



VAT-A/825×225

VAT

VENTILATION GRILLES, MADE OF ALUMINIUM, WITH INDIVIDUALLY ADJUSTABLE, VERTICAL BLADES

Ventilation grille with droplet shaped blades

- Nominal sizes 225 × 75 - 1225 × 525 mm
- Volume flow rate range 11 - 2000 l/s or 40 - 7200 m³ /h
- Grille face made of aluminium with anodised finish
- Front border, 23 mm or 27 mm wide
- Concealed screw fixing

Optional equipment and accessories

- Grille face in RAL CLASSIC colours
- Installation subframe
- Installation subframe for fitting filter media
- Attachments for volume flow rate balancing and air direction control
- Spring clip fixing

General information



Application

- Ventilation grille of Type VAT as supply air or extract air variant for comfort zones and industrial zones
- Directed supply air discharge for mixed flow ventilation
- Blades are adjustable to meet different local requirements
- For variable and constant volume flows
- For supply air to room air temperature differences from -12 to +4 K
- For installation in walls, sills and rectangular ducts

Special characteristics

- Individually adjustable blades
- Front border in two widths
- Concealed screw fixing, spring clip fixing or countersunk holes
- Optional installation subframe and casing for the fitting of filter media

Nominal sizes

- Nominal length: 225, 325, 425, 525, 625, 825, 1025, 1225 mm
- Nominal height: 75, 125, 225, 325, 425, 525 mm

Other dimensions upon request

Variants

Front border

- 27 mm wide
- G11: 23 mm wide

Fixing

- Concealed screw fixing
- G11: Concealed screw fixing (23 mm)
- A11: Countersunk holes (only 27 mm)
- B11: Spring clip fixing (27 mm)
- H11: Spring clip fixing (23 mm)

Parts and characteristics

- Sloped border with chamfered inside edge
- Individually adjustable, vertical blades
- Factory fitted perimeter seal

Attachments

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

Construction features

- Asymmetrically supported blades

Materials and surfaces

- Border and blades made of aluminium
- Border and blades anodised, E6-C-0, natural colour
- P1: Border and blades powder-coated, RAL CLASSIC colour

Standards and guidelines

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

Nominal sizes

- Nominal length: 225, 325, 425, 525, 625, 825, 1025, 1225 mm
- Nominal height: 75, 125, 225, 325, 425, 525 mm

Other dimensions upon request

TECHNICAL INFORMATION

Function, Technical data, Specification text, Order code



Functional description

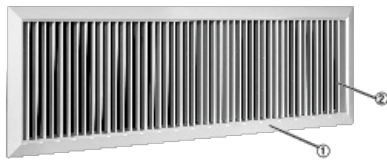
Ventilation grilles are air terminal devices for the supply air and extract air of ventilation and air conditioning systems. They direct the supply air into the room. Ventilation grilles with adjustable blades allow for adapting the discharge direction to the local conditions. The

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. 0.2 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.

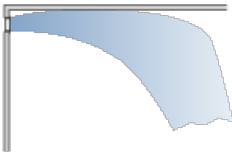
Schematic illustration of a ventilation grille with transverse blades



① Front border

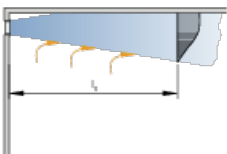
② Transverse blades

Air pattern in cooling mode, with ceiling effect, sectional view



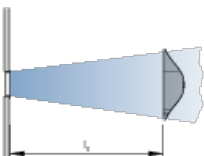
Distance from ceiling ≤ 0.3 m

Air pattern with ceiling effect, sectional view



Distance from ceiling ≤ 0.3 m

Air pattern with ceiling effect, top view



Nominal sizes	225 × 75 to 1225 × 525 mm
Minimum volume flow rate	11 - 685 l/s or 40 - 2466 m ³ /h
Maximum volume flow rate, with L _{WA} max. 40 dB(A) without attachments	62 - 2000 l/s or 223 - 7200 m ³ /h
Supply air to room air temperature difference	-12 to +4 K

Volume flow rates apply to supply air

Ventilation grilles, rectangular, made of aluminium, for supply and extract air. Aesthetic sloped border with chamfered inside edge Preferably for wall and sill installation but also suitable for rectangular ducts.

Ready-to-install component which consists of a border and individually adjustable, vertical blades.

Concealed screw fixing, spring clip fixing or countersunk holes, for installation into an installation subframe or fixing onto an installation surface.

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

Special characteristics

- Individually adjustable blades
- Front border in two widths
- Concealed screw fixing, spring clip fixing or countersunk holes
- Optional installation subframe and casing for the fitting of filter media

Materials and surfaces

- Border and blades made of aluminium
- Border and blades anodised, E6-C-0, natural colour
- P1: Border and blades powder-coated, RAL CLASSIC colour

Construction

Materials and surfaces

- Border and blades made of aluminium
- Border and blades anodised, E6-C-0, natural colour
- P1: Border and blades powder-coated, RAL CLASSIC colour

Technical data

- Nominal sizes: 225 × 75 to 1225 × 525 mm
- Minimum volume flow rate (supply air): 11 - 685 l/s or 40 - 2466 m³ /h
- Maximum volume flow rate (supply air), at L_{WA} max. 40 dB(A) without attachments: 62 - 2000 l/s or 223 - 7200 m³ /h
- Supply air to room air temperature difference: -12 to +4 K

Sizing data

- q_v _____ [m³ /h]
- Δp_t _____ [Pa]

Air-regenerated noise

- L_{WA} _____ [dB(A)]

VAT - AG / 825 x 225 / A1 / B11 / P1 - RAL ...
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 1 2 3 4 5 6

1 TypeVAT Single grille 2 AttachmentsA Without (grille face only)AG Damper unit, opposed action bladesAS Hit and miss damperD Air direction control, blades installed at 90° to the front blades, independently adjustableDG D combined with AG 3 Nominal size [mm]L x H 4 Installation subframeNo entry: noneA1 For front border width F = 27 mmB1 For front border width F = 23 mm 5 FixingNo entry: concealed screw fixing, F = 27 mmG11 Concealed screw fixing, F = 23 mmA11 Countersunk holes, F = 27 mmB11 Spring clip fixing, F = 27 mmH11 Spring clip fixing, F = 23 mm 6 Exposed surfaceNo entry: anodised, E6-C-0, natural colourP1 Powder-coated, specify RAL CLASSIC colour Gloss levelRAL 9010 50 %RAL 9006 30 %All other RAL colours 70 %

Order example: VAT-DG/825x225/A1

Attachments Damper unit with opposed action blades and air direction control
 Nominal size 825 x 225 mm
 Installation subframe With installation subframe for 27 mm wide front border
 Installation Concealed screw fixing
 Exposed surface Anodised, E6-C-0, natural colour

VAT - EF - AS / 825 x 225 / P1 - RAL ...
 | | | | | | |
 1 2 3 4 5

1 TypeVAT Single grille, 27 mm wide front border2 ConstructionEF Installation subframe with filter element (ISO Coarse 60 %, Medium C11 (DIN EN ISO 16890)) and spring clip fixing 3 AttachmentsA WithoutAS Hit and miss damper4 Nominal size [mm]L x H 5 Exposed surfaceNo entry: anodised, E6-C-0, natural colourP1 Powder-coated, specify RAL CLASSIC colour Gloss levelRAL 9010 50 %RAL 9006 30 %All other RAL colours 70 %

E-EF / 825 x 225
 | |
 1 2

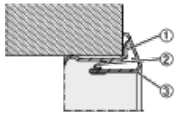
Order key maintenance see E-EF replacement filter media -> OC (ID 1199121)

Installation and commissioning

- Installation preferably in walls, sills and rectangular ducts
- Installation with installation subframe is recommended
- If no installation subframe is used, the border should be fixed with screws

These are only schematic diagrams to illustrate installation details.

Ventilation grille with spring clip fixing

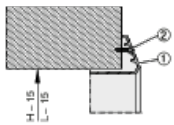


① Installation subframe

② Spring clip

③ Ventilation grille

Ventilation grille with screw fixing



① Ventilation grille

② Fixing screw (by others)

