

Model definition

VBG-S4-O1H4-400-RAL9010

VBG Product type

VBG=Adjustable swirl diffuser

S4 Blade adjustment mode

O4=Manual adjustment;

S4=Electric actuator adjustment;

TA=Trigger adjustment of temperature sensing mechanism.

O1H4 Plenum configuration

OOOO=Without plenum

O1V4=with non-insulated plenum and top inlet;

O1H4=with non-insulated plenum and side inlet;

O3V4=with insulated plenum and top inlet;

O3H4=with insulated plenum and side inlet.

400 Nominal model

nominal model:315、400、630、800。

RAL9010 Painting

RAL9010 is the factory standard color; Special colors can be sprayed according to customer requirements.

Application description

VBG type adjustable swirl diffuser is suitable for air supply in large space. Generally, the installation height is more than 4m. The surface of the air outlet is provided with swirling air, and the swirl diffuser ensures the high induction ratio of the air outlet, so that the air supply wind speed and temperature can be rapidly attenuated. The guide vane is adjustable, which is mainly set and adjusted according to the air supply temperature difference and installation height, so as to meet the good air supply effect of air conditioning under different cooling or heating conditions. At the same time, it is applicable to a wide range of air volume, and is suitable for large spaces such as airport, lobby, theater, station, library, workshop and so on.



Technical features

- High induction ratio and swirl air outlet mode;
- The guide blade is adjustable, and manual adjustment, electric actuator adjustment and temperature sensing mechanism trigger adjustment can be selected;
- Large air supply temperature difference, suitable for - 10 °C ~ + 15 °C air conditioning system;
- The plenum can choose whether with insulation or not, top inlet or side inlet to meet different installation conditions.



Material and surface treatment

- The inlet and guide blade are galvanized steel; The diffuser and end cover are deep drawing and stamping aluminum profiles;
- The plenum (optional) is galvanized steel;
- The standard surface treatment is RAL9010 white painting.

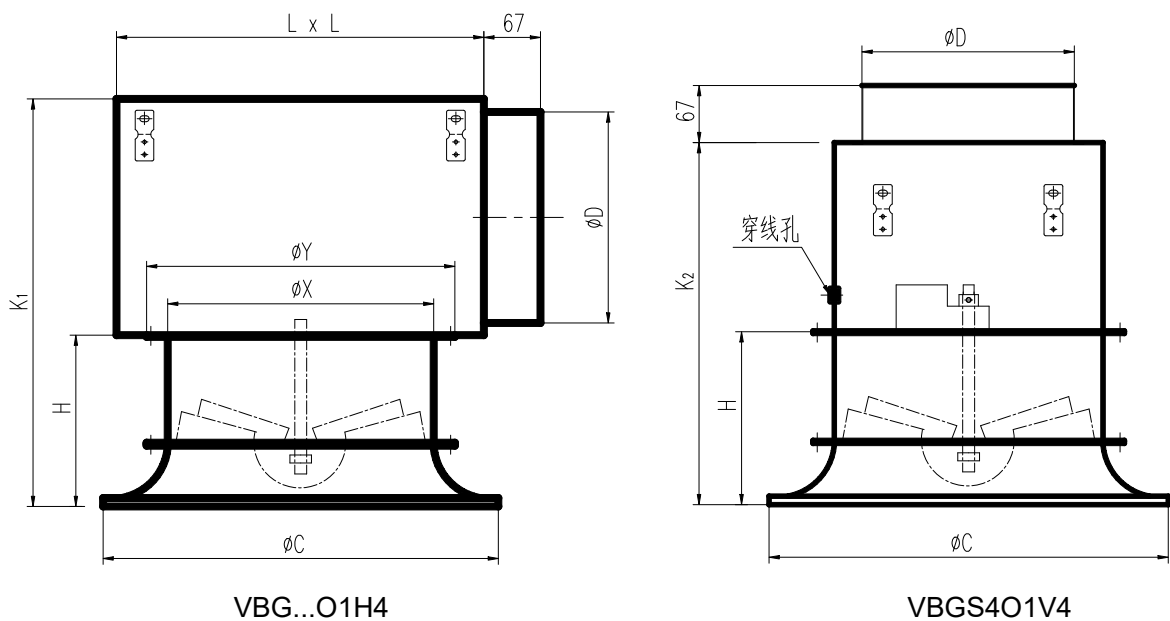
Shipping form:

if necessary, the air outlet and static pressure box shall be provided as a whole.

Model and size

| model | ΦX | ΦY | ΦC | ΦD | H | □L | K ₁ | K ₂ |
|-------|-----|-----|------|-----|-----|------|----------------|----------------|
| 315 | 315 | 365 | 468 | 248 | 203 | 435 | 483 | 425 |
| 400 | 400 | 450 | 568 | 313 | 238 | 500 | 603 | 534 |
| 630 | 630 | 686 | 872 | 398 | 270 | 750 | 735 | 635 |
| 800 | 800 | 858 | 1078 | 498 | 310 | 1000 | 875 | 740 |

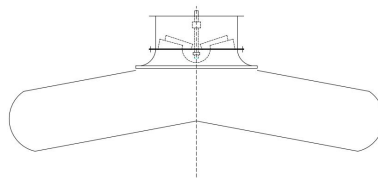
Note: all dimensions are in millimeters/mm.



Technical Data

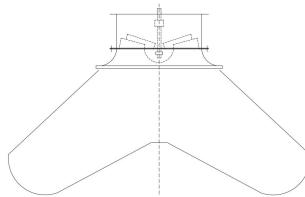
| Model | Air volume | Total pressure loss ΔP | Lp values | Vertical air supply range @ cooling state /m | Vertical air supply range @ heating state /m | Vertical air supply range @ heating state /m |
|-------|-------------------|--------------------------------|-----------|--|--|--|
| | m ³ /h | Pa | dB(A) | angle 45° / $\Delta t = -8^{\circ}\text{C}$ | angle 75° / $\Delta t = +15^{\circ}\text{C}$ | angle 90° / $\Delta t = +8^{\circ}\text{C}$ |
| 315 | 500 | 26 | 27 | 1.8 | 1.5 | 2.6 |
| | 800 | 63 | 40 | 3.1 | 2.7 | 4.1 |
| | 1100 | 115 | 49 | 3.5 | 3.2 | 6.1 |
| 400 | 1200 | 28 | 31 | 3.8 | 3.2 | 3.2 |
| | 1600 | 46 | 40 | 5.2 | 4.3 | 4.9 |
| | 2000 | 72 | 45 | 6.5 | 5.3 | 9.1 |
| 630 | 1900 | 22 | 30 | 3.4 | 3.0 | 5.2 |
| | 2600 | 36 | 40 | 4.2 | 3.8 | 8.0 |
| | 3500 | 70 | 46 | 6.0 | 5.7 | 10.6 |
| 800 | 2800 | 30 | 41 | 3.9 | 3.6 | 6.5 |
| | 4000 | 60 | 50 | 5.6 | 5.1 | 9.2 |
| | 5200 | 95 | 59 | 7.4 | 6.5 | 12.6 |

Three Working Conditions For Swirl Diffuser



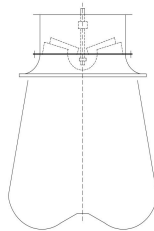
Under the air supply condition in summer, the leaf can be adjusted to be cooling mode and the cooling air can be supplied at swirling diffusion, which promotes the air flow convection.

Air supply condition in summer



Under the air supply condition in spring & autumn, the leaf can be adjusted to be room temperature mode, which can make fresh air to be supplied into the room with large area.

Air supply condition in spring & autumn



Under the air supply condition in winter, the leaf can be adjusted to be heating mode and the thermojet can be centralized to be supplied to the area vertically.

Air supply condition in winter