

V203

HYDRAULIC TILTING CHECK VALVE



Product Description

TVN V203 Hydraulic Tilting Check Valve is the non-return valve preferred in pipe networks where faster closure is required and water hammer affects needs to be absorbed. Through the counter lever and weight attached to its shaft via the hydraulic piston, ensures a soft open depending on the speed of the flow and maintains reduced closing times when flow stops. With its disc design where the center is shifted in two axis, this leads to a big improvement on decreasing operation torque values, lowering the friction on disc sealing area and extended service life.



Technical Data	
Size range	DN100 - DN2400
Pressure range	PN 10 -16
Temperature	EPDM : -10°C to +80 °C NBR - 10°C to +60 °C VITON -10°C to +110 °C
Design	EN 12334
Face to face	EN 558 Series 14 / F4
Flange drilling	EN 1092 - 2 ISO 7005 - 2 Flanged
Coating	Electrostatic / Thermoplastic Powder Epoxy
Testing	EN 12266-1
Marking	EN 19
Operation	Hydraulic Damper

Application Range

- Pumping Stations
- Water Transmission Lines
- Tanks
- Water Treatment Plants
- PowerStation Cooling Lines

Related Products

- V106 Double Eccentric Butterfly Valve
- V151 Resilient Seated Gate Valve
- V251 Dismantling Joint



IRRIGATION



POTABLE WATER

Product Features

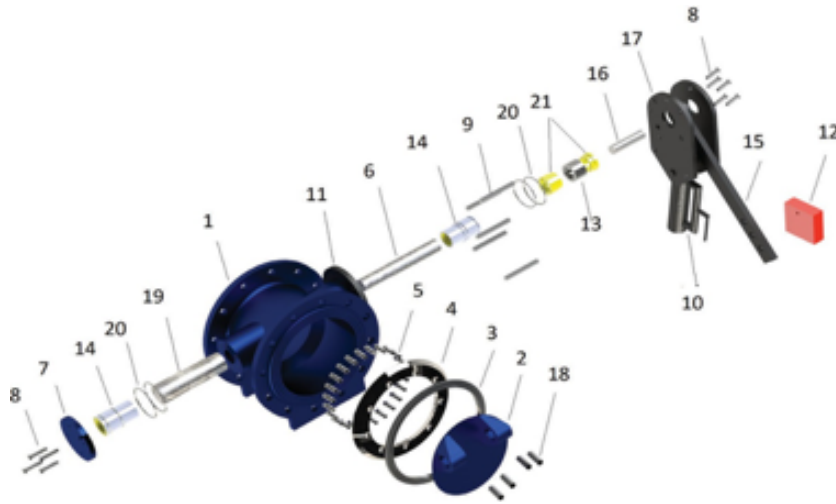
- GGG40/50 Ductile Iron Body & Disc allows high impact and stretching resistance
- Double Eccentric / Double Offset Disc Design
- Resilient Seated Type (Metal seated type optional)
- Disc sealing ring EPDM as default. NBR or VITON options are available
- Block molded solid/one-piece T-shaped disc sealing ring extends drop-tight sealing life time
- The open/close speed can be adjusted by opening and closing the valve located on the hydraulic piston.
- Counter Lever & Weight position can be replaced on both sides. Two counter lever option is also available upon request.
- Possible to install on horizontal and vertical pipelines with varied flow directions. It is necessary to mention the lever positioning requirements according to your project in order to arrange the lever side and position during production.
- Easy to replace disc sealing ring without dismantling the valve from the pipeline and without dismantling the disc from the valve itself just by taking out the retaining ring through its bolts. It is easy to replace the disc sealing ring without any additional equipment's
- SS308/316 grade stainless steel welding seat on the body is manufactured through automatic welding machines and micro finished precise milling operation. When disc is fully closed, disc sealing ring applies equal pressure on every point on the welding seat.
- Drop-tight closure
- Triple O-ring feature on both shafts ensures high sealing
- Shafts are equipped with bronze bushings having high corrosion resistance
- Ensures minimized pressure loss and increased energy efficiency with double shaft design
- Low torque requirements during operation
- Easy to install on the line, light weight and occupies less space
- Full coating on the body and disc internally & externally with an average of 250 microns. Higher coating thicknesses are available when required.
- WRAS approved coating available upon request which meets hygienic requirements for potable water applications
- Maintenance free design
- For proper installation, direction arrow on the body should be considered.
- Balanced positioned lifting holes on the body ease transportation and installation
- Hydrostatic test pressure for seat: PN x 1.1 , for shell: PN x 1.5 according to EN 12266-1.

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Material List



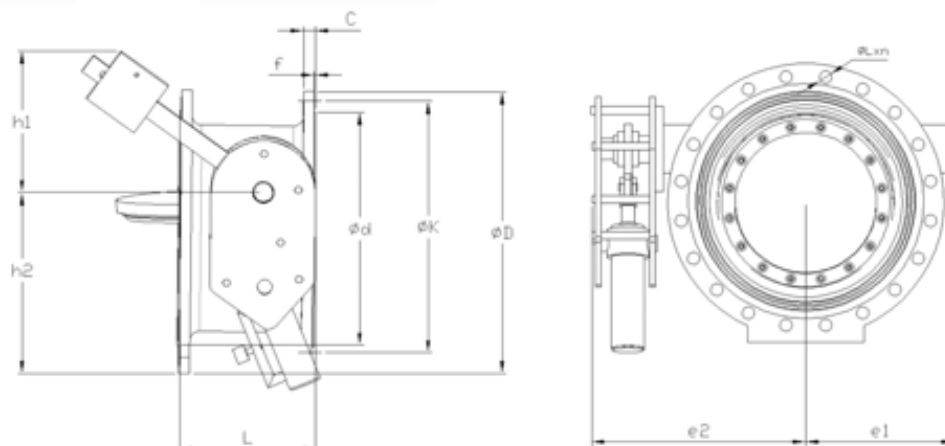
No	Part	Material
1	Body	Ductile Iron GGG50 EN GJS 500-15
2	Disc	Ductile Iron GGG50 EN GJS 500-15
3	Disc Sealing	EPDM / NBR
4	Retaining Ring	ST37 Steel / SS304 Stainless Steel
5	Retaining Ring Bolt	A2 / A4
6	Long Shaft	SS420 / SS316L
7	Shaft Cover	Ductile Iron GGG50 EN GJS 500-15
8	Shaft Cover Bolt	A2 / A4
9	Stud	AISI304 Stainless Steel
10	Damper	Hydraulic Damper (with Cylinder)
11	Damper Connection Flange	ST37 Steel
12	Counter Weight	Ductile Iron GGG50 EN GJS 500-15
13	Plug	Ductile Iron GGG50 EN GJS 500-15
14	Shaft Bearing Bush	RG5 Bronze
15	Weight Lever	ST37 Steel
16	Stem	Polyamide
17	Damper Cover	ST37 Steel
18	Setscrew	A2
19	Short Shaft	SS420 / SS316L
20	O-Ring	EPDM
21	Ring	PTFE

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Dimension Table



Nominal Diameter	PN10											
	DN	L	f	h1	h2	e1	e2	ØD	ØK	Ød	C	ØLxn
100	190	3	-	-	-	-	-	220	180	156	19	19x8
125	200	3	-	-	-	-	-	250	210	184	19	19x8
150	210	3	277	349	132	265	285	240	211	19	19	23x8
200	230	3	298	378	210	358	340	295	266	20	20	23x8
250	250	3	289	392	242	374	405	350	319	22	22	23x12
300	270	4	295	384	263	416	460	400	370	24.5	24.5	23x12
350	290	4	326	468	292	469	505	460	429	24.5	24.5	23x16
400	310	4	340	454	323	516	565	515	480	24.5	24.5	28x16
450	330	4	336	499	359	552	615	565	530	25.5	25.5	28x20
500	350	4	487	507	383	597	670	620	582	28.5	28.5	28x20
600	390	5	517	642	433	633	780	725	682	30	30	31x20
700	430	5	604	809	498	753	895	840	794	32.5	32.5	31x24
800	470	5	645	914	564	815	1015	950	901	35	35	34x24
900	510	5	708	1033	663	935	1115	1050	1001	37.5	37.5	34x28
1000	550	5	707	1257	689	1047	1230	1160	1112	40	40	37x28
1100	590	5	-	-	-	-	1355	1270	1218	53.5	53.5	37x32
1200	630	5	-	-	-	-	1455	1380	1328	45	45	41x32
1300	670	5	-	-	-	-	1585	1490	1432	59	59	42x32
1400	710	5	-	-	-	-	1675	1590	1530	46	46	44x36
1500	750	5	-	-	-	-	1820	1700	1640	47	47	44x36
1600	790	5	-	-	-	-	1915	1820	1750	49	49	50x40
1800	870	5	-	-	-	-	2115	2020	1950	52	52	50x44
2000	950	5	-	-	-	-	2325	2230	2150	55	55	50x48
2200	1030	6	-	-	-	-	2555	2440	2370	65	65	57x52

Dimension Table

Nominal Diameter	PN 16						
	DN	L	f	ØD	ØK	Ød	C
100	190	3	220	180	156	19	19x8
125	200	3	250	210	184	19	19x8
150	210	3	285	240	211	19	23x8
200	230	3	340	295	266	20	23x12
250	250	3	405	355	319	22	28x12
300	270	4	460	410	370	24.5	28x12
350	290	4	520	470	429	26.5	28x16
400	310	4	580	525	480	28	31x16
450	330	4	640	585	548	30	31x20
500	350	4	715	650	609	31.5	34x20
600	390	5	840	770	720	36	37x20
700	430	5	910	840	794	39.5	37x24
800	470	5	1025	950	901	43	41x24
900	510	5	1125	1050	1001	46.5	41x28
1000	550	5	1255	1170	1112	50	44x28
1100	590	5	1355	1270	1218	53.5	44x32
1200	630	5	1485	1390	1328	57	50x32
1300	670	5	1585	1490	1432	59	50x32
1400	710	5	1685	1590	1530	60	50x36
1500	750	5	1820	1710	1640	62.5	57x36
1600	790	5	1930	1820	1750	65	57x40
1800	870	5	2130	2020	1950	70	57x44
2000	950	5	2345	2230	2150	75	62x48
2200	1030	6	2555	2440	2360	80	62x52