

VDW-Q-Z/500x24

Nominal sizes  
□500x24



Circular diffuser faces with  
circular plenum box



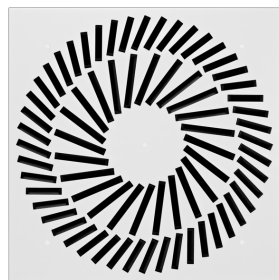
Square diffuser face with square  
plenum box



Circular face style with circular  
plenum box and top entry spigot



Circular diffuser face with white  
air control blades



Air terminal device up to size 825

## VDW

### WITH LOW SOUND POWER LEVEL FOR COMFORT ZONES, WITH INDIVIDUALLY MANUALLY ADJUSTABLE AIR CONTROL BLADES

Circular and square ceiling swirl diffusers for high room air change rates

- Nominal sizes 300, 400, 500, 600, 625, 825
- Volume flow rate range 7 – 470 l/s or 25 – 1692 m<sup>3</sup>/h
- Diffuser face made of galvanised sheet steel, powder-coated
- 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 due 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, air control blades in black or white
- Horizontal or vertical duct connection
- Square plenum box with cord-operated damper unit and pressure tap

## General information

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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 × 8, 400 × 16, 500 × 24, 600 × 24, 600 × 48, 625 × 24, 625 × 54, 825 × 72

#### Variants

- VDW-Q: Square diffuser face
- VDW-R: Circular diffuser face
- VDW-\* -Z: Supply air
- VDW-\* -A: Extract air

#### Connection on

- 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
- Air control blades made of plastic, UL 94, V-0, flame retardant
- Lip seal made of Evoprene
- Diffuser face coated RAL 9010, pure white
- P1: Powder-coated, RAL Classic colour
- Air control blades for supply air similar to RAL 9005, black; extract air variant without air control blades
- Q11: Air control blades for extract air similar to RAL 9005, black
- Q21: Air control blades for supply air and extract air similar to RAL 9010, white

#### 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