC-3	128	220	175	45	135	130
DSC-4	168	280	235	45	175	170

**Number of connection spigots** 

	ØD				
	L ≤ 1000	L > 1000 to L ≤ 1500			
DSC-1	1x ø98	2 x ø98			
DSC-2	2 x ø98	2 x ø98			
DSC-3	2 x ø98	4 x ø98			
DSC-4	2 x ø123	2 x ø138			

L	KL	ΕĊ	ÖL	Weigh	t incl. pl	enum b	ox (kg)
		R0	P0				
			S0	DSC-1	DSC-2	DSC-3	DSC-4
1000	997	1010	1015	5.5	6.0	7.0	9.0
1500	1497	1510	1515	8.0	8.5	10.0	12.5

DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories |

## Available lengths plenum box (-ASK-24-...-N)

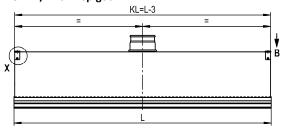
- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm)
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)

(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm}$  to  $\le 1500 \text{ mm}$ .)

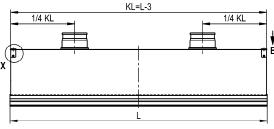
#### **Spigot position:**

Spigot from above (-S0)

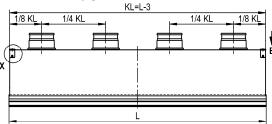
## View A / with 1 spigot



#### View A / with 2 spigots



## View A / with 4 spigots



#### Plenum box height reduction (at an extra charge)

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

## Box neck extension

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

#### Spigot diameter:

- Standard spigot diameter (-SDS)

EÖL = installation opening length

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

Intermediate lengths and other spigot diameters on request.

For installation opening length, see page 8. For plenum box in band design, see page 20. For suspension position, view B, see page 21. For plenum box suspension, detail X, see page 22. For rubber lip seal, detail Y, see page 23. For fastening methods, see page 24. EÖB = installation opening width



## Plenum box (-ASK-24-...-N-...-VM-...-S1/S2-...)

- With concealed mounting.
- With lateral spigot / lateral spigot located on the opposite side.
- Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
- Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.
- The slot diffuser is screwed to the pole brace in the plenum box housing with concealed screws.
- Frame with foam gasket.

#### With lateral spigot (-S1, standard)

DSC-2/3/4-...ASK-24-...-N-...-VM-...-S1-...

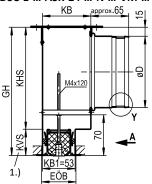
DSC-2/3/4-...ASK-24-...-N-...-VM-...-S1-...

ASK-24-...-N-...-VM-...-S1-...

M4x120

# With lateral spigot located on the opposite side (-S2) (only possible for DSC-1-...)

DSC-1-...-ASK-24-...-N-...-VM-...-S2-...



1.) Box neck

## Available sizes for plenum box

(A3K-2414VIVI31/32)									
	KB	GH	KHS	KVS	EÖB		b		
					R0 P0	S0 Z2			
DSC-1	83	220	175	45	56	52	-		
DSC-2	93	220	175	45	96	91	40		
DSC-3	133	220	175	45	136	131	79		
DSC-4	173	280	235	45	176	170	119		

#### **Number of connection spigots**

runiber of connection spigots								
	øD							
	L ≤ 1000	L > 1000 to L ≤ 1500						
DSC-1	1 x ø98	1 x ø123						
DSC-2	1 x ø138	1 x ø138						
DSC-3	1 x ø138	2 x ø138						
DSC-4	1 x ø158	2 x ø138						

L	KL	ΕĊ	ÖL	Weigh	t incl. pl	enum b	ox (kg)
		R0  P0					
			S0	DSC-1	DSC-2	DSC-3	DSC-4
1000	997	1010	1015	5.5	6.0	7.0	9.0
1500	1497	1510	1515	8.0	8.5	10.0	12.5

#### DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories |

### Available lengths plenum box (-ASK-24-...-N)

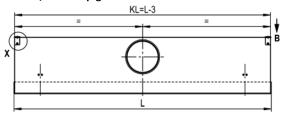
- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm)
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)

(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm}$  to  $\le 1500 \text{ mm}$ .)

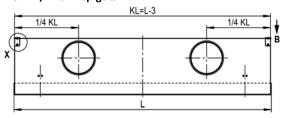
## Spigot position:

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

#### View A / with 1 spigot



## View A / with 2 spigots



### Plenum box height reduction (at an extra charge)

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

#### Box neck extension

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

## Spigot diameter:

- Standard spigot diameter (-SDS)

EÖL = installation opening length

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

Intermediate lengths and other spigot diameters on request.

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

For installation opening length, see page 8.
For plenum box in band design, see page 20.
For suspension position, view B, see page 21.
For plenum box suspension, detail X, see page 22.
For rubber lip seal, detail Y, see page 23.
For fastening methods, see page 24.
EÖB = installation opening width



## Plenum box (-ASK-24-...-N-...-VM-...-S0-...)

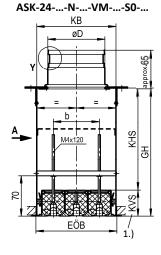
- With concealed mounting.
- With spigot from above.
- Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
- Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.
- The slot diffuser is screwed to the pole brace in the plenum box housing with concealed screws.
- Frame with foam gasket.

## With spigot from above (-S0)

DSC-1/2-...-

DSC-3/4-...-

ASK-24-...-N-...-VM-...-S0-...



#### 1.) Box neck

## Available sizes for plenum box

(ASK-24-...-N-...VM-...-S0-...)

(A3K-24IVVIVI30)									
	KB	KB1	GH	KHS	KVS		EÖB		
							S0Z2		
						R0			
						P0			
DSC-1	128	53	220	175	45	56	52	-	
DSC-2	128	93	220	175	45	96	91	40	
DSC-3	133	-	220	175	45	136	131	79	
DSC-4	173	-	280	235	45	176	170	119	

#### **Number of connection spigots**

	øD					
	L ≤ 1000	L > 1000 to L ≤ 1500				
DSC-1	1 x ø98	2 x ø98				
DSC-2	2 x ø98	2 x ø98				
DSC-3	2 x ø98	4 x ø98				
DSC-4	2 x ø123	2 x ø138				

L	KL			Weigh			
		R0	P0	DSC-1	DSC-2	DSC-3	DSC-4
1000	997	1010	1015	5.5	6.0	7.0	9.0
1500	1497	1510	1515	8.0	8.5	10.0	12.5

#### DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories |

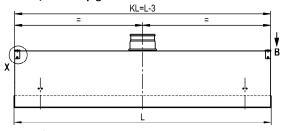
## Available lengths plenum box (-ASK-24-...-N)

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

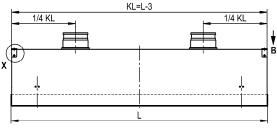
#### **Spigot position:**

Spigot from above (-S0)

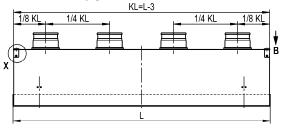
#### View A / with 1 spigot



#### View A / with 2 spigots



## View A / with 4 spigots



#### Plenum box height reduction (at an extra charge)

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

## Box neck extension

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

#### Spigot diameter:

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

Intermediate lengths and other spigot diameters on request.

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

For installation opening length, see page 8. For plenum box in band design, see page 20.

For suspension position, view B, see page 21.

For plenum box suspension, detail X, see page 22.

For rubber lip seal, detail Y, see page 23.

For fastening methods, see page 24.

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EÖB = installation opening width

EÖL = installation opening length

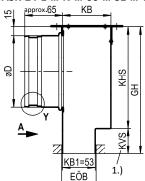


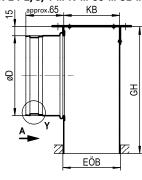
## Plenum box (ASK-24-...-N...-00-...-S1/S2-...)

- Without fastening, only possible without diffuser.
- With lateral spigot.

## With lateral spigot (-S1, standard)

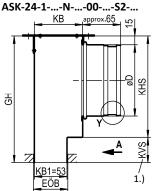
ASK-24-1-...-N-...-00-...-S1-... ASK-24-2/3/4-...-N-...-00-...-S1-...





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

(only possible for ASK-24-1-...)



1.) Box neck

## Available sizes for plenum box

(ASK-24-...-N-...-00-...-S1/S2-...)

	КВ	KB1	GH	KHS	KVS	EÖB
						R0 P0
DSC-1	83	53	218	175	43	56
DSC-2	93	-	218	175	43	96
DSC-3	133	-	218	175	43	136
DSC-4	173	-	278	235	43	176

**Number of connection spigots** 

	øD					
	L ≤ 1000 (KL ≤ 997)	L > 1000 to L ≤ 1500 (KL > 997 to KL ≤ 1497)				
DSC-1	1x ø98	1 x ø123				
DSC-2	1 x ø138	1 x ø138				
DSC-3	1 x ø138	2 x ø138				
DSC-4	1 x ø158	2 x ø138				

L	KL	EÖL	
			P0
		R0	S0
1000	997	1010	1015
1500	1497	1510	1515

#### DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories |

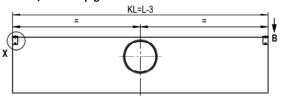
### Available lengths plenum box (-ASK-24-...-N)

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

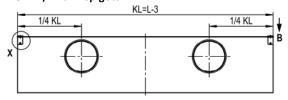
## **Spigot position:**

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

#### View A / with 1 spigot



## View A / with 2 spigots



#### Plenum box height reduction (at an extra charge)

for spigot position -S1/-S2 and standard box neck:
 Minimum height [GH] = spigot diameter ØD + 80 mm

## Box neck extension

- Standard box neck (KVS = 43 mm) (-KVS)
- Box neck extension in mm, freely selectable (-xxx, always with 3 digits) box neck (not adjustable) from ≥ 43 mm to 200 mm possible.

## Spigot diameter:

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

Intermediate lengths and other spigot diameters on request.

For suspension position, view B, see page 21.

For plenum box suspension, detail X, see page 22.

For rubber lip seal, detail Y, see page 23.

For fastening methods, see page 24.

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EÖB = installation opening width

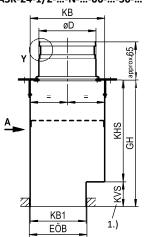
EÖL = installation opening length

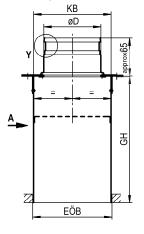


## Plenum box (-ASK-24-...-N-...-00-...-S0-...)

- Without fastening, only possible without diffuser.
- With spigot from above.

## With spigot from above (-S0)





#### 1.) Box neck

Available sizes for plenum box

(A3K-24IN0030)								
	KB	KB1	GH	KHS	KVS	EÖB		
						R0		
						P0		
DSC-1	128	53	218	175	43	56		
DSC-2	128	93	218	175	43	96		
DSC-3	133	-	218	175	43	136		
DSC-4	173	-	278	235	43	176		

**Number of connection spigots** 

	øD						
	L ≤ 1000 (KL ≤ 997)	L > 1000 to L ≤ 1500 (KL > 997 to KL ≤ 1497)					
DSC-1	1x ø98	2 x ø98					
DSC-2	2 x ø98	2 x ø98					
DSC-3	2 x ø98	4 x ø98					
DSC-4	2 x ø123	2 x ø138					

L	KL	EÖL		
		R0	P0	
1000	997	1010	1015	
1500	1497	1510	1515	

#### DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories

## Available lengths plenum box (-ASK-24-...-N)

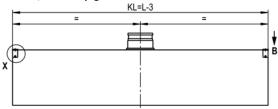
- Length L = 1000 mm (-N-01000) (length of box KL = 997 mm)
- Length L = 1500 mm (-N-01500) (length of box KL = 1497 mm)
- Length (L) in mm, freely selectable (-N-xxxxx) (always with 5 digits)

(Length of box KL = L-3, can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm}$  to  $\le 1500 \text{ mm}$ .)

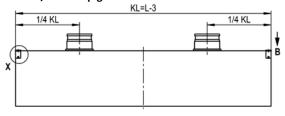
## **Spigot position:**

Spigot from above (-S0)

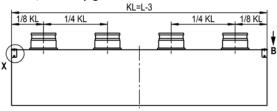
## View A / with 1 spigot



#### View A / with 2 spigots



### View A / with 4 spigots



#### Plenum box height reduction (at an extra charge)

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

### Box neck extension

- Standard box neck (KVS = 43 mm) (-KVS)
- Box neck extension in mm, freely selectable (-xxx, always with 3 digits), box neck (not adjustable) from ≥43 mm to 200 mm possible.

## Spigot diameter:

- Standard spigot diameter (-SDS)

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- Spigot diameter (ØD) in mm, freely selectable (-xxx, always with 3 digits).

Intermediate lengths and other spigot diameters on request.

For suspension position, view B, see page 21.
For plenum box suspension, detail X, see page 22.
For rubber lip seal, detail Y, see page 23.
For fastening methods, see page 24.
EÖB = installation opening width
EÖL = installation opening length



Dimensions of accessories |

## PLENUM BOX - BAND DESIGN (-B)

### Plenum box (-ASK-24-...-B-...-FV/VM-...)

With permanent connection (-FV, standard) / with concealed mounting (-VM).

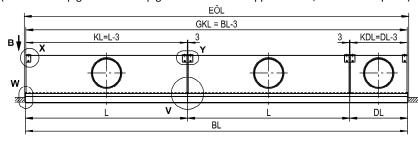
For concealed mounting, the slot diffuser is screwed to the plenum box housing (face part) with concealed screws.

## Available lengths of plenum box (-ASK-24-...-B)

Length (BL) in mm, freely selectable (-B-xxxxx) (always with 5 digits). (total length of box GKL = BL-3)

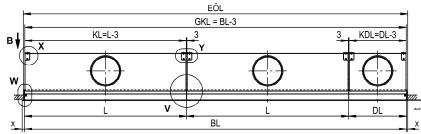
#### DSC-...-ASK-24-...-B-...-FV/VM-...-S1/-S2-...-E0

(with lateral spigot or lateral spigot located on the opposite side, without end piece)



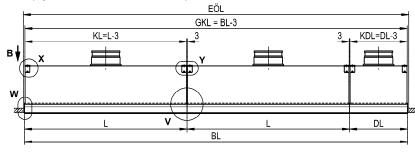
#### DSC-...-ASK-24-...-B-...-FV/VM-...-S1/-S2-...-ES/-EB/-EL/-ER

(with lateral spigot or lateral spigot located on the opposite side, with end piece)



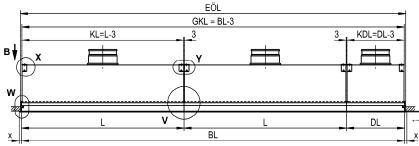
## DSC-...-ASK-24-...-B-...-FV/VM-...-S0-...-E0

(with spigot from above, without end piece)



#### DSC-...-ASK-24-...-B-...-FV/VM-...-S0-...-ES/-EB/-EL/-ER

(with spigot from above, with end piece)



# Available lengths according to SCHAKO standard

#### BL >1500 to <2000:

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

#### BL ≥2000:

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

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

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

The difference pieces from <400 mm to≥200 mm are supplied as dummy pieces without plenum box. A different band division is possible after consultation and when required by the customer.

	х	t	а
DSCR0	20	2	10
DSCP0	16	2	
DSCS0Z0	1	-	
DSCS0Z1	1	-	15
DSCS0Z2	20	2	
DSCS0Z3	1	-	

# Installation opening in the length section: EÖL = BL + a

= length

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DL = difference in length

BL = band length

KL = length of plenum box (KL = L-3)

KDL = difference in length, plenum box

(KDL = DL-3)

GKL = total length of box (GKL = BL-3)

EÖL = installation opening length

Butt joint of concealed mounting, for detail V see page 21.

For plenum box mounting, detail X / detail Y, see page 22.

End pieces, for detail W see page 10.

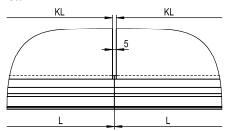
For the position of the suspension holes in view B, see page 21.

For available sizes of plenum box, see pages 14 to 19.



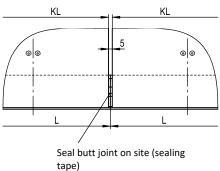
## **Butt joint of permanent connection (-FV)**

#### **Detail V**



## Butt joint of concealed mounting (-VM)

## **Detail V**



#### DSC

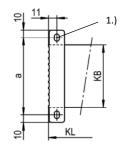
## **TECHNICAL DOCUMENTATION**

Dimensions of accessories I

## Position of the suspension holes

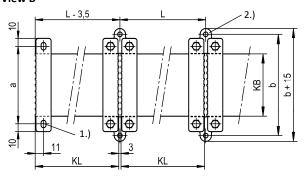
## **SINGLE DESIGN**

#### View B



## **BAND DESIGN**

## View B



## **Connection plate**

- 1.) Long hole Ø6.5x10
- 2.) Connection plate



## **Available sizes**

Lateral connection (-S1/-S2)

Euteral commection ( 31, 32)								
	Mounting of box							
		-FV		-V	M / -0	00		
	KB a b			KB	а	b		
DSC-1	83	103	135	83	103	135		
DSC-2	83	103	135	93	113	145		
DSC-3	122	142	174	133	153	185		
DSC-4	162	182	214	173	193	225		

## **Available sizes**

Connection from above (-S0)

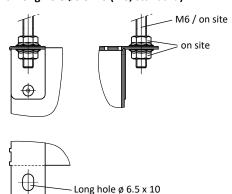
	Mounting of box							
		-FV		-VM / -00				
	КВ	а	b	КВ	а	b		
DSC-1	128	148	180	128	148	180		
DSC-2	128	148	180	128	148	180		
DSC-3	128	148	180	133	153	185		
DSC-4	168	188	220	173	193	225		



## Plenum box suspension

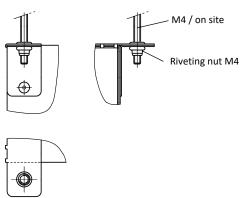
## **SINGLE DESIGN / BAND DESIGN**

# Detail X with long hole Ø6.5x10 (-E0, standard):



## with riveting nut M4 (-EM, at an extra charge):

At an extra charge, the plenum boxes can be fitted with M4 riveting nuts to facilitate ceiling mounting.



#### DSC

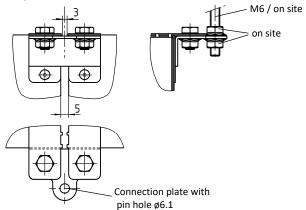
## **TECHNICAL DOCUMENTATION**

Dimensions of accessories I

## **BAND DESIGN**

## Detail Y

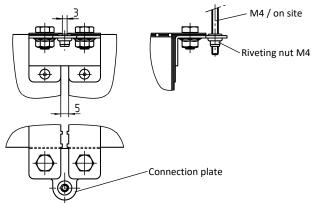
with pin hole Ø6.1 (-E0, standard):



## with riveting nut M4 (-EM, at an extra charge):

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At an extra charge, the connection plates can be provided with M4 riveting nuts to facilitate ceiling mounting.





## Rubber lip seal (-GD0/-GD1), for ASK-24

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

## with rubber lip seal (-GD1)

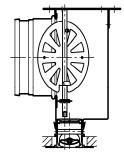
#### **Detail Y**

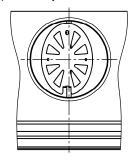


## Damper (-DK0/-DK1/-DK2), for ASK-24

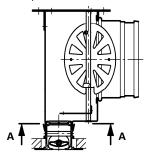
- -- without damper (-DK0) (standard)
- -- with damper in the plenum box housing (-DK1) (with spigot position S1 and S2)
- -- with damper in the connection spigot, with cable-operated adjustment (-DK) (only with spigot position S0)

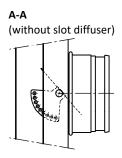
#### -DK1, lateral connection (-S1, standard)



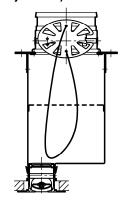


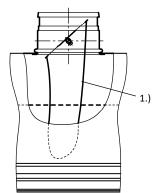
-DK1, lateral connection located on the opposite side (-S2) Only for 1-slot models.





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





1.) With cable-operated adjustment (SZV)

#### DSC

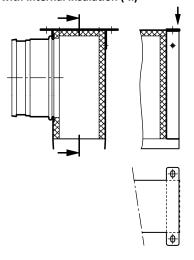
#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories I

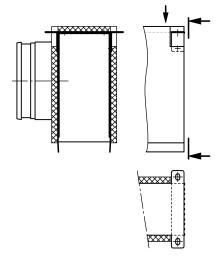
## Insulation (-IO / -Ii / -Ia), for ASK-24

- -- without insulation (-10) (standard)
- -- with internal insulation (-Ii)
- -- with external insulation (-la)

#### with internal insulation (-Ii)



#### with external insulation (-la)





## Corner angle 90° (-EW-24-...-090-...)

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

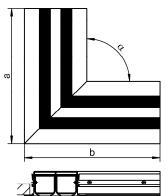
The corner angles are installed in the ceiling by means of suspension lugs (-AL, supplied loose).

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

The corner angle is supplied loose as standard.

The standard side length on the left (a) or right (b) is 250 mm for DSC-1-... to DSC-3-... and 400 mm for DSC-4-... Other side lengths (a/b) are available upon request (minimum length = standard length).

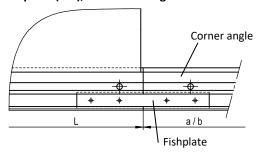
Angle values between  $\alpha$  = 90° (-090, standard) and 170° (-170) are possible.



	a / b
DSC-1	250
DSC-2	250
DSC-3	250
DSC-4	400

a = left side length b = right side length

## Fishplate (-VL), for band design



## Detail fishplate corner angle

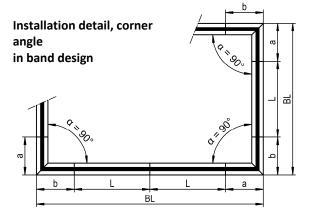
Frame profile:

DSC-...-R0 / DSC-...-P0:

DSC-...-SO-...-ZO:







DSC

#### **TECHNICAL DOCUMENTATION**

Dimensions of accessories I Fastening methods

#### **FASTENING METHODS**

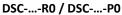
## With plenum box

### Permanent connection (-FV)

As standard for the models DSC-...-R0, DSC-...-S0 and DSC-...-

The slot diffuser is permanently connected to the plenum box.

(See pages 14 + 15)







## Concealed mounting (-VM)

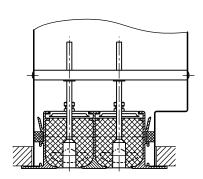
Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).

Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.

The slot diffuser is screwed to the pole brace in the plenum box housing with concealed screws.

Frame with foam gasket.

Plenum box supplied loose from the factory. (See pages 16 + 17)





## Without plenum box

## Mounting with counter pole brace (-GT)

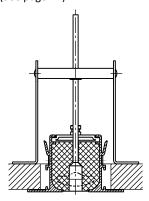
Screws and counter pole brace are supplied loose (2 pieces). Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).

Not possible for the models DSC-...-SO-...-ZO / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.

The slot diffuser is screwed to the counter pole brace (pole brace strap) with concealed screws (included in delivery).

## For mounting, access on the rear is required!

(See page 27)



## Mounting with clamp strap (-KB)

Screws and clamp straps are supplied loose (2 pieces).

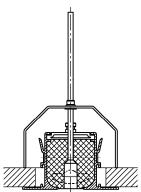
Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).

Not possible for the models DSC-...-S0-...-Z0 DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.

The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).

## For mounting, access on the rear is not required!

(See page 28)



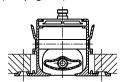
#### DSC

#### **TECHNICAL DOCUMENTATION**

I Fastening methods

#### Screw mounting (-SM)

Screws must be provided on site. Possible for the models DSC-...-R0 and DSC-...-P0. Not possible for the model DSC-...-S0. The slot diffuser is fixed with visible screws. (see page 26)



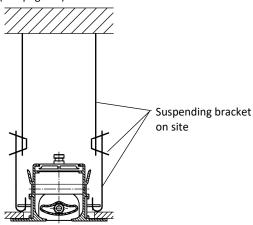
#### Mounting with suspension lugs (-AL)

4 pieces, supplied loose.

Possible for the models DSC-...-R0 and DSC-...-P0.

Not possible for the model DSC-...-SO.

The slot diffuser is fastened to 4 suspension brackets (See page 13)



## Fishplate (-VL)

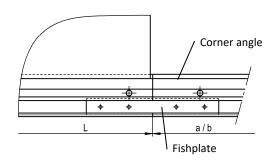
4 pieces, supplied loose.

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Only for connection of the corner angle to the slot diffuser in band design.

The corner angle is fixed with the help of the fishplates (2 on each side).

(See page 24)





## DSC

## **TECHNICAL DOCUMENTATION**

Assemblyoverview I

## **ASSEMBLYOVERVIEW**

## **MOUNTING WITH COUNTER POLE BRACE (-GT)**

Only possible without plenum box.

Screws and counter pole brace are supplied loose (2 pieces). Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).

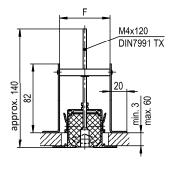
Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.

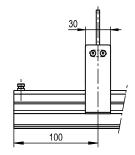
The slot diffuser is screwed to the counter pole brace (pole brace strap) with concealed screws (included in delivery).

For mounting, access on the rear is required!

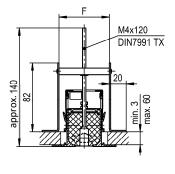
	F	С
DSC-1	60	-
DSC-2	100	40
DSC-3	140	79
DSC-4	180	119

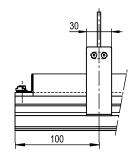
# without hit-and-miss damper DSC-1-...-SN



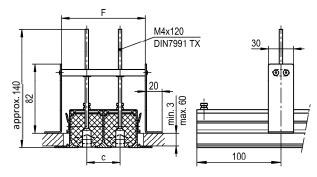


# with hit-and-miss damper DSC-1-...-SS

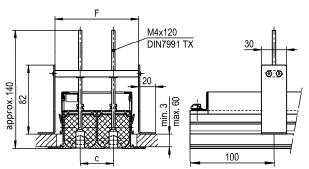




DSC-2 bis 4-...-SN



DSC-2 bis 4-...-SS



EÖB = installation opening width, see page 7.

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



## **MOUNTING WITH CLAMP STRAP (-KB)**

Only possible without plenum box.

Screws and clamp straps are supplied loose (2 pieces).

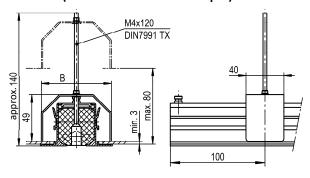
Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).

Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.

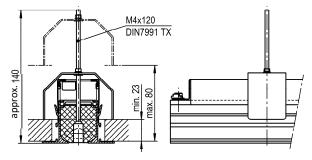
The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).

For mounting, access on the rear is not required!

#### DSC-...-SN (without hit-and-miss damper)



#### DSC-...-SS (with hit-and-miss damper)



	В
DSC-1	74
DSC-2	114
DSC-3	154
DSC-4	194

## Mounting instructions for clamp strap

Introduce the screw through the plastic support for concealed mounting of the slot diffuser and screw it on the clamp strap. Position the clamp straps in longitudinal direction and introduce them, together with the slot diffuser, into the ceiling. Then pivot the clamp strap by about 90° by rotating the screw and lower it over the slot diffuser profile. Tighten the screw until the slot diffuser is firmly locked at the ceiling.

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

#### DSC

#### **TECHNICAL DOCUMENTATION**

Assemblyoverview I Installation

## **SCREW MOUNTING (-SM)**

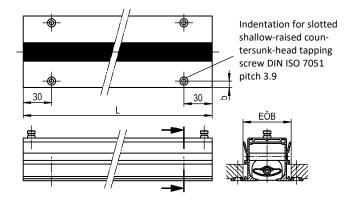
Only possible without plenum box.

During screw mounting, the slot diffuser is fixed with visible screws (provided on site).

Possible for the models DSC-...-R0 and DSC-...-P0.

Not possible for the model DSC-...-SO.

Arrangement, number and size of the bores is the same for the models with 2, 3, and 4 slots.



	EOB				
	Standard	Min. *			
DSC-1	56	51			
DSC-2	95	91			
DSC-3	135	131			
DSC-4	175	171			

DSCR0	-
	/
DSCP0	5

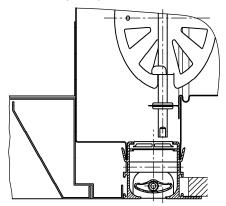
<sup>\*</sup> recommended ceiling cutout for screw mounting (-SM)

### **INSTALLATION**

## Fitting to air-handling lights

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To obtain a perfectly flush fit, when attaching slot diffusers to air-handling lights, the external profile can be attached on one side and the special profile "S" on the other side.



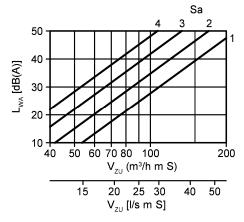


Technical data I

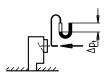
## **TECHNICAL DATA**

#### Pressure loss and noise level

## Sound level, with damper (supply air), L=1000

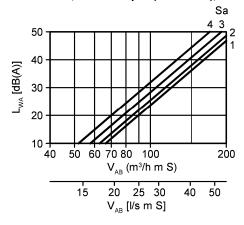


## Damper position "OPEN"

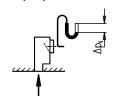


Correction for damper "CLOSED" + 4 dB(A)

## Sound level, with damper (return air), L=1000



## Damper position "OPEN"

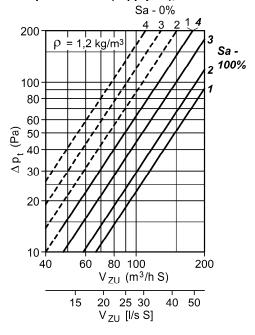


Correction for damper "CLOSED" + 16 dB(A)

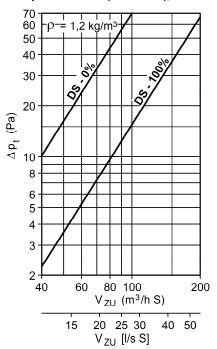
Length correction (supply and return air)

zengen con coulon (supply and return an)							
<b>L</b> (m)	1	1.5	2	2.5	3	4	5
<b>KF</b> [dB(A)]	0	1.8	3	4	4.7	6	7

## Total pressure loss (supply air), L = 1000



## Total pressure loss (return air), L = 1000

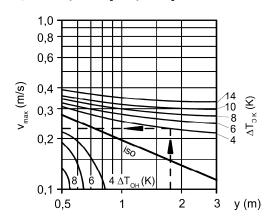


Damper position (DS): OPEN= 100% CLOSED = 0%

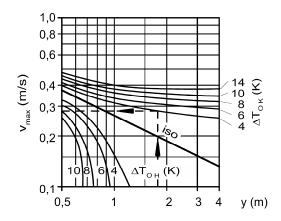


# Maximum end velocity of jet

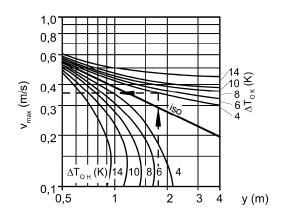
## Blade position -V $V_{ZU} = 30 \text{ m}^3/\text{h m S } [8.3 \text{ l/s m S}]$



 $V_{ZU} = 40 \text{ m}^3/\text{h m S } [11.1 \text{ l/s m S}]$ 



 $V_{ZU} = 60 \text{ m}^3/\text{h m S } [16.7 \text{ l/s m S}]$ 

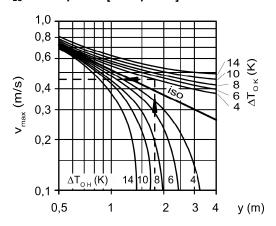


#### DSC

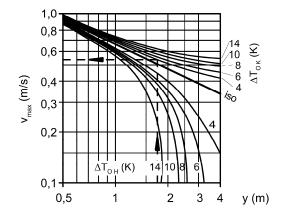
## **TECHNICAL DOCUMENTATION**

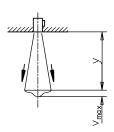
Technical data I

 $V_{ZU} = 80 \text{ m}^3/\text{h m S } [22.2 \text{ l/s m S}]$ 



 $V_{ZU} = 100 \text{ m}^3/\text{h m S } [27.8 \text{ l/s m S}]$ 

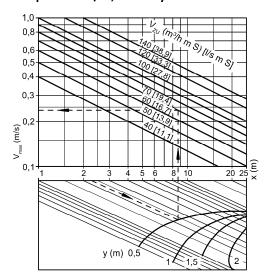


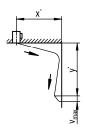


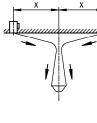
DSC-1: v<sub>max</sub> x 1 DSC-2: v<sub>max</sub> x 1.3 DSC-3: v<sub>max</sub> x 1.6 DSC-4: v<sub>max</sub> x 1.9

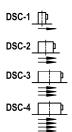


# Slot diffuser DSC-...-Z (supply air) Blade position -L/-R, one-way throw









 $x = x^+ y^-$ 

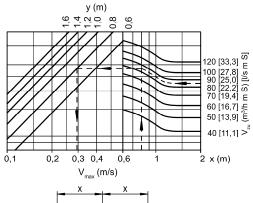
DSC-1: v<sub>max</sub> x 1.0

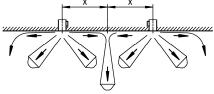
DSC-2: v<sub>max</sub> x 1.4

DSC-3: v<sub>max</sub> x 1.7

DSC-4: v<sub>max</sub> x 2.0

## Blade position -D, multi-directional throw





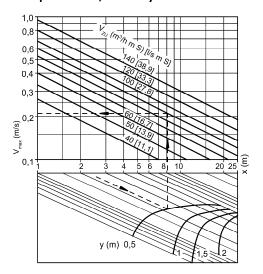
DSC-1: v<sub>max</sub> x 1.0 DSC-2: v<sub>max</sub> x 1.4 DSC-3: v<sub>max</sub> x 1.45 DSC-4: v<sub>max</sub> x 2.0

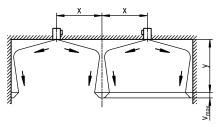
## DSC

## **TECHNICAL DOCUMENTATION**

Technical data I

## Blade position -B, two-way throw





DSC-1:  $v_{max} x 1.0$ 

DSC-2:  $v_{max} x 1.4$ 

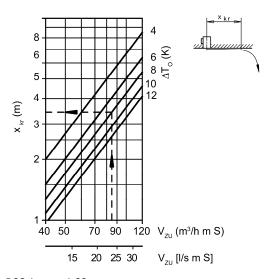
DSC-3: v<sub>max</sub> x 1.86

DSC-4:  $v_{max} x 2.0$ 



## **Critical throw**

## Slot diffuser DSC-...-Z (supply air) Blade position -L / -R / -B / -D



 $\begin{array}{ll} \text{DSC-1:} \ x_{kr} \ x \ 1.00 \\ \text{DSC-2:} \ x_{kr} \ x \ 1.26 \\ \text{DSC-3:} \ x_{kr} \ x \ 1.44 \\ \text{DSC-4:} \ x_{kr} \ x \ 1.64 \end{array}$ 

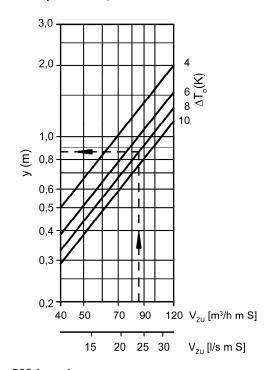
DSC

## **TECHNICAL DOCUMENTATION**

Technical data I

## **Maximum penetration**

# Slot diffuser DSC-...-Z (supply air) Blade position -D, multi-directional throw

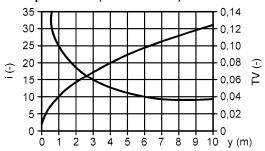


DSC-1: y x 1 DSC-2: y x 1.1 DSC-3: y x 1.2 DSC-4: y x 1.3

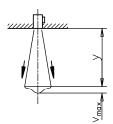


## **Temperature ratios**

# Slot diffuser DSC-...-Z (supply air) Blade position -V (vertical throw)

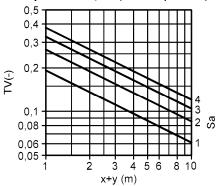


(temperature and induction ratio)

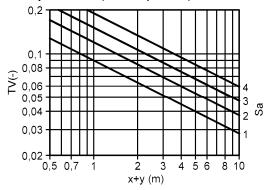


DSC-1: TV x 1.0 DSC-2: TV x 1.3 DSC-3: TV x 1.6 DSC-4: TV x 1.9

# Slot diffuser DSC-...-Z (supply air) Blade position -L / -R (one-way throw)



# Slot diffuser DSC-...-Z (supply air) Blade position -B (two-way throw)

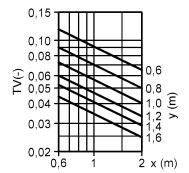


DSC

## **TECHNICAL DOCUMENTATION**

Technical data I

# Slot diffuser DSC-...-Z (supply air) Blade position -D (multi-directional throw)



DSC-1: TV × 1 DSC-2: TV × 1.4 DSC-3: TV × 1.7 DSC-4: TV × 2.0





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Legend I

## **LEGEND**

LLG	LIND		
$\mathbf{v}_{max}$		=	Maximum end velocity of jet
$v_{mittel}$	(m/s)	=	Average end velocity of jet
			$(v_{mittel} = v_{max} \times 0.5)$
$\Delta T_{OK}$	(K)	=	Temperature difference between
			supply air and room temperature in
			cooling mode
$\DeltaT_OH$	(K)	=	Temperature difference between air
			supply and room temperature in he-
			ating mode
У	(m)	=	vertical throw
i	(-)	=	Induction ratio (i = $V_X / V_{ZU}$ )
$V_X$	(m³/h) [l/s]	=	total air jet volume at point x
$V_{ZU}$	(m³/h) [l/s]	=	Supply air volume
$V_{ZU}$	(m³/h m S)	=	Total volumetric flow per metre per
			slot
$V_{ZU}$	[l/s m S]	=	Total volumetric flow per metre per
			slot
$V_{AB}$	(m <sup>3</sup> /h m S)	=	Total volumetric flow per metre per
			slot
$V_{AB}$	[l/s m S]	=	Total volumetric flow per metre per
			slot
TV	(-)	=	Temperature ratio(TV = $\Delta T_X / \Delta T_O$ )
$\Delta T_X$	(K)	=	Temperature difference at point x
$\Delta T_{O}$	(K)	=	Temperature difference between
			supply air and room temperature
			$(\Delta T_O = t_{ZU} - t_R)$
so	(-)	=	isothermal
Sa	(-)	=	Number of slots
( <sub>kr</sub>	(m)	=	critical throw
X	(m)	=	horizontal throw
(+у	(m)	=	horizontal + vertical throw
$L_{WA}$	[dB(A)]	=	A-weighted sound power level
$P_{dyn}$	(Pa)	=	Dynamic pressure
stat	(Pa)	=	Static pressure
Δpt	(Pa)	=	Total pressure loss
)	(kg/m³)	=	Density
AL	(-)	=	diffuser length
KF	(-)	=	Correction factor
L	(mm)	=	length
ВL	(mm)	=	Band length
DL	(mm)	=	Difference in length
KHS	(mm)	=	Height of plenum box
GH	(mm)	=	Total height
KB	(mm)	=	Width of box
KL	(mm)	=	Length of box
D	(mm)	=	Diameter
t <sub>zu</sub>	(°C)	=	Supply air temperature
t <sub>R</sub>	(°C)	=	room temperature
ΕÖΒ	(mm)	=	Installation opening width
EÖL	(mm)	=	Installation opening length
DS	(%)	=	Damper position
			•



Slot diffuser order code I

#### **SLOT DIFFUSER ORDER CODE**

01	02	03	04	05	06	07
Туре	Model	Air throw	Frame profile	Frame surface	Blade colour	Blade position for air jet
Example						
DSC	-2	-Z	-R0	-9010	-L9005	-V

08	09	10	11	12	13	14
Single / band design	Length	Mounting	End piece	Additional pro- file	Dummy piece	Hit-and-miss dam- per
Example						
-N	-01000	-FV	-ES	-Z0	-BSO	-SN

#### Sample

#### DSC-2-Z-R0-9010-L9005-V-N-01000-FV-ES-Z0-BS0-SN

DSC slot diffuser | 2-slot | supply air | STANDARD frame profile | aluminium painted to RAL colour 9010 (white) | blades made of plastic material (hard PVC), colour similar to RAL 9005 (black) | blades with vertical throw | single design | length L = 1000 mm | permanent connection to plenum box | with end piece | without additional profile | without dummy piece | without hit-and-miss damper

## **ORDER DETAILS**

01	-	Ty	pe
OΤ	-	ıy	рe

DSC = DSC slot diffuser

#### 02 - Model

1 = 1-slot

2 = 2-slot

3 = 3-slot

4 = 4-slot

#### 03 - Air throw

Z = supply air (with blades)

A = return air (without blades, with perforated plate)

#### 04 - Frame profile

R0 = Frame profile STANDARD

SO = Narrow frame profile

PO = Special frame profile

## 05 - Frame surface

ELOX = Natural colour anodised aluminium (standard).

9006 = Aluminium painted to RAL colour 9006 (white aluminium).

9010 = Aluminium painted to RAL colour 9010 (white).

xxxx = aluminium painted to a freely selectable RAL colour (at an extra charge, always with 4 digits).

#### 06 - Blade colour

00000 = without blades (for return air only).

L9005 = blades made of plastic material (hard PVC), colour similar to RAL 9005 (black) (standard).

L9006 = blades made of plastic material (hard PVC), colour similar to RAL 9006 (white aluminium).

L9010 = blades made of plastic material (hard PVC), colour 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.

D = blades with horizontal diverging throw (multi-direction

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

(can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm to } \le 1500 \text{ mm.}$ )

## 10 - Mounting

00 = without connection (only possible without plenum

FV = permanent connection to plenum box or hit-andmiss damper (standard).

VM = concealed mounting with box (only with plenum box, possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 [with additional profile]).

GT = mounting with counter pole brace (only possible without plenum box) (possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 [with additional profile]).

KB = mounting with clamp strap (not for use with plenum box), screws and clamp strap supplied loose (pair) (possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 [with additional profile]).

SM = screw mounting (only possible without plenum box).
AL = suspension lugs (only possible without plenum box).

#### 11 - End piece

E0 = Without end piece (standard)

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ES = With end piece (pair, supplied loose)

EB = With end piece mounted ex works on both sides
EL = With end piece on the left mounted ex works

ER = With end piece on the right mounted ex works



#### DSC

## **TECHNICAL DOCUMENTATION**

Slot diffuser order code I

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#### 12 - Additional profile

ZO = without additional profile (standard)

Z1 = with additional profile Z I
 Z2 = with additional profile Z II
 Z3 = with additional profile Z III

Additional profiles only possible with frame profile DSC-...-SO.

#### 13 - Dummy piece

BSO = without dummy piece (standard)

BS1 = with dummy piece made of sheet steel painted to RAL 9005 (black).

Dummy piece only possible without plenum box and hit-and-miss damper. Possible from length  $L \ge 200$  mm. Mounting only possible with suspension lugs (-AL, standard in connection with active diffuser DSC-...-FV-...), counter pole brace (-GT) or clamp strap (-KB).

## 14 - Hit-and-miss damper

SN = Without hit-and-miss damper (standard)

SS = with hit-and-miss damper (only possible without a plenum box)

(Mounting for DSC-...-R0 and DSC-...-P0: with screw mounting [-SM, standard] and with counter pole brace

[-GT] / mounting for DSC-...-SO: screw mounting not possible, with counter pole brace [-GT] and only with additional profile -Z2)



Plenum box order code I

#### PLENUM BOX ORDER CODE

01	02	03	04	05	06	07	08
Туре	Diffuser	Model	Single / Band design	Length	Mounting of box	Material	Damper
Example							
ASK	-24	-2	N	-01000	-FV	-SV	-DK1

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

#### Sample

#### ASK-24-2-N-01000-FV-SV-DK1-GD1-I0-KHS-KVS-S1-SDS-E0

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

#### **ORDER DETAILS**

#### 01 - Type

ASK = plenum box for slot diffuser

#### 02 - Diffuser

24 = for DSC

#### 03 - Model

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

## 04 - Single / band design

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

#### 05 - Length

01000 = length L = 1000 mm 01500 = length L = 1500 mm

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

## 06 - Mounting of box

FV = permanent connection (standard)

VM = concealed mounting (only possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2)

00 = without fastening (only possible without diffuser)

## 07 - Material

SV = galvanised sheet steel (standard)

## 08 - Damper

DKO = without damper (standard)

DK1 = with damper (only with lateral spigot position [-S1/-S2], in the plenum box housing)

DK2 = With damper and cable-operated adjustment (SZV) (only with connection from above [-S0], in the connection spigot)

#### 09 - Rubber lip seal

GD0 = without rubber lip seal (standard)

GD1 = with rubber lip seal

#### 10 - Insulation

IO = without insulation (standard)Ii = With internal insulationIa = With external insulation

## 11 - Height of plenum box

KHS = standard height of plenum box

= height of box in mm, freely selectable (always with 3 digits) (minimum height [GH] with spigot position S1+S2 and standard box neck = spigot diameter ØD + 82 mm / with spigot position S0 = 180 mm)

#### 12 - Box neck

XXX

KVS = Standard box neck

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

Can only be used with 1-slot models, 2-, 3- and 4-slot models don't have a box neck.

#### 13 - Spigot position

SO = spigot from above

S1 = Lateral spigot (standard)

S2 = lateral spigot located on the opposite side (only possible for 1-slot models)

## 14 - Spigot diameter

SDS = standard spigot diameter

xxx = spigot diameter (ØD) in mm, freely selectable (always with 3 digits).

#### 15 - Suspension

E0 = without riveting nut (standard)

EM = with riveting nut



#### DSC

### **TECHNICAL DOCUMENTATION**

Order code corner angle I

#### **ORDER CODE CORNER ANGLE**

01	02	03	04	05
Туре	Diffuser	Model	Frame profile	Frame surface
Example				
EW	-24	-2	-R0	-ELOX

06	07	08	09	10
Dummy profile colour	Angle between sides	Left-side length (a):	Right-side length (b)	Additional profile
-B9005	-090	-000	-000	-Z0

#### Sample

## EW-24-2-R0-ELOX-B9005-090-000-000-Z0

Corner angle for slot diffuser | for DSC | 2-slot | STANDARD frame profile | natural colour anodised aluminium | aluminium painted similar to RAL colour 9005 (black) | angle  $\alpha$  = 90° | standard length (L=250 mm) | standard length (L=250 mm) | without additional profile

#### **ORDER DETAILS**

01 -	Type
------	------

EW = corner angle for slot diffuser

#### 02 - Diffuser

24 = for DSC

#### 03 - Model

1 = 1-slot

2 = 2-slot

3 = 3-slot

4 = 4-slot

#### 04 - Frame profile

RO = Frame profile STANDARD

SO = Narrow frame profile

PO = Special frame profile

## 05 - Frame surface

ELOX = Natural colour anodised aluminium (standard).

9006 = Aluminium painted to RAL colour 9006 (white alu-

minium).

9010 = Aluminium painted to RAL colour 9010 (white).

xxxx = aluminium painted to a freely selectable RAL colour

(at an extra charge, always with 4 digits).

## 06 - Dummy profile colour

B9005 = aluminium painted similar to RAL colour 9005

(black) (standard).

B9006 = aluminium painted similar to RAL colour 9006

(white aluminium).

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  $\alpha$  as required (value between 90° [090] and

170° [170] possible) (always with 3 digits)

## 08 - Left-side length (a)

000 = standard length (1- / 2- / 3-slot L = 250 mm / 4-slot L =

400 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- / 2- / 3-slot L = 250 mm / 4-slot L =

400 mm)

= length (L) in mm, freely selectable (minimum length =

standard length) (always with 3 digits).

#### 10 - Additional profile

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ZO = without additional profile (standard)



#### **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.

Volumetric flows in m <sup>3</sup> /h per m at:	35 dB(A)	40 dB(A)
DSC-1	131	156
DSC-2	203	242
DSC-3	234	279
DSC-4	253	302

**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 9006 (white aluminium) (-L9006).
- Colour similar to RAL 9010 (white) (-L9010).
- painted to a freely selectable RAL colour (-Lxxxx, always with 5 digits).

Product: SCHAKO type DSC-...-Z-...

**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 DSC-...-A-...

#### Model (number of slots):

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

#### Frame profile:

- STANDARD frame profile (-R0)
  - narrow frame profile (-S0)
  - special frame profile (-P0)

## Frame surface:

- Natural colour anodised aluminium (standard,  $\mathbf{ELOX}$ )
- Aluminium painted to:
  - RAL colour 9006 (white aluminium) (-9006)
  - RAL colour 9010 (white) (-9010)
  - a different RAL colour, freely selectable (-xxxx) (always with 4 digits).

#### Blade position for air jet:

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

## Length / Model:

## Single design (-N)

- length L= 1000 mm (-N-01000)
- length L= 1500 mm (-N-01500)
- Length (L) in mm, freely selectable (-N-xxxxx, always with 5 digits).

(can be fitted with a plenum box in case of single design lengths L = 2400 mm to  $\leq 1500 \text{ mm}$ )

#### Band design (-B)

Length (BL) in mm, as band (-B-xxxxx).
 (Available lengths according to SCHAKO standard). With connecting pins, supplied loose (2 for each connection).

#### DSC

## **TECHNICAL DOCUMENTATION**

Specification text I

#### Mounting:

- without connection (-00)
  - Only possible without plenum box and without hitand-miss damper.
- Permanent connection with plenum box (-FV)
  - Only possible with plenum box.
  - As standard for the models DSC-...-R0 / DSC-...-S0 and DSC-...-P0.
  - The slot diffuser is permanently connected to the plenum box.
- Concealed mounting with plenum box (-VM)
  - Only possible with plenum box.
  - Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
  - Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S0-...-Z3.
  - The slot diffuser is screwed to the pole brace in the plenum box housing with concealed screws.
  - Frame with foam gasket.
  - Plenum box supplied loose from the factory.
- Mounting with counter pole brace (-GT)
  - Only possible without plenum box.
  - Screws and clamp straps are supplied loose (2 pieces).
  - Pole brace traps consisting of folded galvanised sheet steel and pole brace made of extruded aluminium profile with DIN thread.
  - Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
  - Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-S3.
  - The slot diffuser is screwed to the counter pole brace (pole brace strap) with concealed screws (included in delivery).
  - For mounting, access on the rear is required!
- Mounting with clamp strap (-KB)
  - Only possible without plenum box.
  - Screws and clamp straps are supplied loose (2 pieces).
  - Clamp strap made of galvanised sheet steel.
  - Possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2 (with additional profile).
  - Not possible for the models DSC-...-S0-...-Z0 / DSC-...-S0-...-Z1 / DSC-...-Z3.
  - The slot diffuser is screwed to the clamp strap with concealed screws (included in delivery).
  - For mounting, access on the rear is not required!
- Screw mounting (-SM)
  - Only possible without plenum box.
- -- Screws must be provided on site
  - Possible for the models DSC-...-RO and DSC-...-PO.
  - Not possible for the model DSC-...-S0.
  - The slot diffuser is fixed with visible screws.
- Mounting with suspension lugs (-AL)

- Only possible without plenum box.
- 4 pieces, supplied loose.
- Possible for the models DSC-...-R0 and DSC-...-P0.
   Not possible for the model DSC-...-S0.
- The slot diffuser is fastened to 4 suspension brackets
- Suspension lug made of galvanised sheet steel, with holes for hook mounting.



#### **Accessories:**

- End pieces (-E0 / -ES / -EB / -EL / -ER)
  - without end piece (-E0) (standard)
  - with end pieces, made of aluminium (same colour as frame):
    - supplied loose (-ES, pair) (standard)
    - mounted ex works on both sides (-EB)
    - mounted ex works on the left side (-EL)
    - mounted ex works on the right side (-ER)
- Additional profile (-Z0 / -Z1 / -Z2 / -Z3)
  - Without additional profile (-Z0) (standard).
  - with additional profile made of aluminium (same colour as frame, only possible for DSC-...-SO):
    - ZI (-Z1): connection of ceiling panels.
    - Z II (-Z2): connection of panelled ceilings.
    - Z III (-Z3): connection of ceiling panels.
- Dummy piece (-BS0 / -BS1)
  - without dummy piece (-BS0) (standard).
  - with dummy piece (-BS1):
    - made of sheet steel painted to RAL 9005 (black).
    - only possible without plenum box and hit-and-miss damper.
    - with fastening clips for mounting on the slot diffuser.
    - possible from length L ≥ 200 mm.
    - Mounting only possible with suspension lugs (-AL, standard in connection with active diffuser DSC-...-FV-...), counter pole brace (-GT) or clamp strap (-KB).
- 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.
    - Mounting:
      - DSC-...-R0 / DSC-...-P0:
        - with screw mounting (-SM, standard)
        - mounting with counter pole brace (-GT)
      - DSC-...-S0:
        - Screw mounting not possible.
        - mounting with counter pole brace (-GT)
        - Only possible for models with additional profile -Z2. Not possible for models without additional profile and models with additional profiles -Z1 and -Z3.
- Plenum box (-ASK-24), with mounting brackets.
  - Model (number of slots):
    - 1-slot (-1)
    - 2-slot (-2)
    - 3-slot (-3)
    - 4-slot (-4)
  - Single / band design:
    - Single design (-N, length of box KL max. 1500 mm)
    - Band design (-B, available lengths according to SCHAKO standard for band design)
  - Length:
    - Length L = 1000 mm (-01000) (KL = 997 mm)
    - Length L = 1500 mm (-01500) (KL = 1497 mm)
    - Length (L/BL) in mm, freely selectable (-xxxxx, always with 5 digits)

(Length of box KL = L-3 / total length of box GKL = BL-3, can be fitted with a plenum box in case of single design lengths  $L = \ge 400 \text{ mm}$  to  $\le 1500 \text{ mm}$ )

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- Mounting of box:
  - Permanent connection (-FV) (standard)
  - concealed mounting (-VM) (only possible for the models DSC-...-R0 / DSC-...-P0 and DSC-...-S0-...-Z2)
  - without fastening (only possible without diffuser) (-00)
- Material:
  - Galvanised sheet steel (-SV) (standard)
- Damper:
  - without damper (-DK0) (standard)
  - With damper made of galvanised sheet steel, adjustable, for simple air volume regulation:
    - in the plenum box housing (only with lateral spigot position [-S1/-S2]) (-DK1)
    - in the connection spigot, with cable-operated adjustment (with spigot position from above [-S0]) (-DK2)
- Rubber lip seal:
  - without rubber lip seal (-GD0) (standard)
  - With rubber lip seal (-GD1) made of special rubber, at the connection spigot.
- Insulation:
  - without insulation (-I0) (standard)
  - with internal insulation (-Ii), thermal insulation inside the plenum box.
  - with external insulation (-la), thermal insulation at the outside of the plenum box.
- Height of plenum box:
  - standard height of plenum box (-KHS)
  - height of box in mm, freely selectable (-xxx, always with 3 digits)

(Minimum height [GH] with spigot position S1+S2 and standard box neck = spigot diameter ØD + 82 mm / with spigot position S0 = 180 mm)

- Box neck:
  - standard box neck (-KVS) (KVS = 45 mm)
  - box neck extension in mm, freely selectable (-xxx, always with 3 digits), box neck (not adjustable) from ≥ 45 mm to 200 mm possible.
     Can only be used with 1-slot models, 2-, 3- and 4-slot models don't have a box neck.
- Spigot position:
  - Spigot from above (-S0)
  - Lateral spigot (-S1) (standard).
  - Lateral spigot located on the opposite side (-S2) (only possible for 1-slot models)
- Spigot diameter:
  - standard spigot diameter (-SDS)
  - spigot diameter (D) in mm, freely selectable (-xxx, always three digits)
- Suspension:

- without riveting nut (-E0) (standard)
- With riveting nut (-EM), made of brass.
- with air diffuser plate (FQ = 46%), made of galvanised sheet steel, (only for models with spigot from above).



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- Corner angle (-EW-24), frame and dummy profile made of extruded aluminium profile. Mounting with suspension lugs (-AL), supplied loose.
  - Model (number of slots):
    - 1-slot (-1)
    - 2-slot (-2)
    - 3-slot (-3)
    - 4-slot (-4)
  - Frame profile:
    - STANDARD frame profile (-R0)
    - Narrow frame profile (-S0)
    - Special frame profile (-P0)
  - Frame surface:
    - Natural colour anodised aluminium (standard, -FLOX)
    - Aluminium painted to:
      - RAL colour 9006 (white aluminium) (-9006)
      - RAL colour 9010 (white) (-9010)
      - a freely selectable RAL colour (-xxxx, always with 4 digits)
  - Dummy profile colour:
    - Dummy profile made of painted aluminium:
      - colour similar to RAL 9005 (black) (-B9005, standard)
      - colour similar to RAL 9006 (white aluminium) (-B9006)
      - colour similar to RAL 9010 (white) (-B9010)
      - RAL colour freely selectable (-Bxxxx) (always with 5 digits)
  - Angle between sides:
    - angle  $\alpha = 90^{\circ}$  (-090) (standard)
    - angle ( $\alpha$ ) as required (-xxx), values between  $\alpha$  = 90° (-090, standard) and 170° (-170) are possible (always with 3 digits).
  - Left-side length (a):
    - standard length, 1- / 2- / 3-slot L = 250 mm / 4-slot L = 400 mm (-000).
    - length (L) in mm, freely selectable (-xxx) (minimum length
      - = standard length) (always with 3 digits).
  - Right-side length (b):
    - standard length, 1- / 2- / 3-slot L = 250 mm / 4-slot L = 400 mm (-000).
    - Length (L) in mm, freely selectable (-xxx) (minimum length
      - = standard length) (always with 3 digits).
  - Including 4 fishplates (-VL, included in delivery) made of aluminium (same colour as frame), supplied loose.
  - Additional profile:
    - without additional profile (-Z0) (standard)