



VDL



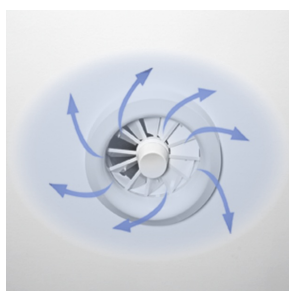
EXTENDED BORDER



PROTECTIVE CAGE



ADJUSTABLE BLADES



HORIZONTAL SWIRLING
AIR DISCHARGE

VDL

FOR HIGH ROOMS, WITH ADJUSTABLE AIR CONTROL
BLADES

Circular ceiling swirl diffusers, with manual or motorised adjustment of the air pattern to ensure draught-free ventilation of the occupied zone both in heating and cooling modes

- Nominal sizes 315, 400, 630, 800
- Volume flow rate range 65 – 1080 l/s or 234 – 3888 m³/h
- Diffuser face made of galvanised, powder-coated sheet steel and of aluminium
- For supply air
- For variable and constant volume flows
- High induction results in a rapid reduction of the temperature difference and airflow velocity
- Discharge direction can be adjusted manually or with an actuator
- Diffuser face with aerodynamically optimised contours
- Ideal for high rooms

Optional equipment and accessories

- Exposed diffuser face available in RAL CLASSIC colours
- Horizontal or vertical duct connection
- An extended border improves the horizontal air discharge in cooling mode
- Protective cage for use in gymnasiums
- Actuators for adjusting the air discharge direction
- Diffuser face can be removed from the room side

Application



Application

- Type VDL ceiling swirl diffusers are used as supply air diffusers for high rooms in comfort and industrial zones
- For production halls, gymnasiums, theatres and conference rooms as well as for large internal spaces in airports, railway stations and shopping centres
- For mixed flow ventilation with different air patterns in heating and cooling modes
- Horizontal swirling supply air discharge in cooling mode
- The efficient swirl creates high induction levels, thereby rapidly reducing the temperature difference and airflow velocity
- Angled or vertical air discharge in heating mode
- For variable and constant volume flows
- For supply air to room air temperature differences from –12 to +15 K
- For room heights exceeding 3.8 m
- With freely suspended installation, an extended border supports the horizontal air discharge in cooling mode

Special characteristics

- For high rooms, with adjustable air control blades
- Diffuser face with aerodynamically optimised contours
- The air pattern can be adjusted manually or with an actuator
- Horizontal or vertical duct connection

Nominal sizes

- 315, 400, 630, 800

Description



Variants

- A: Diffuser face without flange
- B: Diffuser face with flange

Connection

- F: Diffuser face only
- H: Horizontal duct connection, with plenum box
- V: Vertical duct connection, with plenum box

Diffuser face

- N: Non-removable diffuser face
- D: Removable diffuser face, only in variant with plenum box

Parts and characteristics

- Circular diffuser face
- Removable or non-removable diffuser face
- Radially arranged fixed or adjustable blades for air discharge from horizontal (0°) to vertical (90°)
- Diffuser face with or without flange
- Adjustment mechanism covered by decorative cap

Accessories

- Lip seal
- Electric actuators for adjusting the air discharge direction
- Extended border and protective cage

Useful additions

- TDC temperature difference control module

Construction features

- Spigot suitable for circular ducts to EN 1506 or EN 13180
- Spigot with groove for lip seal (if accessory lip seal has been ordered)

Materials and surfaces

- Blades, casing, extended border, plenum box or spigot and cross bar made of galvanised sheet steel
- Quick release fastener made of nylon and rubber IR/BR
- Seal made of rubber NR
- Spacers made of HD-PE
- Diffuser face and decorative cap made of aluminium
- Protective cage made of steel mesh
- Blades, extended border, diffuser face and decorative cap 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

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