V901

PLUNGER VALVE

Product Description

V901 Plunger Valve is the correct valve to use whenever pressure heads or flow rates need to be safely and reliably reduced and controlled. The flow regulation is done via the axial movement of a piston, operated by a rod and crank mechanism.
To be able to control the pressure and flow precisely and finely, the valve's flow control characteristics must be as linear as possible over the whole opening range. This forms the core design criteria of V901 Plunger (Needle) Valves.

Technical Data	
Size range	DN150 - DN1400
Pressure range	PN 10 - 16 - 25 - 40 - 64
Temperature	-10°C to +100 °C
Design	EN 593
Face to face	EN 558 Series 15
Flange drilling	EN 1092-2 / ISO 7005-2
Coating	Electrostatic Powder Epoxy
Testing	EN 12266-1
Marking	EN 19
Operation	Gearbox with Handwheel
	Electrical Actuators

Application Range

- Pumping Stations
- Reservoir and Turbine Inlet
- Shut off valve for high pressure and high flow velocity
- Bottom Outlet Valve for Dams
- Turbine by-pass
- Pressure Control and Flow Regulation

Related Products

- V106 Butterfly Valve Series 14
- V151 Gate Valve
- V202/203 Check Valve Tilting Type with Lever & Weight / With Hydraulic Damper
- V251 Dismantling Joint Full Tie Rod

POTABLE WATER

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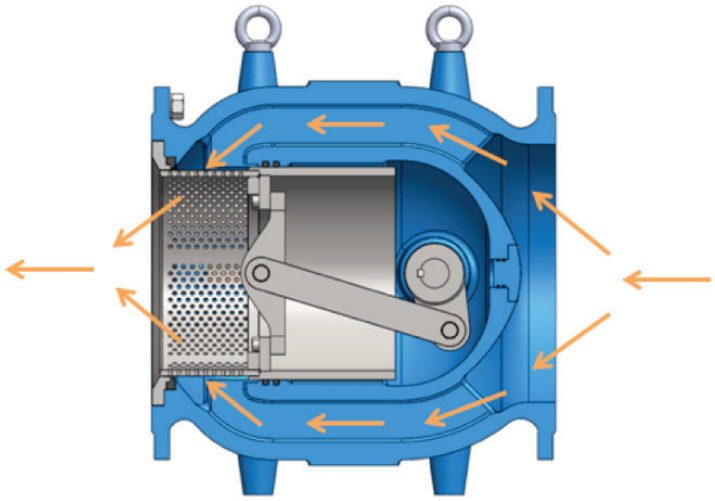
Product Features

- High corrosion resistant internal materials
- Lower torques at high pressure rates
- Suitable for flow adjustment
- A ring shaped symmetrical cross section that enables a linear control curve over the entire control range
- The piston's linear movement results from conversion of the rotary movement of the actuator shaft by the internal slider crank mechanism and ensures a well defined ring-shaped cross- section in every position
- Flow streams do not hit each other until they reach the middle of the valve or pipe, which reliably prevents cavitation damage to the valve
- Provides a ring-shaped cross-section in every piston position
- Reliable energy conversion in the middle of the flow stream, which significantly minimises any effects of cavitation
- Butterfly and gate valves, due to their design as isolation or shut-off valves are not suitable for continuous use as a variable flow control valve, with the unique design properties V901 Plunger Valves are able to control the flow continously
- Through the Computerised Fluid Dynamics (CFD), a very high efficient and optimised plunger valves is designed
- Controls energy conversion from inlet to outlet
- The piston is positioned in the center of the valve body and operates in a chamber precisely shaped in order to avoid noises and cavitation damages
- For proper installation 10 X DN distance of a pipe length should be considered



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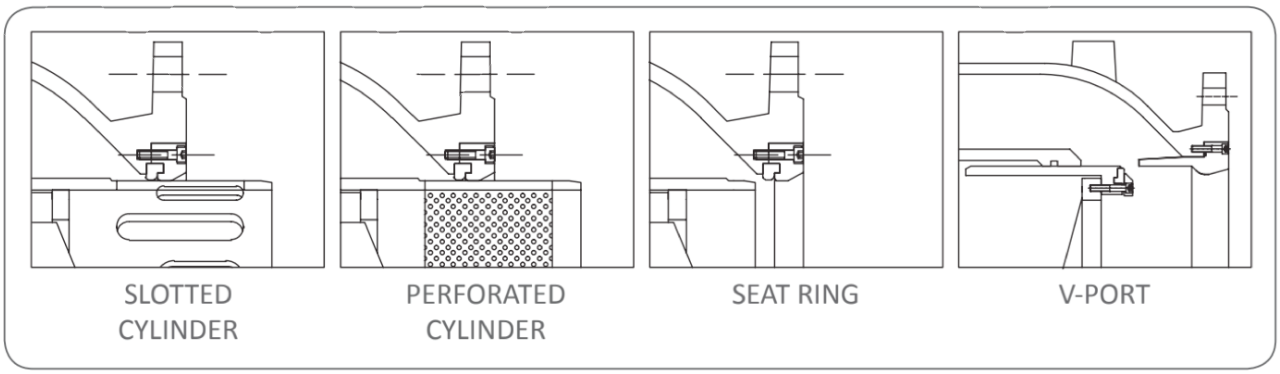
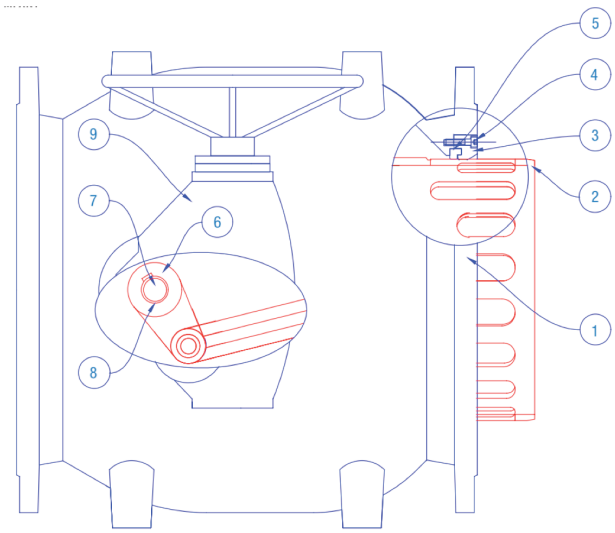
Variations



Material List



No	Part	Material
1	Body	GGG50 Ductile Iron Body
2	Piston	Stainless Steel
3	Bracket	Stainless Steel
4	Bolts & Nuts	Stainless Steel
5	Sealing Ring	EPDM + Metal Sealing
6	Cranck	Stainless Steel
7	Shaft	AISI 420 Stainless Steel
8	Bearing	Bronze
9	Gearbox Body	GGG50 Ductile Iron Body

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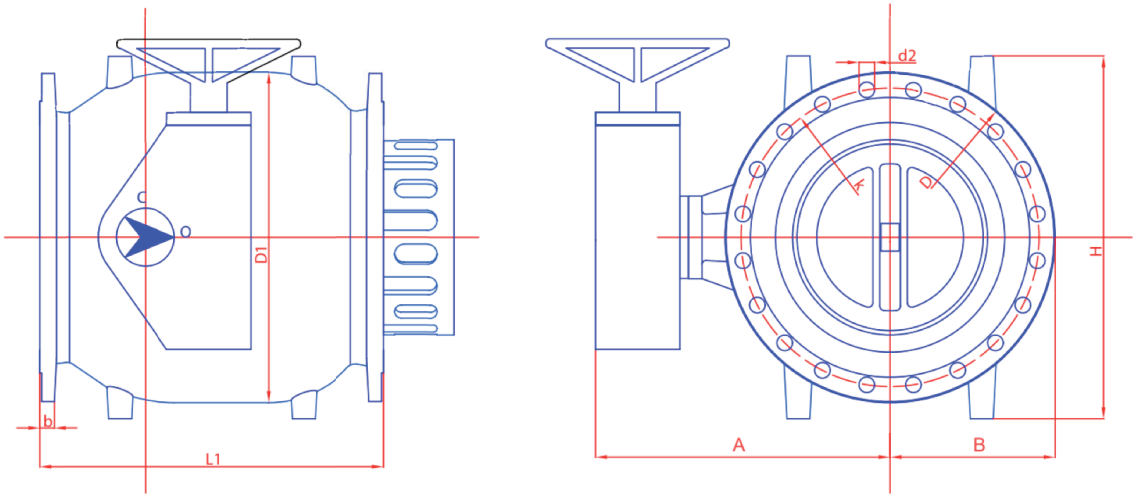
Dimensions Table



PN10	BODY			FLANGES					GEAR BOX			Unit Weight (kg)
(DN)	A (mm)	B (mm)	L1 (mm)	D (mm)	K (mm)	d2 (mm)	b (mm)	No. of Holes	Model	Turn	Torque	
150	283	143	350	285	240	23	19	8	M60	21	25	80
200	315	170	400	340	295	23	20	5	M60	21	30	115
250	375	200	450	400	350	23	22	12	M85	31	30	155
300	455	228	500	455	400	23	24.5	12	M85	31	35	190
400	535	290	600	565	515	28	24.5	16	M110	23	40	335
500	602	360	750	670	620	28	26.5	20	M110	23	50	590
600	660	435	900	780	725	31	30	20	M125	23	70	1030
700	720	515	1050	895	840	31	32.5	24	M160	23	80	1620
800	770	565	1200	1015	950	34	35	24	M160/3	70	80	2050
900	830	630	1350	1115	1050	34	37.5	28	M160/3	70	90	2750
1000	915	695	1500	1230	1160	37	40	28	M200/3	75	100	4000
1200	1070	825	1800	1455	1380	40	45	32	M200/3	225	105	5300

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Dimensions Table

PN16	BODY			FLANGES					GEAR BOX			Unit Weight (kg)
(DN)	A (mm)	B (mm)	L1 (mm)	D (mm)	K (mm)	d2 (mm)	b (mm)	No. of Holes	Model	Turn	Torque	
150	283	143	350	285	240	23	19	8	M60	21	25	80
200	315	170	400	340	295	23	20	5	M60	21	30	115
250	375	200	450	400	355	23	22	12	M85	31	30	155
300	455	228	500	455	410	23	24.5	12	M85	31	35	190
400	535	290	600	580	525	28	24.5	16	M110	23	40	335
500	602	360	750	715	650	28	26.5	20	M110	23	50	590
600	660	435	900	840	770	31	30	20	M125	23	70	1030
700	720	515	1050	910	840	31	32.5	24	M160	23	80	1620
800	770	565	1200	1025	950	34	35	24	M160/3	70	80	2050
900	830	630	1350	1125	1050	34	37.5	28	M160/3	70	90	2750
1000	915	695	1500	1255	1170	37	40	28	M200/3	75	100	4000
1200	1070	825	1800	1485	1390	40	45	32	M200/3	225	105	5300

PN25	BODY			FLANGES					GEAR BOX			Unit Weight (kg)
(DN)	A (mm)	B (mm)	L1 (mm)	D (mm)	K (mm)	d2 (mm)	b (mm)	No. of Holes	Model	Turn	Torque	
150	283	143	350	300	250	28	20	8	PLEASE ASK			80
200	315	170	400	360	310	28	22	12				115
250	375	200	450	425	370	31	24.5	12				165
300	455	228	500	485	430	31	27.5	16				200
400	535	290	600	620	550	37	32	16				370
500	602	360	750	730	660	37	36.5	20				395
600	660	435	900	845	770	40	42	20				1110
700	720	515	1050	960	875	43	46.5	24				1820
800	770	565	1200	1085	990	49	51	24				2150
900	830	630	1350	1185	1090	49	59.5	28				2850
1000	915	695	1500	1320	1210	56	60	28				4250
1200	1070	825	1800	1530	1420	56	74	32				5600

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