

# Econox wall grille, aluminium, double adjustable

## Description and function

The aluminium wall grille is a wall-mounted supply and extract air diffuser featuring individually adjustable horizontal and vertical aluminum louvers. It is suitable for a variety of applications, providing flexibility in air diffusion. The grille can be mounted using clip-ons. Mounting the grille with a plenum box is possible only with clips and without a mounting frame.

## Applications

The aluminium wall grille is best suited for comfort environments where flexible air diffusion is essential, such as offices, schools, retail stores, restaurants and hotels.

## Standard sizes

Refer to table 4 for detailed size specifications.

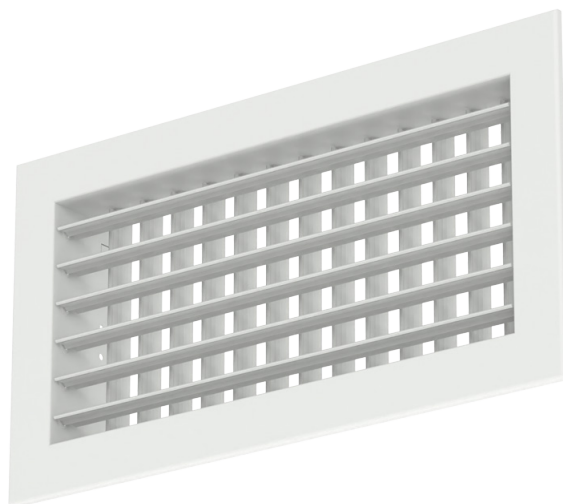
## Airflow range

40 - 1430 m<sup>3</sup>/h (10-400 l/s)

For detailed performance data, refer to the provided diagrams.

## Materials

The outer frame and louvers are made of aluminum. The product is available in RAL 9010, 9016 and 9005.



### Main characteristics

- Individually adjustable horizontal and vertical aluminum air deflectors
- Suitable for wall installations
- Mounting options include clip-ons

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## Technical data

The throw lengths are measured at 8°C Δt (temperature difference between the supplied and the room air) and 2,7 m room height. The throw length values can be read off of diagrams 1. and 2. Throw length calculations can be done in accordance with what is shown on figures 1 and 2.

The sound level is applicable at an equivalent sound absorption area of 10 m<sup>2</sup>.

Sound effect level:  $L_w$  [dB]

Sound level:  $L_{PA}$  [dB(A)] (see diagram 1 and 2.)

Correction factor:  $K_{OK}$  [dB] from table 1.

$$L_w = L_{PA} + K_{OK}$$

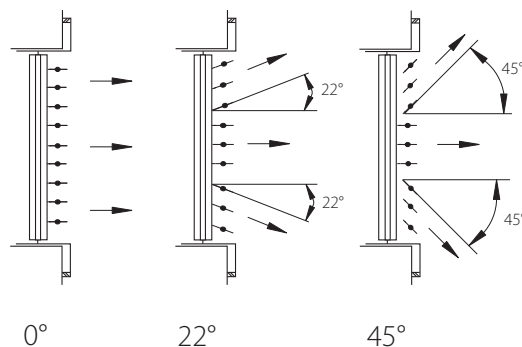


Figure 1.

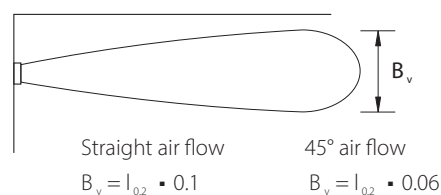
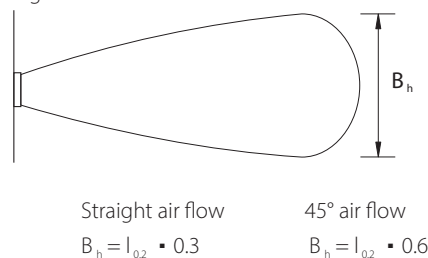


Figure 2.



### T.1. Correction KOK [dB]

| Medium frequency [Hz] |     |     |     |      |      |      |
|-----------------------|-----|-----|-----|------|------|------|
| 63                    | 125 | 250 | 500 | 1000 | 2000 | 4000 |
| +4                    | +6  | +5  | +1  | -2   | -6   | -15  |

Tol. ±2 dB

### T.2. Sound attenuation ΔLD [dB]

| Type | Medium frequency [Hz] |     |     |      |
|------|-----------------------|-----|-----|------|
|      | 125                   | 250 | 500 | 1000 |
| 100  | 8                     | 4   | 2   | 1    |
| 150  | 7                     | 3   | 1   | 0    |
| 200  | 6                     | 2   | 0   | 0    |

Tol. ±3 dB

### Free area Af

Calculated with the help of the following equation:

$$Af = B \times H \times k \text{ where}$$

Af = free area [m<sup>2</sup>]

B = nominal width [mm]

H = nominal height [mm]

k = Correction factor according to Table 3.

Example: DH 600 x 150

$$Af = 0,6 \times 0,15 \times 0,60 = 0,054 \text{ m}^2$$

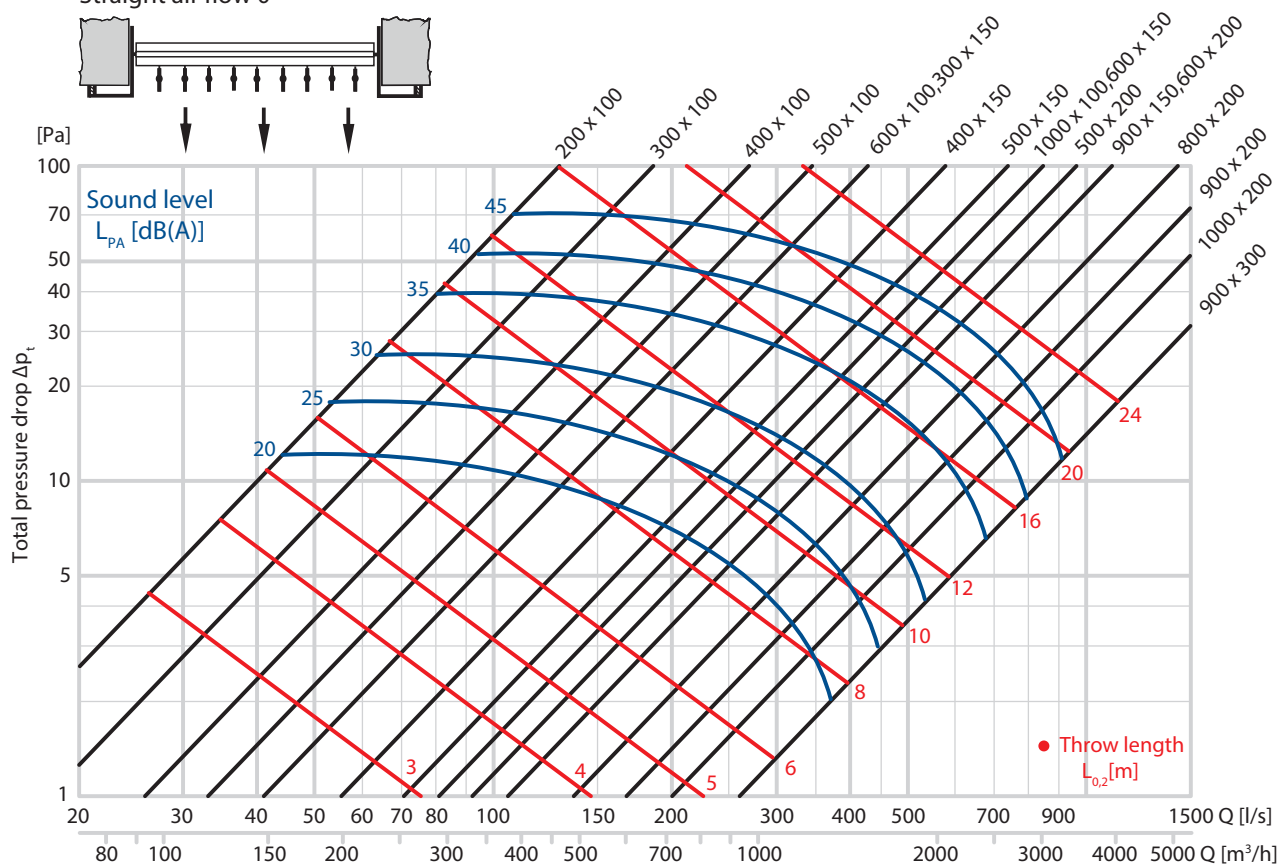
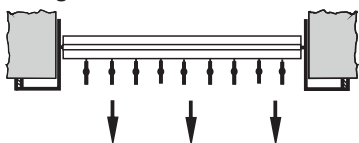
### T.3. Correction factor

| Nominal height<br>H | Correction factor<br>k |
|---------------------|------------------------|
| 100                 | 0,50                   |
| 150                 | 0,60                   |
| 200                 | 0,65                   |
| 300                 | 0,70                   |

## Diagrams

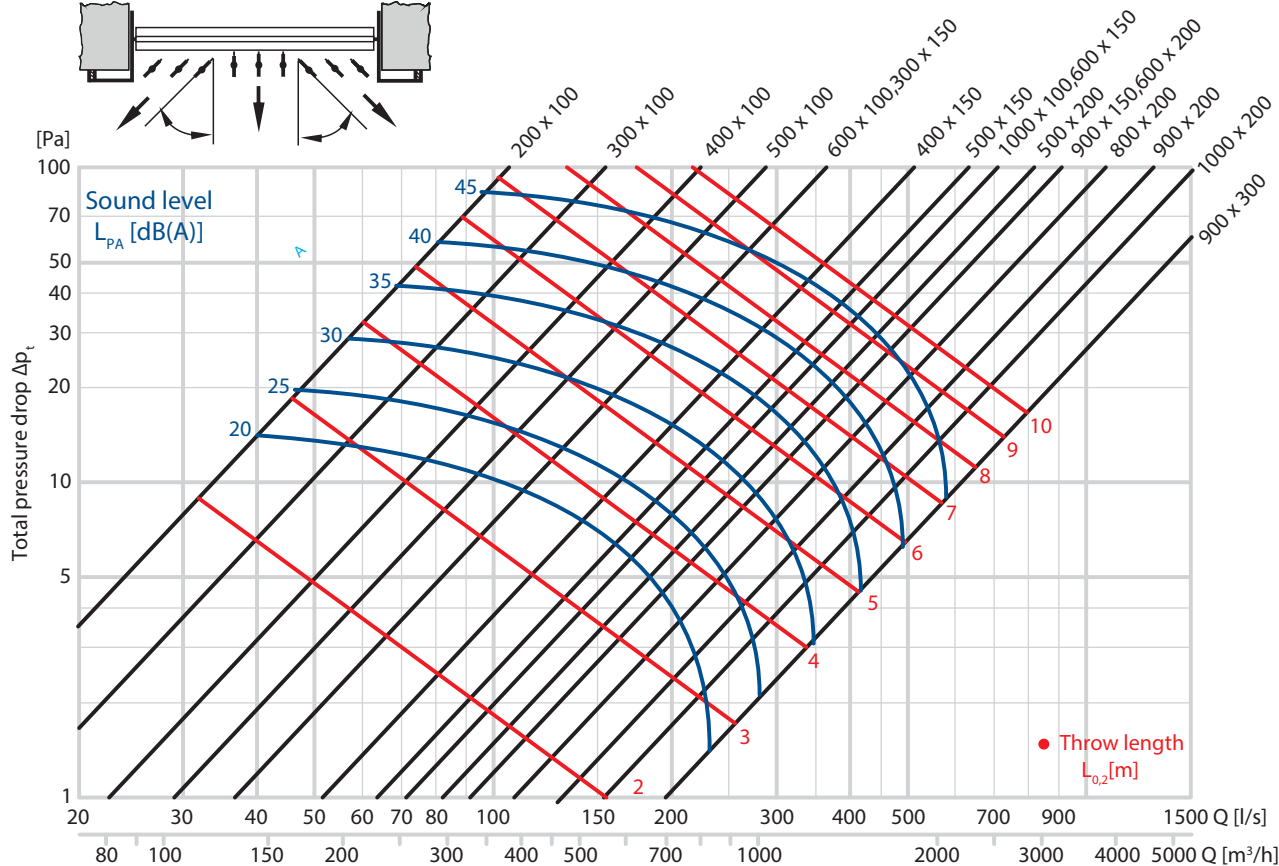
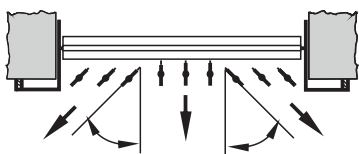
### D.1.

Straight air flow 0°



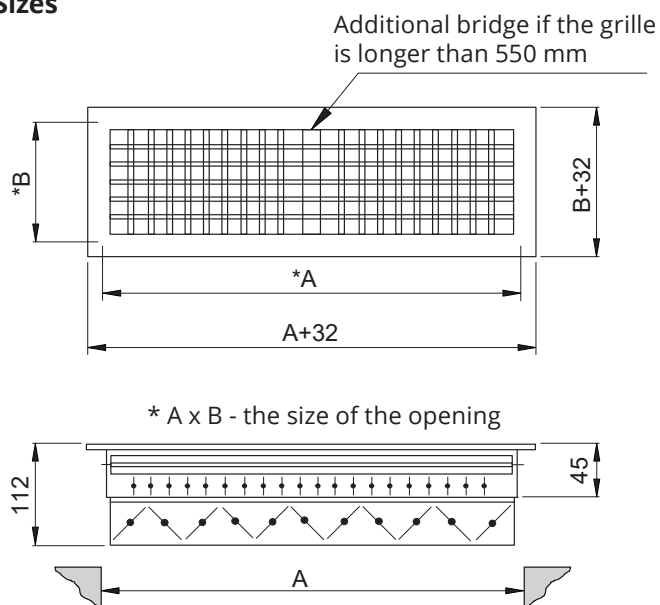
### D.2.

45° air flow



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## Sizes



## Installation of the grille

