

VPV Series  
Floor Mounted Swirl Diffuser

## Definition

### VPV-V-K-DT-O1H4-200

#### VPV Product Group

VPV - floor mounted swirl diffuser

#### V Airflow adjust type

V - with airflow regulate plate, set with vertical air supply before delivery

H - with airflow regulate plate, set with horizontal air supply before delivery

None - without airflow regulate plate, air supply vertical upward

#### K Clip ring

K - with clip ring

None - without clip ring, normally need extra washer to compensate for height difference

#### DT Dust collect tray

DT - with dust collect tray. It could adjust the air volume on the back

#### O1H4 Plenum casing

O1H4 - plenum with side connection without insulation

O3H4 - plenum with side connection with insulation

None - without plenum

#### 200 Nominal size

Size 150、200

## Application description

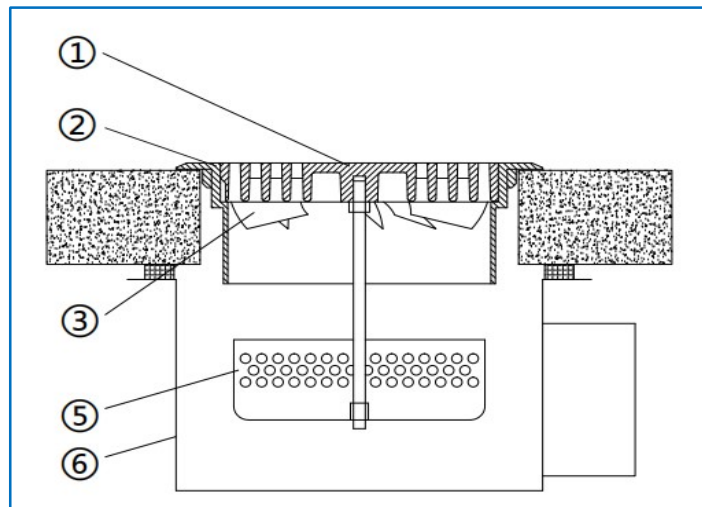
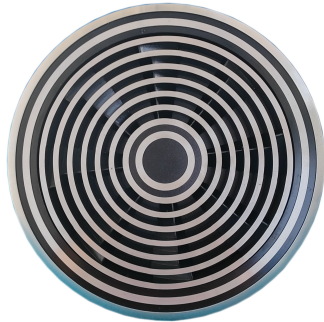
VPV floor mounted swirl diffuser, it's suitable for these areas where are not easy to arrange ducts on the top. It's can offer clean and comfort environment, such as these areas: the stadium stand, conference rooms, audience seat in theater, computer room and other places over head, etc. Normally the diffuser is made of aluminum extrusion. The additional airflow regulate plate inside could adjust the supply air direction horizontal or vertical. There is no need additional plenum if the diffuser is connected with positive pressure overhead floor. It can also or you can select plenum box with side connection. It's easy to clean because of the dust collection tray.



## Material and surface treatment

- Surface panel, clip ring made of aluminum extrusion, with electrophoresis and surface finishing process;
- airflow direction regulate plate, clip ring, dust tray using galvanized steel with black powder paint;
- The static plenum box is made of galvanized steel plate.

## Construction diagram



Construction diagram

- ① discharge panel
- ② clip ring
- ③ airflow regulate plate
- ⑤ dust collect tray (collect dust and adjust air volume both)
- ⑥ plenum casing

## Construction feature

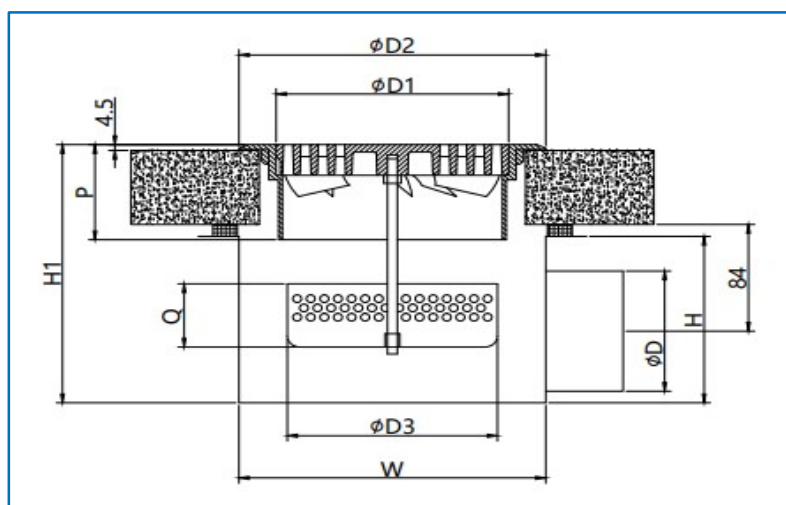
- Offer  $\Phi 150$ 、 $\Phi 200$  two size to fit for different airflow range;
- Supply airflow direction could be adjustable. Could supply horizontal or vertical or random direction, Horizontal supply could avoid blowing to people directly;
- Include dust collect tray. It could collect dust and other waste, also can be used to regulate air volume;
- Multiple installation style, which can meet different job requirement.

### Dimension

规格	ΦD1	ΦD2	ΦD3	W	H	ΦD	P	Q	H <sub>1max</sub>
150	150	198	137	200	125	98	67	50	167
200	200	248	187	250	150	123	70	55	167

Remark:

1. All dimension unit is mm;
2. H1 can be selected according to the actual. The max adjust height of the standard product is 167mm, can also be customized according to the special requirements



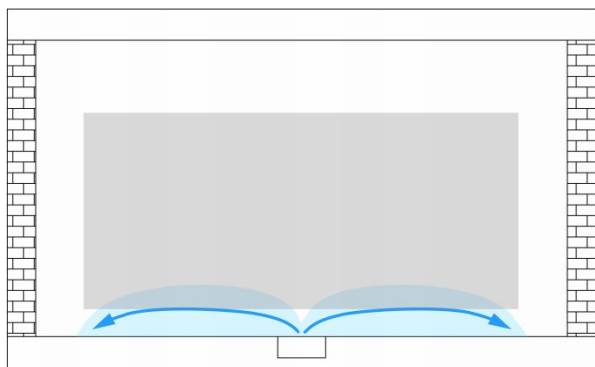
### Technical performance

Performance data						
Model size	performance	Horizontal discharge (m)				Vertical discharge
		0.3 m	0.9 m	1.2 m	1.5 m	
150	Volume (m <sup>3</sup> /h)	36-58	54-90	65-108	-	36-108
	pressure loss (Pa)	8-20	18-50	28-70	-	5-35
	Sound (NC)	-	-	-	-	17-35
200	Volume (m <sup>3</sup> /h)	58-97	76-126	90-148	108-180	58-180
	pressure loss (Pa)	8-20	13-35	18-50	28-70	5-50
	Sound (NC)	-	-	-	-	17-40

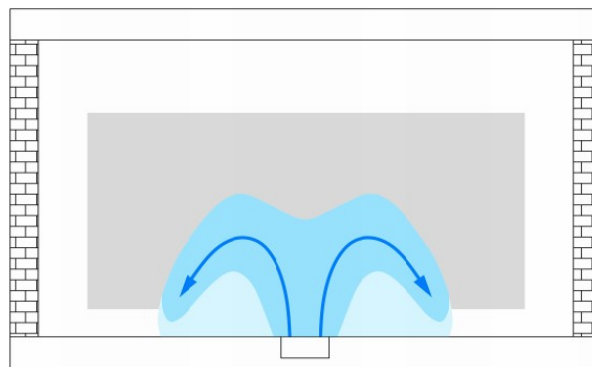
Remark:

1. Above test data based on including the dust collect tray, collect with positive pressure overhead floor no plenum.
2. Horizontal discharge is tested when velocity is 0.15m/s and 0.25m/s.

## Air distribution



Horizontal supply

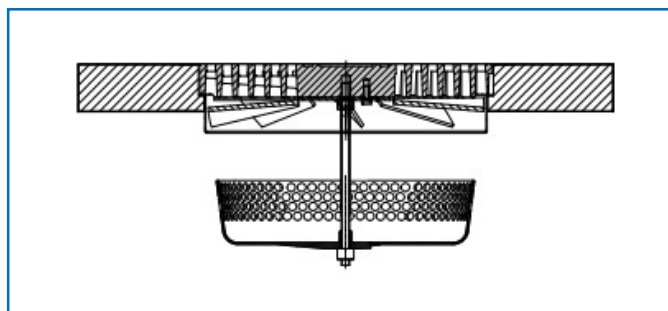


vertical supply

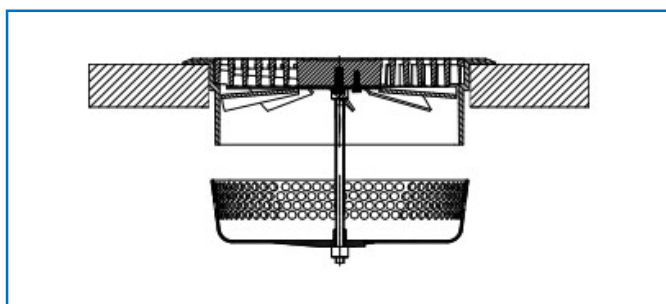
## Installation

VPV series floor mounted swirl diffuser is very convenient and flexible for installation, mainly has the following several installation methods: Please contact with Barcol-air technician to confirm the install dimension details.

### ■ Embedded installation



### ■ With clip ring installation



### Installation points:

1. When floor is with hard materials such as marble, it recommended to select embedded installation no need to choose the clip ring. When without the clip ring, normally it will add the extra washer to compensate for the height.

2. When the floor is covered with carpet, it is recommended to select the clip ring installation which could prevent the edge of the carpet to rise. It could select a fastening ring with the clip thread or without. Fastening ring is used to fix the diffuser to the floor no move. Because the fastening ring and the clip ring are limited by the adjustment distance, this installation method is suitable for the floor with thickness of 25 to 55mm.