

(Patent Applied)



THE PISTON VALVE principle is a KLINGER idea. One of many ideas which has achieved world-wide recognition. Continuously modified and matched to modern requirement, the piston Valve has provided itself to the millions throughout the world. Today we can say with pride that our group is worlds largest manufacturer of valves, based on this design principle. KLINGER Piston valve performance is backed by central R & D of KLINGER at Switzerland.

The shut off assembly comprises of a stainless steel piston, two resilient valve rings and a ferrous metal lantern bush. The sealing consists of the cylindrical surface of the piston and the corresponding inner surface area of the sealing rings. This provides a very large sealing compared with globe valves with conventional design- one of the reasons for the Piston valve's excellent seal.

The valve Rings are the heart of the piston valve. They are made from KXGT, a material specially developed and exclusively used for the manufacture of valve ring. KXGT consists essentially of graphite and tanged stainless steel between each layer of graphite. KLINGER valve rings are not merely surface graphited; the graphite content extends throughout the ring. For this reason its outstanding self lubricating properties are retained throughout the rings entire service life. KLINGER valve rings are resilient, accurately dimensioned and in consequence of their good recovery characteristics have excellent form retention and long service life. KLINGER valve rings are resistant to water, steam, oils, solvents and wide range of other media. KLINGER valve rings can be used for more than 230 listed fluid media.



FEATURES:-

- Seatless and Gland less valve.
- Economic, easy to service.
- No erosion of sealing surface.
- Maintenance free.
- Compensation for thermal expansion with use of Belleville washer.
- Leak-tight across ports and to atmosphere.
- Spherical joint of piston and spindle requires very low torque leading to smooth opening and closing operation (Patent applied*)

END CONNECTIONS:-

Flanged #150/#300/ DIN PN40

MATERIAL OF CONSTRUCTION:-

ASTM A216 Gr. WCB
ASTM A351 Gr.CF8M

AVAILABLE SIZES:-

15,20,25,32,40 and 50 NB
[32 NB available in DIN Overall length only]
1/2", 3/4", 1", 1 1/4", 1 1/2" and 2"
[1 1/4" available in DIN Overall length only]

ON REQUEST:-

IBR/Non-IBR
MOC : Cast Stainless / Alloy Steel
Valve with extended spindle.
Valve with Heating Jacket
Pneumatic / Electrical Actuator

APPLICATIONS:-

- Steam
- Thermic fluids
- Acids
- Gases
- Vacuum
- Other critical media.

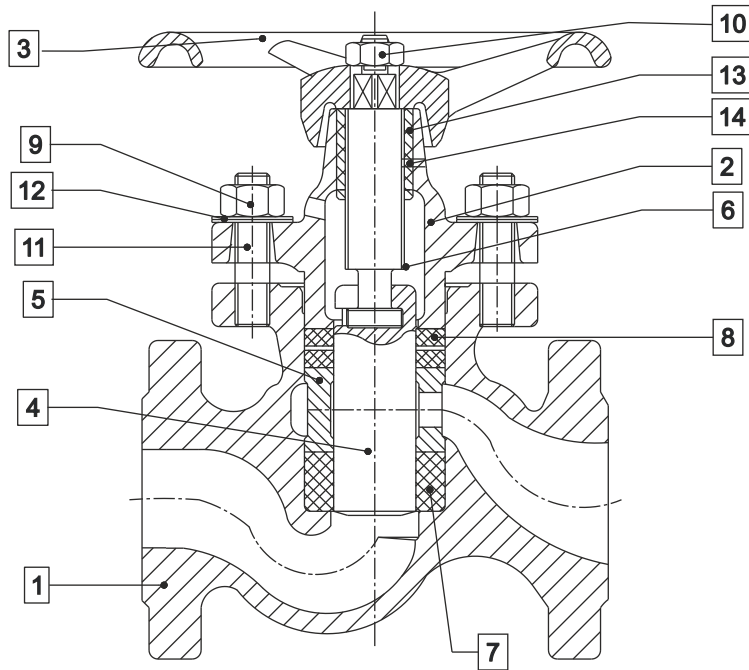
INSTALLATION:-

Preferred direction is as per arrow, however this valve is a Bi Directional Valve. This valve can be installed in any position without any adverse effect on performance, seal ability or flow.
Due to soft sealing principle it is advisable to install a strainer upstream of the valve to avoid damage to the rings caused by weld slag, metal and other solid impurities.

LIMITING CONDITIONS :

Rating	Pressure				Temperature			
	Kg/cm2		PSI		°C		°F	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
#150	5.61	14.08	79.8	200.3	200	425	392	797
#300	29.07	44.68	413.5	635.6	200	425	392	797
PN40	22.85	38.66	325.0	549.9	200	425	392	797

Piston Valve



BILL OF MATERIAL

No	PART NAME	MATERIAL	MATERIAL CODE
1	Body	Cast Steel	ASTM A 216 Gr WCB
2	Bonnet	Cast Steel	ASTM A 216 Gr WCB
3#	Hand Wheel	C.I. / M.I.	GG 20 / FG 200 / M.I.
4*#	Piston	Stainless Steel	Cast Equi. To AISI 430
5#	Lantern Bush	Stainless Steel	ASTM A 276 TP 410
6*	Spindle	Stainless Steel	ASTM A 276 TP 410
7*\$	Collar	Stainless Steel	AISI 430
8#	Lower Valve Ring	UKL Standard	KXGT
9#	Upper Valve Ring	UKL Standard	KXGT
10	Bonnet Nut	Carbon Steel	ASTM A 194 Gr 2H
11	Hand wheel Nut	Carbon Steel	ASTM A 194 Gr 2H
12	Stud Bolt	Alloy Steel	ASTM A 193 Gr B7
13	Belleville Washer	Spring Steel	50 Cr V4
14	Threaded Bush	Cast Iron	GG 20 / FG 200
15	Tension Pin	Spring Steel	50 Cr V4

- Available as Spares

\$ - Not applicable for 15NB (1/2") and 20NB (3/4")

* Spherical joint arrangement for Piston and Spindle (Patent Applied)

DIMENSIONS:

Rating	ØD N		L		H		ØA		ØD		b		Øg		f		ØK		No. of Holes		ØI		Weight (lb)	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
#150	15	1/2"	108	4.3	105	4.1	100	3.9	90	3.5	9.6	0.3	35	1.4	2	0.078	60.3	2.4	4	0.2	16	0.6	2.35	5.3
	20	3/4"	117	4.6	120	4.7	120	4.7	100	3.9	11	0.4	43	1.7	2	0.078	69.9	2.8	4	0.2	16	0.6	3.70	8.3
	25	1"	127	5.0	138	5.4	140	5.5	110	4.3	13	0.5	51	2.0	2	0.078	79.4	3.1	4	0.2	16	0.6	5.41	12.1
	32	1 1/4"	140	5.5	154	6.1	160	6.3	115	4.5	13	0.5	64	2.5	2	0.078	88.9	3.5	4	0.2	16	0.6	6.3	14.1
	40	1 1/2"	165	6.5	186	7.3	180	7.1	125	4.9	16	0.6	73	2.9	2	0.078	98.4	3.9	4	0.2	16	0.6	10.53	23.6
	50	2"	203	8.0	211	8.3	180	7.1	150	5.9	18	0.7	92	3.6	2	0.078	121	4.8	4	0.2	19.1	0.8	13.70	30.7
#300	15	1/2"	152	6.0	105	4.1	100	3.9	95	3.7	13	0.5	35	1.4	2	0.078	66.7	2.6	4	0.2	16	0.6	3.41	7.6
	20	3/4"	178	7.0	120	4.7	120	4.7	115	4.5	13	0.5	43	1.7	2	0.078	82.6	3.3	4	0.2	19.1	0.8	7.44	16.7
	25	1"	203	8.0	138	5.4	140	5.5	125	4.9	16	0.6	51	2.0	2	0.078	88.9	3.5	4	0.2	19.1	0.8	7.50	16.8
	32	1 1/4"	216	8.5	154	6.1	160	6.3	135	5.3	18	0.7	64	2.5	2	0.078	98.4	3.9	4	0.2	19.1	0.8	6.5	14.6
	40	1 1/2"	229	9.0	186	7.3	180	7.1	155	6.1	18	0.7	73	2.9	2	0.078	114	4.5	4	0.2	22.2	0.9	14.50	32.5
	50	2"	267	10.5	211	8.3	200	7.9	165	6.5	21	0.8	92	3.6	2	0.078	127	5.0	8	0.3	19.1	0.8	19.80	44.4
PN40	15	1/2"	130	5.1	105	4.1	100	3.9	95	3.7	16	0.6	45	1.8	2	0.078	65	2.6	4	0.2	14	0.6	3.2	7.2
	20	3/4"	150	5.9	120	4.7	120	4.7	105	4.1	18	0.7	58	2.3	2	0.078	75	3.0	4	0.2	14	0.6	7.0	15.7
	25	1"	160	6.3	138	5.4	140	5.5	115	4.5	18	0.7	68	2.7	2	0.078	85	3.3	4	0.2	14	0.6	7.0	15.7
	32	1 1/4"	180	7.1	154	6.1	160	6.3	140	5.5	18	0.7	78	3.1	2	0.078	100	3.9	4	0.2	18	0.7	6.3	14.1
	40	1 1/2"	200	7.9	186	7.3	180	7.1	150	5.9	18	0.7	88	3.5	3	0.12	110	4.3	4	0.2	18	0.7	13.9	31.1
	50	2"	230	9.1	211	8.3	200	7.9	165	6.5	20	0.8	102	4.0	3	0.12	125	4.9	4	0.2	18	0.7	19.0	42.6

In view of technical progress designs and dimensions are subject to change without notice.

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