



Ceiling diffuser

IDA



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Ceiling Diffuser IDA

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Ceiling Diffuser IDA

Description

Electrically adjustable ceiling diffusers are required **for cooling and heating large halls**.

In order to prevent draughts in the cooling mode, the supply air must largely be discharged **horizontally** from the diffuser. However, in heating mode, the diffuser must have **high penetration depth**, in order to achieve **fast and efficient heating**.

The ceiling diffuser type IDA meets both these requirements ideally. It ensures optimum air distribution in cooling and heating modes.

The diffuser consists of an adjustable air guide funnel and a front plate. The adjustable air guide funnel is varied manually or by means of an electric actuator or a thermocouple in such a way that a vertical (heating mode) or horizontal (cooling mode) supply air jet is created. When using a thermocouple adjustment, a vertical supply air jet (heating mode) is created from a supply air temperature of approx. 26° C. At supply air temperatures < 26° C, a horizontal supply air jet (cooling mode) is created.

A volumetric flow meter can be integrated into the spigot of the plenum box at an extra charge. The measurement error of the volumetric flow meter is $\pm 5\%$ at a spigot velocity of 2-5 m/s and a straight flow pattern of at least 1 x D. The measurement is carried out with integrated diffuser. To adjust the damper, the ceiling diffuser must be removed. 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 mounted diffuser.

With the ROB version, the diffuser plate, the damper, if installed, and the volumetric flow meter can be removed from the plenum box, to allow duct cleaning robots into the ductwork from the room side.

Construction

Faceplate

- made of sheet steel painted to RAL 9010 (white).
- made of sheet steel painted to a different RAL colour (at an extra charge).

Air guide funnel

- made of sheet steel painted to RAL 9005 (black)

Manual adjustment

- made of galvanised sheet steel with a hexagonal socket head screw M6 (to DIN EN ISO 4762)

Model

- IDA-Q - Square faceplate
- IDA-R - Round faceplate
- IDA-...-ZH - for supply air with manually adjustable air guide funnel, horizontal air throw (cooling mode)
- IDA-...-ZV - for supply air with manually adjustable air guide funnel, vertical air throw (heating mode)
- IDA-...-AA - for return air, without air guide funnel

Attention!

The optimum function of the IDA-Q-Z-... / IDA-R-Z-... can only be guaranteed in connection with the original plenum box.

Accessories

Plenum box (-SK)

- with lateral connection spigot on the box (-S1, standard)
- with connection spigot from above (-S0)
- with 2 connection spigots offset by 90° (-S2)
- with 2 connection spigots offset by 180° (-S3)
- with 2 lateral connection spigots next to each other (-S5)
 - with air diffuser plate, sheet steel painted to RAL 9005 (black) (only for supply air model)
- Housing and connection spigot made of galvanised sheet steel, inside painted to RAL 9005 (black)
- concealed mounting pole brace made of aluminium painted to RAL 9005 (black)
- Concealed mounting made of plastic, similar to RAL colour 9005 (black) (-VM)

Damper (-DK1)

- in connection spigot
- Damper made of galvanised sheet steel
- Damper fastening made of plastic

Damper (-DK2)

- DK1 with cable-operated adjustment

Electric actuator (3-point activation)

- 24 V AC (standard)
 - without auxiliary switch (-E090)
 - with 2 integrated auxiliary switches (-E093)
- 230 V AC (-E092)

Thermocouple adjustment (-TE01)

- Diffuser adjustment option without electrical energy as a function of the supply air temperature.

Rubber lip seal (-GD1)

- in the plenum box at the connection spigot
- Special rubber

ROB version (-ROB1)

- removable damper and volumetric flow meter (only possible for plenum box SK-Q-...)

Volumetric flow meter (-VME, available for IDA up to NW625)

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

ball-impact guard (-BS)

- only possible for IDA-Q-... with screw mounting and for NW800 only with concealed mounting. Attention: With reduced drill pattern, only possible with plenum box in the same size as the faceplate.
- Steel painted to RAL 9010 (white), other RAL colours possible at an extra charge.

Internal insulation (-li)

- thermal insulation at the inside of the plenum box

External insulation (-la)

- thermal insulation at the outside of the plenum box

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Fastening

Concealed mounting (-VM, standard)

- Pole brace fixing, by means of an Allen screw M6 (to DIN EN ISO 4762) at the plenum box.

Screw mounting (-SM)

- for model with ball-impact guard only
- with raised countersunk head tapping screws (on site)

Screw mounting with concealed mounting (-VS)

- Screw mounting (-SM) in combination with concealed mounting (-VM)
- only possible for NW 800 in conjunction with ball-impact guard (-BS)

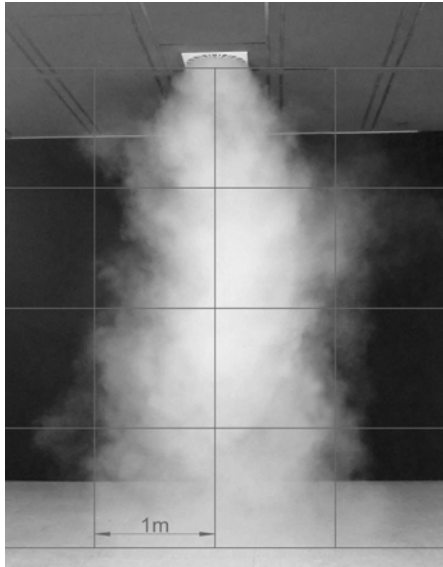
Quick selection

| NW | | 400 | 500 | 600 | 800 |
|------------------------------|---------------------|------|------|------|------|
| V_{\min} | (m ³ /h) | 280 | 300 | 400 | 800 |
| | [l/s] | 78 | 83 | 111 | 222 |
| V_{\max} | (m ³ /h) | 1300 | 2000 | 3000 | 4000 |
| | [l/s] | 361 | 556 | 833 | 1111 |
| V at 40 dB(A): | | | | | |
| Cooling mode position | (m ³ /h) | 530 | 780 | 1100 | 1550 |
| | [l/s] | 147 | 217 | 306 | 431 |
| Heating mode position | (m ³ /h) | 600 | 850 | 1250 | 1800 |
| | [l/s] | 167 | 236 | 347 | 500 |

Smoke test

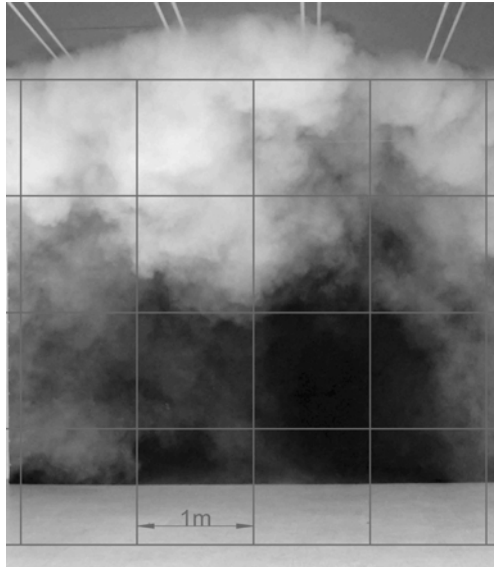
Snapshots of IDA-Q-Z-600-..., mounting height = 4 m

Heating mode



with electric actuator
 $V_{ZU} = 1250 \text{ m}^3/\text{h}$
 $\Delta T_0 = + 10 \text{ K}$

Cooling mode



with electric actuator
 $V_{ZU} = 1250 \text{ m}^3/\text{h}$
 $\Delta T_0 = - 10 \text{ K}$

Layout example

Assume:

possible installation height in the hall 4.0 m

$\Delta T_0 = + 10 \text{ K}$

$\Delta T_0 = - 10 \text{ K}$

Selected:

NW 600

$V_{ZU} = 1250 \text{ m}^3/\text{h}$

maximum penetration depth at +10 K = $y_H = 4 \text{ m}$

Distance to diffuser = 8 m = $x = 4 \text{ m}$

$y = 4.0 \text{ m} - 1.8 \text{ m} = 2.2 \text{ m}$

$v_{\max} = 0.24 \text{ m/s}$ ($v_{\text{mittel}} = 0.12 \text{ m/s}$) after $x + y = 6.2 \text{ m}$

IDA-Q-Z-600-... with plenum box:

L_{WA} heating mode position = 40 dB(A)

$\Delta p_t = 22 \text{ Pa}$

L_{WA} Cooling mode position = 42 dB(A)

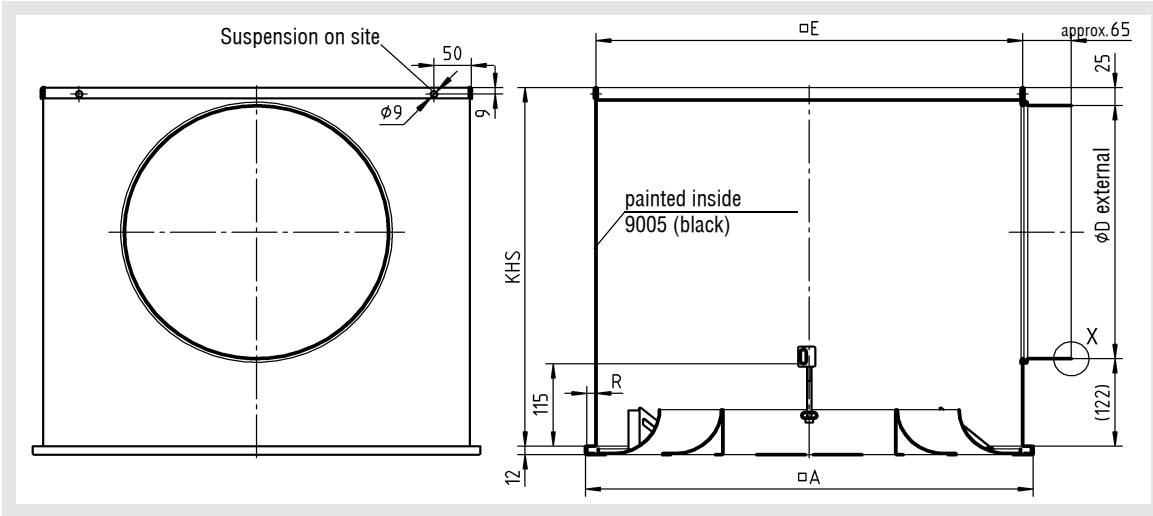
$\Delta p_t = 26 \text{ Pa}$

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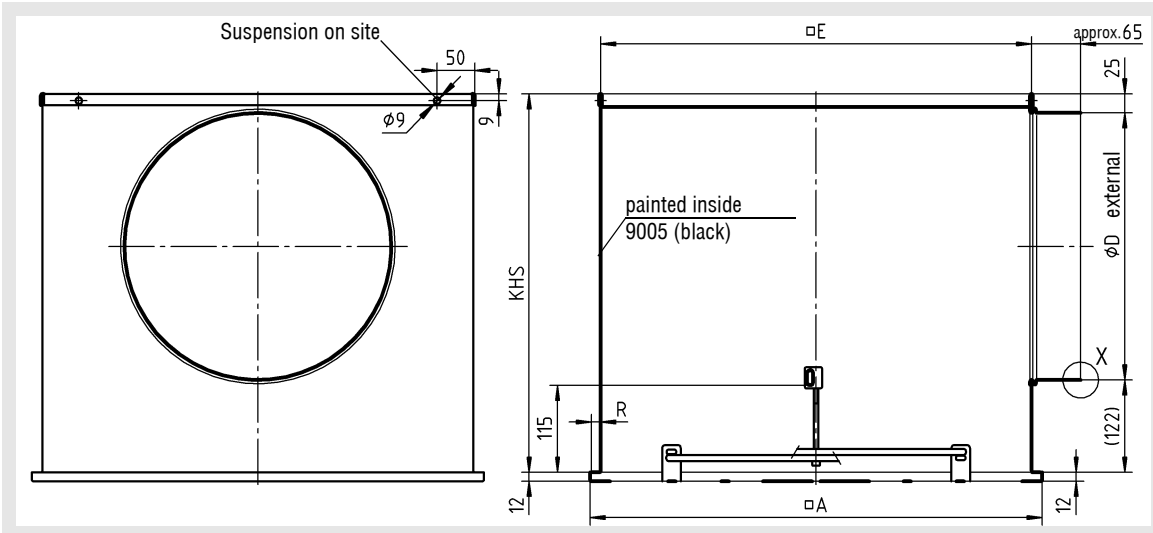
Models and dimensions

Dimensions

IDA-Q-Z-... with plenum box type SK-Q-08-Z-...-S1



IDA-Q-AA-... with plenum box type SK-Q-08-A-...-S1



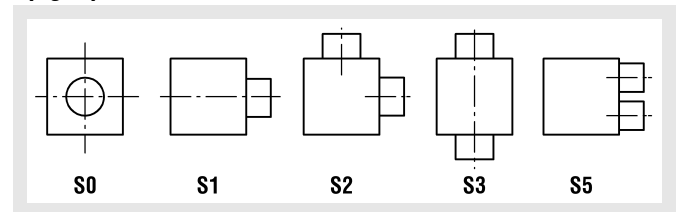
Available sizes

| NW | □A | øD | □E | KHS | R | øD _{max} for ...-S5 |
|-----|-----|-----|-----|-----|----|------------------------------|
| 400 | 398 | 248 | 370 | 395 | 12 | 138 |
| 500 | 498 | 313 | 470 | 460 | 12 | 198 |
| 600 | 598 | 353 | 570 | 500 | 12 | 248 |
| 625 | 623 | 353 | 570 | 500 | 24 | 248 |
| 800 | 798 | 448 | 770 | 595 | 12 | 353 |

KHS= standard height of box

Special height of plenum box = øD + 147 mm, but at least 245 mm

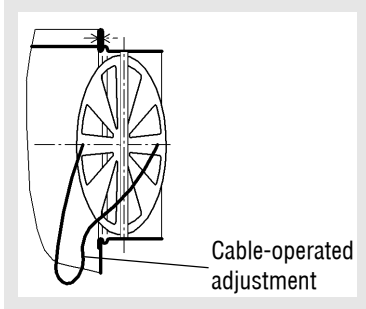
Spigot positions



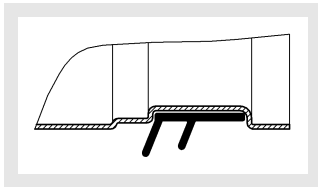
Ceiling Diffuser IDA

Dimensions of accessories

Damper (-DK1)
with cable-operated adjustment (-DK2)

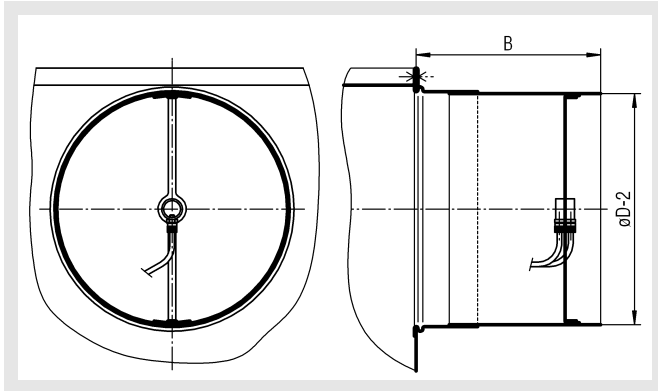


Rubber lip seal (-GD1)
Detail X



ROB version (-ROB1)
Removable damper and volumetric flow meter (possible only for plenum box SK-Q-...).

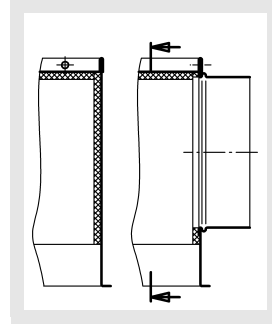
Volumetric flow meter (-VME1)



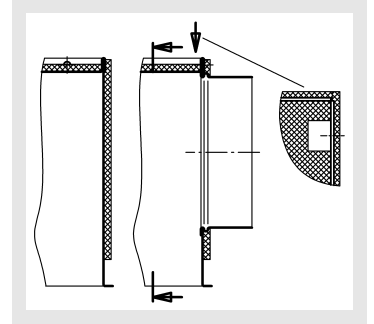
Available sizes

| NW | B | øD |
|-----|-----|-----|
| 400 | 195 | 248 |
| 500 | 230 | 313 |
| 600 | 250 | 353 |
| 625 | 250 | 353 |

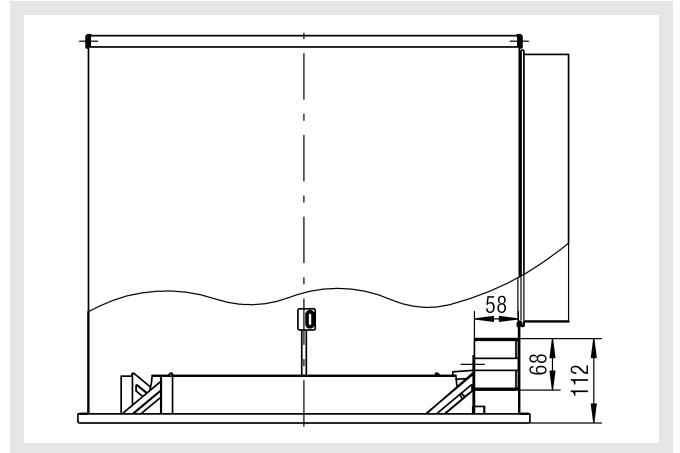
Insulation for SK-...
internal (-li)



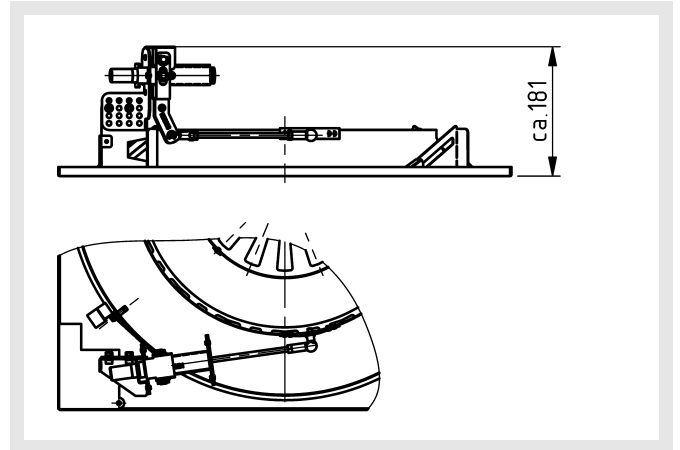
external (-la)



Electric actuator (-E090/ -E092 / -E093)
24 V AC / 230 V AC (3-point activation)



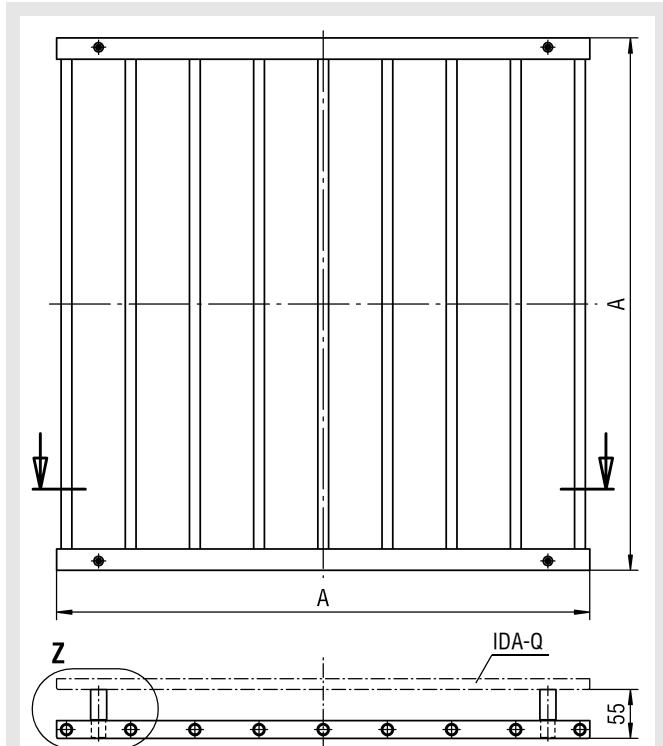
Thermocouple (-TE01)



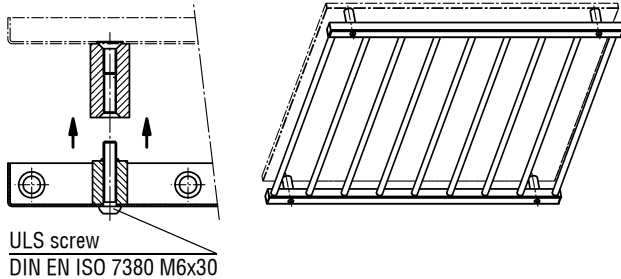
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ball-impact guard (-BS)

(only possible for IDA-Q... with screw mounting and for NW 800 with concealed mounting)



Detail Z

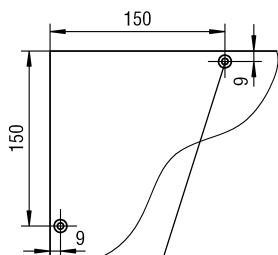


Available sizes

| NW | □ A |
|------|-----|
| 400 | 398 |
| 500 | 498 |
| 600 | 598 |
| 625 | 623 |
| 800* | 798 |

* NW 800:
with VS mounting

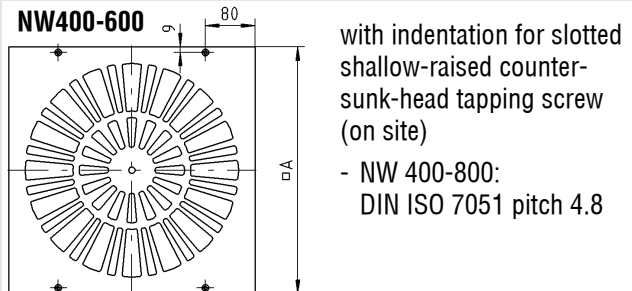
Dimensions VS mounting (for NW 800 only)



Indentation for slotted shallow-raised countersunk-head tapping screw

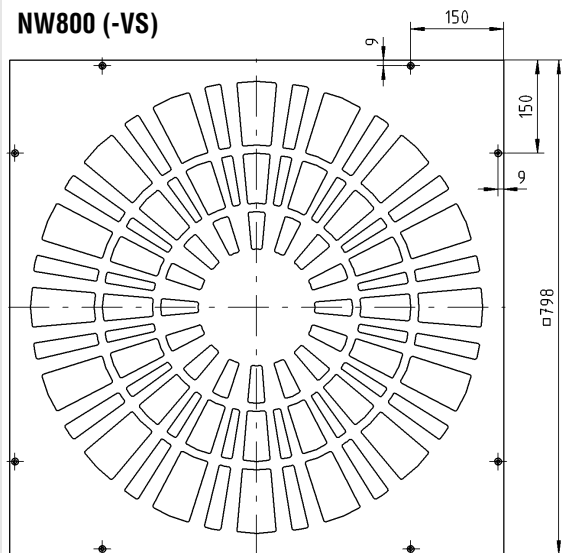
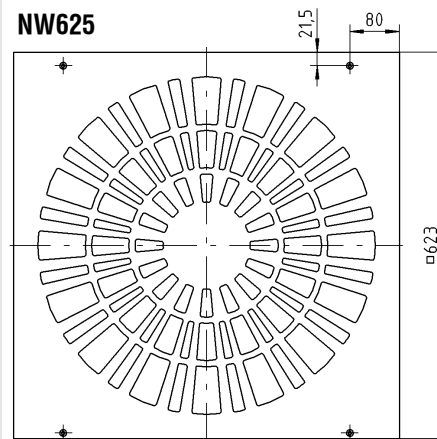
Fastening methods

Screw mounting (-SM) (IDA-Q... only)
for model with ball-impact guard only



with indentation for slotted shallow-raised countersunk-head tapping screw (on site)

- NW 400-800:
DIN ISO 7051 pitch 4.8



Attention:

With reduced drill pattern, only possible with plenum box in the same size as the faceplate. Reduced drill pattern not possible for nominal size 800.

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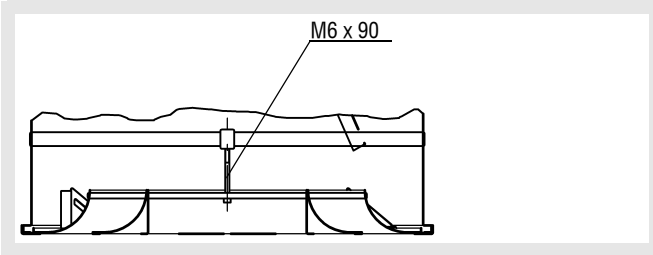
Concealed mounting (-VM)

For concealed mounting (VM), the ceiling diffuser IDA NW 400-625 is fixed to the plenum box with a traverse and a hexagonal socket head screw M6 (according to DIN EN ISO 4762) and the IDA NW 800 with two hexagonal socket head screws M6 (according to DIN EN ISO 4762).

Attention: The max. torque of the fastening screw is 0.4 Nm

Supply air

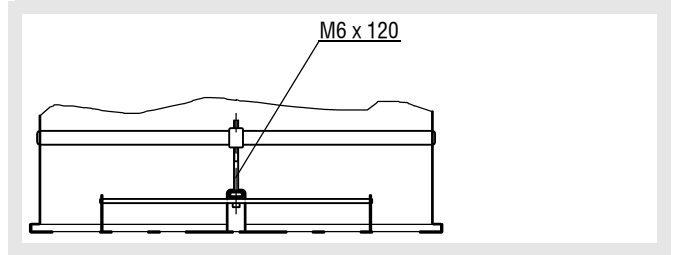
IDA-Q-Z-...-VM-... / SK-Q-08-Z-...-VM-...



This applies to sizes up to and including NW625.

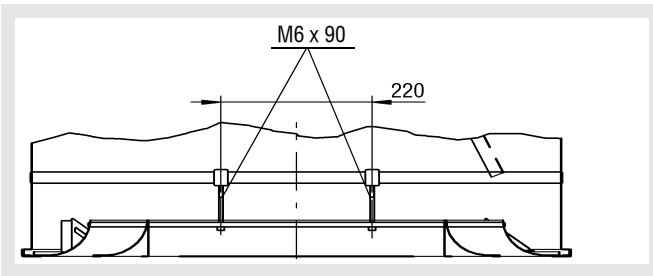
Return air

IDA-Q-AA-...-VM-... / SK-Q-08-A-...-VM-...

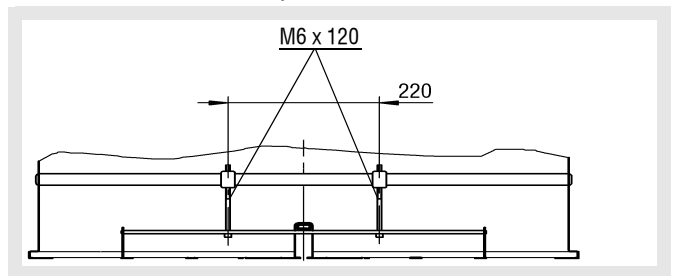


This applies to sizes up to and including NW625.

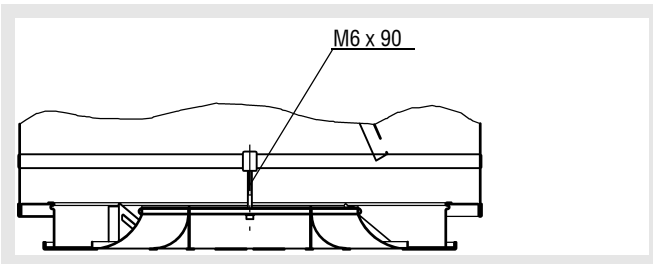
IDA-Q-Z-800-...-VM-... / SK-Q-08-Z-800-VM-...



IDA-Q-AA-800-...-VM-... / SK-Q-08-A-800-VM-...

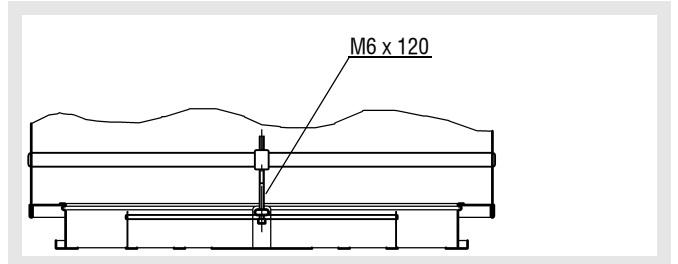


IDA-R-Z-...-VM-... / SK-R-08-Z-...-VM-...



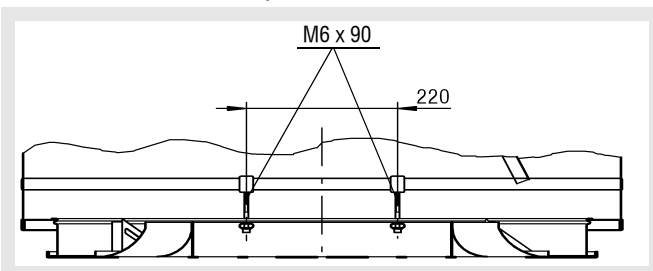
This applies to sizes up to and including NW625.

IDA-R-AA-...-VM-... / SK-R-08-A-...-VM-...

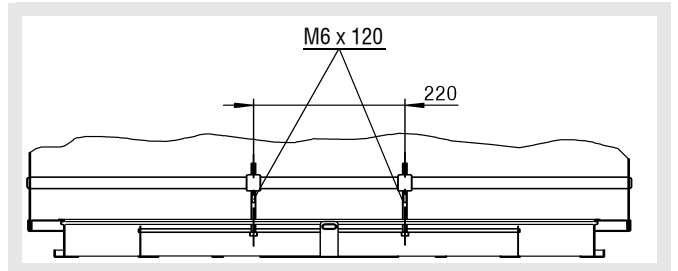


This applies to sizes up to and including NW625.

IDA-R-Z-800-...-VM-... / SK-R-08-Z-800-VM-...



IDA-R-AA-800-...-VM-... / SK-R-08-A-800-VM-...

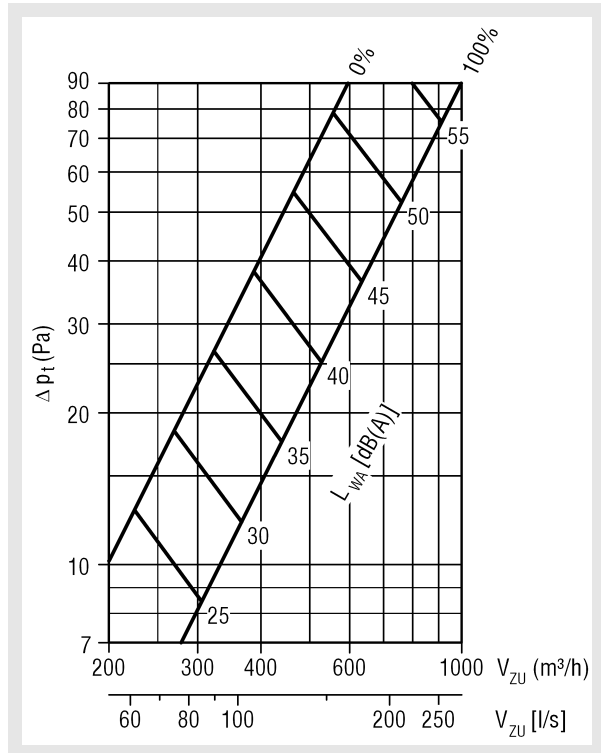


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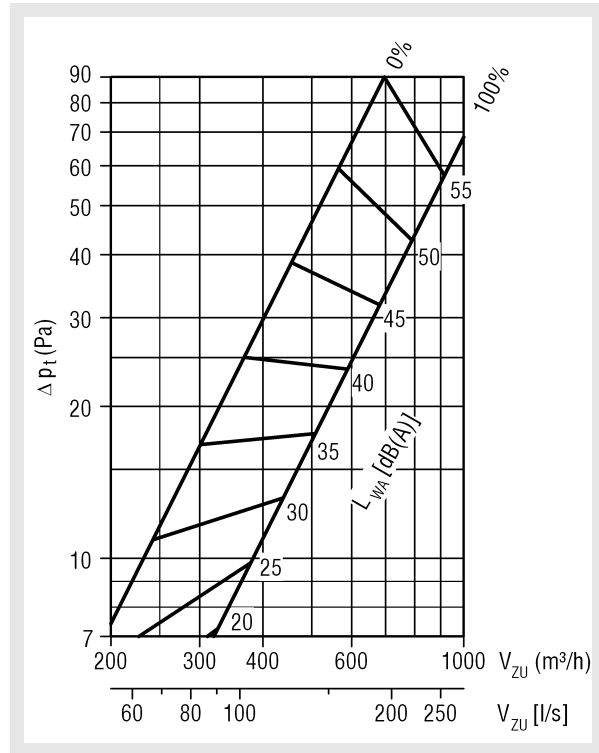
Technical data

Pressure loss and noise level

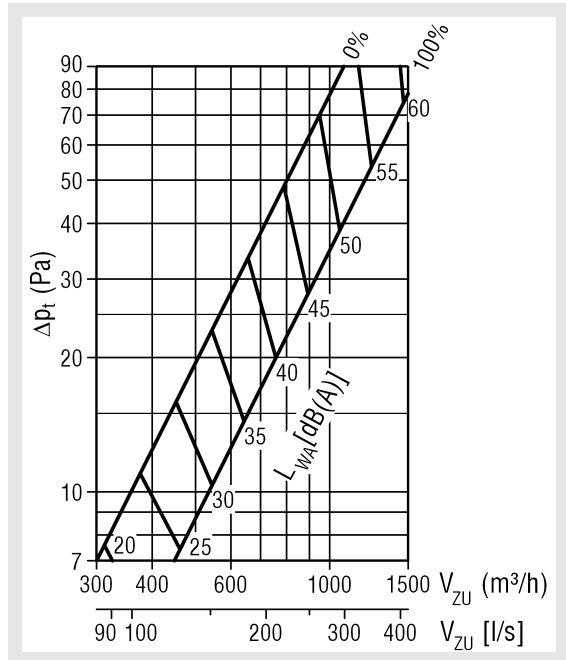
IDA-...-ZH-400-... (Cooling mode)



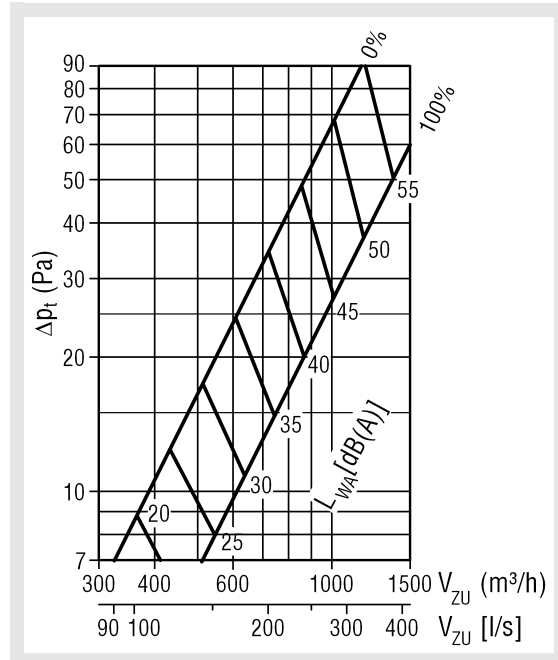
IDA-...-ZV-400-... (Heating mode)



IDA-...-ZH-500-... (Cooling mode)



IDA-...-ZV-500-... (Heating mode)



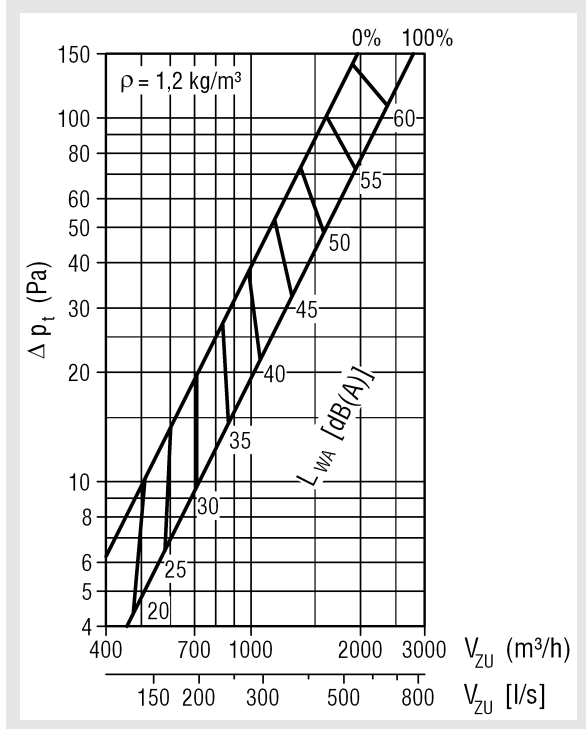
Damper position:

0% = CLOSED

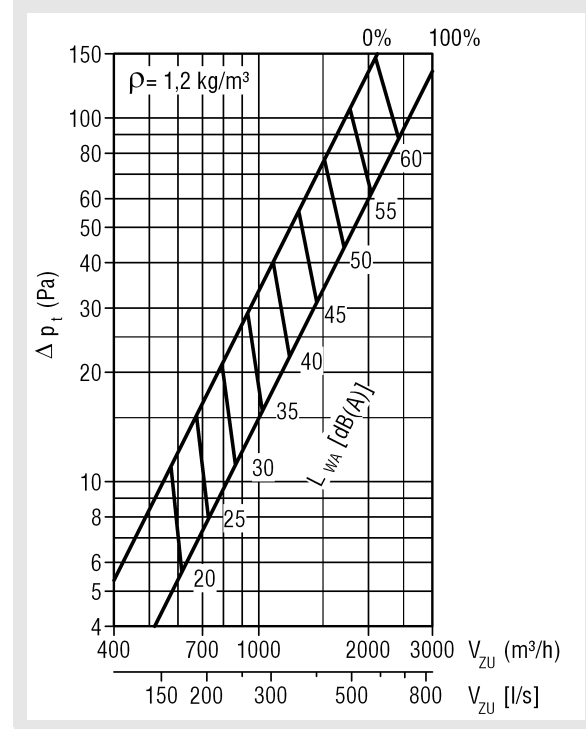
100% = OPEN

Ceiling Diffuser IDA

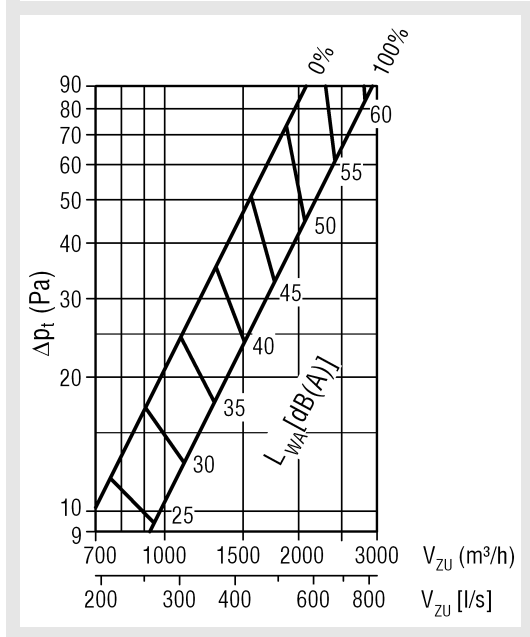
IDA-...-ZH-600/625-... (Cooling mode)



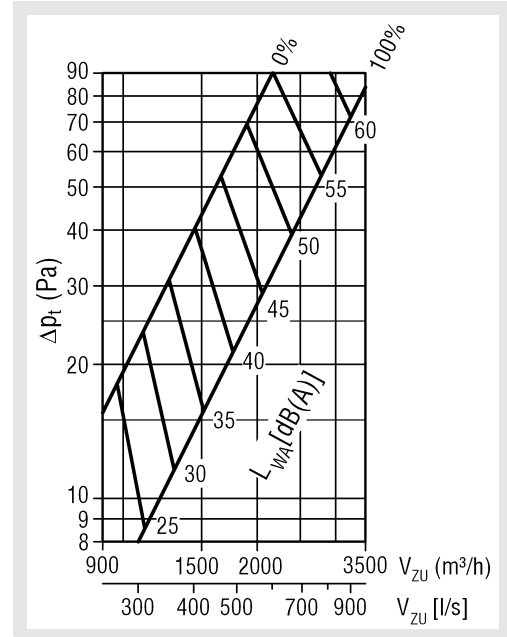
IDA-...-ZV-600/625-... (Heating mode)



IDA-...-ZH-800-... (Cooling mode)



IDA-...-ZV-800-... (Heating mode)



Correction factor (supply air in the range 25 – 50 dB(A))

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|----------------|------|------|-----|------|------|-------|-------|-------|
| KF (-) | 10,7 | 10,1 | 2,9 | -2,2 | -9,8 | -15,5 | -16,0 | -15,1 |

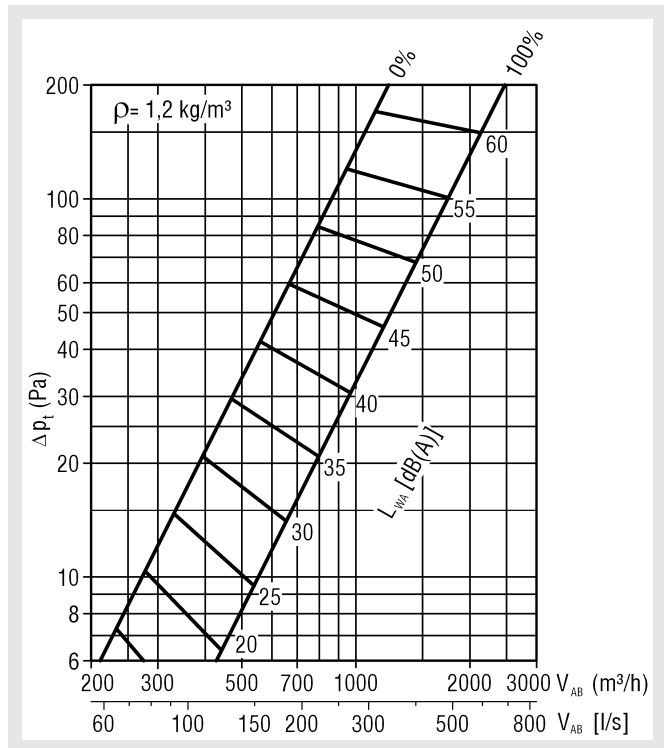
Damper position:

- 0% = CLOSED
- 100% = OPEN

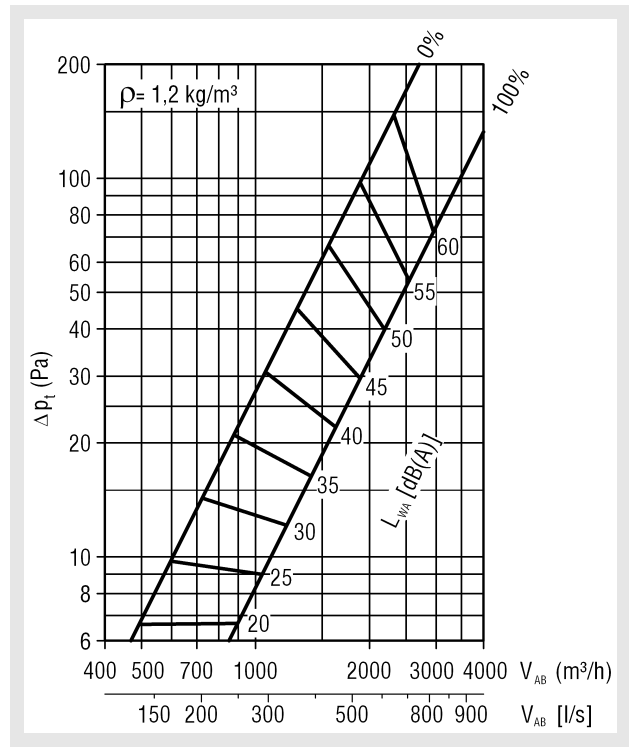
$$L_{W(\text{relativ})} = L_{WA} + KF$$

Ceiling Diffuser IDA

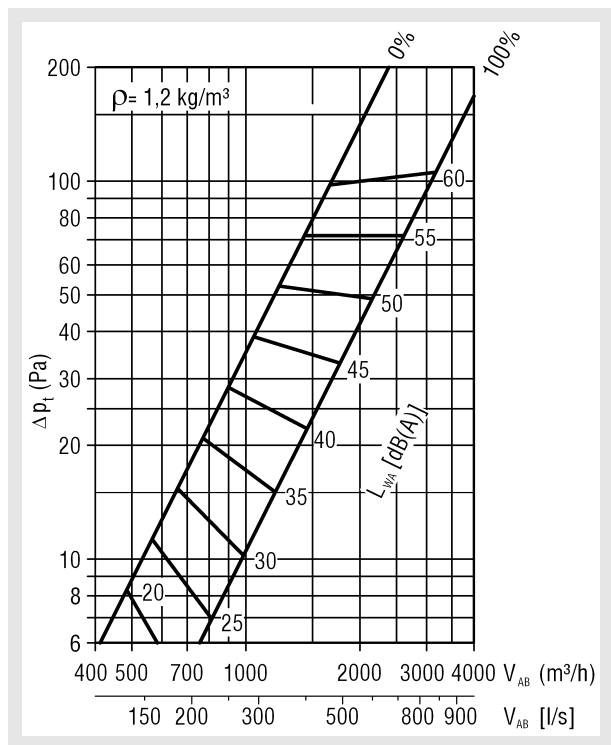
IDA-...-AA-400-...



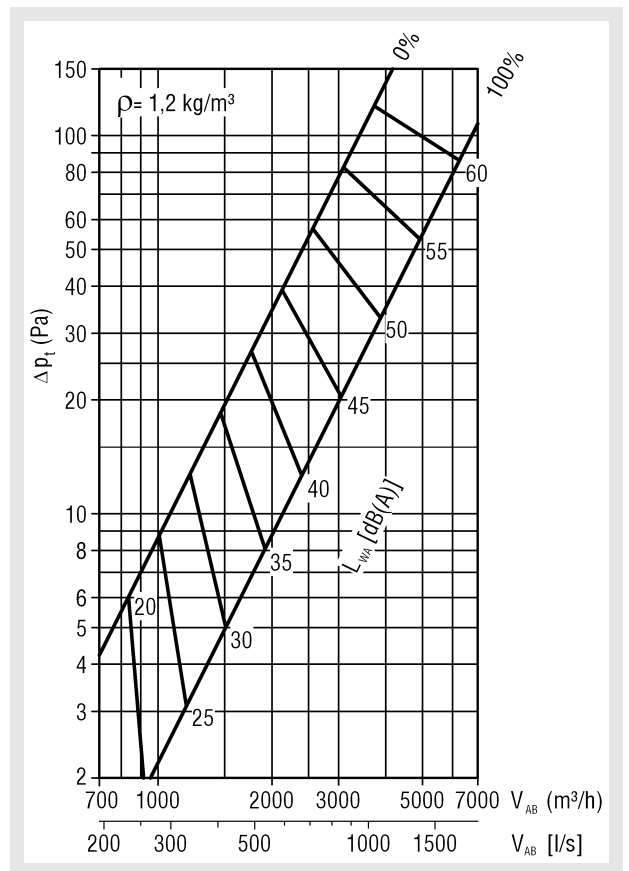
IDA-...-AA-600/625-...



IDA-...-AA-500-...



IDA-...-AA-800-...



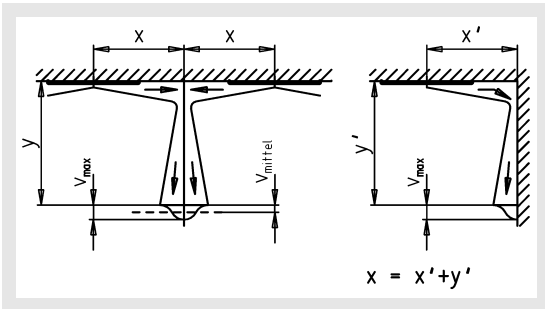
Damper position:

0% = CLOSED

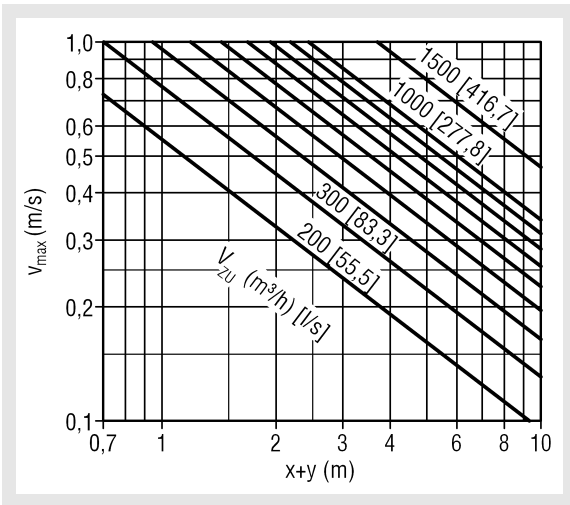
100% = OPEN

Ceiling Diffuser IDA

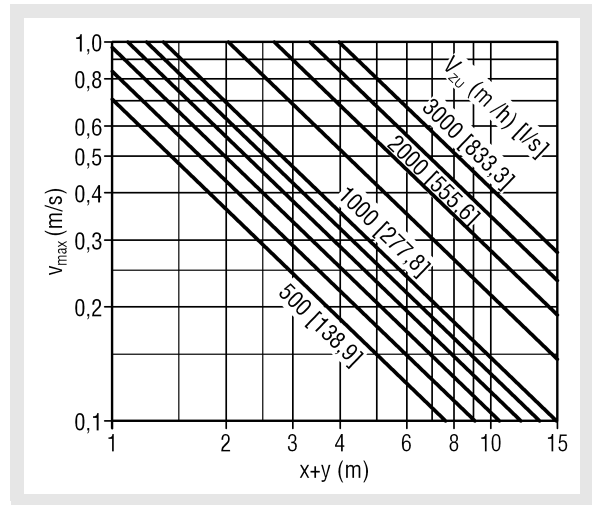
Maximum end velocity of jet
(isothermal) with coanda effect



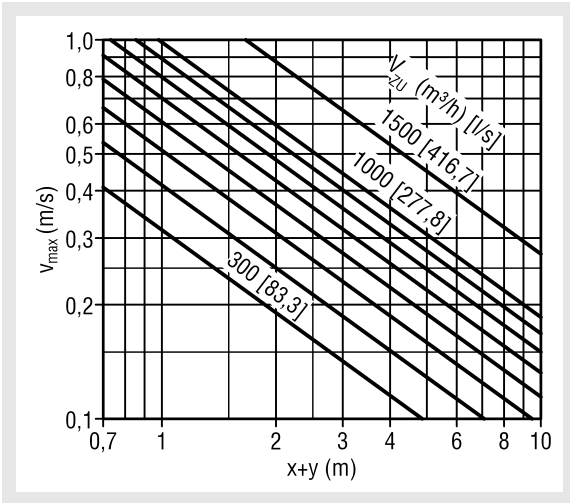
IDA-...-ZH-400-...



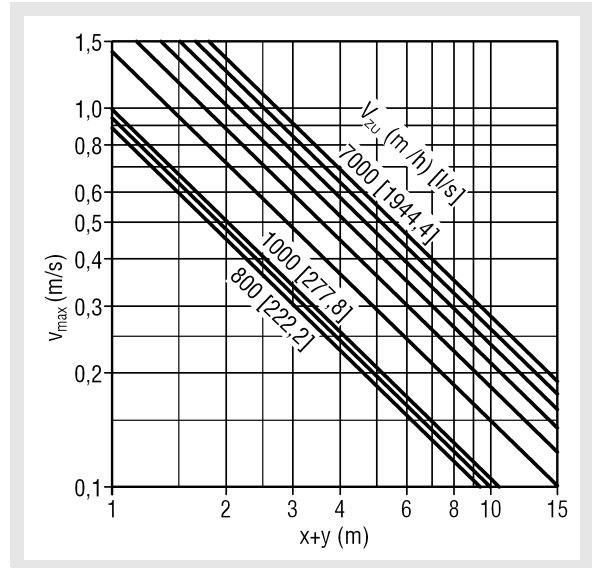
IDA-...-ZH-600/625-...



IDA-...-ZH-500-...

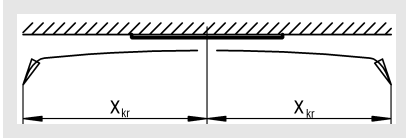


IDA-...-ZH-800-...

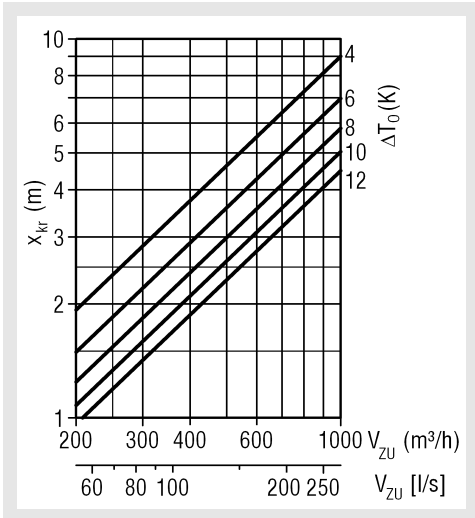


Ceiling Diffuser IDA

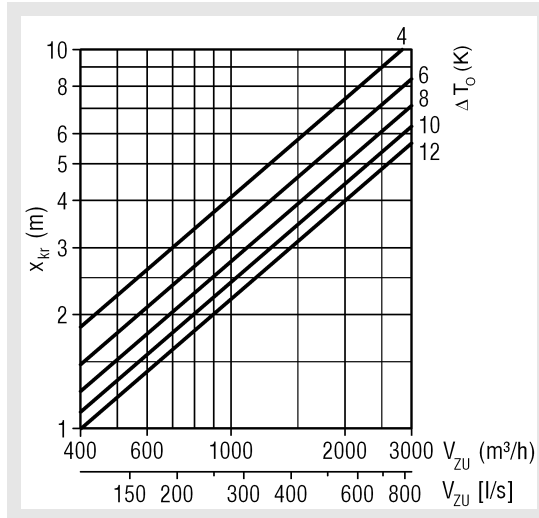
Critical throw



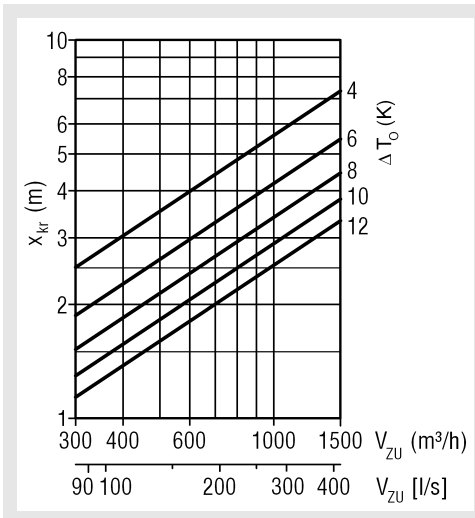
IDA-...-ZH-400-...



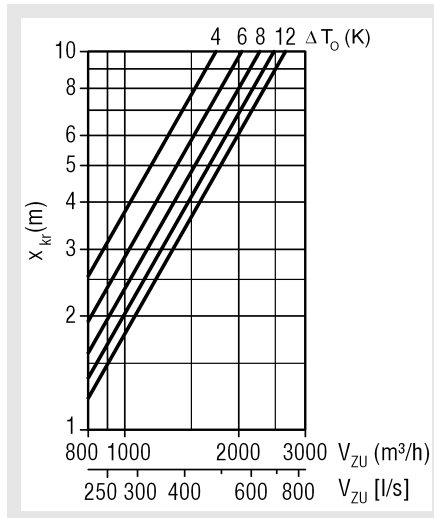
IDA-...-ZH-600/625-...



IDA-...-ZH-500-...

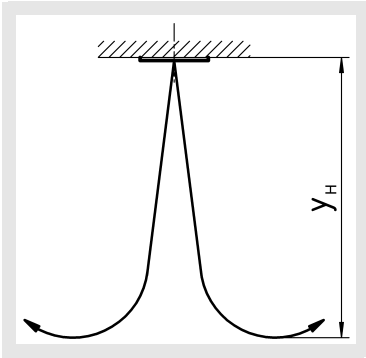


IDA-...-ZH-800-...

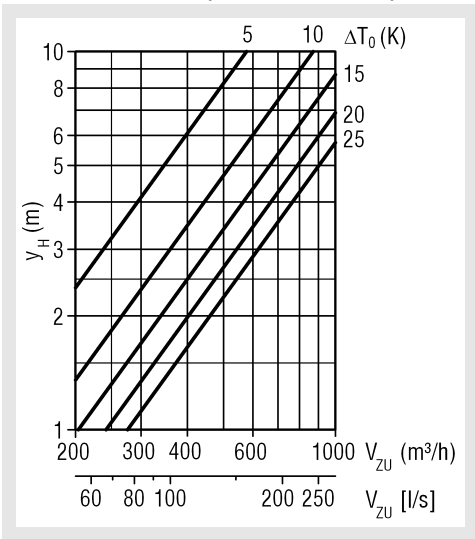


Ceiling Diffuser IDA

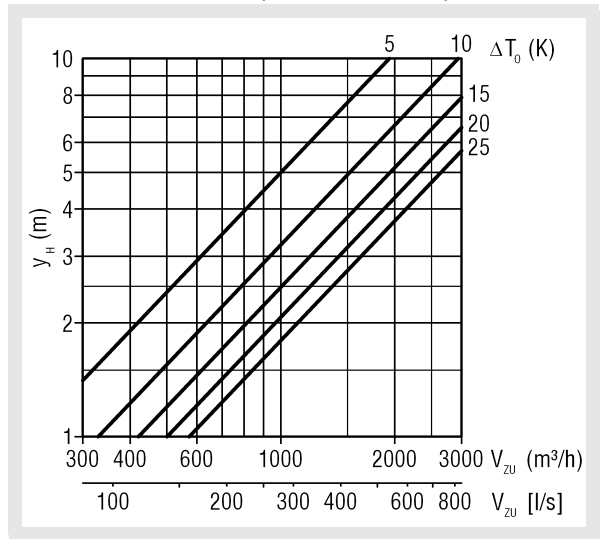
Maximum penetration



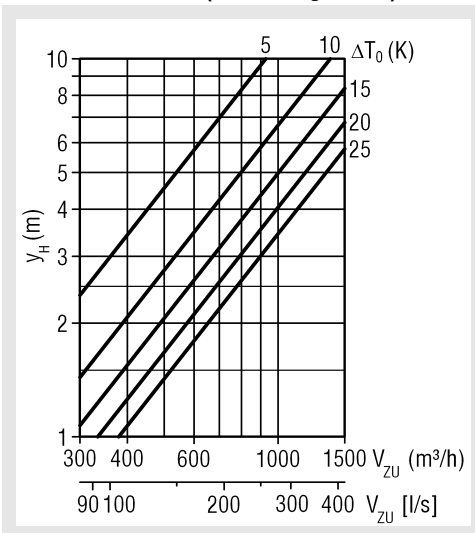
IDA-...-ZV-400-... (in heating mode)



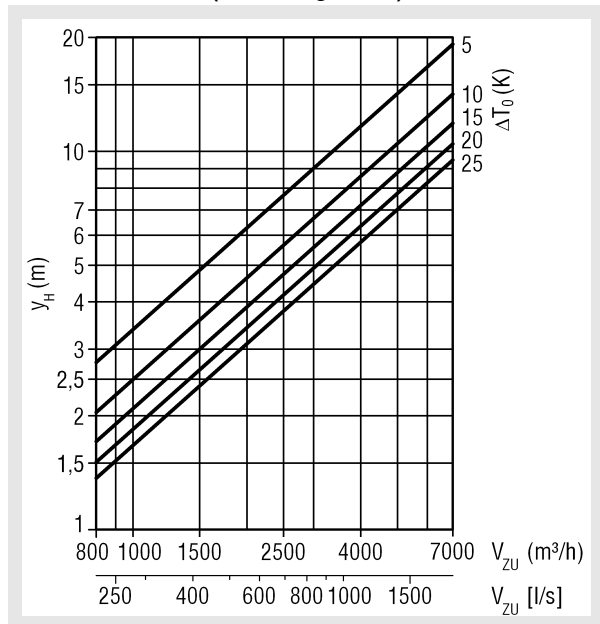
IDA-...-ZV-600/625-... (in heating mode)



IDA-...-ZV-500-... (in heating mode)



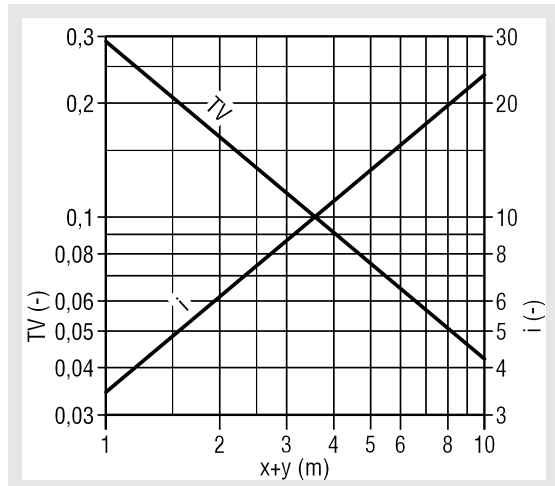
IDA-...-ZV-800-... (in heating mode)



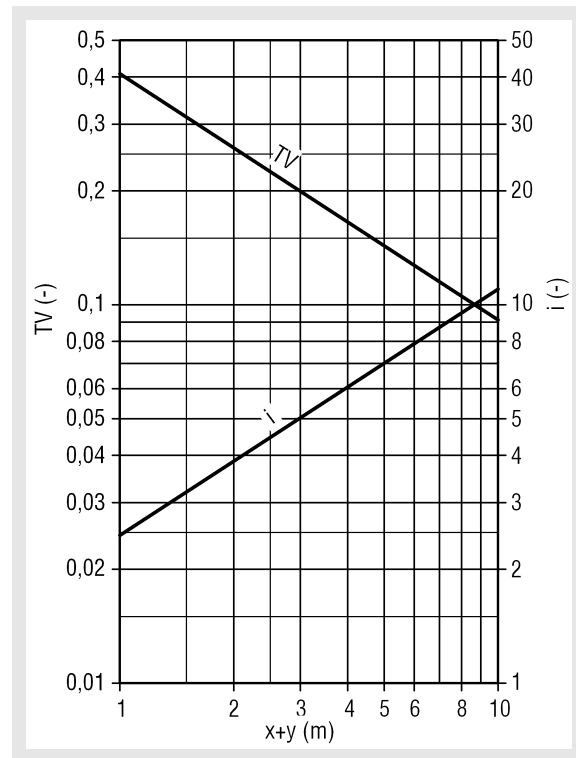
Ceiling Diffuser IDA

Temperature and induction ratios

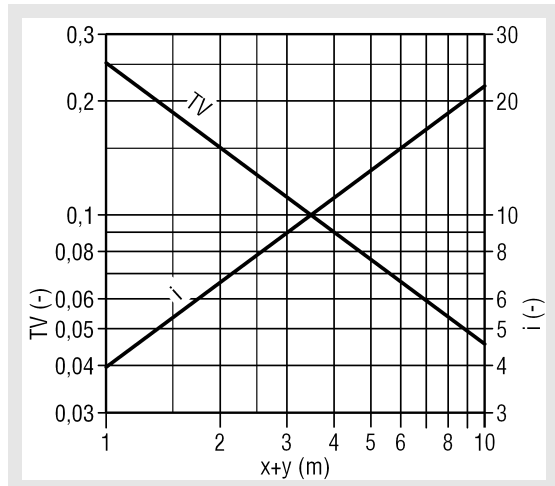
IDA-...-400-...



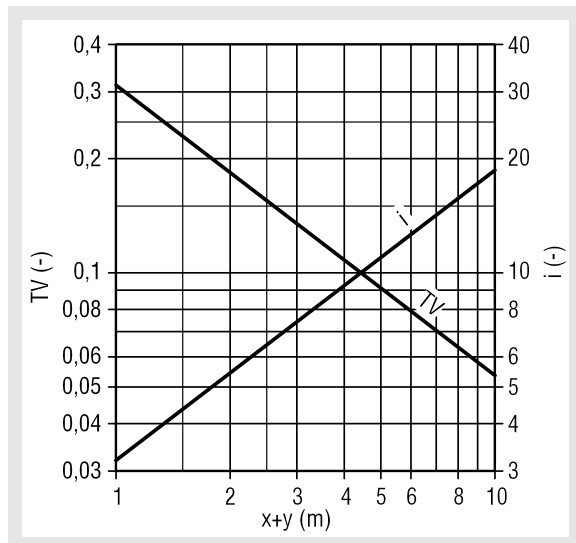
IDA-...-800-...



IDA-...-500-...



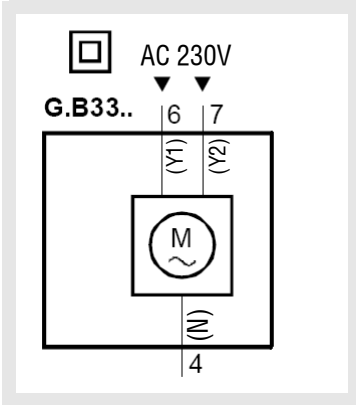
IDA-...-600/625-...



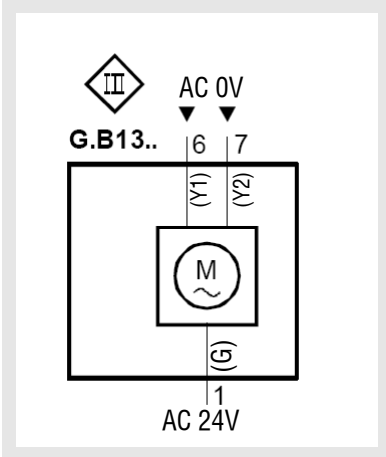
Ceiling Diffuser IDA

Connection diagrams of electric actuators

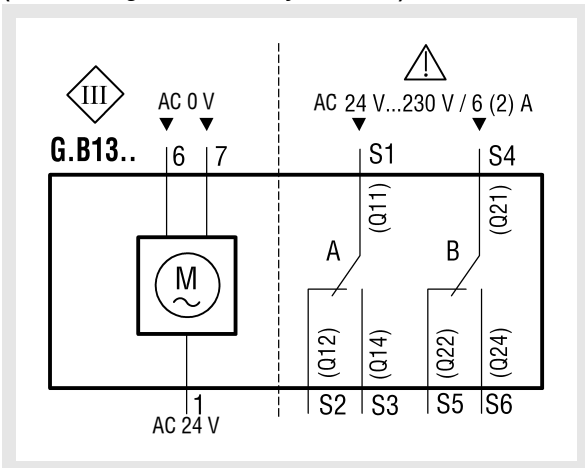
Make Siemens
-E092 (GLB 331.2.E three-point control)



Make Siemens
-E090 (GLB 131.2.E three-point control)



Make Siemens
-E093 (GLB 136.2.E three-point control)
(with 2 integrated auxiliary switches)



Technical data of electric actuators

Make Siemens -E092 (GLB 331.2.E) /
-E090 (GLB 131.2.E) (standard) / -E093 (GLB 136.2.E)

| | |
|---|--|
| Supply AC 24 V (SELV / PELV) - Operating voltage / Frequency: - Power consumption GLB13..2: | AC 24 V $\pm 20\%$ / 50 / 60 Hz 2 VA / 1 W |
| Supply AC 230 V - Operating voltage / Frequency: - Power consumption GLB33..2: | AC 230 V $\pm 10\%$ / 50 / 60 Hz 2 VA / 1 W |
| Functional data - Nominal lifting power: - Running time for 60 mm stroke: | 250 N 150 s (50 Hz) / 125 s (60 Hz) |
| Housing protection type - Protection type according to EN 60529: (Observe mounting information) | IP 40 |
| Protection class - Insulation protection class: | EN 60 730 |
| Environmental conditions - Temperature: | -30...+55 °C / -30...+60 °C |

Note:

We recommend switching off the drive voltage after reaching the controller position.

Ceiling Diffuser IDA

Legend

| | | |
|-------------------------|---------------------------|--|
| V_{ZU} | (m ³ /h) [l/s] | = Supply air volume |
| V_{AB} | (m ³ /h) [l/s] | = Return air volume |
| V_X | (m ³ /h) [l/s] | = Total air jet volume at point x |
| v_{max} | (m/s) | = Maximum end velocity of jet |
| v_{mittel} | (m/s) | = Average end velocity of jet ($v_{mittel} = v_{max} \times 0.5$) |
| x | (m) | = horizontal throw |
| y | (m) | = vertical throw |
| x+y | (m) | = Horizontal + vertical throw |
| x_{kr} | (m) | = Critical throw |
| y_H | (m) | = Maximum penetration in heating mode |
| ρ | (kg/m ³) | = Density |
| Δp_t | (Pa) | = Pressure loss |
| L_{WA} | [dB(A)] | = A-weighted sound power level |
| $L_{W(\text{relativ})}$ | (dB) | = relative sound power level |
| KF | (-) | = Correction factor |
| ΔT_0 | (K) | = Temperature difference between supply air temperature and room temperature ($\Delta T_0 = t_{ZU} - t_R$) |
| ΔT_X | (K) | = Temperature difference at point x |
| t_{ZU} | (°C) | = Supply air temperature |
| t_R | (°C) | = Room temperature |
| i | (-) | = Induction ratio ($i = V_X / V_{ZU}$) |
| TV | (-) | = Temperature ratio ($TV = \Delta T_X / \Delta T_0$) |
| DS | (%) | = Damper position (0% = CLOSED / 100% = OPEN) |

Ceiling Diffuser IDA

IDA order code

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|----------------|-------|-----------|--------------|----------|-----------------------|-------|----------|-------------------|----------|
| Type | Model | Air throw | Nominal size | Material | Drill pattern reduced | Paint | Mounting | Ball-impact guard | Actuator |
| Example | | | | | | | | | |
| IDA | -Q | -ZH | -500 | -SB | -000 | -9010 | -VM | -B0 | -E000 |

Sample

IDA-Q-ZH-500-SB-000-9010-VM-B0-E000

Ceiling diffuser type IDA | square faceplate | horizontal supply air | size 500 | sheet steel | drill pattern not reduced | RAL 9010 white | concealed mounting | without ball-impact guard | without actuator

Order details

01 - Type

IDA = Ceiling diffuser

02 - Model

Q = square faceplate with manually adjustable ventilation funnel

R = round faceplate with manually adjustable ventilation funnel

03 - Air throw

ZH = Horizontal supply air (standard)

ZV = Vertical supply air

AA = Return air

04 - Nominal size

400 = NW 400

500 = NW 500

600 = NW 600

625 = NW 625

800 = NW 800

05 - Material

SB = Sheet steel (standard)

06 - Drill pattern reduced

000 = Drill pattern not reduced (standard)

400 = reduced drill pattern 400

500 = reduced drill pattern 500

600 = reduced drill pattern 600

The drill pattern selected must be smaller than the nominal size selected. Reduced drill pattern not possible for nominal size 800.

07 - Paint

9005 = RAL colour black

9010 = RAL colour white (standard)

xxxx = RAL colour can be freely selected

08 - Mounting

VM = Concealed mounting (standard)

SM = Screw mounting (only in connection with ball-impact guard)

VS = Screw mounting with concealed mounting (available only for NW800 in conjunction with ball-impact guard)

09 - Ball-impact guard

B0 = without ball-impact guard (standard)

BS = with ball-impact guard painted same as faceplate

10 - Actuator

E000 = Without actuator (standard)

E090 = Electric actuator 24V AC / 3-point

E092 = Electric actuator 230V AC / 3-point

E093 = Electric actuator 24V AC / 3-point with 2 integrated auxiliary switches

TE01 = Thermocouple adjustment

Ceiling Diffuser IDA

Order code SK-...-08-...

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|----------------|-------|--------------|-------------|--------------|-----------|----------|--------|
| Plenum box | Model | Air diffuser | Type of air | Nominal size | Fastening | Material | Damper |
| Example | | | | | | | |
| SK | -R | -08 | -Z | -500 | -VM | -SV | -DK2 |

| 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|-----------------|--------------------------------------|-------------|------------|---------------|-----------------|-----------------|
| Rubber lip seal | Measuring device for volumetric flow | ROB version | Insulation | Height of box | Spigot diameter | Spigot position |
| | | | | | | |
| -GD1 | -VME1 | -ROB0 | -I0 | -KHS | -SDS | -S1 |

Sample

SK-R-08-Z-500-VM-SV-DK2-GD1-VME1-ROB0-I0-KHS-SDS-S1

Plenum box | square design with round diffuser mount | air diffuser IDA | supply air | NW500 | with concealed support | galvanised sheet steel | with damper with cable | with rubber lip seal | with volumetric flow meter | without ROB version | without box insulation | standard height of plenum box | standard spigot diameter | 1 lateral spigot

Order details

01 - Type

SK = Plenum box, square design

02 - Model

Q = Square plenum box for square air diffusers
R = Square plenum box with round diffuser support for round air diffusers

03 - Air diffuser (must be ordered separately)

08 = suitable for IDA-...

04 - Type of air

Z = Supply air
A = Return air

05 - Nominal size

400 = NW400
500 = NW 500
600 = NW 600
625 = NW 625
800 = NW 800

06 - Fastening

VM = Concealed mounting (standard)
SM = Screw mounting (only for the model with ball-impact guard)
VS = Screw mounting with concealed mounting (available only for NW800 in conjunction with ball-impact guard)

07 - Material

SV = Galvanised sheet steel (standard)

08 - Damper

DK0 = Without damper (standard)
DK1 = With damper
DK2 = With damper and cable

09 - Rubber lip seal

GD0 = Without rubber lip seal (standard)
GD1 = With rubber lip seal

10 - Volumetric flow meter

VME0 = without volumetric flow meter in the plenum box (standard)
VME1 = with volumetric flow meter in the plenum box

11 - ROB version

ROB0 = Without ROB version (standard)
ROB1 = With ROB version (not possible for SK-R-...)

12 - Insulation

I0 = Without insulation (standard)
Ia = With box insulation outside
Ii = With box insulation inside

13 - Height of box

KHS = Standard height of box
xxx = Height of box in mm (minimum height = spigot diameter + 147 mm, but at least 245 mm)

14 - Spigot diameter

SDS = Spigot diameter standard
xxx = Spigot diameter in mm

15 - Spigot position

S0 = Spigot from above
S1 = 1 lateral spigot on the box (standard)
S2 = 2 spigots offset by 90°
S3 = 2 spigots offset by 180°
S5 = 2 spigots arranged next to each other

Ceiling Diffuser IDA

Specification text

The ceiling diffuser IDA for cooling and heating large and high halls is specially designed for installation flush with the ceiling, in order to comply with spatial and architectural demands.

In order to prevent draughts in the cooling mode, the supply air must largely be discharged horizontally from the diffuser. However, in the heating mode, the diffuser must have high penetration depth, in order to achieve fast and efficient heating. The ceiling diffuser type IDA with manually adjustable air guide funnel and square faceplate meets both these requirements ideally. Suitable for installation heights ranging from 3 m to 10 m maximum. Diffuser consisting entirely of sheet steel painted with a high-quality powder coating to a RAL colour (RAL 9010 (white), standard). It is fastened by concealed mounting (-VM) using a central fastening screw.

Product: **SCHAKO type IDA-Q-ZH-.../ IDA-Q-ZV-...**

- Return air model without air guide funnel
Product: **SCHAKO type IDA-Q-AA-...**
- Supply air model with round faceplate and air guide funnel
Product: **SCHAKO type IDA-R-ZH-.../ IDA-R-ZV-...**
- Return air model with round faceplate without air guide funnel
Product: **SCHAKO type IDA-R-AA-...**
- with screw mounting (-SM) (IDA-Q only), only for model with ball-impact guard
- with screw mounting with concealed mounting (-VS), only for model with ball-impact guard (-BS) (only for NW 800)

Accessories:

- Plenum box (SK-Q-08 and SK-R-08), made of galvanised sheet steel, inside painted to RAL9005 (black), with fixing lugs, with air diffuser plate (for supply air model only)
 - with damper (-DK1) in the connection spigot Damper made of galvanised sheet steel
 - adjustable with cable (-DK2)
 - with volumetric flow meter (-VME, available for IDA up to NW625)
 - with ROB version (-ROB1), removable damper and volumetric flow meter (only SK-Q)
 - with rubber lip seal (-GD1), at the connection spigot made of special rubber.
 - with thermal insulation
 - internal (-li)
 - external (-la)
 - Height of plenum box can be freely selected, xxx in mm, minimum height = spigot diameter +147 mm, but at least 245 mm.
 - Spigot diameter can be freely selected, xxx in mm
 - Spigot position:
 - S0= spigot from above
 - S1 = lateral spigot on the box (standard)
 - S2= 2 spigots offset by 90°
 - S3= 2 spigots offset by 180°
 - S5= 2 spigots arranged next to each other
- with electric actuator (3-point activation)
 - 24 V AC (standard)
 - without auxiliary switch (-E090)
 - with 2 integrated auxiliary switches (-E093)
 - 230 V AC (-E092)
- Thermocouple adjustment (-TE01) diffuser adjustment option without electrical energy as a function of the supply air temperature (heating mode > 26°C, cooling mode < 26°C).
- Ball-impact guard (-BS), made of steel painted to RAL 9010 (white), other RAL colours possible at an extra charge (possible only for IDA-Q-... with screw mounting and for NW 800 only with concealed mounting). Attention: With reduced drill pattern, only possible with plenum box in the same size as the faceplate.