

VDCI FdC tank bottom mixproof valve technical description

*This valve is designed **to shut off the tank from the rest of the process circuit**. The mixproof technology allows the pipes to be cleaned right up to the tank bottom in total safety. The air space leakage indicator warns of a possible faulty seal.*



Design

The tank bottom VDCI has similar characteristics to standard VDCI double block and bleed valves (floating seal, extra-thick body, strength, etc.), except for resistance to waterhammer. Thanks to the special shape of the plugs, a seal is formed tight up to the tank bottom. The leakage indicator is located on top of the actuator in this case. It also allows the air space to be washed by activating the lower plug (and possibly the upper plug).

The tank mixproof valve is designed on the standard VDCI model. A thick weld-on lip flange holds the spherical T or L body and screwed sectors provide angular orientation of the valve ends.

As the single air space crosses the entire lower plug, any flow can quickly be spotted. The break-away actuator is used to clean the air space and plug bearing surface during in-line washing operations. The design does not allow the usual units to be mounted on top of the actuator - only a lantern or stainless steel bracket-mounted detector can be fitted. The control solenoid valves are grouped together in this case. Several mixproof valves can be used on the same tank bottom panel to carry out a number of functions at the same time.

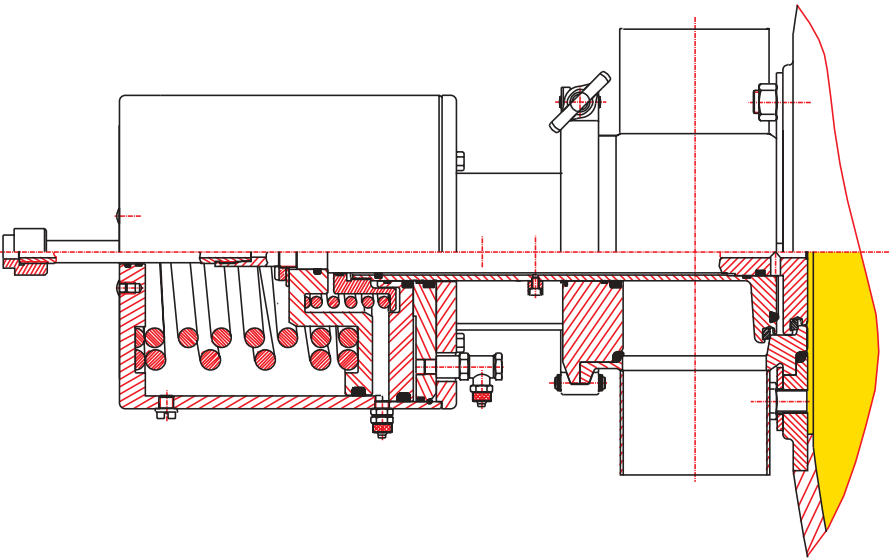
This mixproof valve can also be fitted with a steam bearing to sterilise the stem.

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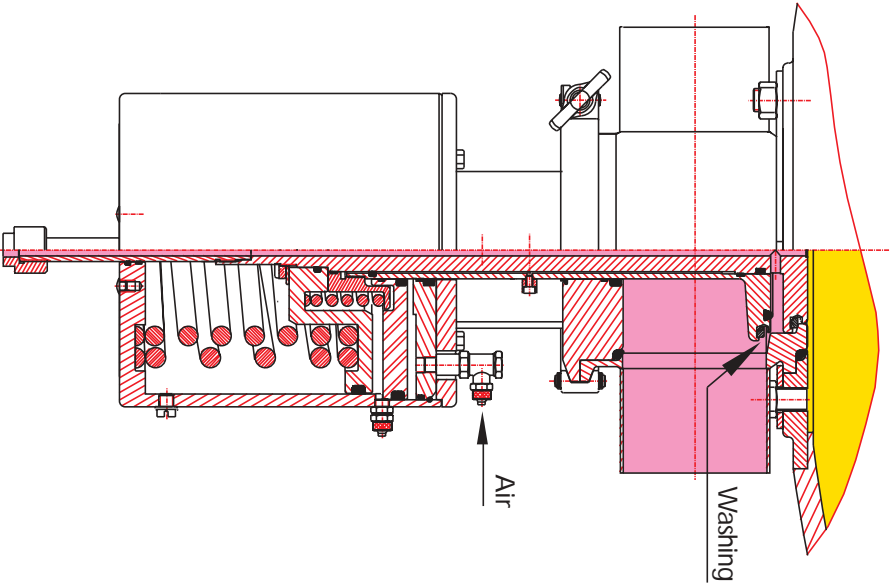
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Fluids circulation (washing line)

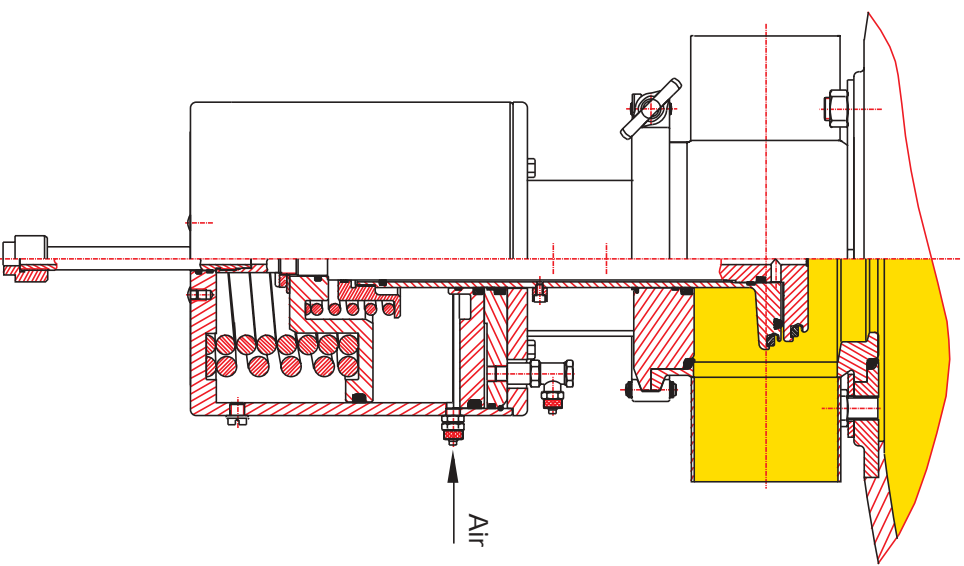
Valve closed



Lower plug lift

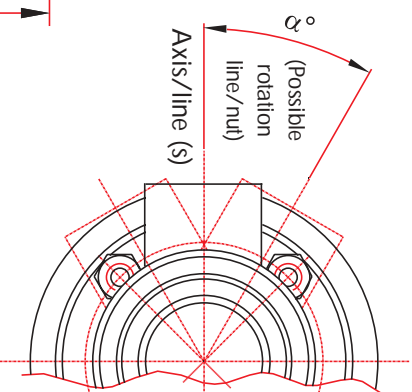
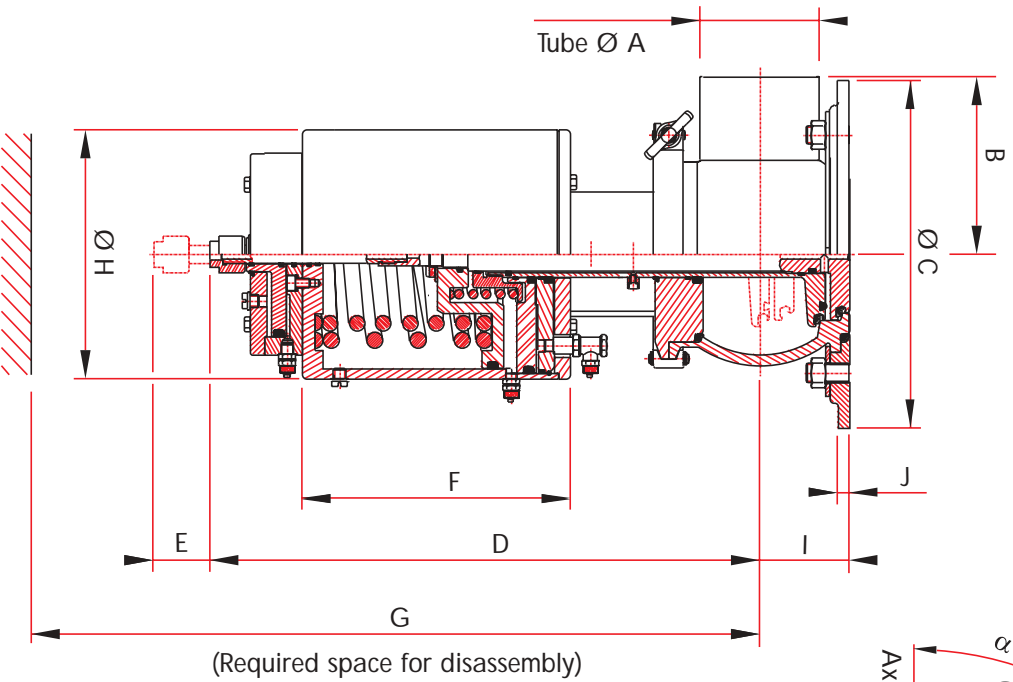


Open valve

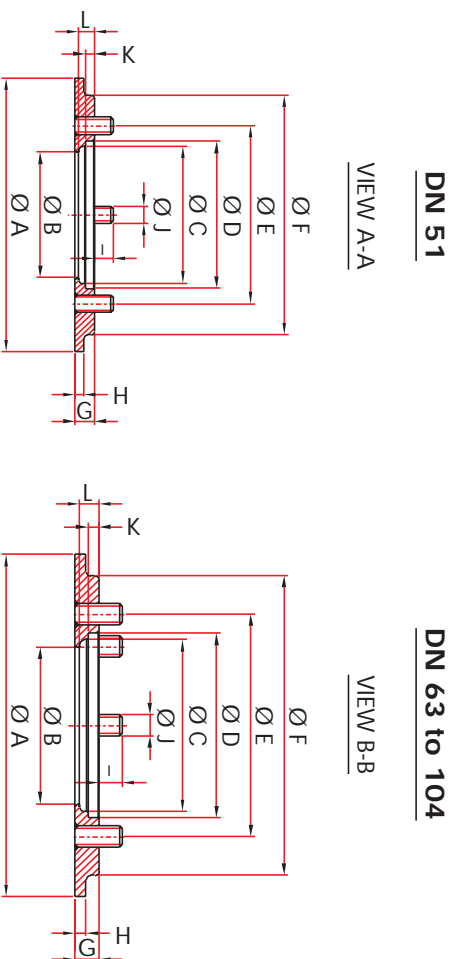


VDCI Fdc tank bottom mixproof valve dimensions

 VDCI Fdc valve



 VDCI Fdc flange



 DEFINOX

VDCI Fdc tank bottom mixproof valve dimensions

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VDCI Fdc valve

DN		Tube Ø A	B	Ø C	D	Stroke E	F	G	Ø H	I	J	α°	Weight in kg
SMS	DIN												
51		51 x 1,25	105	178	363	34	179	465	128	49	8	30°	20
		50,8 x 1,65	105	178	363	34	179	465	128	49	8	30°	20
		53 x 1,5	105	178	363	34	179	465	128	49	8	30°	20
63		63,5 x 1,6	130	198	406	40	204	520	167	58	8	31°	35
		63,5 x 1,65	130	198	406	40	204	520	167	58	8	31°	35
		70 x 2	130	198	408	40	204	530	167	61	8	30°	40
76		76 x 2	130	198	413	40	204	540	167	64	8	26°	40
		76 x 1,65	130	198	413	40	204	540	167	64	8	26°	40
		85 x 2	155	268	461	49	234	625	218	68	10	23°	66
		101,6 x 2,1	155	268	471	49	234	635	218	78	10	21°	75
104	100	104 x 2	155	268	471	49	234	635	218	78	10	21°	75

VDCI Fdc flange

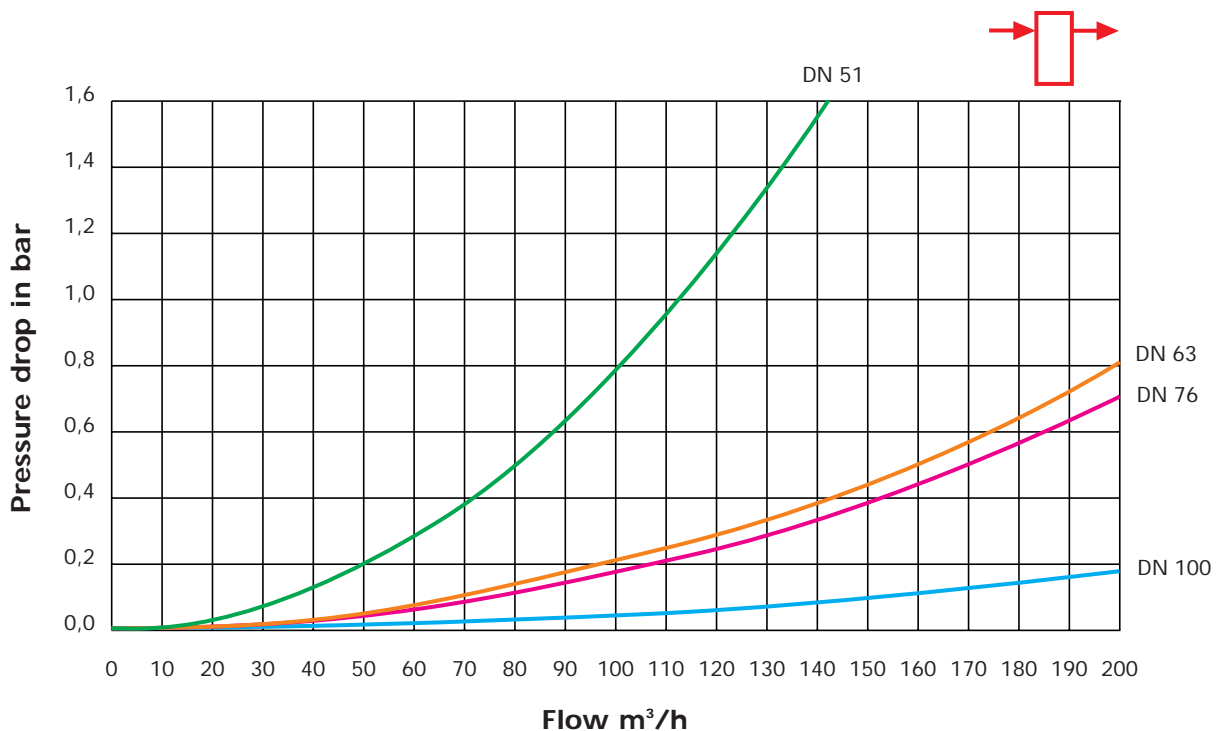
DN			Ø A	Ø B	Ø C	Ø D	Ø E	Ø F	G	H	I	Ø J	K	L	α°	β°	θ°	δ°
SMS	DIN	US																
51	50	2"	178,25 ±0,25	74 ±0,1	81	100,2 ±0,05	122	152	14 ±0,1	8	12	M10	8 ±0,1	12 ±0,1	45°	45°		
63		2" 1/2	198,25 ±0,25	106 ±0,1	113	123,2 ±0,05	145	175	16 ±0,1	8	14	M10	10 ±0,1	14 ±0,1	45°	45°		45°
			198,25 ±0,25	106 ±0,1	113	123,2 ±0,05	145	175	16 ±0,1	8	14	M10	10 ±0,1	14 ±0,1	45°	45°		45°
76		3"	198,25 ±0,25	106 ±0,1	113	123,2 ±0,05	145	175	16 ±0,1	8	14	M10	10 ±0,1	14 ±0,1	45°	45°		45°
	80		267,85 ±0,15	146 ±0,1	155,2	184,2 ±0,05	208	245	17 ±0,1	10	16	M12	8,5 ±0,1	14 ±0,1	50°	40°		50°
100	104	4"	267,85 ±0,15	146 ±0,1	155,2	184,2 ±0,05	208	245	17 ±0,1	10	16	M12	8,5 ±0,1	14 ±0,1	50°	40°		50°

VDCI FdC tank bottom mixproof valve working conditions

DN			Pressure drop (Kv)	Pressure drop (Cv)	Opening time (s)	Air consumption (NI)
SMS	DIN	US				
51	50	2"	48	55,68	4,2	2
63		2"1/2	95	110,2	9	5
	65		97	112,52	9	6
76		3"	100	116	9	6
	80		170	197,2	10,8	11
104	100	4"	215	249,4	10,8	11

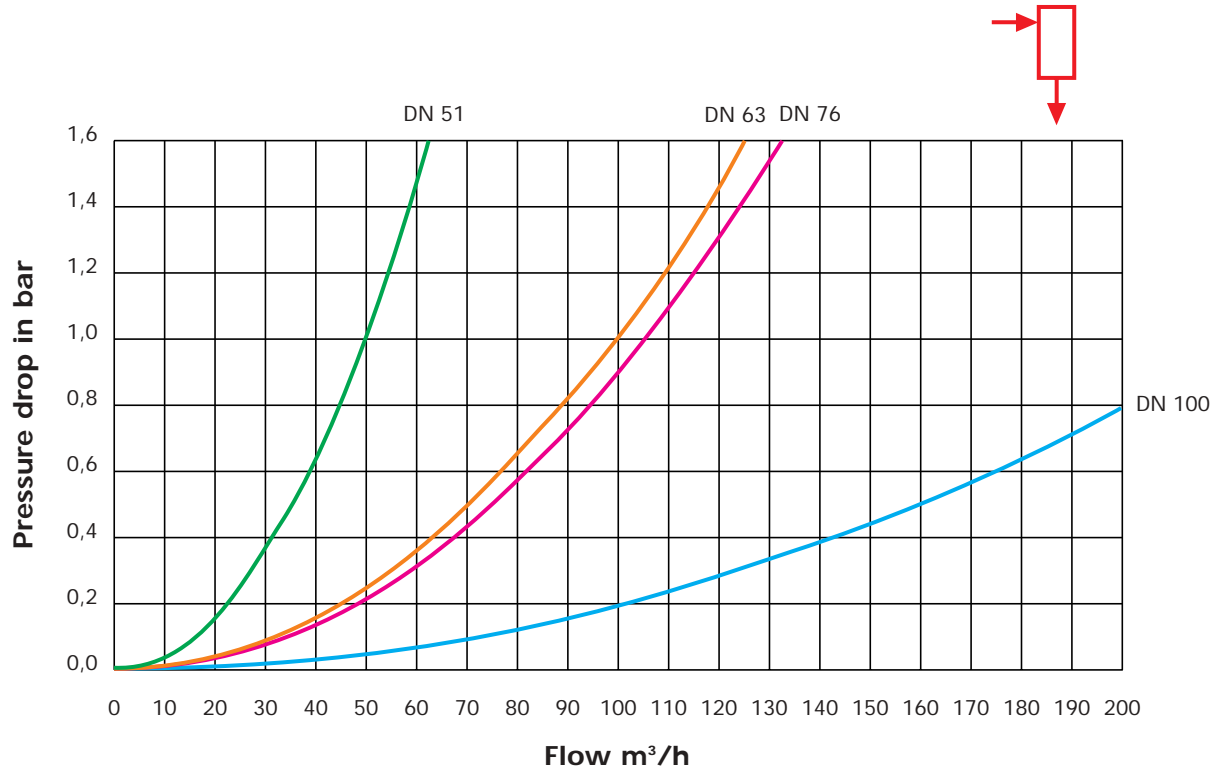
FOR ALL DIAMETERS OF TANK BOTTOM MIXPROOF VALVE		
Maximum temperature: +140 °C	Minimum temperature: -5 °C	Temperature difference: 120 °C
Maximum working pressure: 4 Bar	Vacuum resistance: 0,4 cm ³ /s	Maximum sealing pressure: 5 Bar
Maximum supply pressure: 8 Bar	Minimum supply pressure: 5 Bar	

Pressure drop VDCI FdC valves upper line



VDCI FdC tank bottom mixproof valve working conditions

Pressure drop VDCI FdC valve upper → lower line



Pressure drop VDCI FdC valve lower → upper line

