



# MMK Engineering co. Pvt Ltd

**Description:**

**MMKE** Piston valve type **MMKE** is a Seat less valve using "resilient rings to Metallic SS piston" sealing principle to give a absolute leak tight system which is effective as well as durable.

**Applications:**

Steam, Thermic Fluids, Acids, Gases, Vacuum, and other critical media.  
/ Non IBR.

**Available in Cast Carbon Steel: ASTM A 216 Gr. WCB**

**Available sizes:**

65, 80, 100, 125, 150 and 200mm. [65mm and 125mm available in DIN Overall Length only]

**Pipe connections:**

Flanged to ANSI 150, 300 and DIN PN40. [Also available Flange drilling to BS 10 Table D,E,F,H.]

**Limiting conditions:**

Pr. Rating	P Max(Bar.g)	Temp°C	T Max°C	Press(Bar.g)
#150	13.8	200	425	5.5
#300	43.8	200	425	28.5
PN40	37.9	200	425	22.4

**Optional Features:**

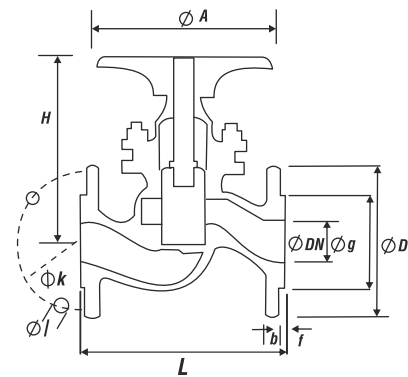
- MOC : Cast Stainless Steel & Alloy Steel.
- Regulating type:
- Valve with Extended Spindle:
- Valve with Heating Jacket:
- Valve with Pneumatic / Electrical Actuator:
- **Piston valves available with Non Asbestos (SS Reinforced Graphite/ Klingerflon<sup>®</sup>) as well as standard rings which can handle more than 230 industrial 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 its performance, seal ability or Flow.  
Due to the 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.

**ADVANTAGES OF PISTON VALVE OVER GLOBE VALVE**

PISTON VALVE	GLOBE VALVE
Seatless, Glandless Sealing area-relatively large i.e entire inner surface of ring 100% LEAK TIGHTNESS ASSURED	Seat at bottom, Gland with Stuffing box Reduced sealing area i.e. area between disc and seat LEAK ACROSS PORTS VERY COMMON
Piston-Unexposed to media. Foreign matters are swept away by descending Piston. Valve rings are resilient NO EROSION OF PISTON 'DURABILITY'	Seat & Disc constantly exposed to media Solid particles remain on seat. Disc & Seat are metallic. EROSION OF DISC & SEAT - VERY COMMON
Special Klinger Design Belleville Washer with rings produces spring action STAYS TIGHT DURING THERMAL EXPANSION	Conventional Valve Design Chattering between disc & seat very common LEAKAGE DURING THERMAL EXPANSION
No Leakage of toxic / aggressive media ENERGY / COST SAVING	Loss of fluid due to leakage LEAKAGE COSTLY & HAZARDOUS
Replacement of rings makes Valve new, No lapping / grinding Valve remains online during maintenance MAINTENANCE COST 'NEGLIGIBLE'	Seat & Disc calls for lapping / grinding Valve to be removed from the line MAINTENANCE NOT ONLY COSTLY BUT TIME CONSUMING TOO

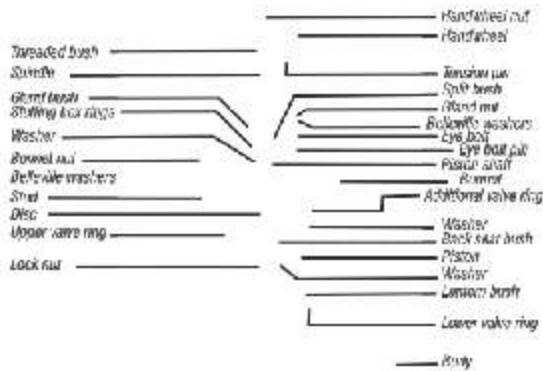


Pressure rating :ANSI class 150 Overall length : ANSI B 16.10 class 150 Connections : Flanged to ANSI B 16.5 class 150 RF												
Overall dimensions				Connection dimensions (Approx.)								Weight Kg.
Size mm (DN)	Overall Length L	Ht. H	Stroke	H/W Ø A	Flange Ø D	Flange Thickness b	R/F Ø g	R/F Thickness f	No. of holes	Hole Ø /	PCD Ø k	
80	241.3	327	58	250	190	22.3	127	2	4	19.05	152.4	30.4
100	292.1	374	65	280	230	22.3	157.2	2	8	19.05	190.5	47.3
150	406.4	477	95	360	280	23.9	215.9	2	8	22.22	241.3	92.5
200	495.3	561	120	400	345	27	269.9	2	8	22.22	298.5	171

Note : All dimensions are in mm unless otherwise specified.



**MODEL : KVN**  
**SIZES : 65mm - 200mm Flanged ends**



Sliding Box ring  
 NIP (Sealing against  
 atmosphere)

Additional valve ring  
 NIP (Sealing against  
 atmosphere)

Upper valve ring  
 NIP (Sealing against  
 atmosphere)

Lower valve ring  
 NIP (Sealing against  
 atmosphere)

**Material of Construction**

BODY	ASTM A215 Gr. WCB	ASTM A351 Gr. CF8M
BONNET	ASTM A218 Gr.CB	ASTMA351 Gr.CF8M
LANTERN/ BUSH	ASTM A743 Gr.CA15	ASTM A351 Gr.CF8M
PISTON	ASTM A301 Gr.CF8M/CF8M316	ASTM A301 Gr.CF8M/A30121E
SPINDLE	ASTM A192	ANSI 316
THREADED BUSH	6020	ANSI 316
W/NO	ASTM A218 Gr WCB	ASTMA 351 Gr CF8M
SPLIT BUSH	BRASS	SS316
HANDWHEEL	GG20	6020
STUD	ASTM A 193 Gr B7	AISI 316
NUT	ASTM A 194 Gr B7	AISI 316
BELLEVALLE WASHERS	50 Gr W4	50 Gr V4

Pressure rating : ANSI class 300 Overall length : ANSI B 16.10 class 300 Connections; Flanged to ANSI B 16.5 class 300RF													
Overall dimensions				Connection dimensions (Approx.)									Weight Kg.
Size mm DN	Overall Length L	Ht. H	Stroke	H/W Ø A	Flange Ø D	Flange Thickness b	R/F Ø g	R/F Thickness f	No. of holes	Hole Ø l	PCD Ø k		
65	292.1	306	50	250	190	23.9	104.80	2	8	22.22	149.2	27.5	
80	317.5	327	58	250	210	27	127	2	8	22.22	168.3	38.5	
100	355.6	374	65	280	255	30.2	157.20	2	8	22.22	200	58.7	
150	444.5	477	95	360	320	35.00	215.9	2	12	22.22	269.9	117.8	
200	558.8	561	120	400	380	39.7	269.90	2	12	25.4	330.2	213	

Pressure rating : PN - 40 Overall length : DIN 3202 - F1 Connections : DIN EN 1092 : 1													
Overall dimensions				Connection dimensions (Approx.)									Weight Kg.
Size mm DN	Overall Length L	Ht. H	Stroke	H/W Ø A	Flange Ø D	Flange Thickness b	R/F Ø g	R/F Thickness f	No. of holes	Hole Ø l	PCD Ø k		
65	290	306	50	250	185	22	122	3	8	18	145	26.2	
80	310	327	58	250	200	24	138	3	8	18	160	35.8	
100	350	374	65	280	235	24	162	3	8	22	190	57.3	
125	400	447	85	320	270	26	188	3	8	26	220	87.5	
150	480	477	95	360	300	28	218	3	8	26	250	112.0	
200	600	561	120	400	375	34	285	3	12	30	320	200.8	

Note : All dimensions are in mm unless otherwise specified.

**Recommended spares: Rings**

**Sp. Instructions:** 1) Flush pipelines 2) Open / close the valve using handwheel only 3) Not tighten  
 4) Lubricate spindle 5) Avoid N° spanner / wrench 6) Use Original Klinger spares only.

**How to order:** Klinger piston valve KVN 80, Steam, JBR, Flanged to #150. Please mention the Media, its Design and Working Press and Temp.

**MMK Engineering Co. Pvt Ltd**

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