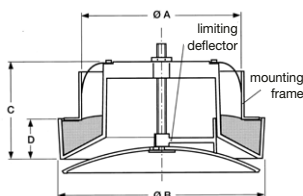


VST – plastic plate inlet valves



Type	A	B	C	D	weight [kg]
VST 80	80	126	62	26	0.10
VST 100	100	150	66	30	0.14
VST 125	125	175	71	35	0.21
VST 160	160	200	76	40	0.27

Technical parameters

The plastic plate valves for air supply have an easily adjustable centre element for flow control. The valve is equipped with a hole for pressure measurement. As standard, the plate valve is fitted with an adjustable deflector to restrict the supply air flow into the space at 180°. The plate valve is provided with a sealing tape for sealing in the mounting ring. Plastic valves can be cleaned with mild solutions of non-aggressive detergents. VST valves are made of polypropylene, colour white (RAL9003). They can withstand some diluted chemicals. The highly advantageous aerodynamic shape reduces valve noise and significantly reduces the risk of crosstalk.

- for air supply suitable for homes, offices, etc.
- good adjustment parameters
- low noise level
- quick and easy installation
- easy air flow measurement
- low pressure drop
- ambient temperature up to 100 °C
- resistance to some chemicals

Installation

The valves are inserted by flat springs into the VLZ brickwork, which allows the valve to be fixed into the ceiling structure, wall or pipe. The plate valve is inserted from one side of the brickwork, a flexible flex-handle is inserted from the other side and the joint is fixed with steel or nylon clamping tape. The wall can also be fixed in a circular pipe. For pipes Ø 150 and Ø 160, the appropriate VLZ brickwork and plate valve Ø 160 are always used.

Measurement and control

The air flow is regulated by turning the centre disc, which changes the opening of the valve 'a' (mm). The air flow measurement is performed as a pressure differential measurement using a measuring tube. See diagrams for further details. The dependence of flow and pressure drop on valve opening 'a' is expressed by the relation:

$$q = k \sqrt{\Delta p_m} \quad (\text{l/s}), (\text{Pa})$$

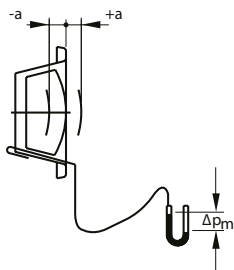
Type	a [mm]	3	4	6	10	15	20
VST 80	k	0.83	1.00	1.31	1.73	2.05	–
VST 100	k	0.90	1.13	1.55	2.25	3.00	3.50
VST 125	k	1.62	1.93	2.34	3.85	4.15	4.91
VST 160	k	1.89	2.26	3.19	4.27	5.29	6.11

Sound power levels

Correction (dB)								
Type	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
VST 80	-4	4	8	3	-4	-10	-18	-20
VST 100	-3	3	7	4	-5	-13	-19	-20
VST 125	-1	2	5	3	-1	-10	-19	-20
VST 160	0	5	8	3	-4	-11	-20	-20

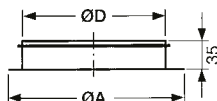
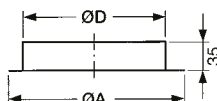
Noise attenuation

(dB)								
Type	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
VST 80	23	21	14	9	6	7	7	7
VST 100	22	19	13	9	6	7	7	7
VST 125	20	17	12	8	6	7	7	7
VST 160	19	15	11	8	7	8	7	7



VLZ 01 (without gasket)

VLZ 02 (single-edged seal)



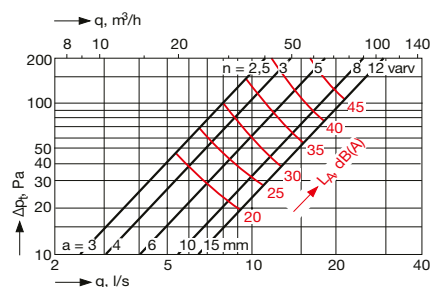
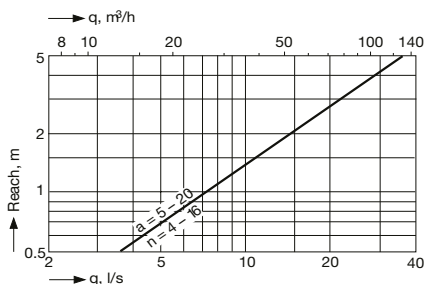
mounting frame

Type	A	D	weight [kg]	mounting hole
VLZ 80	107	80	0.07	Ø 90
VLZ 100	127	100	0.09	Ø 110
VLZ 125	156	125	0.11	Ø 135
VLZ 150	177	150	0.13	Ø 160
VLZ 160	187	160	0.15	Ø 170

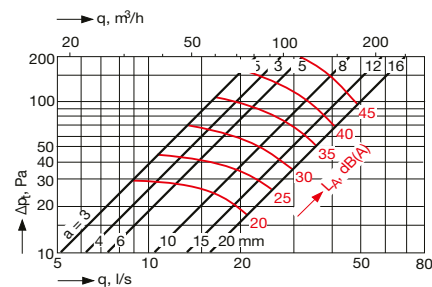
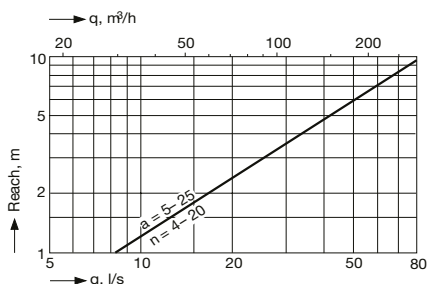
VST – plastic plate inlet valves

Characteristics

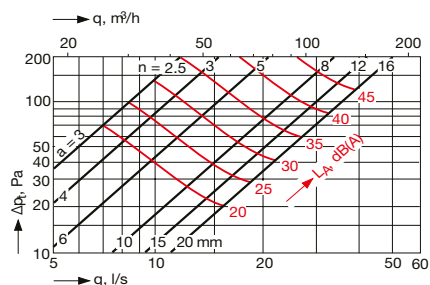
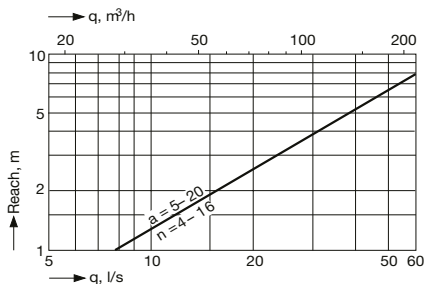
VST 80



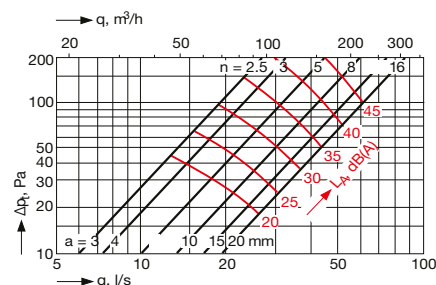
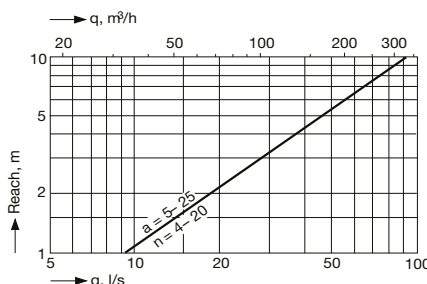
VST 125



VST 100



VST 160



Range is given for maximum flow velocity $v = 0.2 \text{ m/s}$

n = number of revolutions of the disc
 a = opening the valve