

Disc valves

LVS



For extract air

Circular disc valves with manually adjustable annular gap

- Nominal sizes 100, 125, 160, 200 mm
- Volume flow rate range 10 – 50 l/s or 36 – 180 m³/h
- Diffuser face made of formed 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

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General information

Application

- Disc valves are used as extract air devices in small rooms
- For variable and constant volume flows
- For walls and suspended ceilings

Special features

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

Nominal sizes

- 100, 125, 160, 200

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

Standards and guidelines

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

Maintenance

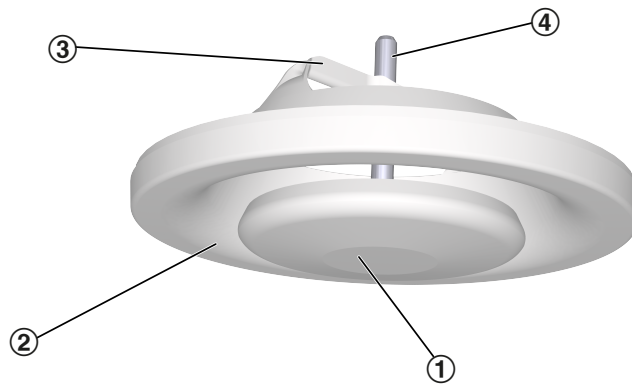
- Low maintenance as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022

Function

Extract air valves extract air from rooms and lead it into the extract air part of the air conditioning system.

Type LVS disc valves have a valve disc that can be turned. This simplifies the volume flow rate balancing adjustment during commissioning.

Schematic illustration



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

Technical data

Nominal sizes	100, 125, 160, 200 mm
Minimum volume flow rate	10 – 25 l/s or 36 – 90 m ³ /h
Maximum volume flow rate	25 – 50 l/s or 90 – 180 m ³ /h

Quick sizing

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

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

NS			Airway width = 5 mm		Airway width = 0 mm		Airway width = -5 mm	
	q _v [l/s]	q _v [m ³ /h]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]
100	10	36	8	<15	14	<15	30	16
100	15	54	19	<15	32	19	67	26
100	20	72	33	22	56	27	119	33
100	25	90	52	28	88	32	186	39
125	15	54	9	<15	13	<15	22	<15
125	20	72	15	<15	23	<15	40	19
125	25	90	24	<15	36	18	62	24
125	30	108	35	18	52	23	90	29

LVS/160, sound power level and total differential pressure

NS			Airway width = 5 mm		Airway width = -5 mm		Airway width = -10 mm	
	q _v [l/s]	q _v [m ³ /h]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]
160	20	72	9	<15	24	<15	43	17
160	25	90	14	<15	38	18	67	24
160	30	108	20	<15	55	23	96	29
160	35	126	27	16	75	27	131	34

LVS/200, sound power level and total differential pressure

NS			Airway width = 5 mm		Airway width = -5 mm		Airway width = -15 mm	
	q _v [l/s]	q _v [m ³ /h]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]	Δpt [Pa]	LWA [dB(A)]
200	25	90	4	<15	9	<15	21	<15
200	35	126	9	<15	17	<15	41	20
200	45	162	14	<15	28	16	68	27
200	50	180	18	<15	34	19	84	30

Sizing example

Given data

q_v = 25 l/s (90 m³/h)

Extract air valve

Maximum sound power level 30 dB(A)

Quick sizing

Type LVS

Selectable nominal sizes: 125, 160, 200

Selected: LVS/125

Specification text

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

Specification text

Circular disc valves as extract 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. Spigots are suitable for ducting according to EN 1506 or EN 13180.

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

Special features

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

Materials and surfaces

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

Technical data

- Nominal sizes: 100, 125, 160, 200 mm
- Minimum volume flow rate: 10 – 25 l/s or 36 – 90 m³/h
- Maximum volume flow rate: 25 to 50 l/s or 90 to 180 m³/h

Sizing data

- Volume flow rate q_v [m³/h] (information required for sizing)



Order code

LVS / 160
| |
1 2

1 Type

LVS Disc valve

2 Nominal size [mm]

100, 125, 160, 200

Order example: LVS/160

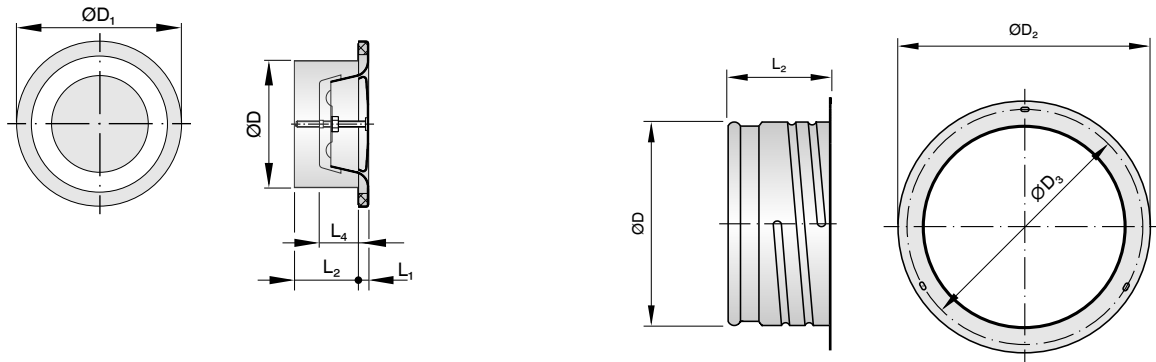
Nominal size

160

Dimensions

LVS

Installation subframe for LVS and Z-LVS



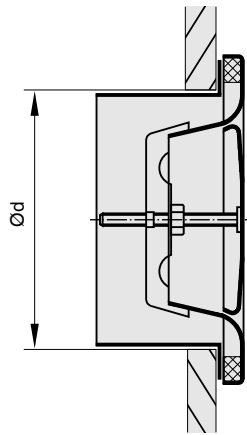
NS	$\varnothing D_1$	L_1	L_2	L_4	$\varnothing D$	$\varnothing D_2$	$\varnothing D_3$	m kg
	mm	mm	mm	mm	mm	mm	mm	
100	132	8	50	32	99	122	114	0.2
125	162	9	50	38	124	148	140	0.29
160	192	10	50	43	159	184	176	0.44
200	245	11	50	52	199	225	217	0.59

Product details

Installation and commissioning

- 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.

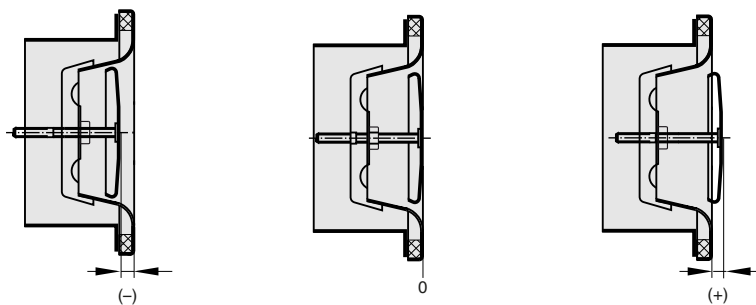
Installation flush with the wall or ceiling, with installation subframe



Installation opening

NS	Ød
	mm
100	104
125	129
160	164
200	204

Setting range



Nomenclature

NS [mm]

Nominal size

ØD [mm]

Outer diameter of the spigot

ØD_c [mm]

Outer diameter of a circular diffuser face

L [mm]

Length of the face cover ring

L_s [mm]

Installed length

A [m²]

Upstream cross section

m [kg]

Weight

L_{WA} [dB(A)]

A-weighted sound power level of air-regenerated noise

q_v [m³/h]; [l/s]

Volume flow rate

Δt_z [K]

Supply air to room air temperature difference, i.e. supply air temperature minus room temperature

Δp_t [Pa]

Total differential pressure

All sound power levels are based on 1 pW.