TROX® TECHNIK
The art of handling air

AF-0-A/825×225

AF

VENTILATION GRILLES, MADE OF ALUMINIUM, WITH FIXED LONGITUDINAL BLADES, FOR FLOOR INSTALLATION – ALSO FOR HORIZONTAL RUNS

Single ventilation grilles and horizontal run sections with special profiled blades

- Nominal sizes 300 × 75 – 1800 × 300 mm and horizontal run sections
- Volume flow rate range 17 – 1350 l/s or 61 – 4860 m³/h
- Grille face made of aluminium with powder-coat finish
- Front border suitable for floor installation without an installation subframe
- Removable grille core with special spring clip fixing

Optional equipment and accessories

- Grille face in RAL CLASSIC colours
- Attachments for volume flow rate balancing and air direction control

Application

Application

- Ventilation grille of Type AF as supply air or extract air variant for comfort zones and industrial zones
- Directed supply air discharge for mixed flow ventilation
- Blades for straight (0°) or angled (15°) air discharge to meet different local requirements
- For variable and constant volume flows
- For supply air to room air temperature differences from –12 to +4 K
- Preferably for floor installation

Special characteristics

- Blades for straight (0°) or angled (15°) air discharge to meet different local requirements

Nominal sizes

Single grille

- Nominal length: 300 mm up to 1800 mm (50 mm increments)
- Nominal height: 75 mm up to 300 mm (25 mm increments)
- Intermediate sizes on request

Horizontal run section

- Nominal length of end section: 900 mm up to 1799 mm (1 mm increments)

- Nominal length of middle section: 1800 mm
- Nominal height: 75 mm up to 300 mm (25 mm increments)
- Intermediate sizes upon request

DESCRIPTION

Variants

- AF: Single grille
- EL, ER, M: Horizontal run section
- AFH: Sidewall grille with lightweight core

Blade construction style

- 0: 0° discharge
- 15: 15° discharge

Parts and characteristics

- Rectangular profile border sections
- Fixed horizontal blades
- Vertical lateral mullions

Attachments

- AG, D, DG: For volume flow rate balancing and for air direction control

Materials and surfaces

- Border and blades made of aluminium
- P2: Border and blades powder-coated, RAL9006:30%
- P3: Border and blades powder-coated, RAL9010:20%
- P6:Border and blades powder-coated, RAL CLASSIC colour:
  Gloss level:30%

Standards and guidelines

- Sound power level of the air-regenerated noise measured according to EN ISO 5135

Maintenance

- Maintenance-free as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022

TECHNICAL INFORMATION

Functional description

Ventilation grilles are air terminal devices for the supply air and extract air of ventilation and air conditioning systems. They direct the supply air into the room. Ventilation grilles with adjustable blades allow for adapting the discharge direction to the local conditions. The result is a mixed flow ventilation in comfort zones and industrial zones, with good overall room ventilation.

Induction slows the airflow down, i.e. the airflow velocity decreases as the distance from the grille increases. The distance at which the airflow velocity reaches a certain defined value, e.g. 0.5 m/s, is called throw distance. The supply air jet from wall grilles that are installed near the ceiling achieves a larger throw distance than a free jet (from a grille that is not installed near the ceiling). Single grilles, groups of grilles and continuous horizontal runs all achieve different throw distances.

In cooling mode it is necessary to take account of the jet deviation towards the occupied zone, which increases as the supply air to room air temperature difference increases and the discharge velocity decreases. In heating mode the supply air jet deviates towards the ceiling. This has no negative effect on the airflow velocity in the occupied zone, but it may affect the complete ventilation of the room.

Nominal sizes	300 × 75 to 1800 × 300 mm
Horizontal run section	H: 75 up to 300 mm
Minimum volume flow rate	17 – 525 l/s or 61 – 1890 m³/h
Maximum volume flow rate, with L_{WA} max. 40 dB(A) without attachments	75 – 1350 l/s or 270 – 4860 m³/h
Supply air to room air temperature difference	–12 to +4 K

Volume flow rates for single grille for supply air.

Ventilation grilles, rectangular, made of aluminium, for supply and extract air.
Preferably for floor installation.
Ready-to-install component which consists of the installation subframe and fixed longitudinal blades.
Spring clip fixing for installation into an installation subframe.
Sound power level of the air-regenerated noise measured according to EN ISO 5135.

Special characteristics

- Blades for straight (0°) or angled (15°) air discharge to meet different local requirements
- Spring clip fixing

Materials and surfaces

- Border and blades made of aluminium
- P2: Border and blades powder-coated, RAL9006:30%
- P3: Border and blades powder-coated, RAL9010:20%
  P6: Border and blades powder-coated, RAL CLASSIC Colour, Gloss level:30%

Technical data

- Nominal sizes: 300 × 75 to 1800 × 300 mm
- Horizontal run section, height: 75 – 300 mm
- Minimum volume flow rate (supply air): 17 – 525 l/s or 61 – 1890 m³/h
- Maximum volume flow rate (supply air), at L_{WA} max. 40 dB(A) without attachments: 75 – 1350 l/s or 270 – 4860 m³/h
- Supply air to room air temperature difference: –12 to +4 K

AF as a single grille

AF – 0 – AG / 800×200 / P6 – RAL ...
1 2 3 4 5

1 Type
AF Single grille

2 Blade construction style
0 0° blades (straight)
15 15° blades (angled)

3 Attachments
A Without (grille face only)
AG* Damper unit, opposed action blades
D* Air direction control, blades installed at 90° to the front blades
DG* D combined with AG

4 Nominal size [mm]
L × H

5 Exposed surface
P2 RAL 9006:30%
P3 RAL 9010:20%
P6 Powder-coated RAL CLASSIC colour. Gloss level: 30%

*** Damper assembly to be specifed within plenum box (when supplied)**