

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.

**END CONNECTIONS:-**

Flanged #150/#300/ DIN PN40

**APPLICATIONS:-**

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



**Piston Valve with Actuator  
(on request)**



**MATERIAL OF CONSTRUCTION:-**

ASTM A216 Gr. WCB  
ASTM A351 Gr. CF8M

**ON REQUEST:-**

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

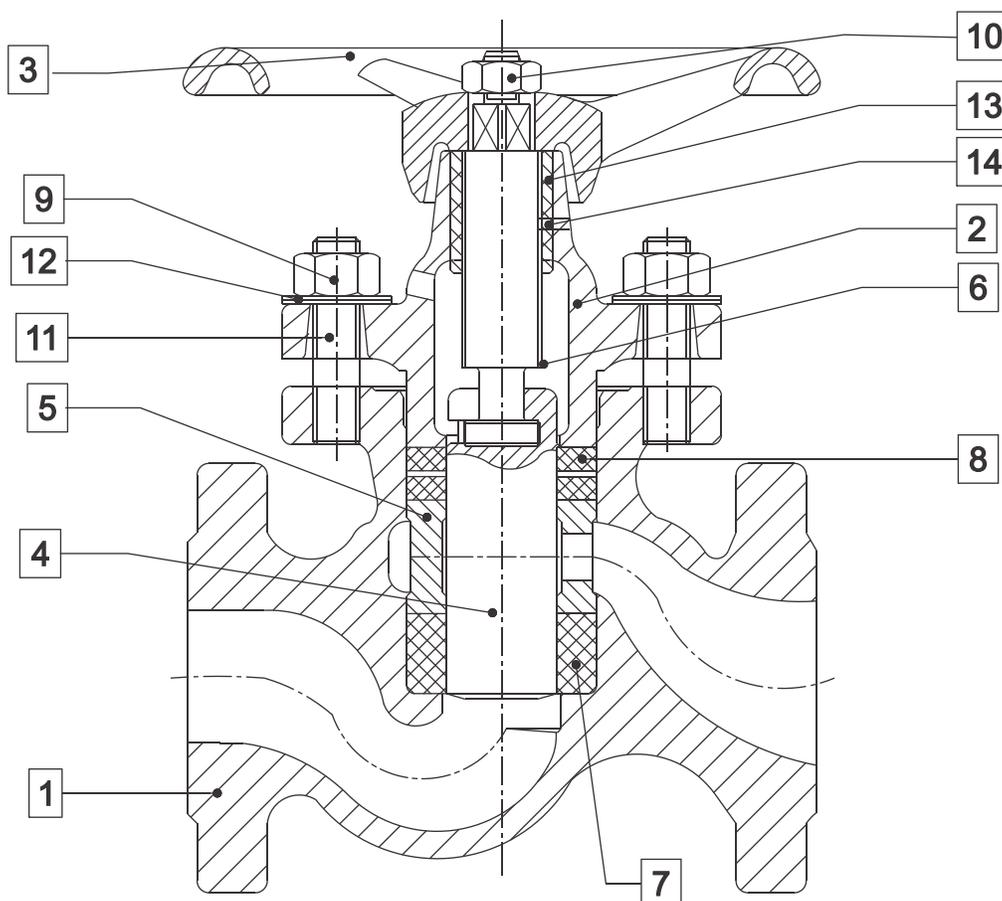
**AVAILABLE SIZES:-**

15,20,25,32,40 and 50 NB  
[32 NB available in DIN Overall length only]

**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.

# Piston Valve KVN-15-50



## 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#	Lower Valve Ring	Klinger Standard	KXGT

## BILL OF MATERIAL

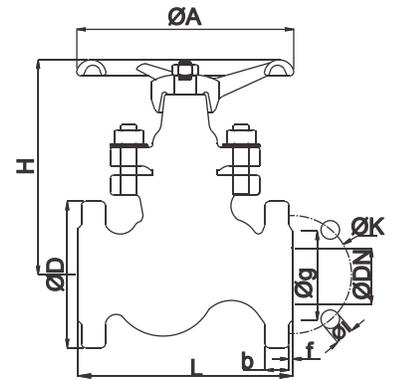
No	PART NAME	MATERIAL	MATERIAL CODE
8#	Upper Valve Ring	Klinger Standard	KXGT
9	Bonnet Nut	Carbon Steel	ASTM A 194 Gr 2H
10	Hand wheel Nut	Carbon Steel	ASTM A 194 Gr 2H
11	Stud Bolt	Alloy Steel	ASTM A 193 Gr B7
12	Belleville Washer	Spring Steel	50 Cr V4
13	Threaded Bush	Cast Iron	GG 20 / FG 200
14	Tension Pin	Spring Steel	50 Cr V4

# - Available as Spares

# Piston Valve KVN-15-50

## DIMENSIONS(mm):- KVN 15-50 NB

Rating	ØD N	L	H	ØA	ØD	b	Øg	f	ØK	No. of Holes	ØI	Weight
#150	15	108	105	100	90	9.6	35	2	60.3	4	16	2.35
	20	117	120	120	100	11	43	2	69.9	4	16	3.70
	25	127	138	140	110	13	51	2	79.4	4	16	5.41
	32	140	154	160	115	14	64	2	88.9	4	16	6.3
	40	165	186	180	125	16	73	2	98.4	4	16	10.53
	50	203	211	180	150	18	92	2	121	4	19.1	13.70
#300	15	152	105	100	95	13	35	2	66.7	4	16	3.41
	20	178	120	120	115	14	43	2	82.6	4	19.1	7.44
	25	203	138	140	125	16	51	2	88.9	4	19.1	7.50
	32	216	154	160	135	18	64	2	98.4	4	19.1	6.5
	40	229	186	180	155	19	73	2	114	4	22.2	14.50
	50	267	211	200	165	21	92	2	127	8	19.1	19.80
PN40	15	130	105	100	95	16	45	2	65	4	14	3.2
	20	150	120	120	105	18	58	2	75	4	14	7.0
	25	160	138	140	115	18	68	2	85	4	14	7.0
	32	180	154	160	140	18	78	2	100	4	18	6.3
	40	200	186	180	150	18	88	3	110	4	18	13.9
	50	230	211	200	165	20	102	3	125	4	18	19.0



## LIMITING CONDITIONS :

Rating	Pmax (kg/cm <sup>2</sup> )	Temp <sup>o</sup> C	T max <sup>o</sup> C	Press.(kg/cm <sup>2</sup> )
#150	14.08	200	425	5.61
#300	44.68	200	425	29.07
PN40	38.66	200	425	22.85

### Special Instructions:-

- 1) Flush pipelines,
- 2) Open/Close the valve using hand wheel only,
- 3) Hot Tighten,
- 4) Lubricate spindle,
- 5) Use original Klinger rings only.

### HOW TO ORDER

KLINGER PISTON VALVE KVN 25, Steam, IBR, FLANGED TO #150

Please mention the media, its design and working pressure/Temperature

## Product Range

### **UTD-55 | UTD-62 | UTD-120**

*Thermodynamic steam trap*

### **UTST | UCT-10**

*Thermostatic steam trap & Sanitary steam trap*

### **UFT-15 to 100 | UCA**

*Ball Float Trap for Steam and air application*

### **UG 25/45 | UP64Ti | UP215Ti**

*Bi-metallic Steam Trap*

### **UITVS**

*Compact Trap Valve Station*

### **UIBT-28US**

*Inverted bucket Steam Trap in complete stainless steel construction*

### **UIBT 1701 to 7004**

*Inverted bucket steam trap in cast/forged steel construction*

### **UDCV**

*Wafer type disc check valve / NRV*

### **UMS**

*Moisture separator for Steam & Air*

### **UAV**

*Thermostatic air vent for steam with air bottle for proper venting*

### **UAE**

*Air eliminator for liquid application*

### **UBSV**

*Bellow seal gate/globe valve*

### **UPHV**

*High pressure (#1500/#2500) gate/globe valve*

### **USTR**

*Y & T type strainers in cast carbon steel and stainless steel*

### **USG**

*Double window sight glass*

### **USI**

*Steam injector for boiler feed water tank*

### **UFV**

*Condensate flash vessel*

### **UPPPU**

*Condensate pressure powered pump unit*

### **UDH**

*Atmospheric de-aerator head for boiler feedwater tank*

### **UAPT**

*Automatic pumping trap – Combination of a conventional trap & pump for proper condensate discharge for varied applications*

### **UCCDS**

*Online (24x7) condensate contamination detection system*

### **UBBHRS**

*Boiler blowdown heat recovery system*

### **UHWGS**

*Instant Hot water generator system*

### **UPRS / UPRDS**

*Pressure reducing system & de-superheating system*

### **UCCM / USDM**

*Steam / Condensate manifolds*



Cast / Forged Steel Piston Valves, Bellow seal valves, High Pressure valves (Gate/Globe), Strainers – “Y” Type, ITVS Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps and IBT), Pressure Reducing Station, Condensate Recovery Products. Level Gauges (Reflex, Transparent, Bicolor), Sight Glass, Hot Water Generation System, Safety and Relief Valves.

**FSD Products :** Compressed Asbestos / Non Asbestos Fiber Sheetting / Cut Gaskets, Spiral Wound Gaskets / Gland Packing