TROX® TECHNIK
The art of handling air

Z-LVS

Z-LVS

FOR SUPPLY AIR

Circular disc valves with manually adjustable annular gap

- Nominal sizes 100, 125, 160, 200 mm
- Volume flow rate range 10 – 90 l/s or 36 – 324 m³/h
- Diffuser face made of galvanised sheet steel, powder-coated
- For variable and constant volume flows
- For ceiling and wall installation
- Easy to install
- Volume flow rate balancing by simply turning the valve disc
- Inexpensive solution for small rooms

Application

Application

- Type Z-LVS disc valves are used as supply air devices in small rooms
- Horizontal radial supply air discharge
- For variable and constant volume flows
- For room heights up to 4 m (lower edge of suspended ceiling)
- For walls and suspended ceilings

Special characteristics

- Continuous volume flow rate balancing by turning the valve disc
- Easy to install

Nominal sizes

- 100, 125, 160, 200
-

Description

Parts and characteristics

- Valve disc with threaded spindle and lock nut
- Valve casing including cross bar with orifice for the threaded spindle
- Installation subframe that accommodates the disc valve

Materials and surfaces

- Valve casing and valve disc made of galvanised sheet steel
- Installation subframe, cross bar, threaded spindle and lock nut made of galvanised steel
- Foam seal
- Valve casing and valve disc powder-coated RAL 9010, pure white

Standards and guidelines

- Sound power level of the air-regenerated noise measured according to EN ISO 5135

Maintenance

- Maintenance-free as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022
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INFORMATION TECHNIQUE

Function, Technical data, Quick sizing, Specification text, Order code

Functional description

Supply air valves direct the air from air conditioning systems into the room. The resulting airflow induces high levels of room air, thereby rapidly reducing the airflow velocity and the temperature difference between supply air and room air. The result is a mixed flow ventilation in comfort zones, with good overall room ventilation, creating only very little turbulence in the occupied zone.

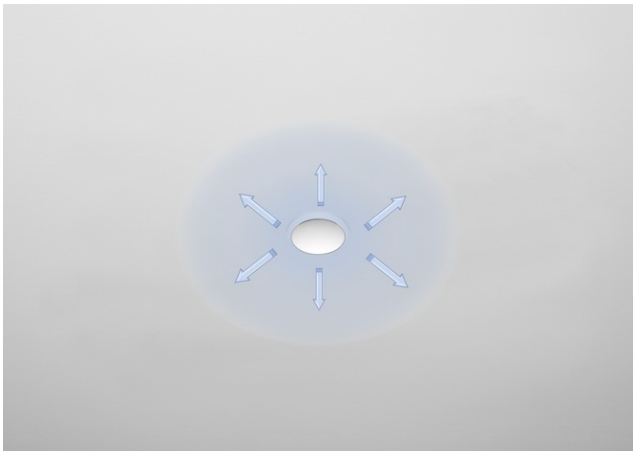
Type Z-LVS disc valves have a valve disc that can be turned. Horizontal air discharge is radial.

This valve disc facilitates volume flow rate balancing for commissioning.

Schematic illustration

① Valve disc
② Valve casing
③ Cross bar
④ Threaded spindle with lock nut

Horizontal air discharge



Nominal sizes	
Minimum volume flow rate	
Maximum volume flow rate	

Quick sizing tables provide a good overview of the volume flow rates and corresponding sound power levels and differential pressures.

Z-LVS/100, Z-LVS/125, sound power level and total differential pressure

Nominal size	V		12 mm	
Nominal size	V		Δp_t	L_{WA}
	l/s	m³/h	Pa	dB(A)
100	10	36	9	<15
	15	54	20	23
100	20	72	35	31
	25	90	54	38
125	10	36	5	<15
	15	54	10	<15
125	20	72	18	17
	25	90	28	23

Z-LVS/160, Z-LVS/200, sound power level and total differential pressure

Nominal size	V		20 mm	
Nominal size	V		Δp_t	L_{WA}
	l/s	m³/h	Pa	dB(A)
160	20	72	5	<15
	30	108	11	<15
160	40	144	20	24
	50	180	31	31
200	30	108	4	<15
	50	180	12	<15
200	70	252	24	25
	90	324	40	33

Circular disc valves as supply air devices, preferably for small rooms. For installation into walls and suspended ceilings.

Ready-to-install component which consists of a valve casing with cross bar, a valve disc with threaded spindle, and an installation subframe.

The valve disc can be turned for volume flow rate balancing. The valve setting can be fixed with a lock nut.

Spigot suitable for ducts to EN 1506 or EN 13180.

Sound power level of the air-regenerated noise measured according to EN ISO 5135.

Special characteristics

- Continuous volume flow rate balancing by turning the valve disc
- Easy to install

Materials and surfaces

- Valve casing and valve disc made of galvanised sheet steel
- Installation subframe, cross bar, threaded spindle and lock nut made of galvanised steel
- Foam seal
- Valve casing and valve disc powder-coated RAL 9010, pure white

Technical data

- Nominal sizes: 100, 125, 160, 200 mm
- Minimum volume flow rate: 10 – 30 l/s or 36 – 108 m³/h
- Maximum volume flow rate: 25 to 90 l/s or 90 to 324 m³/h

Sizing data

- V _____ [m³/h]

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design programme.

Order example: Z-LVS/160

	Nominal size

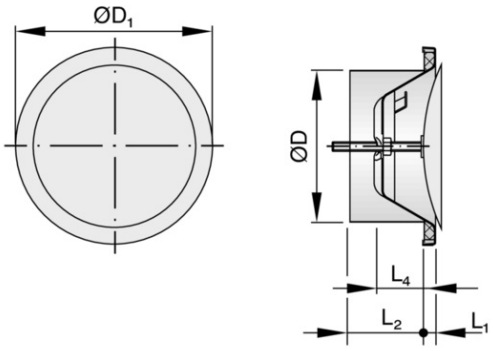
1 Type	2 Nominal size [mm]
Z-LVS Extract air valve	**100** **125** **160** **200**

Dimensions and weight

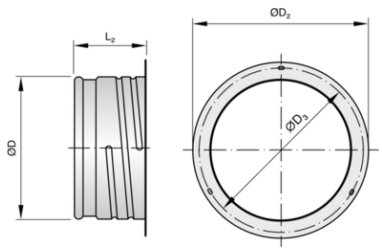
Z-LVS

Nominal size	ØD1 mm	L1 mm	L2 mm	
100	132	8	50	
125	162	9	50	
160	192	10	50	
200	245	11	50	

Z-LVS



Installation subframe for LVS and Z-LVS



Installation examples, Installation details, Commissioning, Basic information and nomenclature

Installation in T-bar ceilings

Installation and commissioning

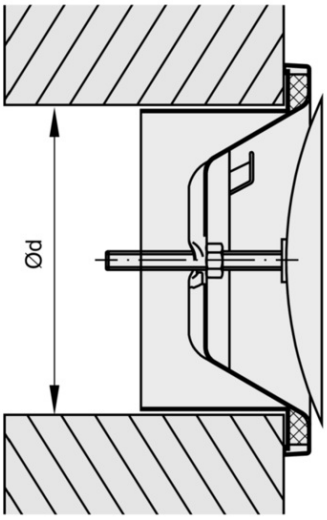
- Preferably for rooms with a clear height up to 4.0 m
- Installation flush with the wall or ceiling
- Perform volume flow rate balancing by turning the valve disc, then tighten the lock nut to fix the valve disc in the required position

These are only schematic diagrams to illustrate installation details.

Installation opening

Nominal size
100
125
160
200

Installation flush with the wall or ceiling, with installation subframe



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Principal dimensions

ØD [mm]

Outer diameter of the spigot

$ØD_1$ [mm]

Outer diameter of the diffuser face

L_1 [mm]

Length of the face cover ring

L_2 [mm]

Installed length

m [kg]

Weight

Nomenclature

L_{WA} [dB(A)]

A-weighted sound power level of air-regenerated noise

V [m^3/h] and [l/s]

Volume flow rate

Δt_Z [K]

Supply air to room air temperature difference

Δp_t [Pa]

Total differential pressure

All sound power levels are based on 1 pW.