

GATE VALVES

Bolted, & Welded Bonnet Class 150, 300, 600, 800, 1500, & 2500

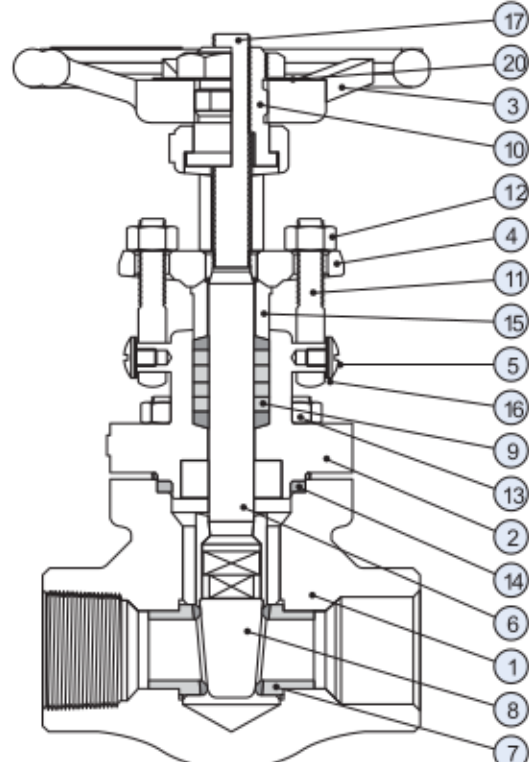
No.	Part	Material
1	Body	Carbon Steel, ASTM A105N
2	Bonnet	Carbon Steel, ASTM A105N
3	Hand wheel	Carbon Steel / S.G.Iron
4	Gland Flange	Carbon Steel, ASTM A105
5	Eyebolt Screws	Zinc Plated, Carbon Steel
6	Stem	Alloy Steel, ASTM A276 Ss410
7	Seats	Alloy Steel, ASTM A276 SS410
8	Wedge	Alloy Steel, ASTM A217 CA15
9	Packing	Graphite Stack*
10	Yoke Nut	Stainless Steel, AISI 416
11	Eyebolts	Stainless Steel, ASTM A193-B7
12	Eyebolt Nuts	Carbon Steel, ASTM A194 2H
13	Stud / Nut	Alloy Steel, ASTM A193 B7
14	Gasket	316 SS Spiral Wound Grafoil
15	Packing Gland	Stainless Steel, AISI 410
16	Lock Nut Washer	Stainless Steel
17	Handwheel Nut	Carbon Steel
20	Name Plate	Aluminum

*Braided and die - formed graphite rings, Grafoil With Corrosion inhibitor.

HARA Valves are manufactured in strict accordance with the following standards

API 602	Compact steel gate valves
API 598	Valve Inspection and Test
ANSI / ASME B16.34	Steel valve, flanged and butt-welding end
ANSI / ASME B16.5	Steel pipe flanges and flanged fittings
ANSI / ASME B16.10	Face-to-face and end-to-end dimensions of ferrous valves
ANSI / ASME B16.11	Forged steel fittings, socket welding and threaded
ANSI / ASME B1.20.1	Pipe threads, general purpose
ANSI / ASME B31.3	Chemical plant and petroleum refinery piping
MSS SP-25	Standard marking system for valves, fittings, flanges and unions
MSS - SP - 6	Standard finishes for contact faces of pipe, flanges and connecting end flanges of valves and fittings.
NACE MR - 01 - 75	Material requirements: Sulfide stress cracking resistant metallic materials for oil field equipment.

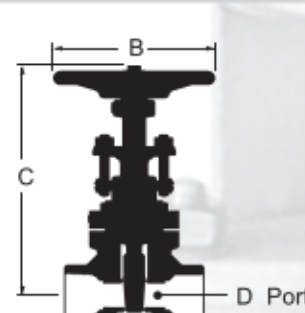
ASTM	External Material			Trim Material			Sealing Material		
	BODY BONNET	BOLTS ASTM	GLAND BOLT ASTM A193	GLAND NUTS ASTM A194	STEM AISI	SEATS AISI	WEDGE AISI	PACKING	GASKET
A105	A10N	B7M	B8	2HM	410 316 410 MONEL	410HF 316HF 410HF MONEL	410 316 410HF	Grafoil Sandwich Stack Braided Construction Grafoil and die-formed Grafoil rings	316 Stainless steel Spiral Wound Grafoil
A350	LF2	L7M	B8	7M	410 316	410HF 316HF	410 316		
A182	F5	B16	B8	4	410	410HF	410		
	F11								
	F9								
	F316L F316	B8M	B8	8M	316L 316	316LHF 316HF	316L 316		



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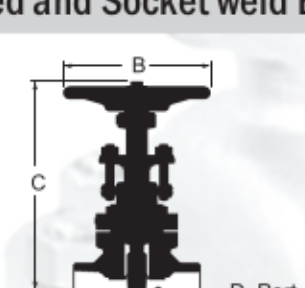
Class 800 Standards and Full Port Bolted Bonnet - OS & Y Threaded and Socket weld Ends

Dimension	Size (mm.)							
Standard Port		10	15	20	25	32	40	50
Full Port		8	10	15	20	25	32	40
Port Diameter	A	6.4	9.5	12.7	17.5	23	28	36
End to End	B	88	88	92	106	128	128	140
Center to Top	H (Closed)	154	152	162	169	234	234	236
Hand Wheel	C	90	90	90	100	150	150	150
Weight	Kgs.	2.4	2.4	2.7	3.7	8.2	8.2	12.2



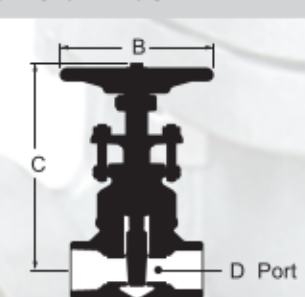
Class 1500 Standard Port and Full Port - Bolted Bonnet - OS & Y Threaded and Socket weld Ends

Dimension	Size (mm.)						
Standard Port		10	15	20	25	32	40
Port Diameter	A	6	9	12	15	22	27
End to End	B	88	92	106	128	140	140
Center to Top	H (Closed)	152	162	169	234	234	236
Hand Wheel	C	90	90	100	100	150	150
Weight	Kgs.	2.4	2.7	3.7	8.5	8.2	12.2



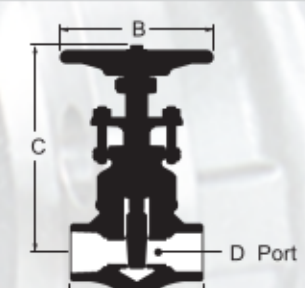
Class 800 Standard Port - Welded Bonnet - OS & Y Threaded and Socket weld Ends

Dimension	Size (mm.)							
Standard Port		10	15	20	25	32	40	50
Port Diameter	A	6.4	9.5	12.7	17.5	24	28	36
End to End	B	88	88	92	106	128	128	140
Center to Top	H (Closed)	154	152	162	169	234	234	236
Hand Wheel	C	90	90	90	100	150	150	150
Weight	Kgs.	2.3	2.3	2.6	3.65	8.3	8.35	12.1



Class 1500 Standard Port - Welded Bonnet - OS & Y Threaded and Socket weld Ends.

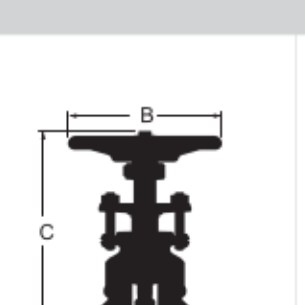
Dimension	Size (mm.)						
Standard Port		10	15	20	25	32	40
Port Diameter	A	6	9	12	15	22	27
End to End	B	88	92	106	128	140	140
Center to Top	H (Closed)	152	162	169	234	234	236
Hand Wheel	C	90	90	100	100	150	150
Weight	Kgs.	2.2	2.4	3.4	8.2	8.3	12



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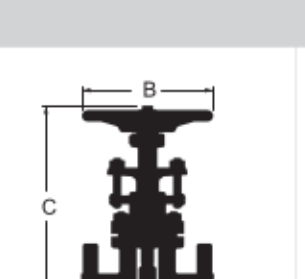
Class 2500 Standard Port - Welded Bonnet - OS & Y Threaded and Socket weld Ends.

Dimension	Size (mm.)				
Standard Port		10	15	20	25
Port Diameter	A	6.4	9.5	12.7	17.5
End to End	B	106	106	128	140
Center to Top	H (Closed)	169	169	234	236
Hand Wheel	C	100	100	150	150
Weight	Kgs.	3.6	3.7	8.2	12.1



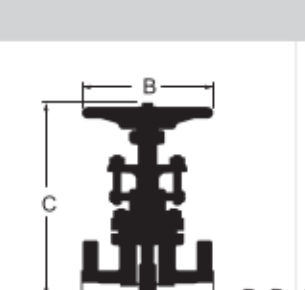
Class 150 Standard Port - Bolted Bonnet - Flanged Ends

Dimension	Size (mm.)				
Standard Port		15	20	25	32
Port Diameter	A	9.5	12.7	17.5	23
Face to Face	B	140	152	165	178
Center to Top	H (Closed)	152	162	169	234
Hand Wheel	C	90	90	100	150
Weight	Kgs.	3	3.8	5.8	11.5



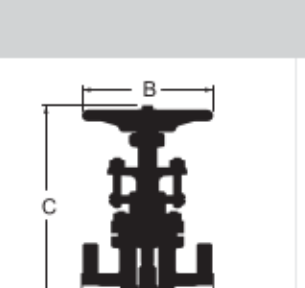
Class 300 Standard Port - Bolted Bonnet - Flanged Ends

Dimension	Size (mm.)				
Standard Port		15	20	25	32
Port Diameter	A	9.5	12.7	17.5	23
Face to Face	B	140	152	165	178
Center to Top	H (Closed)	152	162	169	234
Hand Wheel	C	90	90	100	150
Weight	Kgs.	3.8	4.8	7.2	15.1



Class 600 Standard Port - Bolted Bonnet - Flanged Ends

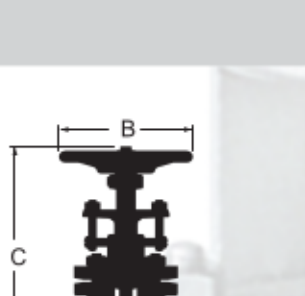
Dimension	Size (mm.)					
Standard Port		15	20	25	40	50
Port Diameter	A	9.5	12.7	17.5	28	36
Face to Face	B	165	190	216	241	292
Center to Top	H (Closed)	152	162	169	235	237
Hand Wheel	C	90	90	100	150	150
Weight	Kgs.	4.8	6.2	8.0	16.0	22.5



GATE VALVES

Class 1500 Full Port - RTJ - Bolted Bonnet - Flanged Ends.

Dimension	Size (mm.)				
Standard Port		15	20	25	40
Port Diameter	A	9.5	12.7	17.5	27
Face to Face	B	165	190	216	241
Center to Top	H (Closed)	162	169	234	236
Hand Wheel	C	100	100	150	150
Weight	Kgs.	4.8	6.2	8.0	16.0



Class 2500 Full Port - RTJ - Bolted Bonnet - Flanged Ends.

Dimension	Size (mm.)				
Standard Port		15	20	25	
Port Diameter	A	9.5	12.7	17.5	
Face to Face	B	165	190	216	
Center to Top	H (Closed)	169	234	236	
Hand Wheel	C	100	150	150	
Weight	Kgs.	4.8	6.2	8.0	

