



Alpine Flowtech

Control Valves, Sewage Air Valves, Controllers, Pressure, Flow, Level & Leakage Management.

Unit No. 1, B Wing, Swarajya Complex, Rajlaxmi Compound, Opp. Bewakoof Textile Factory Outlet, Kasheli, Kalher, Tal. Bhiwandi, Dist. Thane Pin 421302. Contact: 8850001856/9867025324/8978558585.

Email: alpineflowtech@gmail.com. GSTIN - 27ABOFA0019J1ZI

NEEDLE VALVE (PLUNGER MECHANISM)



Pressure & Flow Control

Anti-Cavitation

Energy Dissipation

AFC - Needle Valves are Regulating Valves that are used for applications where High Differential Pressures and High Velocities are to be handled. The valve is ideal to handle CAVITATIONS and has multiple Anti cavitation device options to mitigate this issue. It's a well-engineered, sturdy, and effective ENERGY DISSIPATING DEVICE. The Valve is ideal for Bulk Water handling requirements like:

1. Dams Energy Dissipation
2. Cross Country Large Trunk Mains
3. Reservoir management
4. Tapping Management
5. High Velocity By-Pass applications.

FEATURES – AFC NEEDLE VALVE

- High Performance Linear Control & Energy Dissipation
- Annular Flow Discharge – Precise Regulation
- High Discharge & High Velocity Application
- Linear Movement of the Cylinder (Plunger)
- Anti Cavitation with multiple Needle Drives
- Low Operational Torque
- Heavy Duty Gear Box
- Double Seating Structure
- Anti-Wearing Welded Guides
- Anti Vibration
- Epoxy Coating – Minimum 250 Microns



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॥ अविस्त जल प्रदाय ॥

Design Data

- Sizes : 150 mm to 2000 mm
- PN Rating : 10, 16, 25, 40
- Temperature : - 10 to 50 DEG. C
- Flow Media : Clean Water

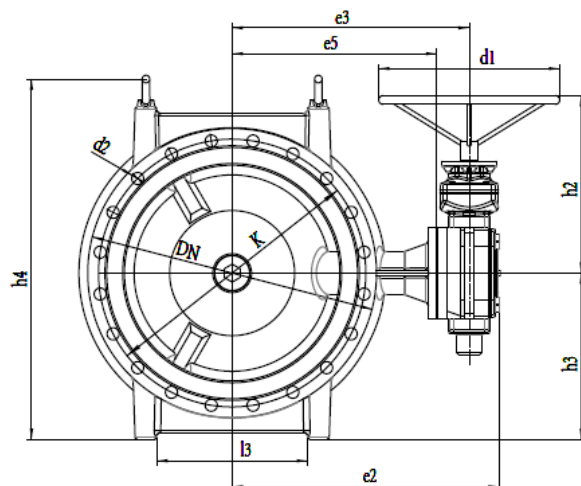
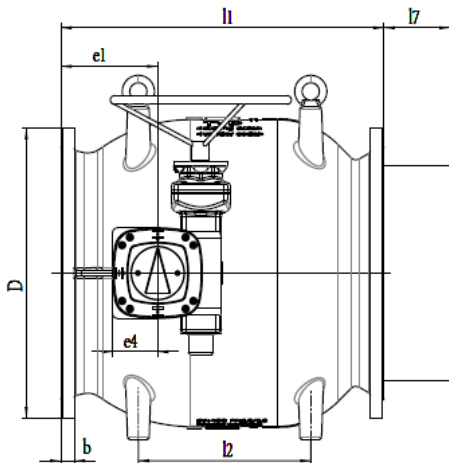
Materials of Construction:

- Body Ductile Iron EN JS 1030 (GGG-40)
- Piston Guide – Bronze Weld Overlay
- Piston – SS 1.4301
- Trims – SS 304/316
- O Rings – EPDM, NBR, PTFE
- Bolts – SS A2/A4.
- Bearing Bushes – Bronze



DN	PN	Maximum operating pressure [bar]	Maximum operating temperature for neutral liquid [°C]	Shell strength test Test pressure [bar]	Tightness test Test pressure [bar]
100-1200	40	40	50	60	44
100-1600	25	25	50	37.5	28
100-2000	16	16	50	24	18
100-2000	10	10	50	15	11

Size:





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PN10

DN	unit	300	400	450	500	600	700	800	900	1000	1200	1400	1600	1800	2000
D	[mm]	445	565	615	670	780	895	1015	1115	1230	1455	1915	1915	2115	2325
b	[mm]	24.5	28	30	31.5	36	39.5	43	46.5	50	57	50	50	75	80
d1	[mm]	250	250	250	400	400	400	400	400	400	400	400	400	500	500
d2	[mm]	23	28	28	28	31	31	34	34	37	41	50	50	50	50
e1	[mm]	160	170	150	175	280	315	400	420	460	560	650	725	900	900
e2	[mm]	403	518	518	629	645	800	797	880	1016	1136	1335	1609	1865	1930
e3	[mm]	345	467	467	550	575	725	725	800	898	1040	1205	1490	1705	1735
e4	[mm]	63	80	80	100	100	125	125	160	160	200	250	250	340	430
e5	[mm]	300	410	410	475	500	650	650	725	800	950	1100	1350	1560	1560
h2	[mm]	265	268	268	439	449	454	454	520	520	600	725	705	985	1066
h3	[mm]	260	335	345	385	460	520	600	650	720	850	1000	1200	1280	1400
h4	[mm]	573	741	761	841	1010	1150	1309	1428	1568	1828	2200	2608	2858	3120
k	[mm]	400	515	565	620	725	840	950	1050	1160	1380	1820	1820	2020	2230
l1	[mm]	500	600	650	750	900	1050	1200	1350	1500	1800	2100	2500	2700	3000
l2	[mm]	230	300	350	400	500	560	600	700	750	800	1000	1200	1500	1600
l3	[mm]	230	300	350	400	500	560	600	700	750	800	1000	1200	1500	1600
l7	[mm]	94	127	144	153	150	194	244	275	291.5	363	480	480	658	723
holes		12	16	20	20	20	24	24	28	28	32	40	40	44	48
weight	kg	170	305	350	540	940	1500	1900	2500	3640	4900	8835	17000	20000	25500
volume	m3	0.2	0.4	0.45	0.7	1	1.08	2.2	3	4.1	5.1	6.1	9.9	12.8	16.6

PN16

DN	unit	300	400	450	500	600	700	800	900	1000	1200	1400	1600	1800	2000
D	[mm]	460	580	640	715	840	970	1025	1125	1255	1485	1685	1930	2130	2345
b	[mm]	24.5	28	30	31.5	36	39.5	43	46.5	50	57	60	65	75	80
d1	[mm]	250	250	250	400	400	400	400	400	400	400	400	400	630	630
d2	[mm]	28	31	31	34	37	37	40	41	44	50	50	57	59	62
e1	[mm]	160	170	150	175	280	315	400	420	460	560	650	725	900	900
e2	[mm]	403	518	518	629	654	800	797	880	1016	1136	1335	1609	1865	1930
e3	[mm]	345	467	467	550	575	725	725	800	898	1040	1205	1490	1705	1735
e4	[mm]	63	80	80	100	100	125	125	160	160	200	250	250	340	430
e5	[mm]	300	410	410	475	500	650	650	725	800	950	1100	1350	1560	1560
h2	[mm]	265	268	268	439	449	454	454	520	520	600	725	705	985	1066
h3	[mm]	260	335	345	385	460	520	600	650	720	850	1000	1200	1280	1400
h4	[mm]	573	741	761	841	1010	1150	1309	1428	1568	1828	2200	2608	2858	3120
k	[mm]	410	525	585	650	770	840	950	1050	1170	1390	1590	1820	2020	2230
l1	[mm]	500	600	650	750	900	1050	1200	1350	1500	1800	2100	2500	2700	3000
l2	[mm]	230	300	350	400	500	560	600	700	750	800	1000	1200	1500	1600
l3	[mm]	230	300	350	400	500	560	600	700	750	800	1000	1200	1500	1600
l7	[mm]	94	127	144	153	150	195	244	275	291.5	363	480	480	658	723
holes		12	16	20	20	20	24	24	28	28	32	36	40	44	48
weight	kg	170	305	350	550	990	1500	1950	2550	3640	5000	8835	17000	20000	25500
volume	m3	0.2	0.4	0.45	0.7	1	1.09	2.2	3	4.1	5.1	6.1	9.9	12.8	16.6



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PN25

DN	unit	300	400	450	500	600	700	800	900	1000	1200	1600
D	[mm]	485	620	670	730	845	960	1085	1185	1320	1530	1975
b	[mm]	24.5	32	34.5	41.5	42	46.5	51	55.5	60	69	81
d1	[mm]	250	250	250	400	400	400	400	400	400	400	400
d2	[mm]	31	37	37	37	41	44	50	50	57	57	62
e1	[mm]	160	170	150	175	280	315	400	420	460	560	725
e2	[mm]	403	518	518	629	654	800	797	880	1016	1136	1609
e3	[mm]	345	467	467	550	575	725	725	800	898	1040	1490
e4	[mm]	63	80	80	100	100	125	125	160	160	200	250
e5	[mm]	300	410	410	475	500	650	650	725	800	950	1350
h2	[mm]	265	268	268	439	449	454	454	520	520	600	705
h3	[mm]	260	335	345	385	460	520	600	650	720	850	1200
h4	[mm]	573	741	761	841	1010	1150	1309	1428	1568	1828	2608
k	[mm]	430	550	600	660	770	875	990	1090	1210	1420	1860
l1	[mm]	500	600	650	750	900	1050	1200	1350	1500	1800	2500
l2	[mm]	230	300	350	400	500	560	600	700	750	800	1200
l3	[mm]	230	300	350	400	500	560	600	700	750	800	1200
l7	[mm]	94	127	144	153	150	195	244	275	291.5	363	480
holes		16	16	20	20	20	24	24	28	28	32	40
weight	kg	180	340	405	610	1020	1600	2030	2600	3800	5200	17300
volume	m3	0.2	0.4	0.45	0.7	1	1.15	2.2	3	4.1	6.5	18

PN40

DN	unit	300	400	450	500	600	700	800	900	1000	1200
D	[mm]	515	660	685	755	890	995	1140	1250	1360	4575
b	[mm]	39.5	48	49	52	58	64	65	76	80	88
d1	[mm]	250	250	250	400	400	400	400	400	400	400
d2	[mm]	34	41	41	44	50	48	56	56	56	62
e1	[mm]	160	170	150	175	280	315	400	420	460	560
e2	[mm]	403	518	518	629	654	800	797	880	1016	1136
e3	[mm]	345	467	467	550	575	725	725	800	898	1040
e4	[mm]	63	80	80	100	100	125	125	160	160	200
e5	[mm]	300	410	410	475	500	650	650	725	800	950
h2	[mm]	265	268	268	439	449	454	454	520	520	600
h3	[mm]	260	335	345	385	460	520	600	650	720	850
h4	[mm]	573	741	761	841	1010	1150	1309	1428	1568	1828
k	[mm]	450	585	610	670	795	900	1030	1140	1250	1460
l1	[mm]	500	600	650	750	900	1050	1200	1350	1500	1800
l2	[mm]	230	300	350	400	500	560	600	700	750	800
l3	[mm]	230	300	350	400	150	560	600	700	750	800
l7	[mm]	94	127	144	153	20	195	244	275	291.5	363
holes		16	16	20	20	20	24	24	28	28	32
weight	kg	210	395	465	670	1120	1700	2200	2800	4125	5500
volume	m3	0.2	0.4	0.45	0.7	1	1.2	2.2	3	4.1	6.5