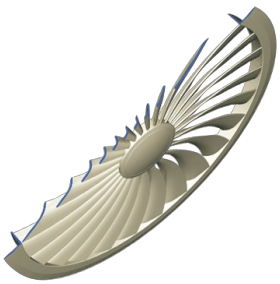
TROX® TECHNIK
The art of handling air

Square face style with square plenum box

Circular face style with circular plenum box

Circular swirl diffuser with spigot for connection to a vertical duct

Gently sloped, flat border (shown in a continuous ceiling)



Three-dimensional blade contour

AIRNAMIC

FOR THE MOST DEMANDING REQUIREMENTS OF TECHNICAL FUNCTION, COMFORT, AND DESIGN

Circular and square ceiling swirl diffusers with fixed air control blades, for high volume flow rates at low sound power levels and low differential pressure due to innovative polymer technology

- Nominal sizes 160, 250, 300, 400, 600, 625
- Volume flow rate range 5 – 385 l/s or 16 – 1386 m³/h
- Plastic diffuser face with overlapping, three-dimensionally contoured blades, for the most efficient swirl and high induction
- For supply and extract air
- For variable and constant volume flows
- For all types of ceiling systems, and with an extended border also suitable for freely suspended installation
- Diffuser face with gently sloped, flat border – only 3 mm high
- Plenum box with acoustically optimised and lockable damper blade
- Spigot for nominal sizes 160 and 250 allows for quick, simple and direct connection to the ductwork
- Diffuser face with bayonet fixing (no tools required) available for nominal size 160 or 250 and with a spigot

Optional equipment and accessories

- Exposed diffuser face available in RAL CLASSIC colours

General information

Application

- Ceiling swirl diffusers are used as supply air or extract air diffusers for comfort zones
- Attractive design element for building owners and architects with demanding aesthetic requirements
- Horizontal swirling supply air discharge for mixed flow ventilation
- The efficient swirl creates high induction levels, thereby rapidly reducing the temperature difference and airflow velocity (supply air variant)
- For variable and constant volume flows
- For supply air to room air temperature differences from -12 – +10 K
- For room heights up to 4 m (lower edge of suspended ceiling)

- For all types of ceiling systems
- With an extended border also suitable for freely suspended installation (supply air variant)

Special features

- Plastic diffuser face with overlapping, three-dimensionally profiled blades, for the most efficient swirl and high induction
- For all types of ceiling systems, and with an extended border also suitable for freely suspended installation
- Diffuser face with gently sloped, flat border – only 3 mm high
- Plenum box with side entry spigot, for supply air, with an optimised equalising element that ensures a uniform airflow through the diffuser face
- Vertical spigot for nominal sizes 160 and 250
- Diffuser face with bayonet fixing (no tools required) available for nominal size 160 or 250 and with a spigot

Nominal sizes

- Q: 300L, 300H, 600, 625
- R: 160, 250, 400L, 400H, 600

Variants

- AIRNAMIC-Q: square diffuser face with rectangular plenum box (nominal sizes 300, 600 and 625)
- AIRNAMIC-R: circular diffuser face with circular plenum box (nominal sizes 250, 400 and 600) or spigot (nominal sizes 160 and 250)
- AIRNAMIC-*-Z: Supply air
- AIRNAMIC-*-A: Extract air

Connection

- Horizontal duct connection
- Vertical (direct) duct connection

Construction features

- Spigot suitable for circular ducts to EN 1506 or EN 13180

Square plenum boxes with horizontal spigot for nominal sizes 300, 300L, 600H and 625

- Spigot made of black ABS
- Spigots are fitted with a groove for a lip seal
- Lip seal and damper blade are factory fitted
- Plenum box for supply air, with an optimised equalising element that ensures a uniform airflow through the diffuser face
- Simple installation of the diffuser face due to central fixing screw with cap

Circular plenum boxes with horizontal spigot for nominal sizes 250, 400L, 400H and 600

- Spigot made of black ABS
- Spigots are fitted with a groove for a lip seal
- Retrofitting of the lip seal is possible at a later stage
- Damper blade and lip seal (optional) are factory fitted
- Plenum box for supply air, with an optimised equalising element that ensures a uniform airflow through the diffuser face
- Simple installation of the diffuser face due to central fixing screw with cap

Spigot for nominal sizes 160 and 250 and vertical connection to the ductwork

- Spigot made of black ABS
- Diffuser face fixing with bayonet, no tools required
- Particularly suitable for installation into continuous ceilings

Materials and surfaces

- Diffuser face, spigot and damper blade made of ABS plastic, UL 94, V-0, flame retardant
- Plenum box and cross bar made of galvanised sheet steel
- Equalising element made of polyester
- Diffuser face coated RAL 9010, pure white
- P1: Painted, RAL CLASSIC colour

Standards and guidelines

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

Maintenance

- Low maintenance as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022