



VDL



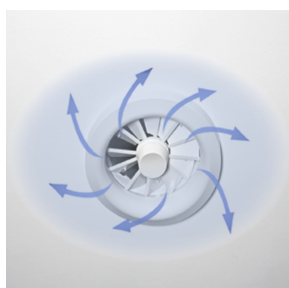
EXTENDED BORDER



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 m<sup>3</sup>/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

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### 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

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### 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