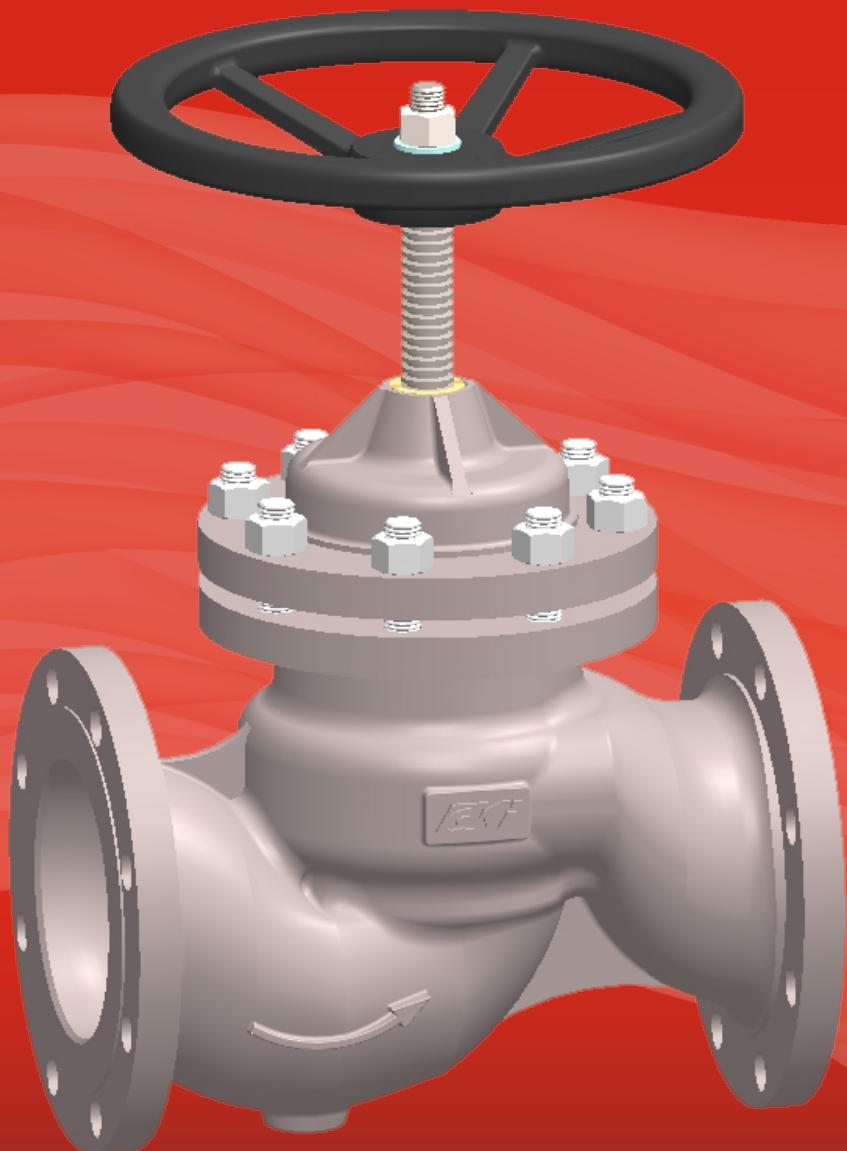


# PISTON VALVES



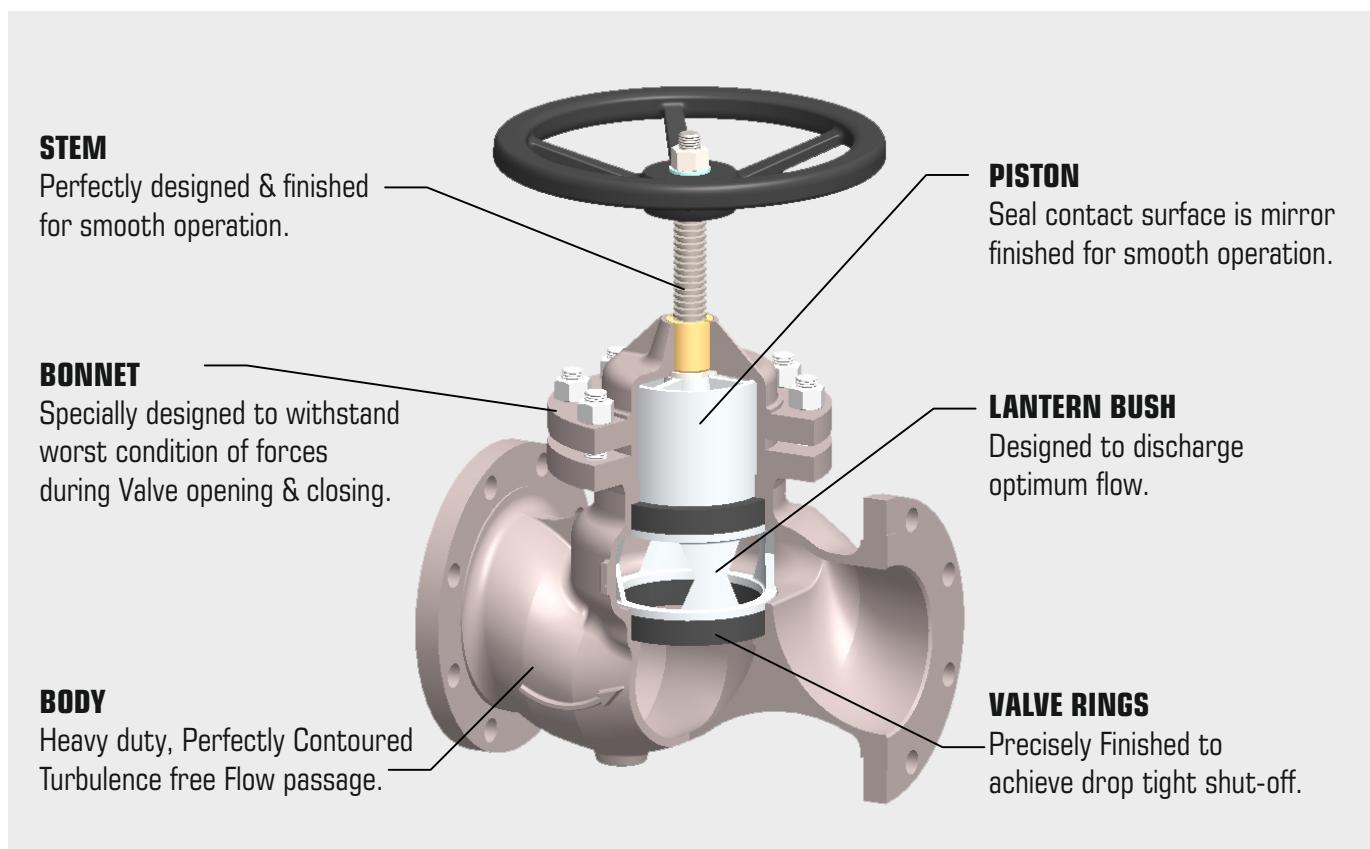
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# FEATURES

- DESIGN REF: ASME B16.34
- FACE TO FACE: ASME B16.10
- RANGE: DN15 TO 200

- TEMPERATURE: 550° C
- MATERIAL: CS, SS 316

- Valves ring used for sealing is made up of packing, hence the piston valve acts as a soft seated valve.
- Special features of piston valve is that the piston always held by valve ring in either open or closed position resulting in no vibration.
- It can be used as bi-directional valve, however it is preferred to install the valve such that pressure acts below the piston.

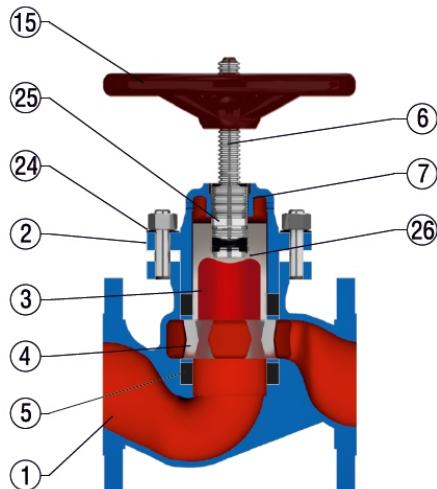


## OPERATION

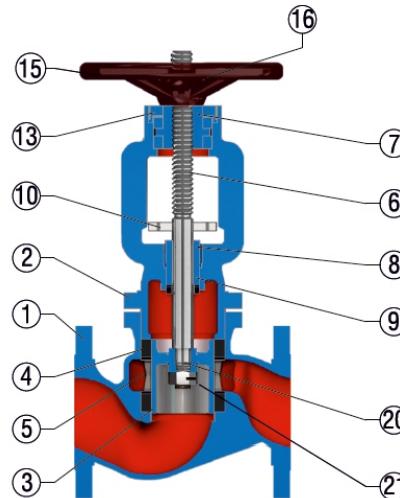
Opening or Closing of valves is by means of cylindrical piston movement. When the piston moves up the ports get open and fluid tightness takes place at upper valve ring. When the piston moves down, the ports get closed and fluid tightness takes place at both upper and lower valve ring.

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# PART LIST & MOC



**CLASS 150 - DN15 TO 150**



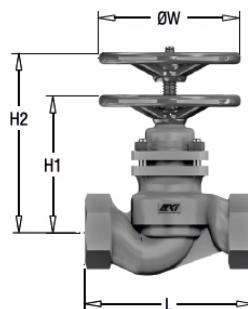
**CLASS 300 - DN65 TO 150**

PART NO.	PART NAME	MATERIALS	
		CS	316
1	BODY	ASTM A216 Gr WCB	ASTM A351 Gr CF8M
2	BONNET	ASTM A216 Gr WCB	ASTM A351 Gr CF8M
3	PISTON	ASTM A743 CA15 / SS410	ASTM A276 TP 316
4	LANTERN BUSH	ASTM A743 CA15	ASTM A743 CA15
5	VALVE RING	CAF / PTFE / GRAFOIL	
6	STEM	ASTM A276 TP 410	ASTM A276 TP 316
7	THREADED BUSH		ASTM A493 Gr D2
8	GLAND	410	316
9	GLAND PACKING		CAF / PTFE / GRAFOIL
10	ANTIROTATING DEVICE		STEEL
15	HAND WHEEL	MI / CS	MI / CS
16	LOCK NUT		STEEL
20	NON ROTATING DISC	410	316
21	NOTCHED NUT	316	316
22	BODY STUD / NUT		ASTM A193 Gr B7 / ASTM A194 Gr 2H
24	BELLEVILLE WASHER		SPRING STEEL
25	SPLIT NUT	ASTM A276 TP 410	ASTM A276 TP 316
26	THRUST WASHER	ASTM A276 TP 410	ASTM A276 TP 316

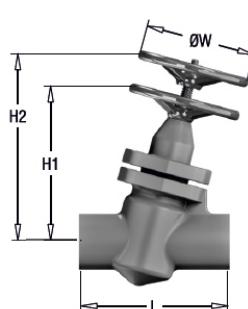
## OVERALL DIMENSION SE & SW

SIZE DN	OVERALL LENGTH L	HAND WHEEL ØW	HEIGHT			
			CL 300		CL 800	
			H1	H2	H1	H2
15	100	100	104	128	110	133
20	120	100	112	139	116	143
25	135	125	132	166	136	169
32	160	125	155	198	---	---
40	175	150	184	234	159	200
50	195	200	196	246	---	---

## CAST CONSTRUCTION

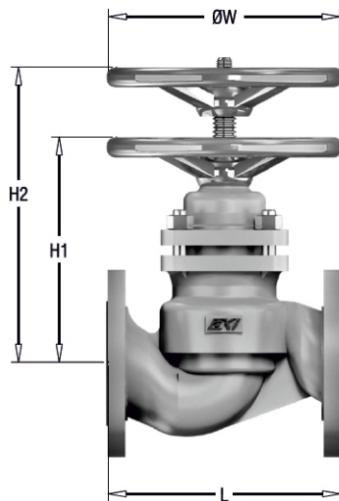


## FORGED CONSTRUCTION



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# ENGINEERING DATA



OVERALL DIMENSIONS FLANGED END

SIZE DN	OVERALL LENGTH L		HEIGHT				WEIGHT Kg Appx.		HAND WHEEL ØW
	150	300	150	300	150	300	150	300	
15	108	152	104	104	128	128	1.8	2.5	100
20	117	178	112	112	139	139	2.0	4.0	100
25	127	203	132	132	166	166	3.8	6.5	125
32	140	216	155	155	198	198	7.0	9.0	125
40	165	229	184	184	234	234	8.0	13	150
50	203	267	196	196	246	246	13	18	200
65	216	292	211	390	269	448	20	28	250
80	241	318	235	400	295	460	30	43	250
100	292	356	287	510	360	583	45	64	300
150	406	445	352	580	452	680	92	120	350
200	445	---	640	---	460	---	160	---	400

\* SIZES DN 65 x 300 CLASS AND ABOVE, DN 200 x 150 CLASS ARE WITH BALANCED PISTON.

## How to order

**ORDERING EXAMPLE** To order Chemflo Piston Valve size Dn40, flanged to Class 150 Body in WCB, trim in 316, Valve Ring in Chemfoil, Stud nut in ASTM Specify **40-20F 03 05 CF AS**

40      20F      03      05      CF      AS  
 SIZE   ENDS   BODY   TRIM   VALVE RING   STUD/NUT

SIZE	ENDS	MATERIAL		VALVE RING	STUD/NUT
		BODY	TRIM		
@ 15	20F-CLASS 150	03-WCB /A105	04-410	AF-ASBESTOS FIBRE Gr120	AS-ASTM
@ 20	50F-CLASS 300	15-304(CF8)	15-304	G- GRAFOIL	S4-304
@ 25	B-BSPT	05-316(CF8M)	05-316	T- PTFE	S6-316
32	N-NPT	07-A20	SP-SPECIAL	CF- COMPRESSED ASBESTOS FIBRE	
@ 40	SW-SOCKET WELD	SP-SPECIAL		SP-SPECIAL	
50	BW-BUTT WELD				
80					
100					
150					
200					

@ These sizes are available in Forged construction

APPLICATIONS : STEAM, HOT WATER, THERMAL TRANSFER FLUIDS, AMMONIA, LPG, HYDROCARBONS, ACIDS, ALKALOIDS.

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# INDUSTRIAL VALVES



Ball Valve



Butterfly Valve



Knife Gate Valve



Piston Valve



**AKAY INDUSTRIES PVT LTD**

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