Zehnder STB

Exhaust air ventilation valve for large pressure differences

Key features

- Made of metal, with epoxy coating
- High insertion loss
- Low noise level
- Rubber mounting ring for airtight and quick mounting
- Infinitely adjustable

General

The ventilation valve has been developed for the exhaust of mechanical ventilation systems with relatively high pressure differences, such as in multi-storey housing. The valve has a high insertion loss and is suitable for relatively high pressure differences. The rubber mounting ring also ensures a perfect seal. The maximum flow rate of the STB-1 is 75m³/h. The maximum flow rate of the STB-2 is 150 m³/h.

Material

The ventilation valves are manufactured from drawn steel sheet and provided with a high corrosion-resistant epoxy coating colour white RAL 9010. A rubber ring is used for fixing and ensures a perfect seal.

Capacity/setting

The graphs for the ventilation valves are determined on the basis of measurements with a straight duct connection. The pressure drop over the valves in ducts with collapsed ducts is generally somewhat higher. With the help of the capacity graph, which shows the relationship between the negative pressure in the duct system and the ventilation capacity, the opening is determined in mm. To obtain the setting, the clamping spring is squeezed around the threaded rod at the back of the ventilation valve. The opening in millimetres is set by allowing the rear edge of the inner cone to fall flush with the desired value on the scale. The clamping spring is then released. The inner cone is then set, nontwistable, to the selected ventilation capacity. If it is required that the ventilation valve cannot be adjusted after adjustment and assembly, an additional securing device can be fitted in the form of a clip which is slid over the bridge piece of the valve. By inserting this clip, the leaf spring can no longer be pressed in and the cone can no longer be adjusted.



Noise level

Thanks to the well-thought-out construction of the ventilation valves, a low noise level is achieved even at relatively high air velocities. The noise levels are shown in the capacity graphs. The noise level is given for a room with an absorption of 10 m² (Sabine). The insertion loss in the different octave bands for sound transmission from

The attenuation in the different octave bands for sound transmission from the air duct into the room is indicated for the respective valve.

SGD cross-talk sound attenuator

By using the SGD type cross-talk sound attenuator with the STB ventilation valves, a high additional sound attenuation can be achieved without compromising the air flow rate. The cross-talk sound attenuator, made of flame retardant plastic, is inserted into the connecting duct and pressed on with the STB breather.

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The advantages of the SGD cross-talk sound attenuators are:

- Reduced investment costs
- Simple mounting
- Applicable in existing installations with STB valves
- Permanently accessible
- No increase in system resistance, i.e. no change in the air volume after installation

Versions

- SGD-1-100 to accompany STB-1-100 ventilation valve
- SGD-1-125 belonging to the STB-1-125 ventilation valve
- SGD-2-125 belonging to the STB-2-125 ventilation valve



Figure 1.0: Versions

Construction and dimensions

For dimensions in mm, please refer to the drawing



Figure 2.0: Dimensioned drawing STB

Dimensions in mm

Туре	Α	В	С	D	Е	G
1-100	142	100	13	50	-	-
1-125	142	125	13	50	-	-

Table 1.0: Dimensions

Weight

Туре	g
1-100	365
1-125	400
2-125	480

Table 2.0: Weight

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Technical data





Figure 3.0: Technical data STB



