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Halton FDV

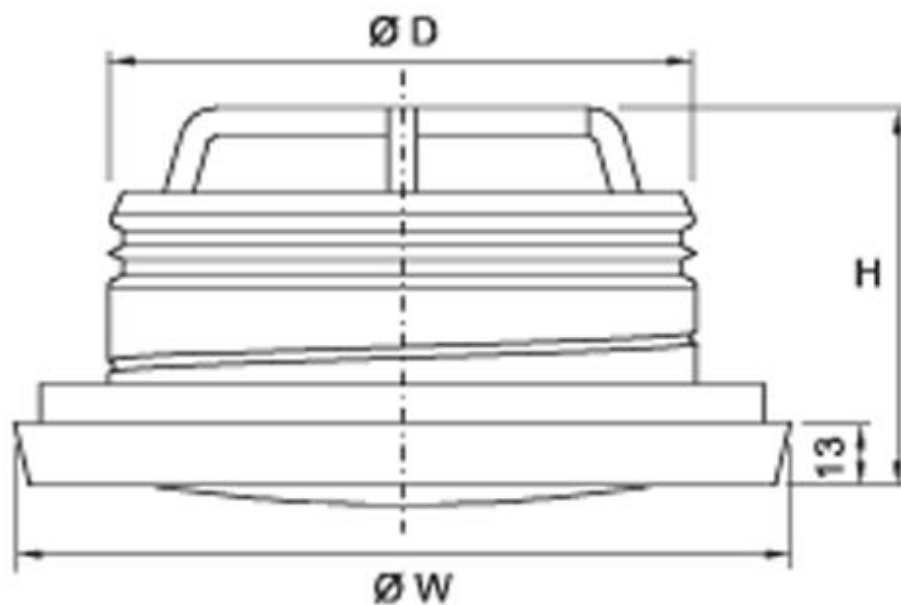
CE marked fire valve



- Possible to install in concrete, masonry or lightweight wall with fire resistance of ES 120 or EIS15 in concrete slab EIS 30.
- Suitable for vertical and horizontal installation Ve, Ho.
- Fuse inside cone with possibility of 50, 72 or 100 C.
- The integral installation frame is equipped with a sealing gasket and fire seal at its flange.
- Manufactured in accordance with ISO 9001 quality system.

Halton

Dimensions and weight



NS	$\varnothing W$	H	$\varnothing D$
100	139	88	99
125	165	88	124
160	200	88	159
200	251	86	199

Weight

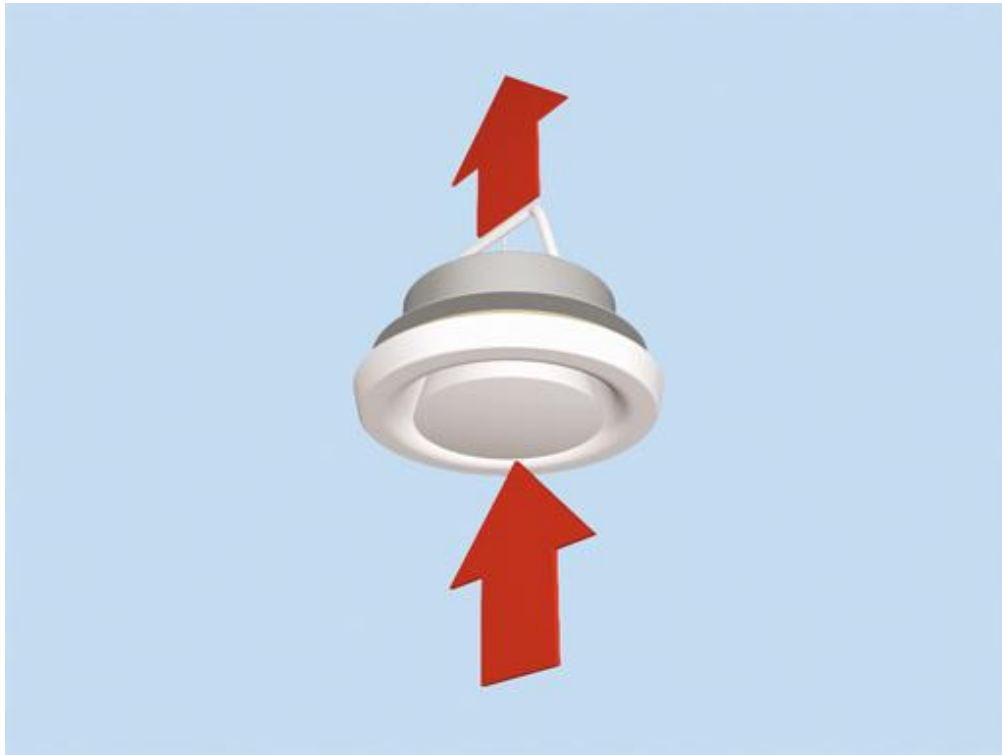
NS	kg
100	0.40
125	0.53
160	0.72
200	1.03

Material

Halton FDV

Part	Material	Note
Collar	Steel	Epoxy painted
Central cone	Steel	Epoxy painted
Frame gasket	Polyurethane	
Fireproof gasket	Silicate	
Installation frame	Galvanised steel	
Melting fuse	Brass	

Function



The Halton FDV is a circular fire valve. It prevents fire and smoke from spreading in ventilation ducts.

Operation as an exhaust valve normal mode

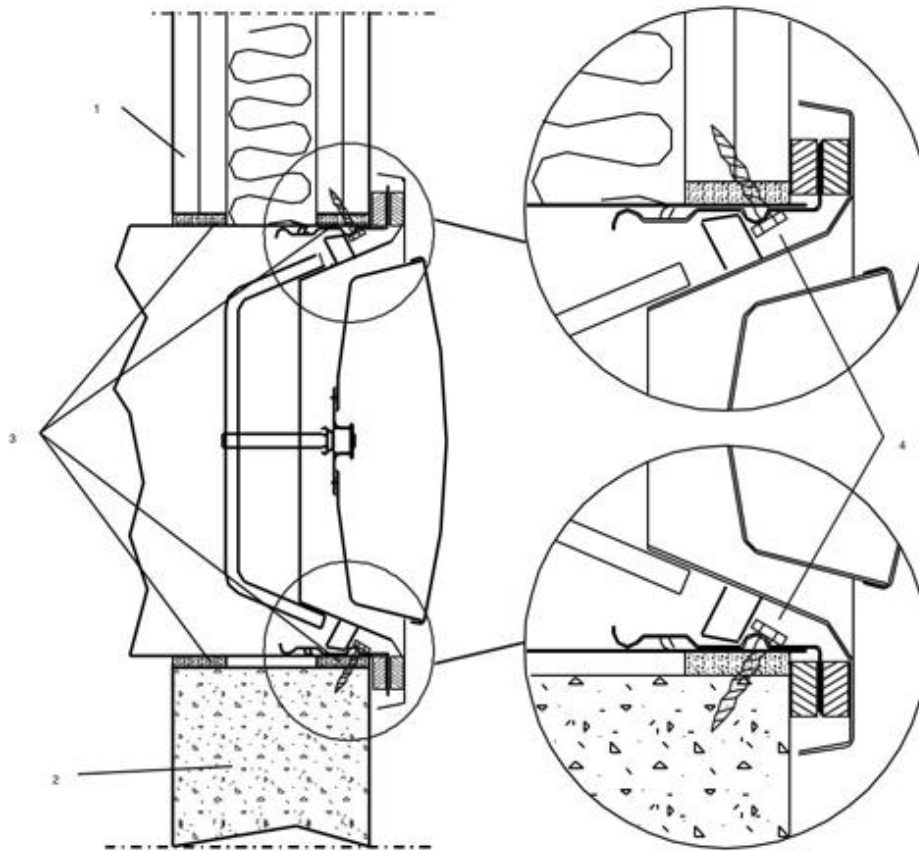
The valve throttles the exhaust air flow and attenuates the duct noise. The pressure drop is dependent on the position of the central cone. The desired exhaust rate is set during the balancing of the air flows in a ductwork system.

Operation as a fire damper emergency mode.

The fire damper contains an integral thermal fuse. This fuse responds to a rise in temperature, which causes a spring-return central cone to close.

The thermal fuse is released at 50°C, 72°C, or 100°C.

Installation



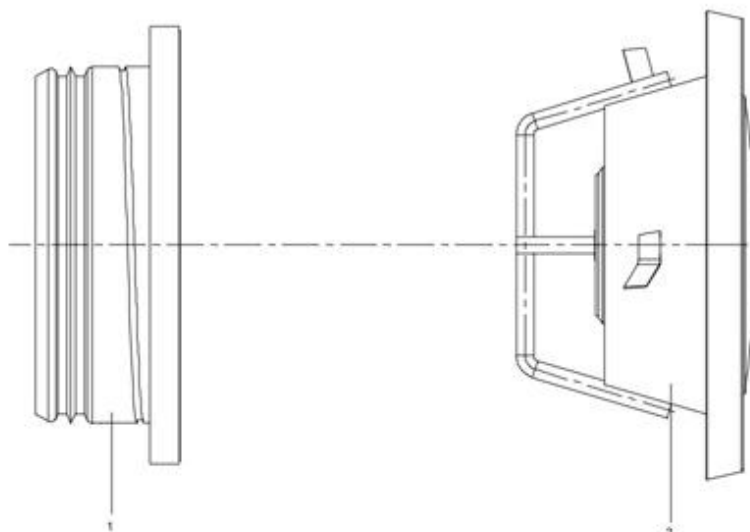
1. Lightweight wall
2. Concrete or masonry wall or ceiling
3. Fire-stop mass (Würth Firebreak 22)
4. Screws

The Halton FDV fire valve is approved for installation on concrete or masonry walls and ceilings and on lightweight walls.

Make an opening in the separating element for the air duct to be led through the structure. The size of the installation opening is $D + 20 \text{ mm}$.

Install the duct in the opening. Create the fire seal between duct and wall with a fire-stop mass (Würth Firebreak 22) and rockwool as indicated in the picture. Cut the duct flush with the wall surface.

Push the installation frame into the duct so that the flange is firmly pressed against the wall surface. Attach the installation to the duct and wall with two screws.



Push the valve(2) into the installation frame(1), and turn until it is firmly attached.

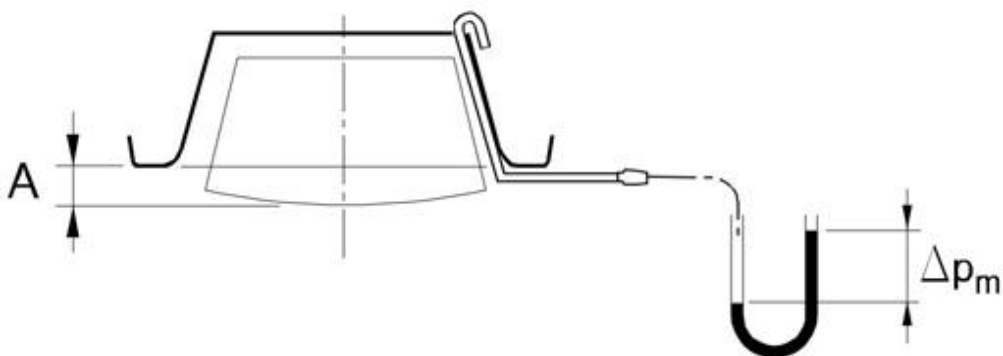
Detailed installation instructions, as well as an installer's installation certificate form, are supplied with each product. For further information see also tab Documents / Installation Instructions .

Adjustment

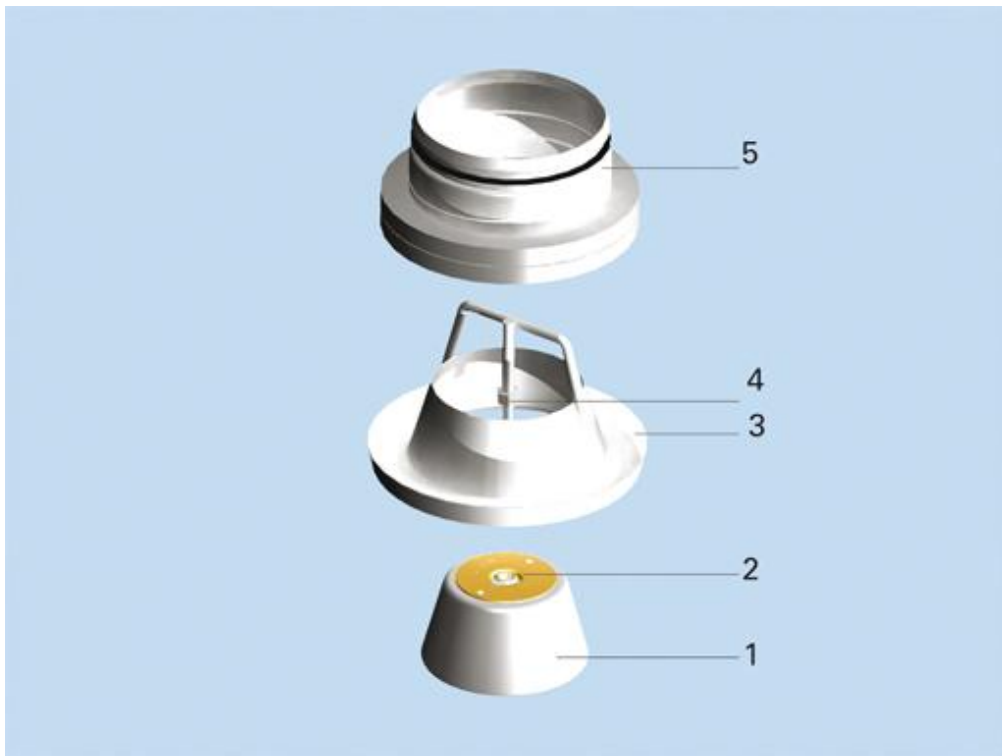
The Halton FDV valve is adjusted by rotating the central cone. Measure the opening (A) position (in mm) of the central cone. Set a probe inside the valve, and measure the differential pressure with a manometer. The air flow rate is calculated by using the formula below. After the adjustment, lock the central cone with the locking nut.

$$q_v = k * \sqrt{\Delta p_m}$$

FDV Ø 100			FDV Ø 125			FDV Ø 160			FDV Ø 200		
	A	k		A	k		A	k		A	k
	-15	0,43		-15	0,65		-12	1,16		3	1,78
	-12	0,63		-12	0,92		-9	1,51		6	2,46
	-9	0,83		-9	1,22		-6	1,9		9	3,24
	-6	1,02		-6	1,53		-3	2,31		12	3,97
	-3	1,22		-3	1,84		0	2,75		15	4,69
	0	1,42		0	2,17		3	3,25		20	5,88
	3	1,65		3	2,52		6	3,73		25	6,95
	6	1,88		6	2,83		9	4,22			
	9	2,11		9	3,14		12	4,67			
	12	2,33		12	3,46		15	5,12			
				15	3,77		18	5,58			



Servicing



Code description

1. Central cone
2. Fuse
3. Collar
4. Locking nut
5. Frame

Loosen the Halton FDV valve from the ductwork by turning anti-clockwise. Note the adjusted opening position of the central cone.

Wipe the parts with a damp cloth, instead of immersing in water. After cleaning, reattach the valve by pushing it into the installation frame and turning it until it is firmly attached.

Note: Do not use hot water or high temperatures during cleaning, as this could cause unnecessary release of the fuse.

Specification

The technical properties of the type-approved fire valve shall conform to the EN 1366-2 and EN 13501 standards.

The valve shall be of fire resistance class ES120, EIS15 for lightweight concrete or masonry walls. The valve shall be of fire resistance class ES120, EIS30 for installation on concrete slabs.

The fire valve shall be equipped with a thermal fuse and release spring and with fire sealing. The integral installation frame shall be equipped with a sealing gasket and fire seal at its flange.

It shall be possible to install the damper from the room side.

The fire valve shall have an adjustable central cone and collar made of epoxy-painted steel, with white (RAL 9010) as the standard colour.

The opening position of the central cone shall be adjusted during balancing in order to achieve the required pressure loss and air flow rate.

After balancing, the central cone shall be locked into the selected adjustment position.

The internal quality control system of the fire damper manufacturer shall be based on the ISO 9001 system, and the manufacturer's operations shall be subject to external third-party quality control VTT.

Product code

FDV-D

D = Connection size (mm)

100, 125, 160, 200

Specifics and accessories

CO = Colour

W White

X Special colour

FU = Fuse release temperature (°C)

50

72 (recommended)

100

Code example

FDV-100, CO=W, FU=72

FDV-100													
Exhaust						2011.04							
a	qv l/s	Δp_{st} Pa	Δp_{tot} Pa	$L_p A$ dB(A)	NR/ NC	L_w dB							
						fHz							
						63	125	250	500	1000	2000	4000	8000
-12.0	5	55	55	25	20/18	30	21	32	28	20	19	16	9
	6	79	79	30	26/25	31	23	33	31	30	24	19	10
	6	88	88	35	34/32	31	24	34	34	38	28	22	10
	7	111	111	40	38/37	31	26	34	38	42	29	27	11
-5.9	9	67	66	25	21/19	30	26	30	29	20	19	18	9
	10	90	89	30	29/27	32	29	34	37	26	20	19	10
	11	108	106	35	33/32	33	31	36	41	30	21	19	11
	12	135	133	40	39/38	34	33	39	47	34	21	19	11
0.2	15	85	83	25	21/18	29	28	29	27	23	19	18	18
	18	123	120	30	26/24	33	33	33	32	30	24	21	18
	22	175	170	35	32/31	37	37	36	36	36	28	23	19
	25	239	233	40	38/37	41	41	40	40	42	32	24	19
12.0	26	72	66	25	23/20	33	30	31	28	23	20	18	20
	31	105	96	30	26/24	38	35	35	33	30	25	21	20
	37	147	133	35	32/31	42	39	39	38	36	30	25	21
	44	203	184	40	38/37	46	44	42	43	42	35	28	21