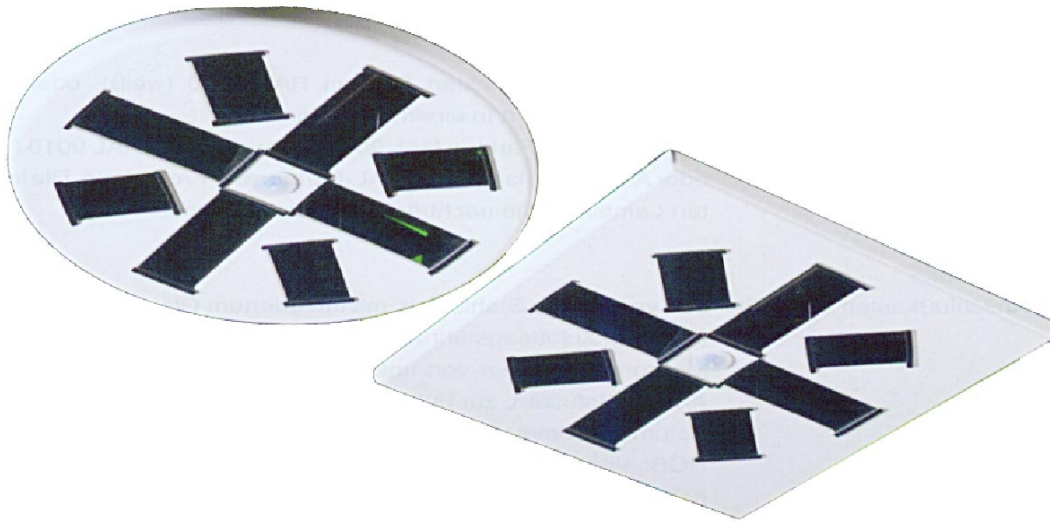


Ceiling Swirl Diffuser

Model DQJA / DQJR



Ferdinand Schad KG
Steigstraße 25-27
D-78600 Kolbingen
Telephone +49 (0) 74 63 - 980 - 0
Fax +49 (0) 74 63 - 980 - 200
info@schako.de
www.schako.de

Ceiling Swirl Diffuser DQJA / DQJR

Contents

Description	3
Construction	3
Model	3
Accessories	3
Fastening	3
Models and dimensions	4
Dimensions	4
Dimensions of accessories	5
Technical Data	6
Pressure loss and noise level	6
Further data	6
Legend	6
Order details	7
Specification texts	8

Ceiling Swirl Diffuser DQJA / DQJR

Description

The swirl diffuser type DQJA / DQJR was developed especially for **installation in grid ceilings**. Its main field of application is for comfort rooms up to an air change rate of 12. Unlike the conventional ceiling diffusers, the built-in **air deflection blades can also be adjusted at a later stage**. By lifting the horizontal throw blades, the jets are lowered toward the vertical direction. Thus, the jet can be forced to a vertical throw, which facilitates its detachment from the ceiling. The horizontal throw is preset in factory.

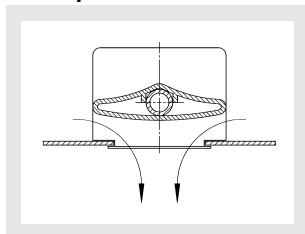
A volumetric flow meter can be integrated in the connection piece of the plenum box at an extra charge. The measurement error of the volumetric flow meter is $\pm 5\%$ at a connection pipe velocity of 2-5 m/s and a straight flow pattern of at least $1 \times D$. The measurement is carried out with mounted diffuser. By adjusting the throttle damper the required air volume of each diffuser can be set quickly and correctly. For plenum boxes type SRK, the ceiling diffuser must be removed, before the damper can be adjusted. Alternatively, a cable-operated adjustment can be ordered at an extra charge, which allows the damper to be adjusted on the room side even with the diffuser mounted.

With the ROB model, the diffuser plate, the throttle damper and, if built in, the volumetric flow meter can be removed from the plenum boxes SAK/SRK to allow duct cleaning robots into the ductwork from the room side.

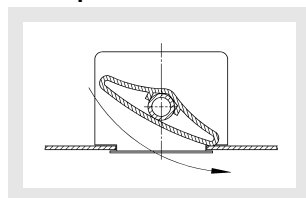
Blade adjustment possibilities and screw mounting (SM)

As standard, all blades are set to blade position 2

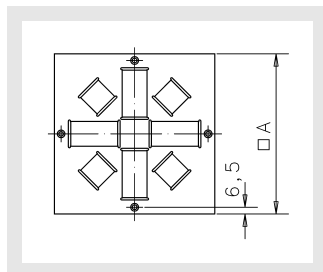
Blade position 1



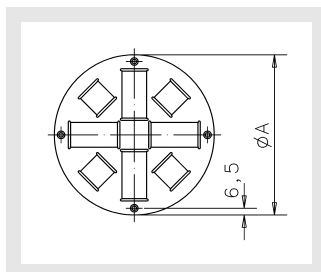
Blade position 2



DQJA



DQJR



Construction

Faceplate

- Sheet steel painted to RAL 9010 (white)
- Sheet steel painted to a different RAL colour (at an extra charge)

Blades

- Plastic, RAL colour 9010 (white) or RAL 9005 (black)
- Aluminium painted to the RAL colour of the faceplate (blades cannot be adjusted subsequently)

Model

- DQJA - Square faceplate
- DQJR - Round faceplate

Accessories

Plenum box (-SRK)

- Galvanised sheet steel

Connection pipe (-AS)

- Sheet steel painted to RAL 9005 (black) for flexible duct connection

Rubber lip seal (-GD)

- Special rubber

Throttle damper (-DK)

- Throttle damper made of galvanised sheet steel
- Damper fastening made of plastic
- with cable-operated adjustment (-SZV) (at an extra charge)

ROB version (-ROB)

- Removable diffuser plate, throttle damper and volumetric flow meter

Volumetric flow meter (-VME)

- Mounting made of galvanised sheet steel
- Measuring sensor made of plastic
- Aluminium connections

Internal insulation (-li)

- Thermal insulation inside the plenum box

External insulation (-la)

- Thermal insulation on the outside of the plenum box

Fastening

Screw mounting (-SM)

- not available with plenum box type SRK, screws must be provided on-site

Concealed mounting (-VM)

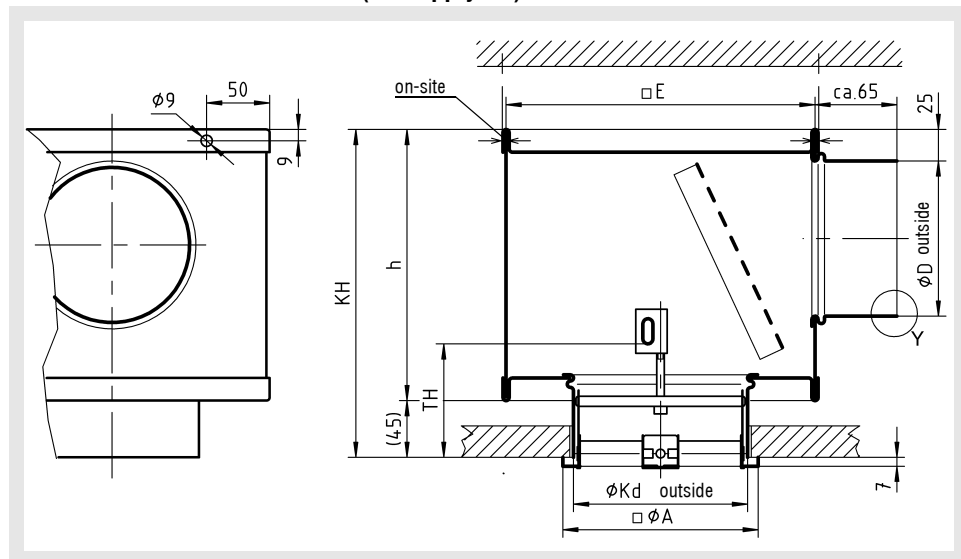
- only available with plenum box type SRK

Ceiling Swirl Diffuser DQJA / DQJR

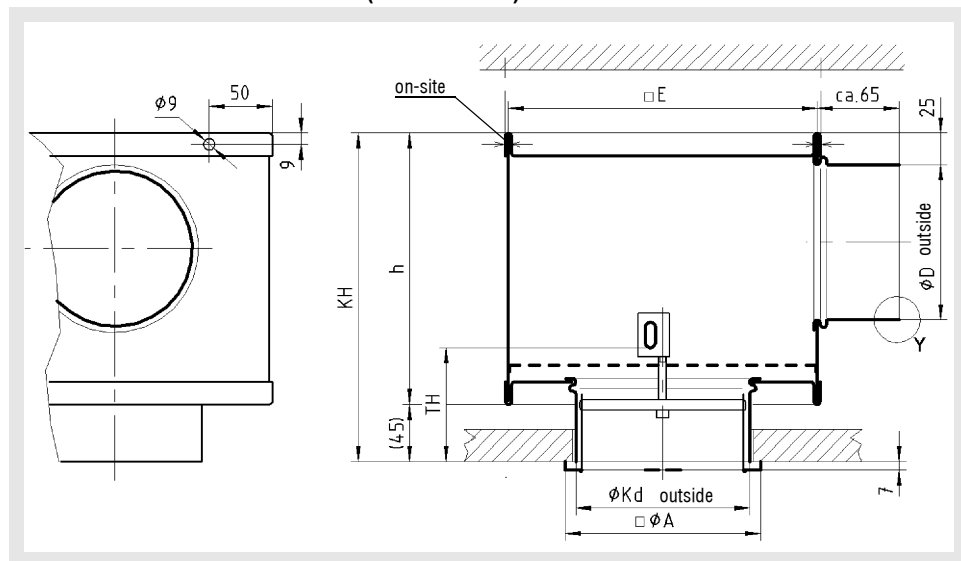
Models and dimensions

Dimensions

DQJA-Z and DQJR-Z with SRK-Z (for supply air)



DQJA-A and DQJR-A with SRK-A (for return air)



Available sizes

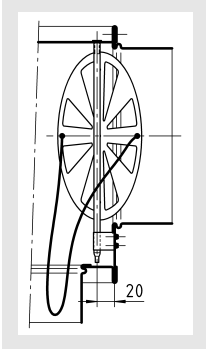
NW	□ ϕ A	ϕ Kd	E	KH	ϕ D	h	TH
155	155	138	245	260	123	215	90
185	185	170	245	260	123	215	90
240	240	222	290	295	158	250	100
300	300	278	335	295	158	250	100

Ceiling Swirl Diffuser DQJA / DQJR

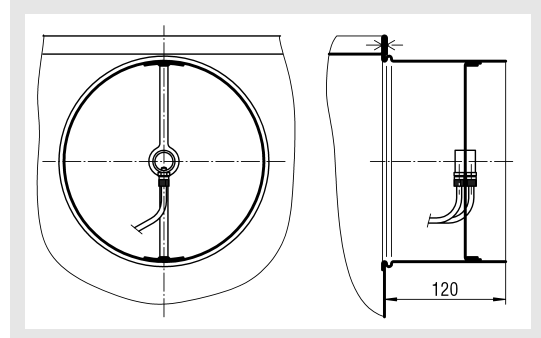
Dimensions of accessories

(at an extra charge):

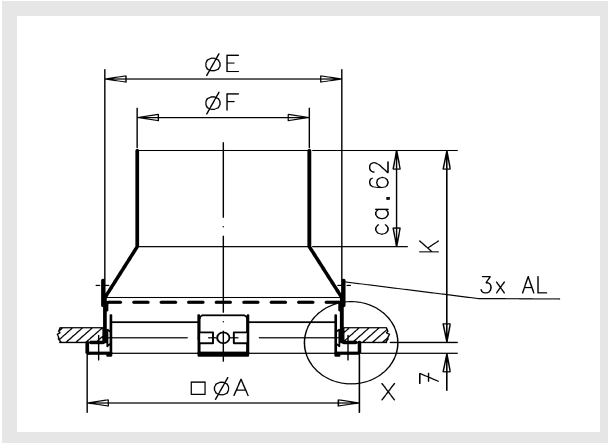
Damper (-DK) with cable-operated adjustment (-SZV)



Volumetric flow meter (-VME)



Connection pipe for flexible duct

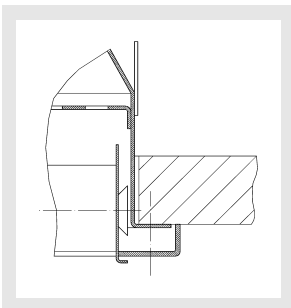


AL = fixing lugs

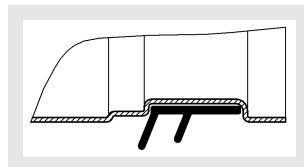
Available sizes
DQJA-AS and DQJR-AS

NW	$\square \varnothing A$	$\varnothing F$	$\varnothing E$	$\varnothing K$
155	155	98	135	125
185	185	98	165	140
240	240	123	220	165
300	300	123	275	210

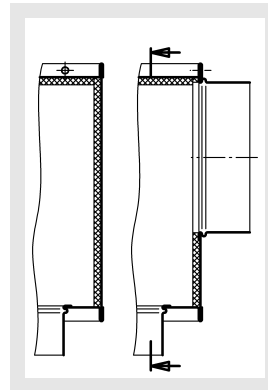
Detail X



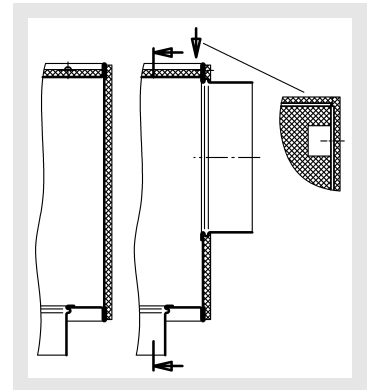
Rubber lip seal (-GD)
Detail Y



Insulation for SRK
internal (-li)



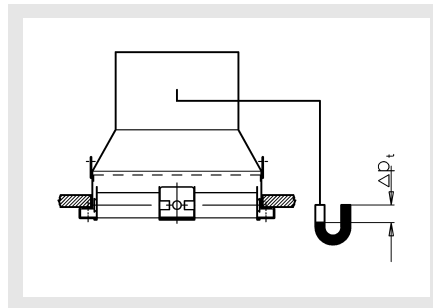
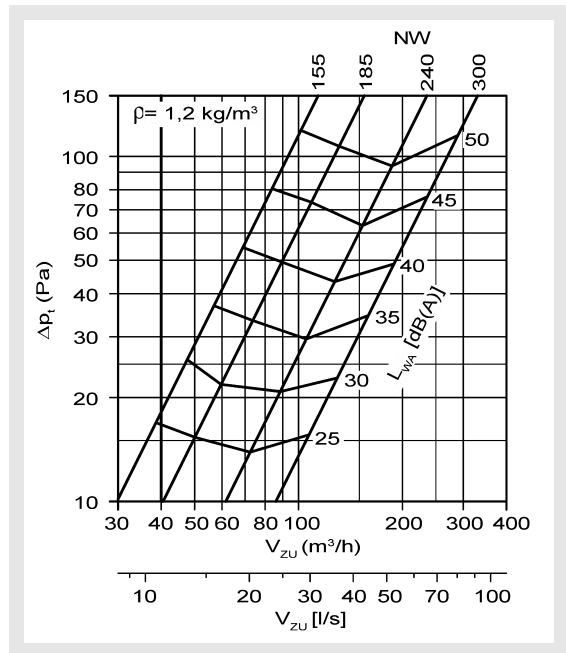
external (-la)



Ceiling Swirl Diffuser DQJA / DQJR

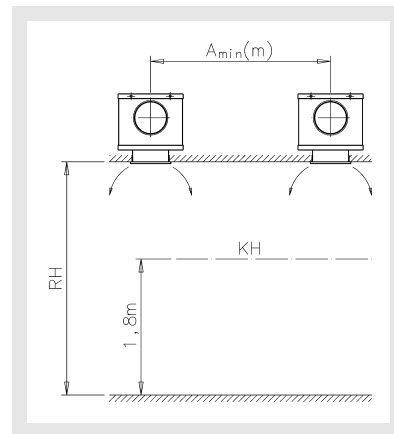
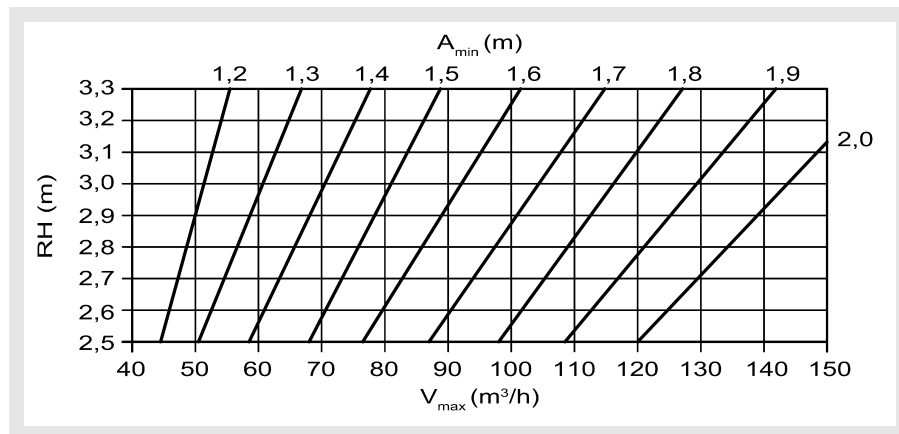
Technical Data

Pressure loss and noise level



Further data

Minimum distance and max. volumetric flow:



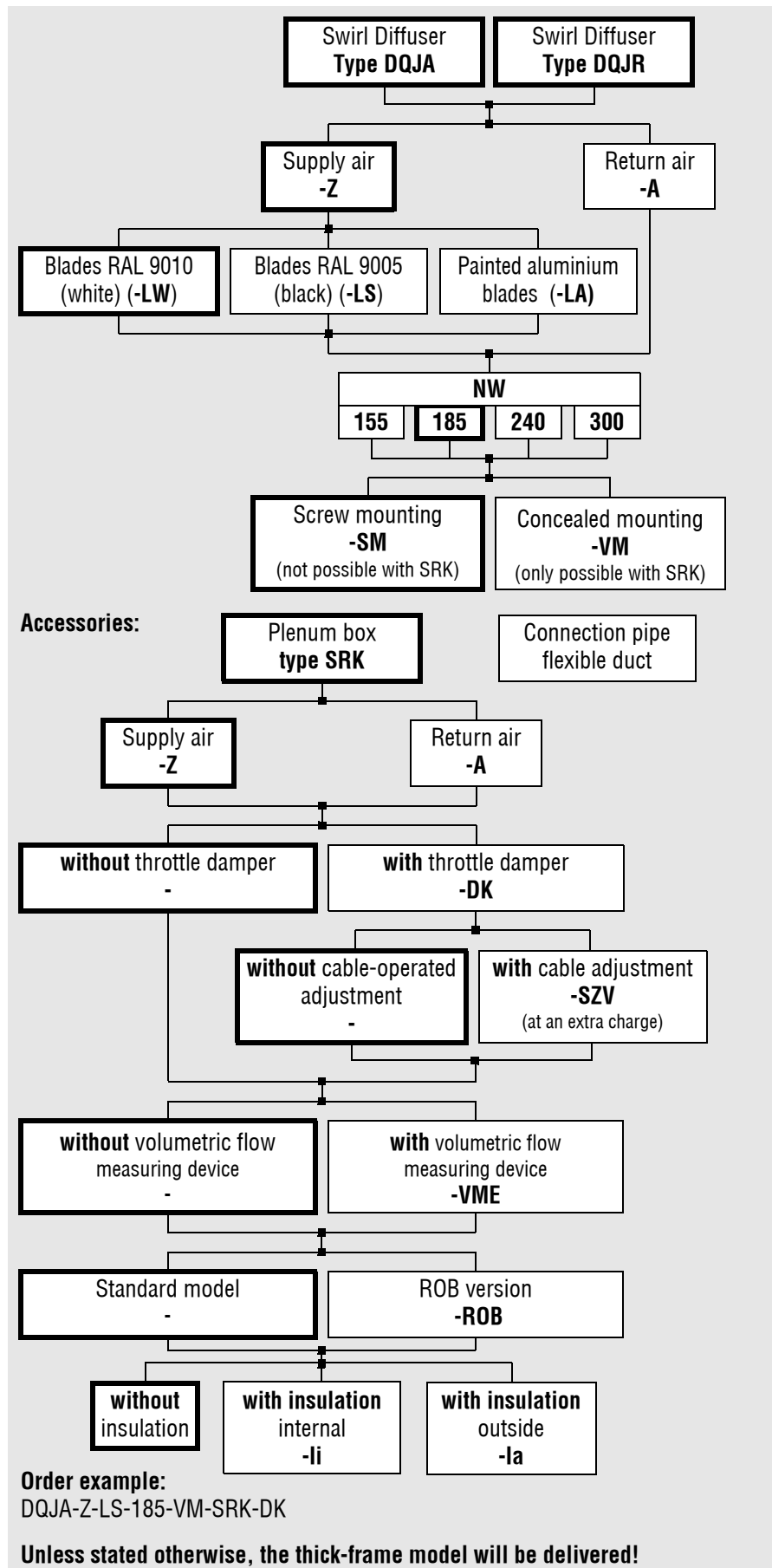
The figures given are valid up to a 12-fold air change rate between two diffusers. The max. temperature difference is $\Delta t - 10 \text{ K}$. If higher values are selected for the air change rate or the temperature difference, the comfort condition according to DIN 1946 Part 2 Ed. 1983 will be exceeded.

Legend

A_{min}	(m)	=	Minimum clearance between two diffusers
RH	(m)	=	Inside room height
KH	(m)	=	Head height
V_{max}	(m^3/h)	=	Max.volumetric flow
Δp_t	(Pa)	=	Pressure loss
V_{ZU}	(m^3/h)	=	Supply air volume
V_{ZU}	[l/s]	=	Supply air volume
L_{WA}	[dB(A)]	=	A-weighted sound power level
ρ	(kg/m^3)	=	Density
NW	(mm)	=	Nominal value

Ceiling Swirl Diffuser DQJA / DQJR

Order details



Ceiling Swirl Diffuser DQJA / DQJR

Specification texts

Ceiling swirl diffuser type **DQJA-Z**, in square design, especially for installation in grid ceilings. Especially suitable for comfort rooms up to a maximum air change rate of 12 Cooling and heating modes are possible. Consisting of a perforated faceplate made of sheet steel provided with a high-quality powder coating in a RAL colour (RAL 9010, white, standard), with central pivoting, aerodynamic radially fitted air deflection blades, which are individually adjustable, without any tools, from the diffuser front side without dismantling the diffuser, in support profile design made of plastic in RAL 9010 (white), RAL 9005 (black) or aluminium, painted individually or to the same RAL colour as the faceplate (subsequent adjustment of blades not possible). Free cross-section, resistance and sound power level constant in all blade positions. With visible screw mounting (-SM) and circumferential foam seal.

Product: SCHAKO **type DQJA-Z**

- for return air, without air deflection blades, with square faceplate, circular punch

Manufacturer: SCHAKO **Typ DQJA-A**

- for supply air, with air deflection blades, with round front plate

Manufacturer : SCHAKO type DQJR-Z

- for return air without air deflection blades, with round faceplate.

Product: SCHAKO **type DQJR-A**

- with concealed mounting (-VM), made of aerodynamic aluminium profile suspended at 2 points only available with plenum box.

Accessories:

- Plenum box (-SRK), made of galvanised sheet steel, with fixing lugs and lateral connection piece. Diffuser fixing with concealed mounting (-VM)
- Supply air version with integrated rectifier perforated sheet (SRK-Z).
- Return air model (SRK-A)
- with a throttle damper (-DK) adjustable from the front in the plenum box for air volume regulation
 - with cable-operated adjustment (-SZV)
 - with volumetric flow meter (-VME)
- with ROB version (-ROB), removable diffuser plate, throttle damper and volumetric flow meter.
- with rubber lip seal (-GD), made of special rubber, at the connection pipe.
- Thermal insulation
 - internal (-li)
 - external (-la)
- with connection pipe for flexible duct connection made of sheet steel RAL colour 9005 (black).