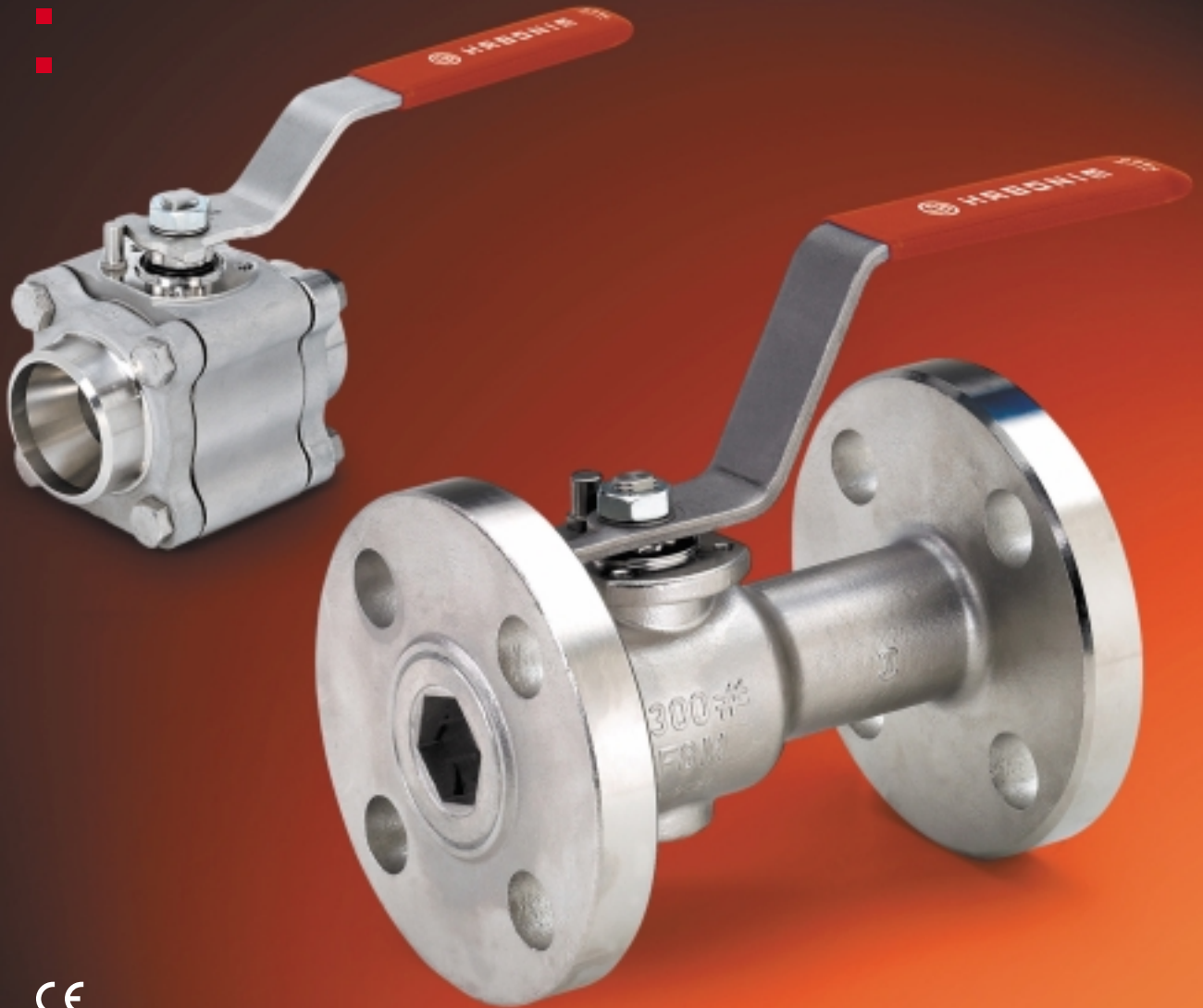


W Series Steam & Thermal fluid Three Piece or Flanged Ball Valves

W46 | W47P | W31P | W32P | W73P | W74P | W77P | W78P



CE

Size Range: 1/4" - 8" (DN8 - DN200)

Materials: Stainless Steel, Carbon Steel, Brass, Hasteloy-C, Monel, Alloy-20, Duplex

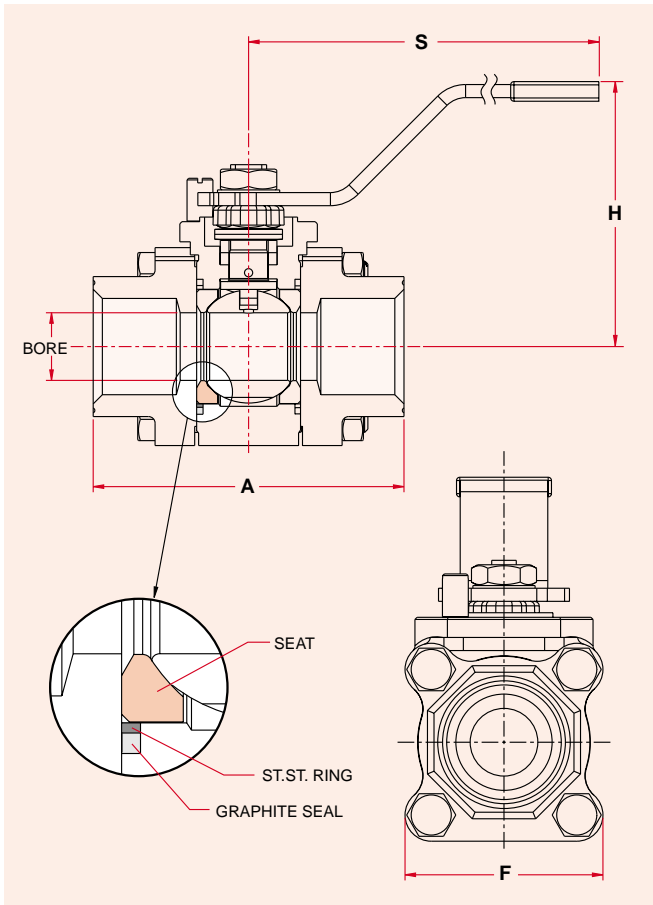
End Connections: Screwed, Socketweld, Butt weld
Flanged ANSI Class 150, Class 300, DIN PN16, DIN PN40

Service: Saturated Steam, Superheated Steam, Thermal Fluid

Temperature Range: Steam up to 240°C, Thermal Fluid up to 320°C

Operation: Manual or Actuated (Standard or with Extensions)

W46/47P Series 1/4" - 2 1/2" Three piece

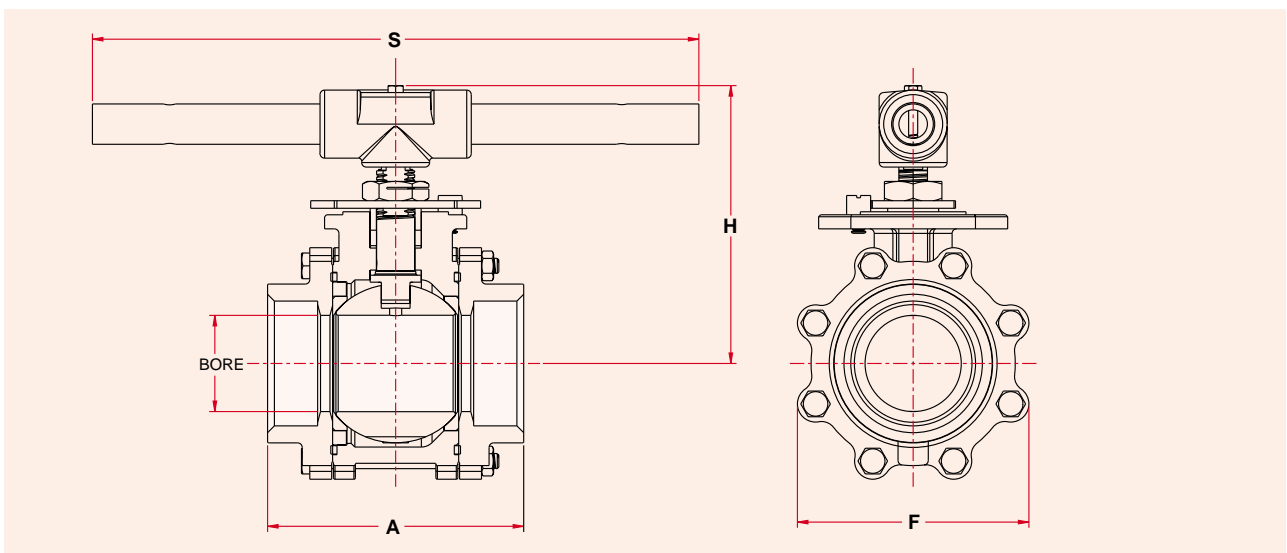


Valve Size	Unit	Valve dimensions					
		Bore	A	F	H	S (47P)	S (46)
1/4"	mm	11.15	66.0	47.0	61.5	150.0	114.0
	inch	0.44	2.598	1.85	2.421	5.906	4.49
3/8"	mm	11.15	66.0	47.0	61.5	150.0	114.0
	inch	0.44	2.598	1.85	2.421	5.906	4.49
1/2"	mm	11.15	66.0	47.0	61.5	150.0	114.0
	inch	0.44	2.598	1.85	2.421	5.906	4.49
3/4"	mm	14.3	71.0	53.7	63.9	150.0	114.0
	inch	0.56	2.795	2.114	2.516	5.609	4.49
1"	mm	20.6	95.0	63.7	79.4	187.0	146.0
	inch	0.81	3.74	2.507	3.126	7.362	5.75
1 1/4"	mm	25.4	108.0	71.7	84.1	187.0	146.0
	inch	1.0	4.252	2.822	3.311	7.362	5.75
1 1/2"	mm	31.8	115.5	86.7	97.0	237.0	178.0
	inch	1.25	4.547	3.413	3.819	9.331	7.0
2"	mm	38.1	128.0	96.9	101.8	237.0	178.0
	inch	1.5	5.039	3.815	4.008	9.331	7.0
2 1/2"	mm	50.8	158.0	108.0	115.1	237.0	287.0
	inch	2.00	6.22	4.25	4.53	9.331	11.30

NOTE:

THE STAINLESS STEEL RING PROVIDES COMPLETE ENCAPSULATION TO THE GRAPHITE SEAL, AND PREVENTS IT FROM PENETRATING INTO THE VALVE CAVITY.

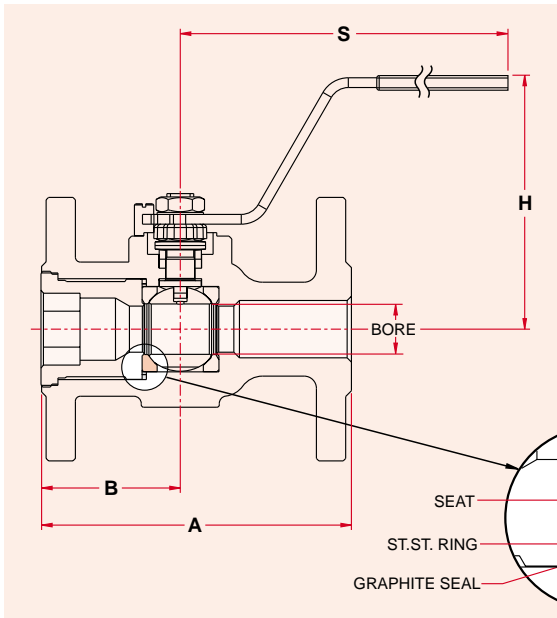
W47P Series 3" - 4" (2 1/2" - 4" FB)



Valve Size		Unit	Valve dimensions				
RB	FB		Bore	A	F	H	S
3"	2 1/2"	mm	63.5	169	140	185	400
		inch	2.5	6.653	5.5	7.287	15.75
4"	3"	mm	82.6	214	177	200	600
		inch	3.25	8.425	6.969	7.894	23.62
-	4"	mm	100	239	200	211	600
		inch	3.94	9.409	7.874	8.299	23.62

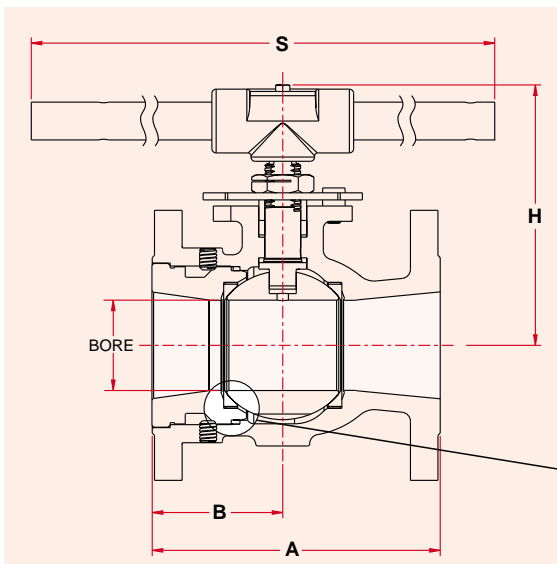
For additional dimensions & details on W46/47P refer to Bulletin: P - 111.

W31P/32P Series 1/2" - 2" Flanged

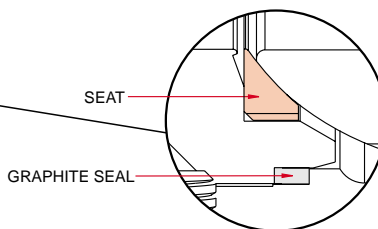


Valve Size	Unit	Bore	Valve dimensions				
			A		B	H	S
			150	300			
1/2"	mm	11.15	108	140	46.0	92.0	151
	inch	0.44	4.25	5.5	1.81	3.62	5.94
3/4"	mm	14.3	117	152	49.3	94.0	151
	inch	0.56	4.61	6.0	1.94	3.7	5.94
1"	mm	20.6	127	165	57.2	103.5	170
	inch	0.81	5.0	6.5	2.25	4.07	6.69
1 1/2"	mm	31.8	165	190	62.3	119.2	220.5
	inch	1.25	6.5	7.5	2.45	4.7	8.68
2"	mm	38.1	178	216	67.8	123.9	220.5
	inch	1.5	7.0	8.5	2.67	4.88	8.68

W31P/32P Series 3" - 8"



Valve Size	Unit	Bore	Valve dimensions				
			A		B	H	S
			150	300			
3"	mm	63.5	203	284	62.1	185.1	400
	inch	2.5	8.0	11.18	3.63	7.28	15.75
4"	mm	82.6	229	305	101.6	201	600
	inch	3.25	9.0	12.0	4.0	7.91	23.62
6"	mm	111.1	267	403	108	285.9	916
	inch	4.38	10.5	15.88	4.25	11.25	36.08
8"	mm	144.4	292	419	163.5	313.6	916
	inch	5.68	11.5	16.5	5.37	12.34	36.08



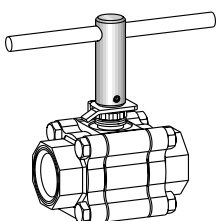
For additional dimensions & details on W31P/32P refer to Bulletin: **P - 211**

For dimensions & details on W73P/74P refer to Bulletin: **P - 213**

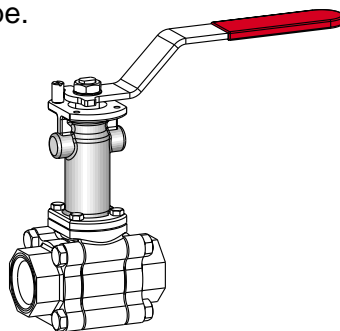
For dimensions & details on W77P/78P refer to Bulletin: **P - 215**

Extensions

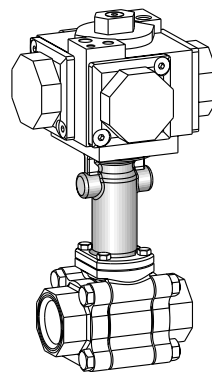
Extended Handles and Bonnets to enable Insulation of Valve and Pipe.



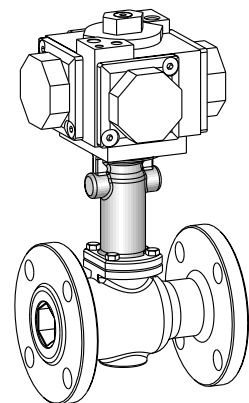
**Extended Handle
46 Series**



**Extended Handle
47P Series**



**Extension Bonnet
For Actuator 47P Series**



**Extension Bonnet
For Actuator 31P/32P Series**

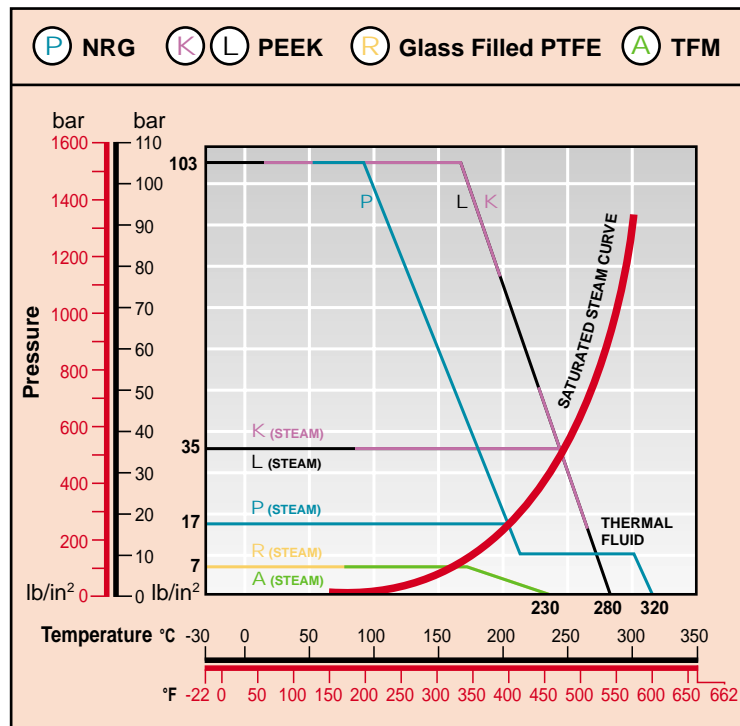
The Habonim Valve is suitable for a wide range of steam pressures.

Service	Seat	Body Seal	Stem Seal
Low pressure steam up to 7 bar	Reinforced PTFE (R) or TFM (A)	Virgin PTFE (T)	25% Carbon filled PTFE
Medium pressure steam up to 17 bar	NRG (P)	Graphite (G)	Graphite Seal 25% Carbon filled PTFE thrust seal
High pressure steam up to 35 bar	PEEK (K) or Virgin PEEK (L)	Graphite (G)	Graphite Seal PEEK thrust seal
pressure above 35 bar	Metal Seat - Please Consult Engineering		

General Notes:

- Habonim's special seats are suitable for handling steam and thermal fluid in the most severe conditions.
- Steam and thermal fluid service valves are fitted with red sleeved handles.
- Graphite body seals are completely encapsulated, not allowing extrusion into valve cavity.
- Live loaded stem packing compensates for thermal cycling.
- PEEK seated valves are fitted with 17-4PH stems for high operating torques.
- Thermal fluid valves with NRG seats and graphite seals are suitable for temperatures up to 320°C - @ 2 bar.
- Optional types of extended handles and Bonnets, enable insulation of valve and pipe.
- Valves are available in the 3-piece 46/47P series or the Flanged 31P/32P series Reduced port, Flanged 73P/74P Series full port, Flanged 77P/78P Series full port.
- Pressure / Temperature rating for Flanged valves are limited according to class ratings.
- For actuated valves it is recommended to use the Compact actuator with Viton O-Rings, NRG pads & High temperature grease.
- When mounting the Habonim Compact actuator or electric actuator, please refer to instructions given in Bulletin T-615.

Standards of Compliance	
Screwed Ends	BSPT BS21 BSPP DIN 2999 NPT B1.20.1
Socketweld Ends	DIN 3239 Pt.2 ANSI B16.34
Buttweld Ends	DIN 3239 Pt.1 BS 1600 (petroleum industry) Sch 5, 10, 40, 80
Flanged Valves: 31P/32P, 73P/74P 77P/78P	ANSI B16.5, B16.10 (face to face) DIN 2501, DIN 3202 - F1, F4, F5 (face to face)
Test Rating	ANSI B16.34 / API 598 BS 6755 Pt.1 DIN 3230
Certification	ISO - 10474 (DIN EN 10204, 3.1B) - upon request



TFM™ is a trademark of Dyneon. PEEK® is a trademark of VICTREX.

In accordance with our policy to strive for continuous improvement of the product, we reserve the right to alter the dimensions, technical data and information included in this catalogue when required.