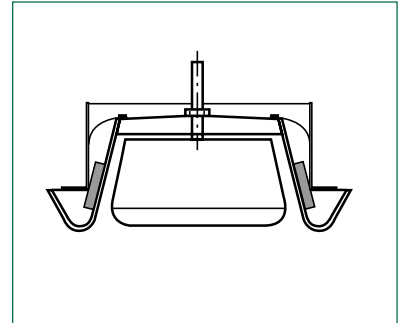
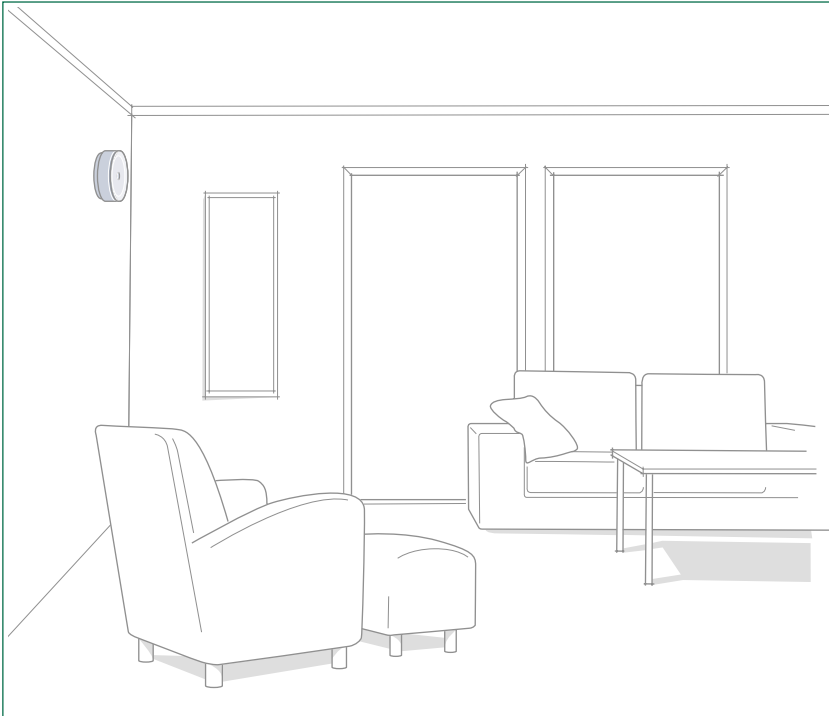


# VST Supply Air Valve



VST supply air valve is a circular disc valve with a valve cone of aero-dynamic design. VST offers adjustable setting of the air flow and can be equipped with an air flow deflector capable of deflecting the air over a 180 degree sector.

## Quick selection fully open slot

| Size   | Model                      | Air flow l/s (m <sup>3</sup> /h) at sound level |          |       |
|--------|----------------------------|---|----------|-------|
|        |                            | 25 dB   | 30 dB    | 35 dB |
| VST-08 | without air flow deflector | 13  | 15 (54)  | 18    |
| VST-10 | without air flow deflector | 27  | 31 (112) | 37    |
| VST-12 | without air flow deflector | 38  | 47 (169) | 55    |
| VST-16 | without air flow deflector | 49  | 60 (216) | 70    |
| VST-08 | with air flow deflector    | 11  | 13 (47)  | 28    |
| VST-10 | with air flow deflector    | 19  | 23 (83)  | 28    |
| VST-12 | with air flow deflector    | 26  | 30 (108) | 36    |
| VST-16 | with air flow deflector    | 30  | 38 (137) | 44    |

## Product facts

### VST Supply air valve

Excellent characteristics with regard to noise level, pressure drop and air flow capacity.

Designed for wall- or ceiling mounting.

Available in four sizes.

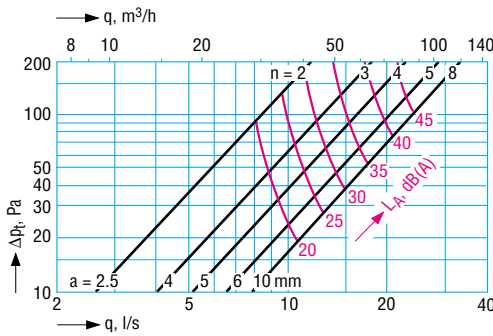
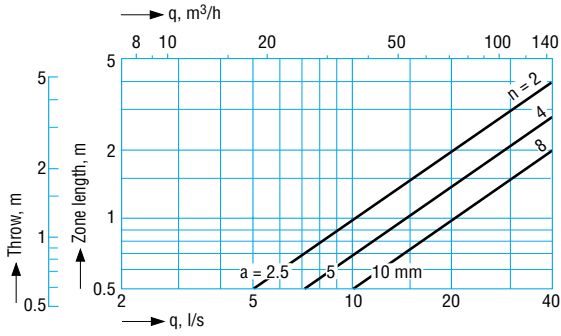
Manufactured of polypropylene plastic.

### Product code example

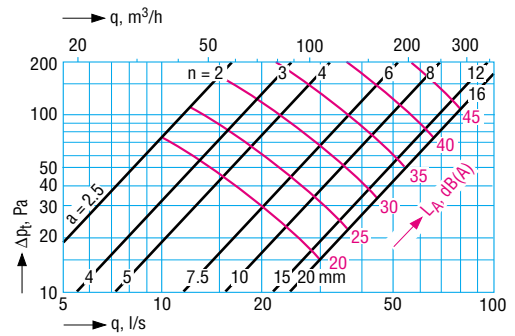
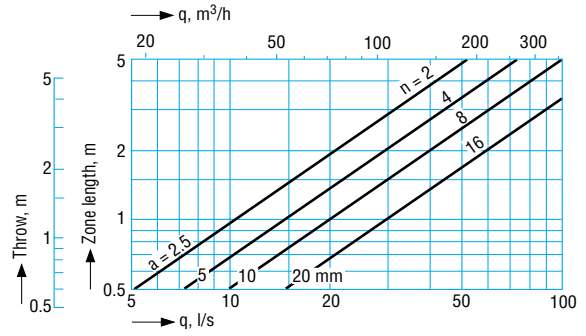
Supply air valve VST-10

# Throw, air flow, pressure drop, sound level

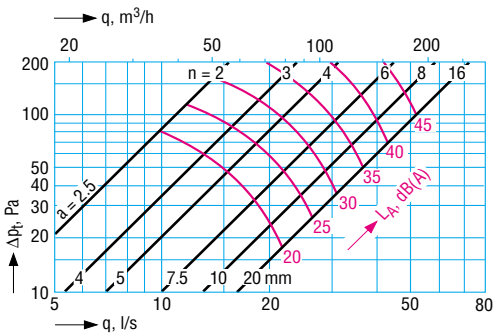
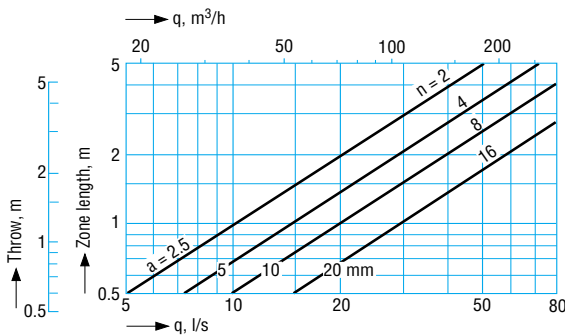
VST-08 without air flow deflector



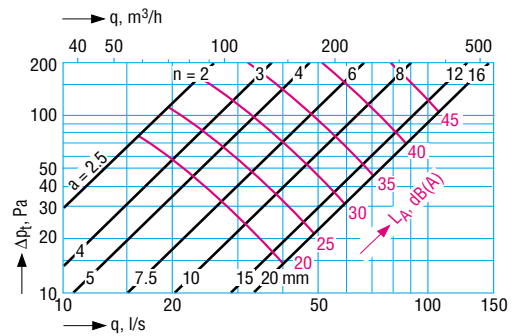
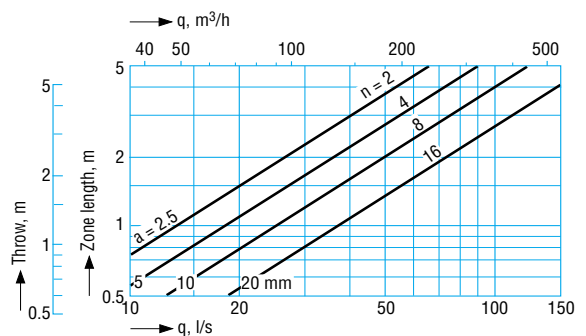
VST-12 without air flow deflector



VST-10 without air flow deflector

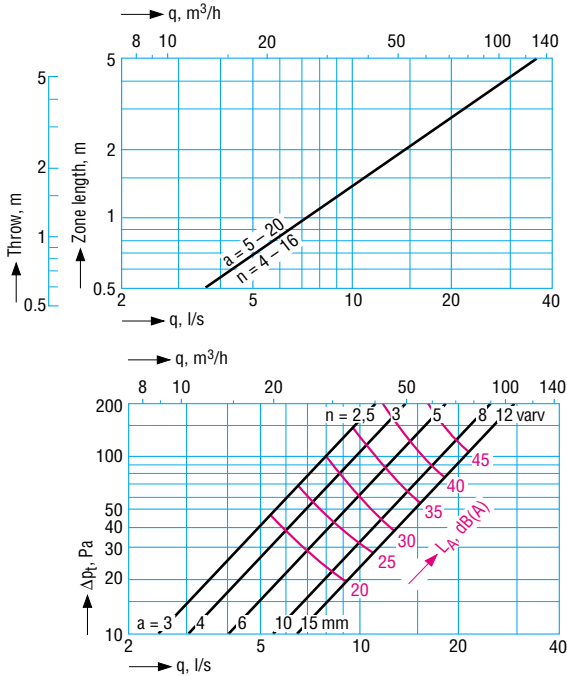


VST-16 without air flow deflector

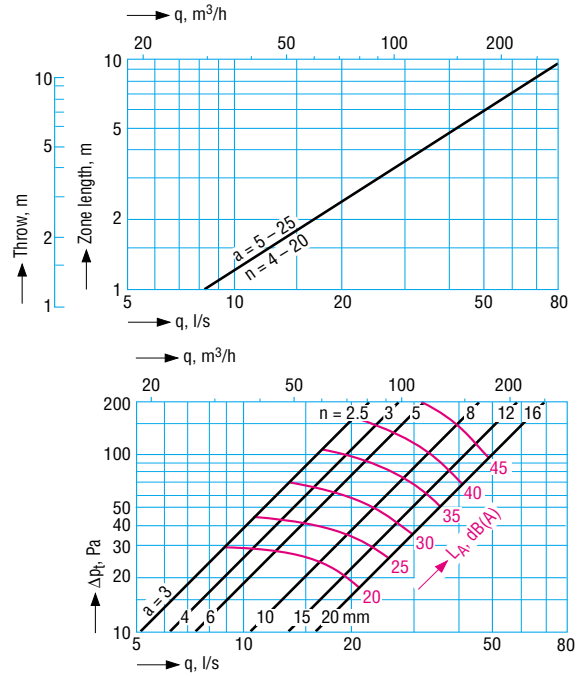


# Throw, air flow, pressure drop, sound level

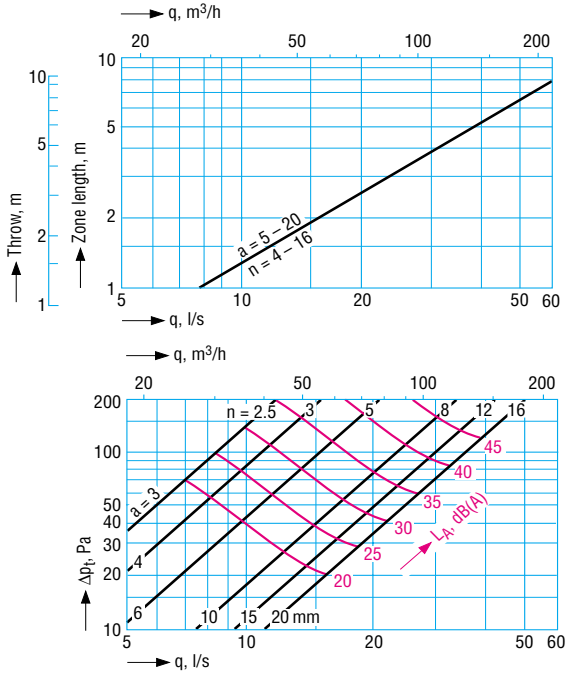
VST-08 with air flow deflector



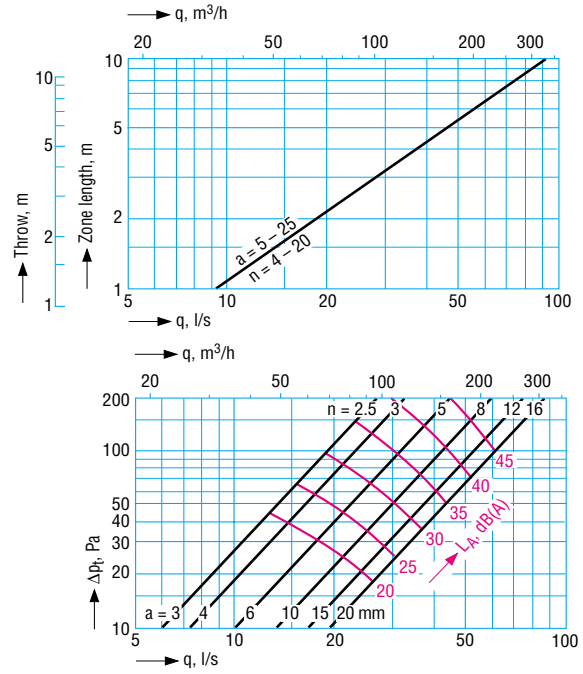
VST-12 with air flow deflector



VST-10 with air flow deflector



VST-16 with air flow deflector



$n$  = number of revolutions open       $a$  = slot orifice in mm

## Sound power level

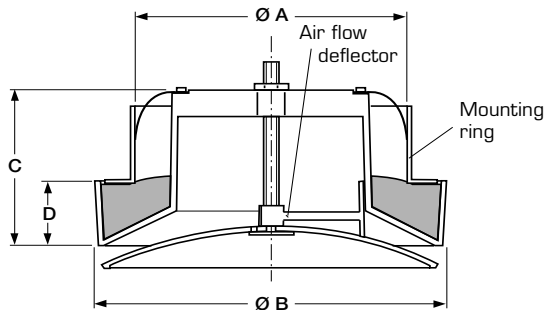
| Size | Correction of sound level in dB at |     |     |     |      |      |      |         |
|------|------------------------------------|-----|-----|-----|------|------|------|---------|
|      | 63                                 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 08   | -4                                 | 4   | 8   | 3   | -4   | -10  | -18  | -20     |
| 10   | -3                                 | 3   | 7   | 4   | -5   | -13  | -19  | -20     |
| 12   | -1                                 | 2   | 5   | 3   | -1   | -10  | -19  | -20     |
| 16   | 0                                  | 5   | 8   | 3   | -4   | -11  | -20  | -20     |

## Sound attenuation

| Size | Correction of sound level in dB at |     |     |     |      |      |      |         |
|------|------------------------------------|-----|-----|-----|------|------|------|---------|
|      | 63                                 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 Hz |
| 08   | 23                                 | 21  | 14  | 9   | 6    | 7    | 7    | 7       |
| 10   | 23                                 | 21  | 14  | 9   | 6    | 7    | 7    | 7       |
| 12   | 20                                 | 17  | 12  | 8   | 6    | 7    | 7    | 7       |
| 16   | 19                                 | 15  | 11  | 8   | 7    | 8    | 7    | 7       |

# Dimensions, adjustment, application, product code

## Dimensions and weights



| Size | A   | B   | C  | D  | Weight, kg |
|------|-----|-----|----|----|------------|
| 08   | 80  | 126 | 62 | 26 | 0,10       |
| 10   | 100 | 150 | 66 | 30 | 0,14       |
| 12   | 125 | 175 | 71 | 35 | 0,21       |
| 16   | 160 | 200 | 76 | 40 | 0,27       |

## Mounting ring VLZ-01, VLZ-02



| Size | A   | D   | Weight, kg | Hole size |
|------|-----|-----|------------|-----------|
| 08   | 107 | 80  | 0,07       | Ø 90      |
| 10   | 127 | 100 | 0,09       | Ø 110     |
| 12   | 152 | 125 | 0,11       | Ø 135     |
| 15   | 177 | 150 | 0,13       | Ø 160     |
| 16   | 187 | 160 | 0,15       | Ø 170     |

## Adjustment

The cone is screwed out or in by the number of revolution necessary to provide the orifice opening in mm corresponding to the pressure drop and the desired air flow according to the graph. The pressure drop is checked by introducing a suitable measurement probe into the front behind the valve cone.

## VST without air flow director

| Size | a, mm    | 2,5  | 4    | 5    | 7,5  | 10   | 20    |
|------|----------|------|------|------|------|------|-------|
| 08   | k-factor | 0,86 | 1,39 | 1,75 | 2,34 | 2,41 | 2,66  |
| 10   | k-factor | 1,08 | 1,67 | 2,16 | 3,10 | 4,05 | 5,17  |
| 12   | k-factor | 1,15 | 1,96 | 2,92 | 3,73 | 4,79 | 7,59  |
| 16   | k-factor | 1,86 | 2,75 | 3,43 | 4,81 | 6,62 | 10,32 |

$$q = k \sqrt{\Delta p_m}$$

(l/s) (Pa)

## VST with air flow director

| Size | a, mm    | 3    | 4    | 6    | 10   | 15   | 20   |
|------|----------|------|------|------|------|------|------|
| 08   | k-factor | 0,83 | 1,00 | 1,31 | 1,73 | 2,05 | -    |
| 10   | k-factor | 0,90 | 1,13 | 1,55 | 2,25 | 3,00 | 3,50 |
| 12   | k-factor | 1,62 | 1,93 | 2,34 | 3,85 | 4,15 | 4,91 |
| 16   | k-factor | 1,89 | 2,26 | 3,19 | 4,27 | 5,29 | 6,11 |

## Application

VST supply air valve is a circular disc valve with a valve cone of aerodynamic design. This valve possesses excellent characteristics with regard to noise level, pressure drop and orifice attenuation. The VST, which offers adjustable setting of the air flow, can be equipped with an air flow deflector capable of deflecting the air over a 180 degree sector. The valve cone bears an arrow indicating the outward flow direction when the device is equipped with an air flow director.

The valve, which is designed for wall-mounting or, alternatively, for ceiling-mounting, is available in four sizes to suit duct connections with a diameter between 80 mm and 160 mm.

## Material and surface finish

The VST is made of polypropylene plastic which is recyclable and withstands temperatures up to 100° C. It is supplied in white as standard. The register has a measurement outlet point on the front for simple adjustment of the air flow.

Galvanized steel sheet mounting rings, with and without rubber seals, are available as an accessory.

## Maintenance

The valve can be wiped down with a mild detergent.

## Descriptive text

VST supply air valve manufactured by Fläkt Woods, with throttling device, with or without mounting ring.

## Produktkod

### Supply air valve

VST-aa-b

Size \_\_\_\_\_  
08, 10, 12, 16<sup>1)</sup>

Model \_\_\_\_\_  
0 = without deflector, 1 = with deflector

<sup>1)</sup> Size 16 also fits mounting frames with a 150 mm diameter duct connection.

### Mounting ring (without rubber seal)

VLZ-01-aa

### Mounting ring (with rubber seal)

VLZ-02-aa

Size \_\_\_\_\_  
08, 10, 12, 15<sup>2)</sup>, 16

<sup>2)</sup> Only VLZ-01-aa.

### Adjustment kit

VLZ-04-aa

Measurement probe and adjustment data for each model.