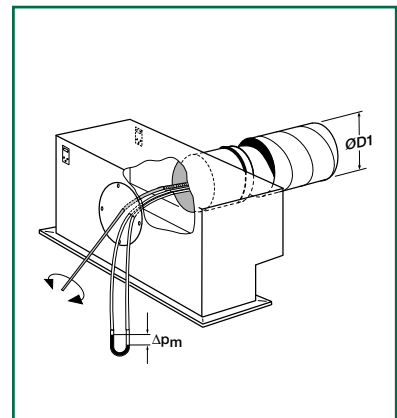


CTAA Slot diffuser



The type CTAA slot diffuser is designed for ceiling mounting. The diffuser provides a stable pattern of diffusion, even on wide variations in the air flow, and is therefore suitable for VAV systems. The pattern of diffusion can easily be adjusted from the outside. Several slot diffusers can be mounted in a series without visible joints. The diffuser is available in four standard lengths with one or up to four slots. The CTAA can also be used as an exhaust air diffuser.

Quick-selection

| Diffuser Size | Connection mm Diffuser with box | Air flow l/s (m ³ /h) at sound pressure | | |
|------------------|------------------------------------|--|-----------|----------|
| | | 25 dB(A) | 30 dB(A) | 35 dB(A) |
| 060-1-c-d | 159.3 | 45 | 52 (187) | 57 |
| 060-2-c-d | 159.3 | 67 | 75 (270) | 83 |
| 060-3-c-d | 199.3 | 85 | 98 (353) | 114 |
| 060-4-c-d | 199.3 | 100 | 117 (421) | 136 |
| 090-1-c-d | 159.3 | 54 | 61 (220) | 70 |
| 090-2-c-d | 159.3 | 77 | 89 (320) | 102 |
| 090-3-c-d | 199.3 | 112 | 130 (468) | 152 |
| 090-4-c-d | 199.3 | 121 | 142 (511) | 163 |
| 120-1-c-d | 159.3 | 63 | 70 (252) | 77 |
| 120-2-c-d | 159.3 | 73 | 81 (292) | 90 |
| 120-3-c-d | 199.3 | 104 | 120 (432) | 140 |
| 120-4-c-d | 199.3 | 110 | 128 (461) | 150 |
| 150-1-c-d | 159.3 | 61 | 68 (245) | 78 |
| 150-2-c-d | 159.3 | 75 | 85 (306) | 97 |
| 150-3-c-d | 199.3 | 120 | 140 (504) | 170 |
| 150-4-c-d | 199.3 | 130 | 160 (576) | 190 |

Product facts

Slot diffuser CTAA

Designed for ceiling mounting

Adjustable air diffusion

1-2 air deflectors (per slot)

Number of slots 1-4

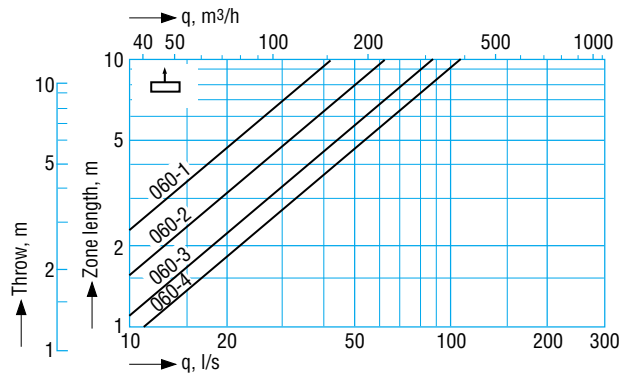
Product code example:

Slot diffuser CTAA-090-2-2-2

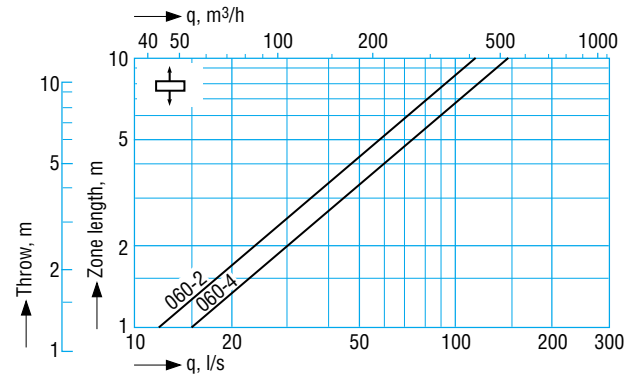
Connection box DTAZ-30-090-2-0-1

Air flow, zone length, throw, pressure drop, sound level

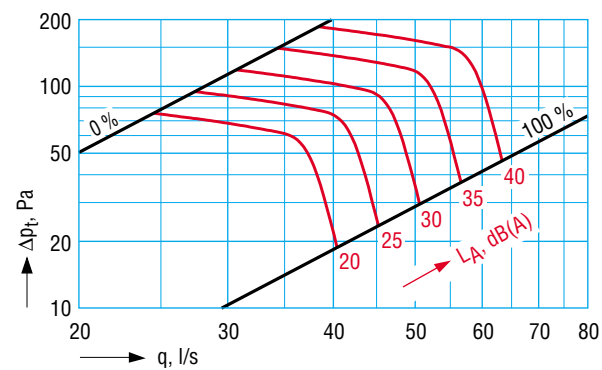
Length 600 mm, 1 to 4 slots, 1 direction



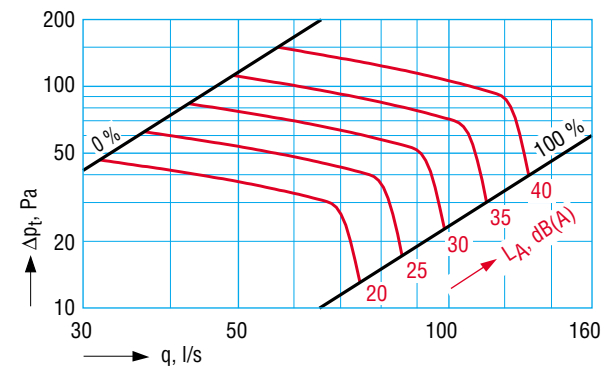
Length 600 mm, 2 and 4 slots, 2 directions



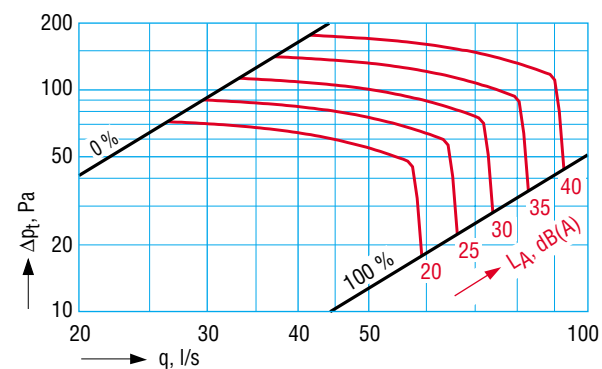
Length 600 mm, 1 slot



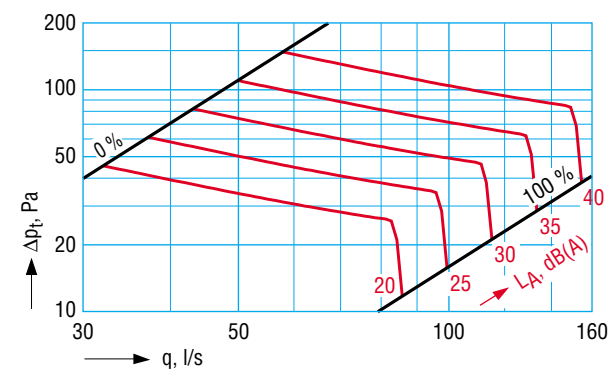
Length 600 mm, 3 slots



Length 600 mm, 2 slots

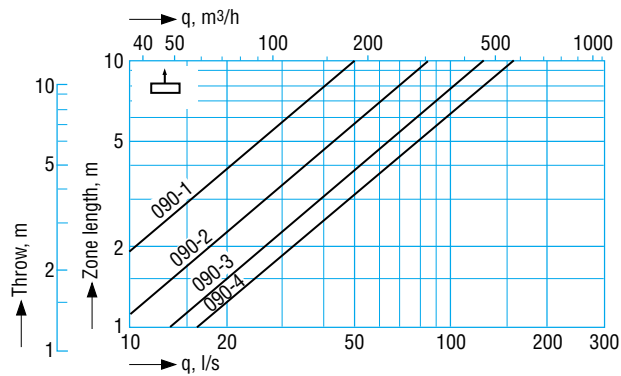


Length 600 mm, 4 slots

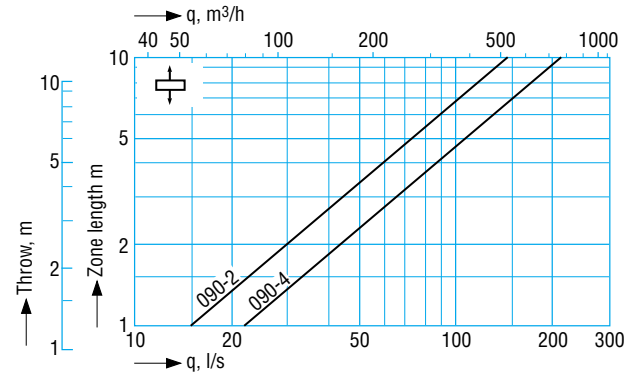


Air flow, zone length, throw, pressure drop, sound level

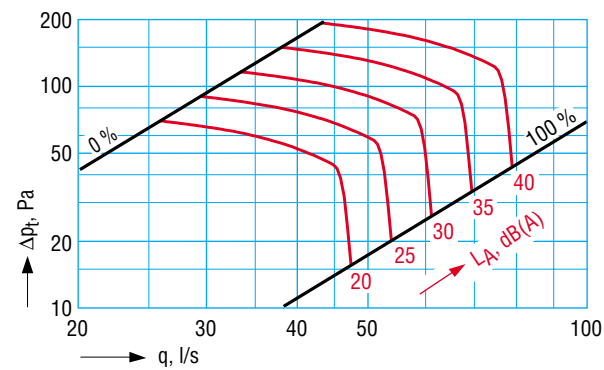
Length 900 mm, 1 to 4 slots, 1 direction



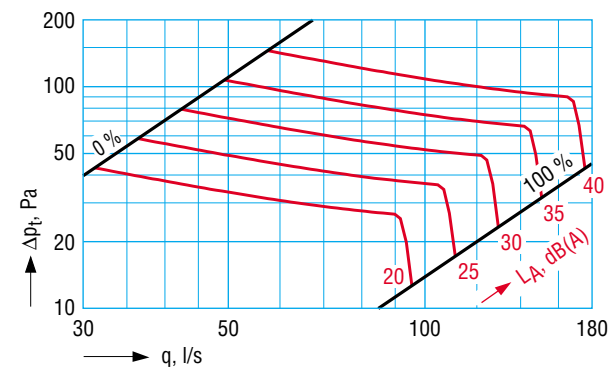
Length 900 mm, 2 and 4 slots, 2 directions



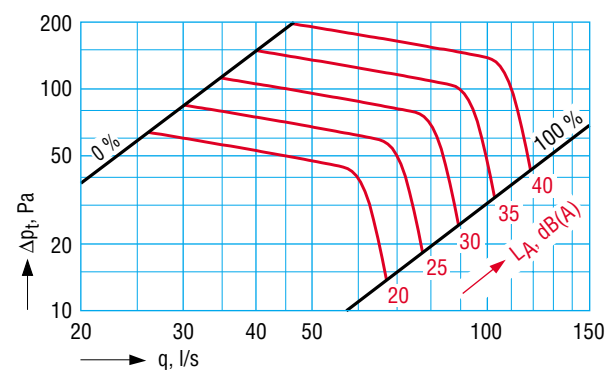
Length 900 mm, 1 slot



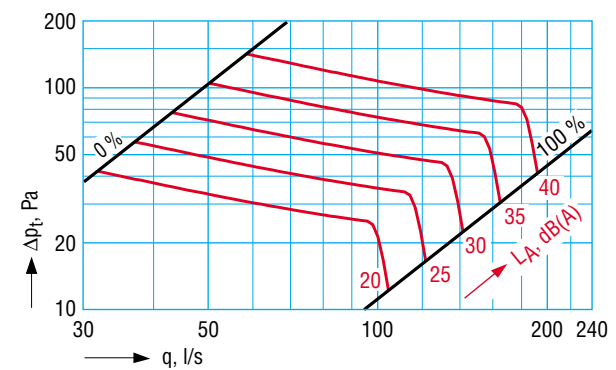
Length 900 mm, 3 slots



Length 900 mm, 2 slots

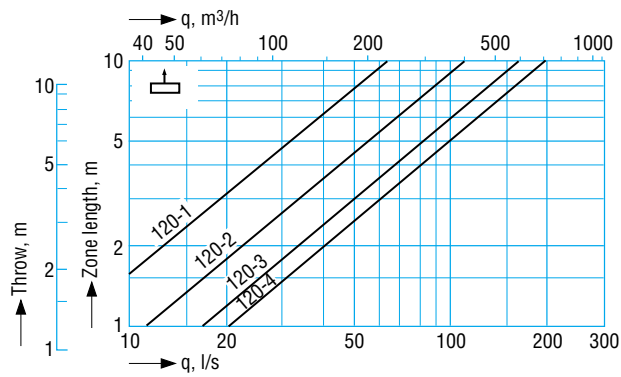


Length 900 mm, 4 slots

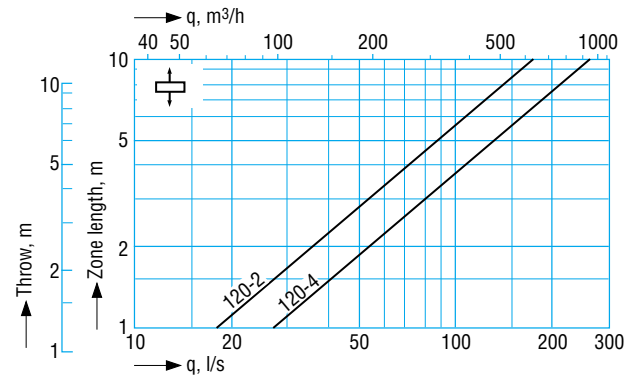


Air flow, zone length, throw, pressure drop, sound level

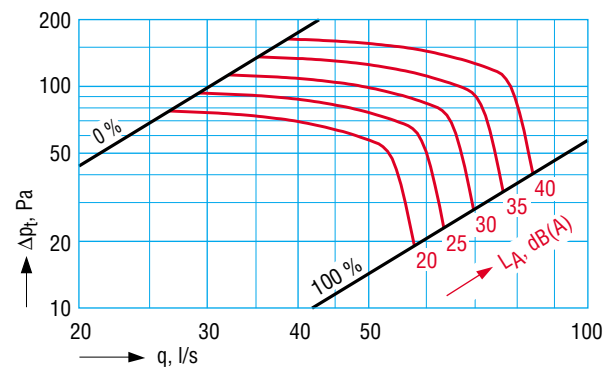
Length 1200 mm, 1 to 4 slots, 1 direction



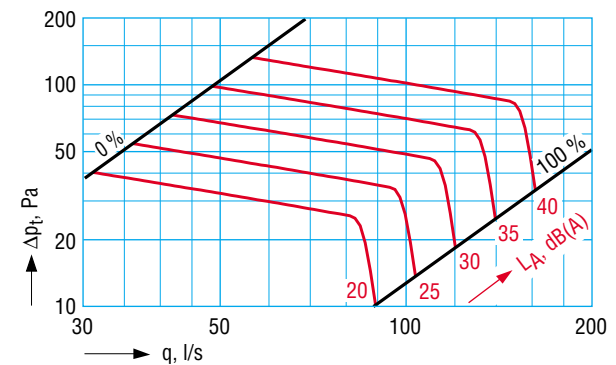
Length 1200 mm, 2 and 4 slots, 2 directions



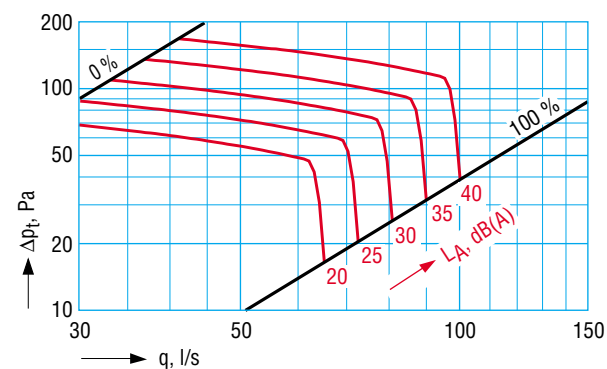
Length 1200 mm, 1 slot



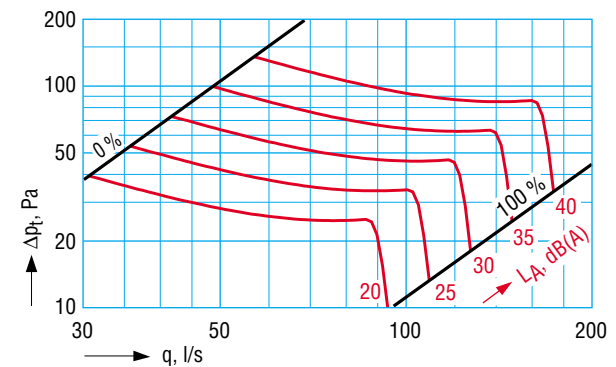
Length 1200 mm, 3 slots



Length 1200 mm, 2 slots

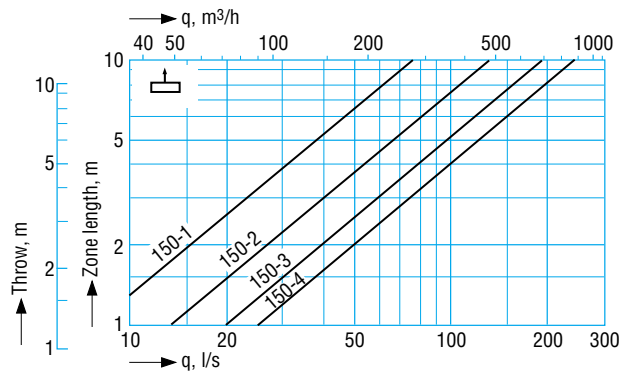


Length 1200 mm, 4 slots

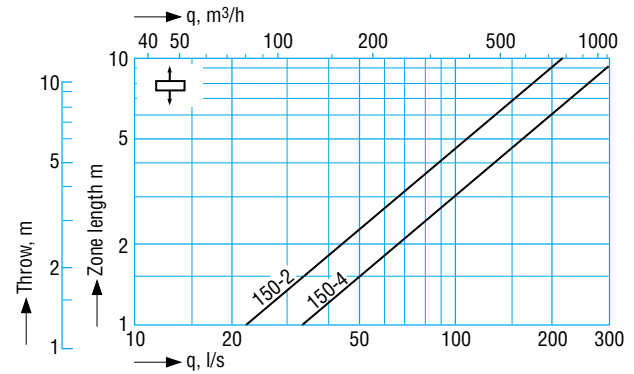


Air flow, zone length, throw, pressure drop, sound level

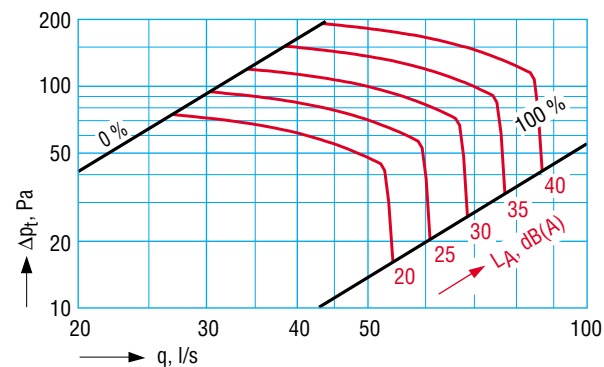
Length 1500 mm, 1 to 4 slots, 1 direction



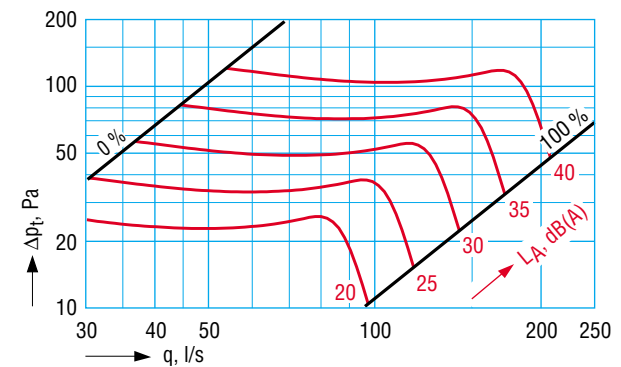
Length 1500 mm, 2 och 4 slots, 2 directions



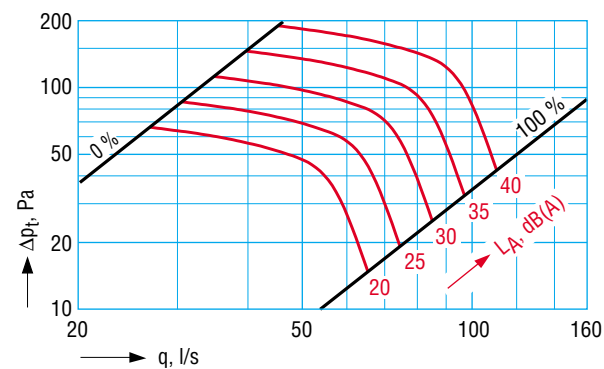
Length 1500 mm, 1 slot



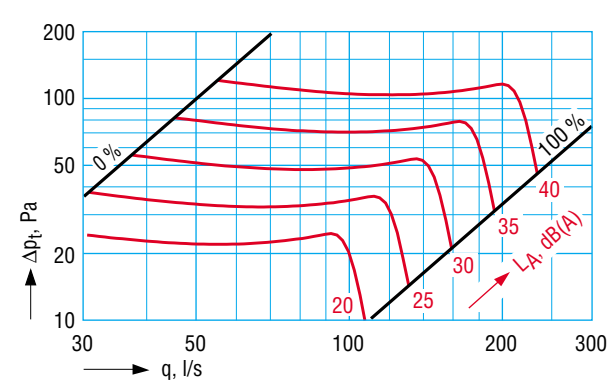
Length 1500 mm, 3 slots



Length 1500 mm, 2 slots



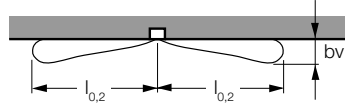
Length 1500 mm, 4 slots



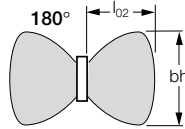
Air stream diffusion, sound data, exhaust air device

Air stream diffusion

$$b_v = 0.08 \times l_{0,2}$$

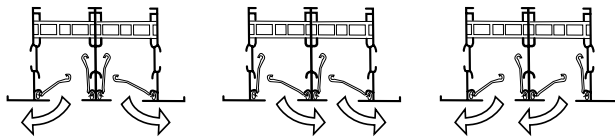


$$b_h \text{ for length } \begin{aligned} 600 \text{ mm} &= 0.6 + 0.14 \times l_{0,2} \\ 900 \text{ mm} &= 0.9 + 0.14 \times l_{0,2} \\ 1200 \text{ mm} &= 1.2 + 0.14 \times l_{0,2} \\ 1500 \text{ mm} &= 1.5 + 0.14 \times l_{0,2} \end{aligned}$$



where $l_{0,2} = 1.2 \times \text{the zone length}$

The air diffuser is available with 1 or 2 air deflectors per slot for 1- or 2-way diffusion respectively. Diffusers equipped with two air deflectors per slot can easily be readjusted for 1-way diffusion in any direction. The air flow through a slot can be blanked off by positioning two air deflectors against one another.



Sound power level

Subdivision into frequency-divided sound power L_w is done on the basis of the L_{A10} values in the graphs and the correction K_{ok} below.

$$L_w = L_{A10} + K_{ok}$$

| Length mm | Number of slots | Sound power level correction, K_{ok} in dB at | | | | | | | |
|--------------|--------------------|---|-----|-----|-----|------|------|------|---------|
| | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 600 | 1-2 | 4 | 2 | 4 | 1 | -4 | -6 | -4 | -4 |
| 600 | 3-4 | 5 | 4 | 2 | 1 | -8 | -7 | -3 | -4 |
| 900 | 1-2 | 5 | 4 | 5 | 1 | -5 | -6 | -3 | -5 |
| 900 | 3-4 | 4 | 3 | 4 | 0 | -6 | -4 | -3 | -4 |
| 1200 | 1-2 | 5 | 3 | 4 | 1 | -4 | -6 | -4 | -4 |
| 1200 | 3-4 | 5 | 6 | 5 | -3 | -5 | -4 | -3 | -5 |
| 1500 | 1-2 | 3 | 4 | 2 | -1 | -3 | -5 | -3 | -5 |
| 1500 | 3-4 | 2 | 3 | 2 | -4 | -5 | -4 | -2 | -3 |

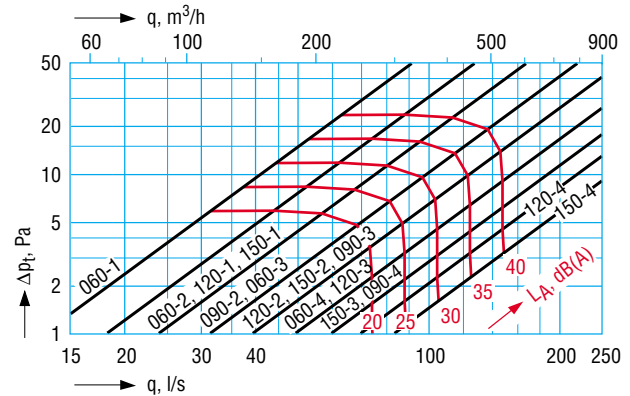
Sound attenuation

Air diffuser with uninsulated connection box

| Length mm | Number of slots | Sound attenuation in dB a | | | | | | | |
|--------------|--------------------|---------------------------|-----|-----|-----|------|------|------|---------|
| | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 600 | 1-2 | 15 | 12 | 10 | 15 | 17 | 15 | 15 | 18 |
| 600 | 3-4 | 16 | 12 | 8 | 15 | 13 | 11 | 13 | 9 |
| 900 | 1-2 | 15 | 12 | 10 | 13 | 17 | 13 | 16 | 18 |
| 900 | 3-4 | 16 | 11 | 8 | 12 | 13 | 11 | 13 | 9 |
| 1200 | 1-2 | 14 | 10 | 12 | 15 | 19 | 16 | 15 | 17 |
| 1200 | 3-4 | 15 | 11 | 9 | 13 | 15 | 13 | 14 | 9 |
| 1500 | 1-2 | 14 | 11 | 12 | 15 | 19 | 16 | 15 | 17 |
| 1500 | 3-4 | 12 | 10 | 9 | 14 | 16 | 14 | 15 | 9 |

CTAA Exhaust air device

With uninsulated connection box, without flow measuring damper



Sound power level

Subdivision into frequency-divided sound power L_w is done on the basis of the L_{A10} values in the graphs and the correction K_{ok} below.

$$L_w = L_{A10} + K_{ok}$$

| Length mm | Number of slots | Sound power level correction, K_{ok} in dB at | | | | | | | |
|--------------|--------------------|---|-----|-----|-----|------|------|------|---------|
| | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 600 | 1-2 | -5 | 6 | 9 | 3 | -6 | -13 | -17 | -23 |
| 600 | 3-4 | 5 | 11 | 6 | 2 | -3 | -6 | -11 | -18 |
| 900 | 1-2 | -5 | 6 | 9 | 3 | -6 | -13 | -17 | -23 |
| 900 | 3-4 | 5 | 11 | 6 | 2 | -3 | -6 | -11 | -18 |
| 1200 | 1-2 | -5 | 6 | 9 | 3 | -6 | -13 | -17 | -23 |
| 1200 | 3-4 | 5 | 11 | 6 | 2 | -3 | -6 | -11 | -18 |
| 1500 | 1-2 | -5 | 6 | 9 | 3 | -6 | -13 | -17 | -23 |
| 1500 | 3-4 | 5 | 11 | 6 | 2 | -3 | -6 | -11 | -18 |

Sound attenuation

Exhaust air device

with uninsulated connection box

| Length mm | Number of slots | Sound attenuation in dB a | | | | | | | |
|--------------|--------------------|---------------------------|-----|-----|-----|------|------|------|---------|
| | | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 600 | 1-2 | 18 | 12 | 7 | 6 | 6 | 4 | 3 | 4 |
| 600 | 3-4 | 16 | 10 | 5 | 5 | 5 | 3 | 3 | 3 |
| 900 | 1-2 | 18 | 12 | 7 | 7 | 6 | 3 | 4 | 4 |
| 900 | 3-4 | 16 | 10 | 5 | 6 | 5 | 3 | 3 | 3 |
| 1200 | 1-2 | 17 | 11 | 6 | 7 | 6 | 3 | 4 | 4 |
| 1200 | 3-4 | 15 | 9 | 4 | 6 | 5 | 3 | 3 | 3 |
| 1500 | 1-2 | 14 | 11 | 6 | 8 | 6 | 3 | 4 | 4 |
| 1500 | 3-4 | 13 | 9 | 4 | 7 | 5 | 3 | 4 | 3 |

Technical data and design

For complete dimensioning and for cooling requirement calculations, please refer to the WinDon product selection program.

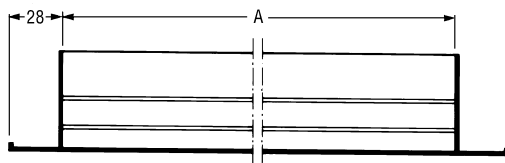
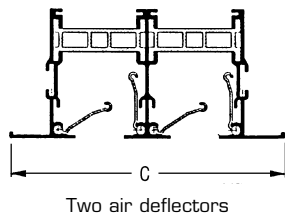
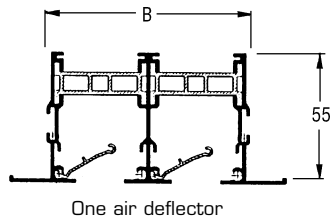
This program with a module for cooling requirement calculations can be found on our CD or on the Internet at www.flaktwoods.com.

Dimensions and weights, accessories

Dimensions and weights

CTAA slot diffuser/exhaust air device

The CTAA is available in versions with 2 end pieces and without end pieces for single and in-line installation.

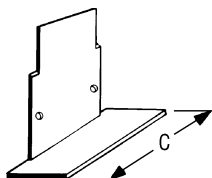


| Length mm | Number of slots | A | B | C | Weight, kg |
|--------------|--------------------|-------------------|-----|-----|---------------|
| 600 | 1 | 600 ¹⁾ | 41 | 76 | 0.7 |
| 600 | 2 | 600 ¹⁾ | 81 | 116 | 1.2 |
| 600 | 3 | 600 ¹⁾ | 120 | 155 | 2.0 |
| 600 | 4 | 600 ¹⁾ | 160 | 195 | 2.6 |
| 900 | 1 | 900 | 41 | 76 | 1.0 |
| 900 | 2 | 900 | 81 | 116 | 1.8 |
| 900 | 3 | 900 | 120 | 155 | 2.8 |
| 900 | 4 | 900 | 160 | 195 | 3.6 |
| 1200 | 1 | 1200 | 41 | 76 | 1.4 |
| 1200 | 2 | 1200 | 81 | 116 | 2.4 |
| 1200 | 3 | 1200 | 120 | 155 | 3.6 |
| 1200 | 4 | 1200 | 160 | 195 | 4.7 |
| 1500 | 1 | 1500 | 41 | 76 | 1.7 |
| 1500 | 2 | 1500 | 81 | 116 | 3.0 |
| 1500 | 3 | 1500 | 120 | 155 | 4.4 |
| 1500 | 4 | 1500 | 160 | 195 | 5.6 |

¹⁾ Note! Do not fit in ceiling modules of size 595 x 595 mm
The slot diffuser is also available with 6 or 8 slots and in other lengths.

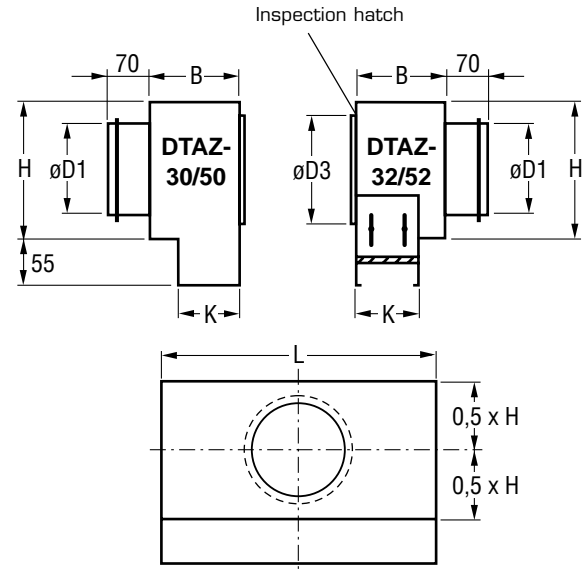
CTAZ-22 end piece

For the end diffuser in in-line installations.



| Number of slots | C |
|--------------------|-----|
| 1 | 77 |
| 2 | 118 |
| 3 | 158 |
| 4 | 199 |

DTAZ connection box



| Length mm | No. of slots | ØD1 | B | L | | H | K | ØD3 | W kg |
|--------------|-----------------|-------|-----|-------------|-------------|-----|-----|-----|---------|
| | | | | DTAZ- 30 | DTAZ- 32 | | | | |
| 600 | 1 | 159.3 | 140 | 632 | 595 | 190 | 58 | 190 | 2.7 |
| 600 | 2 | 159.3 | 140 | 632 | 595 | 190 | 100 | 190 | 2.9 |
| 600 | 3 | 199.3 | 180 | 632 | 595 | 245 | 140 | 230 | 3.9 |
| 600 | 4 | 199.3 | 222 | 632 | 595 | 245 | 182 | 230 | 4.1 |
| 900 | 1 | 159.3 | 140 | 932 | 895 | 190 | 58 | 190 | 4.0 |
| 900 | 2 | 159.3 | 140 | 932 | 895 | 190 | 100 | 190 | 4.3 |
| 900 | 3 | 199.3 | 180 | 932 | 895 | 245 | 140 | 230 | 5.1 |
| 900 | 4 | 199.3 | 222 | 932 | 895 | 245 | 182 | 230 | 5.4 |
| 1200 | 1 | 159.3 | 140 | 1232 | 1195 | 190 | 58 | 190 | 5.4 |
| 1200 | 2 | 159.3 | 140 | 1232 | 1195 | 190 | 100 | 190 | 5.4 |
| 1200 | 3 | 199.3 | 180 | 1232 | 1195 | 245 | 140 | 230 | 7.2 |
| 1200 | 4 | 199.3 | 222 | 1232 | 1195 | 245 | 182 | 230 | 7.5 |
| 1500 | 1 | 159.3 | 140 | 1532 | 1495 | 190 | 58 | 190 | 6.8 |
| 1500 | 2 | 159.3 | 140 | 1532 | 1495 | 190 | 100 | 190 | 7.2 |
| 1500 | 3 | 199.3 | 180 | 1532 | 1495 | 245 | 140 | 230 | 8.3 |
| 1500 | 4 | 199.3 | 222 | 1532 | 1495 | 245 | 182 | 230 | 8.7 |

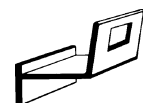
Size of opening

| CTAA-aaa-b | Tolerance H x G mm |
|---------------------------|-----------------------|
| Length = n x aaa x 10 + 5 | +30, -0 |
| Width = b x 41 + 20 | +15, -0 |

n = number of diffusers
aaa = length
b = number of slots

CTAZ-24 suspension rail

For suspending the air diffuser when it is mounted before the connection box is mounted.



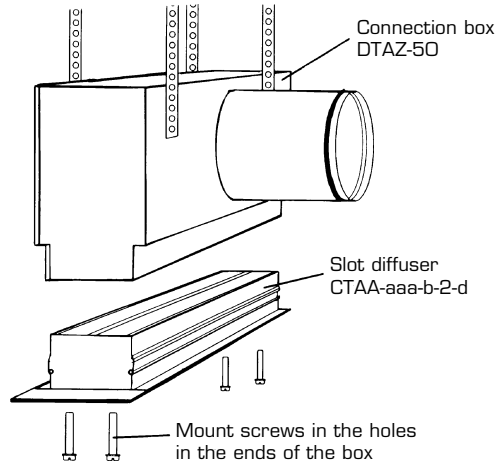
CTAZ-25 adjustment gauge

For setting the air deflectors to change the pattern of air diffusion.

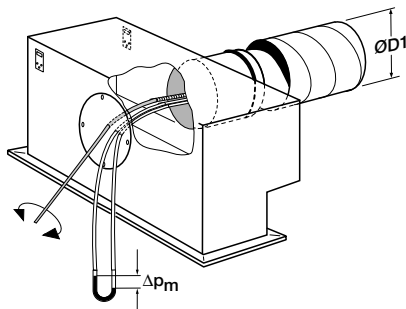
Installation, application and function, product code

Installation, adjustment and maintenance

Instructions for installation, adjustment and maintenance are described in detail in our instructions, SESVP 3748, which are supplied with every product. The instructions are also available on the Internet at www.flaktwoods.com.



N = Minimum length of straight duct should be 0.5 m for $\varnothing 10 - 20$ cm duct sizes and 0.75 m for $\varnothing 25 - 31$ cm duct sizes. If flexible metal duct is used instead of rigid duct of the same size, a bend of 30° is permissible.



Application and function

The type CTAA slot diffuser is designed for ceiling mounting. The diffuser provides a stable pattern of diffusion, even on wide variations in the air flow, and is therefore suitable for VAV systems. The pattern of diffusion can easily be adjusted from the outside. Several slot diffusers can be mounted in a series without visible joints. The diffuser is available in four standard lengths with one or up to four slots. It is made of natural-anodised aluminium, but is available in other colours to special order. The CTAA can also be used as an exhaust air diffuser.

The diffuser is described with connection box DTAZ. The flow measurement damper in the connection box can be withdrawn to facilitate inspecting and cleaning of damper, box and connected ventilation ducting. The damper unit is equipped with facilities for simple flow measurement.

Material and surface finish

The slot diffuser is made from natural-anodised aluminium. Other colours on request.

The connection box is as standard delivered made of galvanized steel sheet.

Descriptive text

CTAA slot diffuser for supply/exhaust air of Fläkt Woods manufacture, length 900 mm with 4 slots for instance, and with connection box for single/in line installation, with inspection hatch and with/without removable flow measuring damper.

Product code

Slot diffuser CTAA-aaa-b-c-d
Length in mm _____
600, 900, 1200, 1500

Number of slots _____
1, 2, 3, 4

Number of end pieces _____
0 = without
2 = 2 end pieces

Number of air deflectors (per slot) _____
1, 2

Connection box¹⁾ DTAZ-aa-bbb-c-0-e

Installation _____
30 = single installation, supply air
32 = in-line installation, supply air
50 = single installation, exhaust air
52 = in-line installation, exhaust air

Length in mm _____
600, 900, 1200, 1500

Number of slots _____
1, 2, 3, 4

Flow measuring damper _____
0 = without, supply and exhaust air
1 = with, only supply air
(flow measurement and adjustment of exhaust air flow is to be arranged in the duct system)

End piece (set of 10) CTAZ-22-b-1

Number of slots _____
1, 2, 3, 4

Suspension rail (set of 4) CTAZ-24

Adjustment gauge CTAZ-25

¹⁾ The diffusers are documented with uninsulated box. Insulated box is available as special order.