

FD-Q



{249}

Circular diffuser faces with
circular plenum box



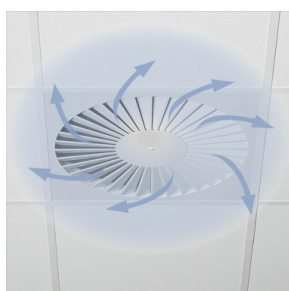
**SQUARE DIFFUSER FACE
WITH SQUARE PLENUM
BOX**

Square diffuser face with square
plenum box



{249}

Circular diffuser face with circular
plenum box and top entry spigot



**HORIZONTAL SWIRLING
AIR DISCHARGE**

Horizontal swirling air discharge

FD

**FOR COMFORT ZONES, WITH FIXED AIR CONTROL
BLADES**

Circular and square ceiling swirl diffusers that create high induction levels, for high room air change rates

- Nominal sizes 300, 400, 500, 600, 625
- Volume flow rate range 9 – 235 l/s or 31 – 846 m³/h
- Diffuser face made of galvanised sheet steel, powder-coated
- 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
- High induction results in a rapid reduction of the temperature difference and airflow velocity
- Very high room air change rate possible thanks to row arrangement with a minimum pitch distance of 0.9 m
- Ideal for comfort zones
- Circular diffuser faces can be easily mounted without tools in a circular plenum box with horizontal spigot

Optional equipment and accessories

- Exposed diffuser face available in RAL CLASSIC colours
- Square plenum box with cord-operated damper unit and pressure tap

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

- High induction results in a rapid reduction of the supply air to room air temperature difference and airflow velocity
- For all types of ceiling systems, and with an extended border also suitable for freely suspended installation
- Horizontal or vertical duct connection
- Very high room air change rate possible thanks to row arrangement with a minimum pitch distance of 0.9 m

Nominal sizes

- 300, 400, 500, 600, 625

Variants

- FD-Q: square diffuser face
- FD-R: circular diffuser face
- FD-* -Z: Supply air
- FD-* -A: Extract air

Connection

- H: horizontal duct connection
- V: vertical duct connection

Accessories

Lip seal

- For circular plenum boxes with horizontal connection spigot, the lip seal is only available in combination with the flow adjustment damper. Otherwise, it can always be selected optionally.

Attachments

- M: Damper element for volume flow rate balancing
- MN: Pressure tap and cord-operated damper unit for volume flow rate balancing with the diffuser face in place (only possible with square plenum box)

Construction features

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

Square plenum boxes and plenum boxes with vertical connection

- With spigot made of galvanised sheet steel
- Groove only available if lip density characteristic has been selected

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
- 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 decorative cap

Materials and surfaces

- Grille face made of galvanised sheet steel
- Q; R: Plenum box made of galvanised sheet steel including galvanised sheet steel cross bar to support the diffuser face
- Plenum boxes with vertical connection and square plenum boxes with horizontal connection: for supply air always with galvanised perforated plate for air distribution
- Circular plenum boxes with horizontal spigot: Equipped as a plenum box for supply air with an equalising element made of polyester
- Square plenum boxes and plenum boxes with vertical spigot: Spigot made of galvanised sheet steel
- Circular plenum boxes with horizontal spigot: Spigot made of black ABS, according to UL94, V0 flame retardant
- Lip seal made of Evoprene
- Diffuser face powder-coated, RAL 9010, pure white
- P1: Powder-coated, 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

