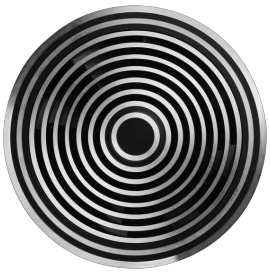
TROX® TECHNIK
The art of handling air



FBA-3

Deburred, black lacquered, visible side turned over

FBA-3-*-SM

Adjustable dirt trap

FBA-4-*-KF

Trim ring with spring clip fixing

FBA-1-VF

With swirl element to adjust the air flow

FBA

ROUND ALUMINIUM AIR DIFFUSERS FOR INSTALLATION IN FLOORS

The different attachments allow a wide range of applications with different air flows, installation conditions and several options for volume flow balancing.

- Nominal sizes: 150, 200 mm
- Volume flow range 1 - 59 l/s or 4 - 213 m³/h
- Annular diffuser contour with different surface structures
- For constant and variable volume flows
- For all types of raised floors
- Horizontal or vertical air flow
- Reduction element adjustable on the front or rear side

- Can be installed with and without trim ring
- The trim ring allows quick and easy installation and removal of the grille inserts for cleaning purposes
- High mechanical strength/breaking resistance > 17 kN
- Ideal for comfort zones

Optional equipment and accessories

- Swirl unit adjustable at the back for manual adjustment between vertical and horizontal air routing
- Trim ring with spring clip fixing to cover the installation opening
- Dirt trap can also be used as a reduction element
- Plenum box

Allgemeine Informationen

Application

- Floor diffusers as supply air diffusers for comfort areas
- Installation in raised floors without plenum box if it is constructed as a pressurised floor
- Installation in raised floors with plenum box to allow individual ventilation in rooms or zones
- Vertical supply air flow, with adjustable swirl unit also horizontal air flow
- Variants with adjustable swirl units can be manually set to vertical or horizontal air routing
- Attractive design element with various types of surfaces, for building owners and architects with demanding aesthetic requirements
- Comfortable and energy-efficient airflow through supporting convection currents in the occupied zone
- Thermal loads are effectively dissipated
- For constant and variable volume flows
- For supply air temperature differences of –12 - +20 K

Special characteristics

- Simple and quick assembly and covering of the installation opening when used with trim ring and spring clip fixing
- Installation in hard flooring requires a spacing ring The spacing ring is included in the delivery if no trim ring has been selected
- High crush resistance > 17 kN
- The grille insert is torsion-proof and centred in combination with trim ring
- With or without swirl unit to allow for various air patterns
- A dirt trap reduces contamination of the floor and facilitates volume flow rate balancing. It can be adjusted from the diffuser front and back surface

Nominal sizes

- 150, 200

Variants

Setting the air flow direction

- -*: no entry: vertical air flow, inalterable
- -V: preset vertical swirling airflow, the swirl vane is manually adjustable
- -H: preset horizontal swirling airflow, the swirl vane is manually adjustable

Installation

- -*-: Floor diffuser with spacing ring
- -KF: Floor diffuser with trim ring and spring clip fixing

Dirt trap

- -*: no entry: without dirt trap
- -SM: with adjustable dirt trap Dirt trap adjustable on the back, the dirt trap can also serve as a reduction element for volume flow rate balancing
- -SV: with adjustable dirt trap Dirt trap adjustable from the diffuser face front, the dirt trap can also serve as a reduction element for volume flow rate balancing

Plenum box

- -*: no entry: without plenum box
- -A: with plenum box for connection to the on-site air duct system

Construction

Surface floor diffuser (floor grille and trim ring)

- -1: Deburred diffuser core
- -3: Deburred diffuser core, painted black, exposed surface overtightened
- -4: Deburred diffuser core, exposed surface overtigthened

Parts and characteristics

Grille insert Floor diffuser

- Ring spacing: 6 mm
- Height-adjustable dirt trap which serves as a reduction element for volume flow rate balancing
- Adjustable swirl unit for vertical or horizontal swirling air flow or air routing

Trim ring with spring clip fixing

- Rotation lock and centring grille insert
- Covers the installation opening
- Spring clip fixing enables different magnitude of the raised floor and the compensation of large cut-out tolerances when creating the installation openings. For the tightest possible fit of the trim ring, we recommend the minimum installation dimension
- Balancing with soft flooring, e.g. carpetWorks well with soft flooring, e.g. carpet

Attachments

- Spacing ring to hold the grille insert for variants without trim ring
- Trim ring with spring clip fixing to accommodate the grille insert and to attach the installation opening
- Adjustable swirl unit for vertical or horizontal swirling air flow
- Fixed swirl unit for vertical air flow (only for nominal size 200)
- Height-adjustable dirt trap which also serves as a reduction element for volume flow rate balancing

Accessories

Plenum box -A:

- For direct connection to the on-site air duct system
- With incorporated air distribution element for a steady flow to the floor diffuser
- Plenum box suitable for all nominal sizes

Material

- Grille insert and trim ring made of die-cast aluminium
- Spring clips made of stainless steel
- Adjustable swirl unit and dirt trap made of ABS plastic, UL94-V-0
- Spacing ring made of plastic ABS UL 94-V-0
- Dirt trap adjustment device and connective marterial made of galvanised steel
- Plenum box made of galvanised sheet steel

Technical data

- Nominal sizes: 150, 200 mm
- Volume flow rate range: 1 – 59 l/s or 4 – 213 m^3/h
- Supply air temperature difference: -12 - +20 K
- Crush resistance > 17 kN