# **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**





# DTQA SUPPLY AIR DIFFUSER AIR MANAGEMENT SYSTEMS



DTQA is a very quiet supply air diffuser which is suitable for air distribution in offices, houses and rooms where wall mounting is required. It can be mounted on wall and also close to the ceiling. DTQA has a removable front plate for easy cleaning, measuring and adjustment of air flow.

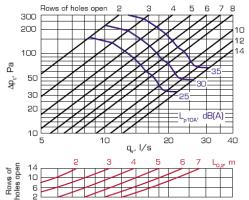
## **Product facts**

- Low noise level
- Can be mounted close to the ceiling
- Removable front plate for easy cleaning, measuring and adjustment of air flow

## Quick selection when 8 open rows

| Diffuser | Connection | Air flow I/s (m3/h) and noise level |          |          |  |  |  |
|----------|------------|-------------------------------------|----------|----------|--|--|--|
| Size     | mm         | 25 dB(A)                            | 30 dB(A) | 35 dB(A) |  |  |  |
| DTQA100  | 100        | 17                                  | 20(72)   | 24       |  |  |  |
| DTQA125  | 125        | 20                                  | 24(86)   | 28       |  |  |  |

# Air flow, pressure drop, sound level, throw DTQA100

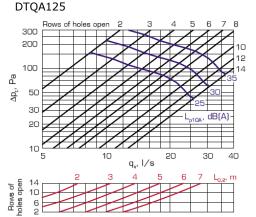


### Sound power level Lw

|   |         | CORRECTION K <sub>oot</sub> (dB) |                                      |     |      |      |      |      |  |
|---|---------|----------------------------------|--------------------------------------|-----|------|------|------|------|--|
|   | STQA    |                                  | Middle frequency by octave band (Hz) |     |      |      |      |      |  |
|   |         | 125                              | 250                                  | 500 | 1000 | 2000 | 4000 | 8000 |  |
| Ī | 100     | -1                               | -4                                   | 0   | 0    | -2   | -11  | -14  |  |
|   | 125     | 2                                | -3                                   | -2  | -1   | -1   | -8   | -13  |  |
| ĺ | Toler.± | 3                                | 2                                    | 2   | 2    | 2    | 2    | 3    |  |

### Sound attenuation $\Delta L$

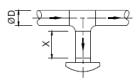
|      | Rows of<br>holes | SOUND ATTENUATION AL (dB) |                                      |             |             |              |             |              |              |
|------|------------------|---------------------------|--------------------------------------|-------------|-------------|--------------|-------------|--------------|--------------|
| STQA |                  |                           | Middle frequency by octave band (Hz) |             |             |              |             |              |              |
|      | open             | 63                        | 125                                  | 250         | 500         | 1000         | 2000        | 4000         | 8000         |
| 100  | 14<br>8<br>2     | 19<br>19<br>19            | 13<br>13<br>14                       | 8<br>7<br>7 | 0<br>0<br>7 | 0<br>0<br>10 | 1<br>4<br>7 | 3<br>5<br>9  | 3<br>5<br>12 |
| 125  | 14<br>8<br>2     | 17<br>17<br>19            | 12<br>12<br>14                       | 6<br>6<br>8 | 0<br>1<br>8 | 0<br>2<br>10 | 1<br>4<br>7 | 2<br>5<br>10 | 3<br>5<br>11 |
|      | Toler.±          | 6                         | З                                    | 2           | 2           | 2            | 2           | 2            | 3            |



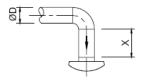
Effect of distance X and open rows of holes to the noise level at different connections

| Ø100 | Rows of holes open |       |       |       |       |       |  |  |
|------|--------------------|-------|-------|-------|-------|-------|--|--|
| Ø    | 1                  | 4     | 8     | 3     | 2     |       |  |  |
| x    | ₽<br>T             | ₽Ţ₽   | E.    | ᡨᠴᢖ   | E.    | ᢓᠴ᠋ᠴ᠍ |  |  |
| 4D   | +0 dB              | +2 dB | +O dB | +2 dB | +0 dB | +O dB |  |  |
| 2D   | +3 dB              | +4 dB | +2 dB | +4 dB | +0 dB | +O dB |  |  |
| OD   | +4 dB              | +6 dB | +3 dB | +5 dB | +0 dB | +O dB |  |  |

|  | Ø125 | Rows of holes open |       |                |       |       |       |  |  |
|--|------|--------------------|-------|----------------|-------|-------|-------|--|--|
|  |      | 1                  | 4     | 8              | 3     | 2     |       |  |  |
|  | х    | <b>F</b>           | at ta | 6 <sup>B</sup> | ₽Ţ₽   | (FB   |       |  |  |
|  | 4D   | +0 dB              | +0 dB | +O dB          | +0 dB | +0 dB | +O dB |  |  |
|  | 2D   | +2 dB              | +3 dB | +2 dB          | +3 dB | +0 dB | +O dB |  |  |
|  | OD   | +3 dB              | +4 dB | +3 dB          | +4 dB | +O dB | +O dB |  |  |



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#### LIABILITY:

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### PLEASE NOTICE:

PLEASE NOTICE: The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

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# **DEC INTERNATIONAL TECHNICAL SPECIFICATIONS**



Diffusion pattern, dimensions, installation

L<sub>0.2</sub>

**Diffusion pattern** 

From top

From side

**Dimensions and weight** 

н

Ød

98

123

10...300 mm

25

80

Size

100

125

BOB

0

# DTQA SUPPLY AIR DIFFUSER AIR MANAGEMENT SYSTEMS



### Installation

ے

В

W (kg)

0.66

0.65

Ød

ΒxΗ

218x156

218x156

DTQA is mounted straight to the duct without mounting ring. Fastening is secured with screws to the wall or with pop rivets to the duct. Front plate is fastened to the body with spring clips.

### Measuring and adjustment of the air flow

Air flow measurement is made by measuring the pres-sure difference from the front plate hole. Adjustment of the air volume is obtained by opening and closing the rows of front plate holes.

Trow when chilled air is obtained by correction factor k according to the following formula:  $L_{0,2(t)} = k \times L_{0,2}$ 

| T (°C) | В                    | h                     | К   |  |
|--------|----------------------|-----------------------|-----|--|
| 0      | 0,6xL <sub>0,2</sub> | 0,07xL <sub>0,2</sub> | 1,0 |  |
| -7     | 0,8xL <sub>0,2</sub> | 0,15xL <sub>0,2</sub> | 0,7 |  |

### **Application and function**

DTQA is a very quiet supply air diffuser which can be mounted on wall and also close to the ceiling. It is suit-able for air distribution in offices, houses and rooms where wall mounting is required. DTQA has a removable front plate for easy cleaning, measuring and adjustment of air flow. The body of DTQA is equipped with circular rubber sealing gasket joint.

### **Material and surface finish**

The diffuser is made of hot-dip galvanized steel sheet, SS 1151, and meets the requirements for corrosivity class C2 in accordance with SS-EN ISO 12944-2.

The diffusers are powder-coated, which gives a high surface finish and good impact and scratch resistance. Standard color is white RAL 9010, gloss 70. Other colors are available to special order.

Also available in stainless steel shiny 1.4301 (DTQAY)



# Instructions

Instructions for installation, adjustment and maintenance are described in detail in our technical instructions, which are supplied with every product.



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