



DSI
Forged Steel
Gate, Globe and
Check Valves



ZY-TECH GLOBAL INDUSTRIES



The DSI® Forged Steel Valve Products consist of Gate, Globe and Check Valves to fine tune any production system with the most dependable valves available anywhere in the World. The DSI® Trademark carries the reputation of Zy-Tech Global Industries.

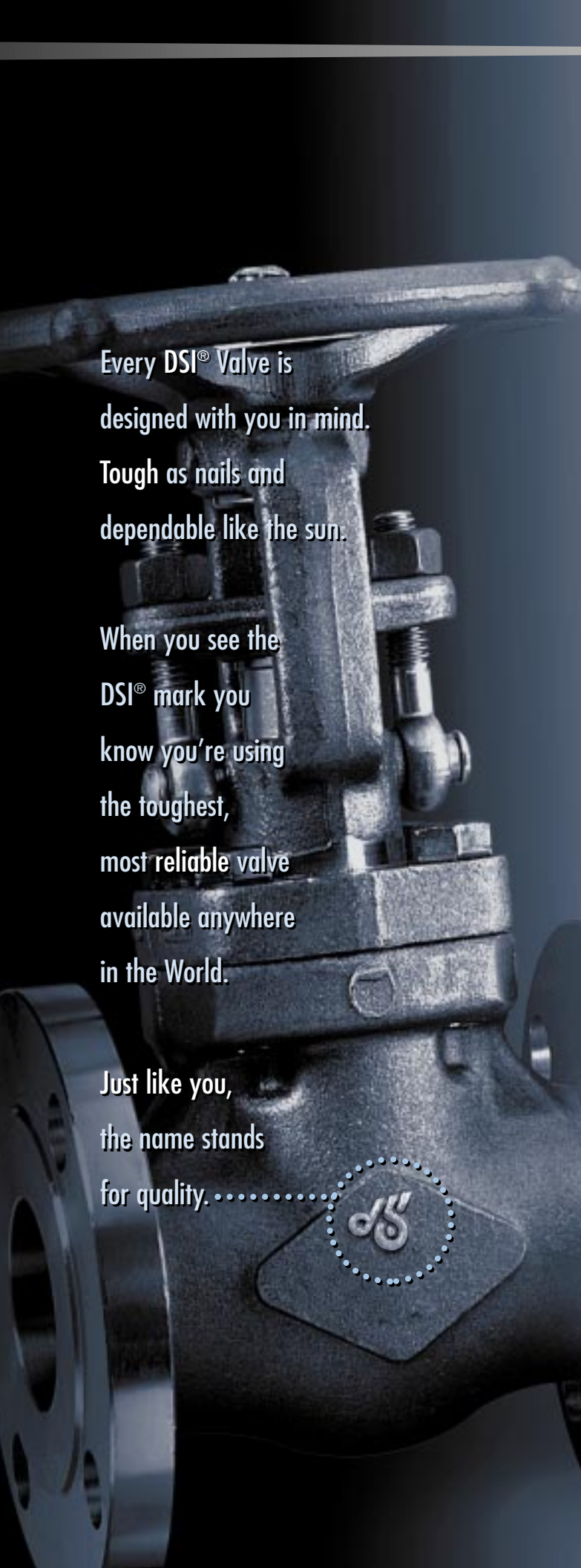


Zy-Tech Global Industries is known for providing the very best oilfield & industrial products and customer service the industry has ever seen. From the design and manufacturing process to the computerized stocking and inventory capabilities, Zy-Tech continues to lead the way as a world supplier of quality valves.

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Every DSI® Valve is designed with you in mind.

Tough as nails and dependable like the sun.

When you see the DSI® mark you know you're using the toughest, most reliable valve available anywhere in the World.

Just like you, the name stands for quality.



Numerical Index By Valve Figure Number

Gate Valves

DSI No.	Class	Type	Page
4121/4101/4111	800 Std. Port	BB-OS&Y	8
4171/4161	800 Full Port	BB-OS&Y	8
4121 Cryogenic	800 Full Port	BB-WB Ext. Bon.	8
6121/6101/6111	1500 Std. Port	BB-OS&Y	8
6171/6161	1500 Full Port	BB-OS&Y	8
4123/4103/4113	800 Std. Port	WB-OS&Y	8
6123/6103/6113	1500 Std. Port	WB-OS&Y	9
4125/4115	800 Std. Port	UB-IS	9
7173/7163	2500 Full Port	WB-OS&Y	9
4143/4153	800/1500 Std. Port Take-Off	WB-OS&Y	10
4151/4191	800 Std. Port Take-Off	BB-OS&Y	10
4153CT	800/1500 Std. Port Take-Off	WB-OS&Y	10
4193/6193	800/1500 Std. Port Take-Off	WB-OS&Y	10
1131	150 Std. Port Flgd.	RTJ-BB-OS&Y	11
2131	300 Std. Port Flgd.	RTJ-BB-OS&Y	11
3131	600 Std. Port Flgd.	RTJ-BB-OS&Y	11
6187	1500 Full Port Flgd.	RTJ-BB-OS&Y	11
7187	2500 Full Port Flgd.	RTJ-BB-OS&Y	11

Globe Valves

DSI No.	Class	Type	Page
4221/4201/4211	800 Std. Port	BB-OS&Y	13
6221/6201/6211	1500 Std. Port	BB-OS&Y	13
4223/4203/4213	800 Std. Port	WB-OS&Y	13
6223/6203/6213	1500 Std. Port	WB-OS&Y	13
6273Y/6263Y	1500 FP Y-PAT	WB-OS&Y	14
7273Y/7263Y	2500 FP Y-PAT	WB-OS&Y	14
1231/2231/3231	150-600 Std. Port Flgd.	BB-OS&Y	15
6287	1500 FP Flgd.	RTJ-BB-OS&Y	15

Check Valves

DSI No.	Class	Type	Page
4321/4301/4311	800 Std. Port	BC Piston	17
4371/4361	800 Full Port	BC Piston	17
6321/6301/6311	1500 Std. Port	BC Piston	17
4521/4501/4511	800 Std. Port	BC Ball	17
1331/2331/3331	150-600 Std. Port Flgd.	BC Piston	18
6387	1500 FP Flgd.	RTJ-BC-Piston	18
4672/4662	800 Full Port	Vertical Ball	19
4421/4401/4411	800 Std. Port	BC Swing	19
1431/2431/3431	150-600 Flgd.	BC Swing	19

Catalog is for reference use only. All information contained within this catalog is subject to change without notice. Consult factory for additional information.

Comparative Valve Figure Numbers

DSI®	Vogt	Smith	Bonney	Velan	RP&C
1131	353	815	L1-11	F054B	F158
1231	473	—	L1-31	F074B	F180
1331	573	—	L1-41	F034B	F190
1431	—	—	—	—	—
2131	363	830	L3-11	F154B	F308
2231	483	G83	L3-31	F174B	F380
2331	583	C83	L3-41	F134B	F390
3131	373	860	L6-11	F254B	F608
3231	493	G86	L6-31	F274B	F680
3331	593	C86	L6-41	F234B	F690
3431	—	—	—	—	—
4101	TSW12111	—	—	—	—
4103	TSW2801	—	—	—	—
4111	SW12111	800SW	—	W2054B	F57
4113	SW2801	870SW	—	W2054W	FWB77
4115	SW59851	820SW	—	—	—
4116	SW12161	850SW	—	W2194B	F60
4118	SW2811	890SW	—	W2194W	FWB60
4121	12111	800	HL-11	S2054B	F56
4123	2801	870	—	S2054W	FWB76
4125	59851	820	—	—	—
4126	12161	850	—	S2194B	F59
4128	2811	890	—	S2194W	FWB59
4143	TT2801	876	MFL-11	A2184W	FWB41
4153	ST2801	877	—	—	FWB44
4153-CT	CT2801	—	—	A2184W	—
4161	SW13111	888SW	—	W2064B	F057
4163	—	5870SW	—	—	—
4171	13111	888	H-11	S2064B	F056
4173	—	5870	W-11	—	—
4193	CT2901	875	—	—	—
4201	—	—	—	—	—
4203	—	—	—	—	—
4211	SW12141	G80SW	—	W2074B	F81
4213	SW2821	G87SW	—	W2074W	FWB87
4221	12141	G80	HL-31	S2074B	F80
4223	2821	G87	WL-31	S2074W	FWB86
4261	SW13141	—	—	—	—
4263	—	—	—	—	—
4271	13141	—	—	—	—
4273	—	—	—	—	—
4301	—	—	—	—	—
4303	—	—	—	—	—
4311	SW701	SC80SW	—	W034B	F95
4313	—	—	—	W034W	—
4321	701	SC80	—	S034B	F94
4323	—	—	—	S034W	—
4361	SW13701	—	—	—	—
4371	13701	—	—	—	—
4411	SW74	—	—	W114B	—
4421	74	—	—	S114B	—

DSI®	Vogt	Smith	Bonney	Velan	RP&C
4501	—	—	—	—	—
4503	—	—	—	—	—
4511	SWB701	SB80SW	—	W024B	—
4513	—	—	—	—	—
4521	B701	SB80	—	S024B	—
4523	—	—	—	—	—
4662	SW54853	—	—	—	—
4672	54853	—	—	—	—
6101	—	—	—	—	—
6103	—	—	—	—	—
6111	SW15111	1500SW	—	W3054B	—
6113	SW15801	1570SW	—	W3054W	—
6121	15111	1500	9HL-11	S3054B	—
6123	15801	1570	—	S3054W	—
6143	—	—	—	—	—
6153	—	—	—	—	—
6153-CT	—	—	—	—	—
6161	SW1033	1588SW	—	W3064B	—
6163	—	1578SW	—	W3064W	—
6171	1033	1588	—	S3064B	—
6173	—	1578	9W-11	S3064W	—
6187	11683	—	—	—	—
6193	—	—	—	—	—
6201	—	—	—	—	—
6203	—	—	—	—	—
6211	SW15141	G150SW	—	W3074B	—
6213	SW15821	G157SW	—	W3074W	—
6221	15141	G150	—	S3074B	—
6223	15821	G157	—	S3074W	—
6261	SW1023	—	—	—	—
6263	—	—	—	—	—
6263Y	—	—	—	—	—
6267	SW1003	—	—	—	—
6271	1023	—	—	—	—
6273	—	—	—	—	—
6273Y	—	—	—	—	—
6277	1003	—	—	—	—
6287	10683	—	—	—	—
6301	—	—	—	—	—
6303	—	—	—	—	—
6311	SW15701	C150SW	—	W034B	—
6313	—	—	—	W034W	—
6321	15701	C150	—	S034B	—
6323	—	—	—	S034W	—
6367	—	—	—	—	—
6377	—	—	—	—	—
6387	—	—	—	—	—
6567	—	—	—	—	—
6577	—	—	—	—	—
7163	SW66703	—	—	—	—
7173	66703	—	—	—	—
7263Y	SW2510	—	25Y-32-SW	—	—
7267	—	—	—	—	—
7273Y	2510	—	25Y-32-T	—	—
7277	—	—	—	—	—





Specifying DSI® Valve Figure Numbers

It's easy to specify DSI® Forged Steel Valves. Just follow the example and use the figure number chart below to specify the valve you need.

Example valve specified:

Class 800, Gate Valve Type, Threaded (Standard) End-Port, BB-OS&Y Design Style, TFE Packing, A105N Body Material, Stellite® Seats for Trim and NACE conformance.

Class	Type	End-Port	Body/Bonnet Style	Special	Body Material	Trim	Other
1 • 150 2 • 300 3 • 600 4 • 800 5 • 900 6 • 1500 7 • 2500 8 • 4500	1 • Gate 2 • Globe 3 • Piston Check 4 • Swing Check 5 • Ball Check 6 • Vert Ball Check 7 • Needle/Globe	1 • Swe-Std 2 • Thrd-Std 3 • Flgd-Std 4 • F. Thrd x M. Thrd 5 • F. Thrd x M. SWE 6 • SWE-Full 7 • Thrd-Full 8 • Flgd-Full 9 • IREB-Std 0 • F. SWE x F. Thrd	1 • BB-OS&Y/BC 2 • UB-OS&Y/UC 3 • WB-OS&Y/WC 4 • PS-OS&Y/PSC 5 • UB-IS 6 • WB-IS 7 • RTJ-BB/BC 8 • WB-IS	Y • Y-Pattern T • TFE Packing CT • Ext. Couplet BW • Butt weld Ends R • RTJ Ends EB • Ext. Bonnet FF • Flat Faced Ends	A • A105N B • F-5 C • F-11 D • F316 E • F316L F • LF2 G • F-9 H • F-22 J • F-347 K • LF-3 L • F304 M • F321 N • F317L P • F304L R • F51 S • Monel T • F91	1 • F6a 2 • F304 5 • Full Stellite® 8 • Stellite® Seats 9 • Monel 10 • F316 11 • Monel-HFS 12 • F316-HFS 16 • F316L-HFS 17 • F321-HFS 19 • F347-HFS 20 • F317 21 • F91-HFS 22 • F304L 51 • Duplex SS	18 • NACE 20 • Oxygen Clean 22 • Cryogenic 24 • Bellows 26 • Alkylation

Footnotes:

BB • Bolted Bonnet	BC • Bolted Cover
WB • Welded Bonnet	WC • Welded Cover
UB • Union Bonnet	UC • Union Cover
PS • Full Penetration	IS • Inside Screw
OS&Y • Outside Screw & Yoke	
IREB • Integrally Reinforced Extended Body (male couplet x female threaded)	

Standard Features of DSI® Forged Steel Valves

- All DSI® forged carbon steel valves maintain a .22 % maximum carbon content and are normalized to further refine the grain and homogenize the microstructure.
- Every valve meets NACE MR-01-75 conformance and are supplied with appropriate Class II bolting and nuts.
- DSI® forged steel valves come standard with a Stellite® #6 seating surface. The Stellite® #6 is applied by an automatic GTAW process, maintaining a minimum thickness of 0.05 inches.
- Valves are furnished with non-asbestos Grafoil® packing. The top and bottom wiper rings are John Crane 1625G (or equivalent), while the four center rings are Union Carbide die-formed Grafoil® containing an inorganic passivating inhibitor for corrosion and oxidation resistance.
- The DSI® bolted bonnet and bolted cap valves not utilizing a ring joint connection are fitted with a 316 Stainless Steel spiral wound Grafoil® filled gasket that is fully contained to protect it from over-compression and erosion. Monel trim valves are fitted with a Monel spiral wound Grafoil® filled gasket.
- All flanged DSI® forged steel valves through Class 2500 are integrally forged to avoid the potential leak path that exist when welding flanges onto valve bodies.
- Welded bonnet valves are initially joined by threading the body-bonnet joint together, then welding by automatic GMAW. All welds are inspected after welding assuring quality control.
- It's a DSI® quality standard that 10% of all forgings are subjected to nondestructive examination, i.e., magnetic particle or liquid penetrant inspection as appropriate.
- DSI® forged steel valves contain no copper bearing alloys.
- Every DSI® forged steel valve is manufactured with a two-piece self-aligning gland flange assembly which insures even compression of the stuffing box during assembly and repacking.
- DSI® valves are supplied with Stainless Steel eye bolts, nuts and packing gland followers.

Grafoil® is a registered trademark of Union Carbide Corporation. Stellite® is a registered trademark of Stoodly Deloro Stellite, Inc.

Standard Product Range

Family of Standard Production

DSI® offers a broad range of standard commodity forged steel Gate, Globe and Check valves in threaded and socketweld end connections.

Size Range: 1/4" thru 2"

Class Range: 800-2500

Style: Bolted, welded or union bonnet connection of either inside screw or outside screw and yoke design.

Materials: A105N, LF2, LF3, F316, F304, F316L, F5, F9, F11, F22



Family of Flanged End Production Valves

DSI® offers a complete line of integrally forged flanged end Gate, Globe and Check valves.

Size Range: 1/2" thru 3" (3" Class 150 only)

Class Range: 150-1500

Style: Bolted or welded bonnet construction of outside screw and yoke design.

Materials: A105N, LF2, LF3, F316, F304, F316L, F5, F9, F11, F22



Family of Take-off Type Valves

The DSI® integrally forged Take-off valves are available from stock in a wide range of materials and end connection combinations.

Size Range: 1/2" thru 2"

Class Range: 800 - 1500

Style: Welded bonnet outside screw and yoke.

Materials: A105N, LF2, LF3, F316, F304, F316L, F5, F9, F11, F22

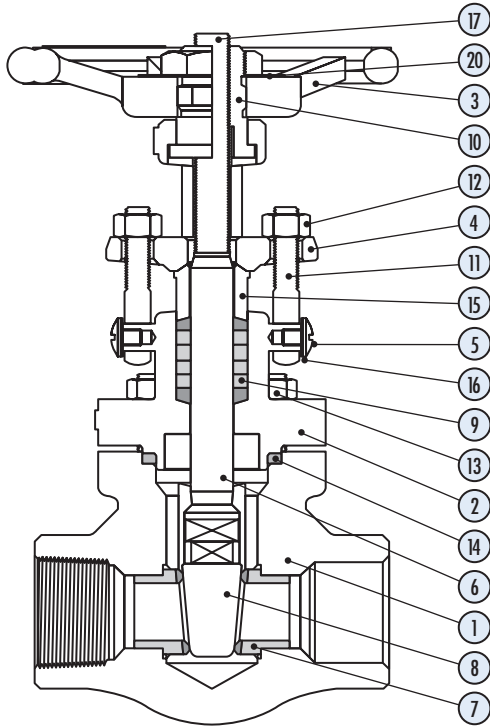


Note: Other materials available upon request.



Gate Valves

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



No.	Part	Material
1	Body	Carbon Steel, ASTM A105N
2	Bonnet	Carbon Steel, ASTM A105N
3	Handwheel	Carbon Steel
4	Gland Flange	Carbon Steel, ASTM A105
5	Eyebolt Screws	Zinc Plated, Carbon Steel
6	Stem	Alloy Steel, ASTM A182 F6
7	Seats	Alloy Steel, ASTM A182 F6/Stellite®-6
8	Wedge	Alloy Steel, ASTM A182 F6
9	Packing	Graphite Stack*
10	Yoke Nut	Stainless Steel, AISI 416
11	Eyebolts	Stainless Steel, ASTM A193-B8
12	Eyebolt Nuts	Carbon Steel, ASTM A194 2HM
13	Cap Screws	Alloy Steel, ASTM A193 B7M
14	Gasket	316 SS Spiral Wound Grafoil®
15	Packing Gland	Stainless Steel, AISI 416
16	Lock Nut Washer	Stainless Steel
17	Handwheel Nut	Carbon Steel
20	Name Plate	Aluminum

*Braided and die-formed graphite rings, John Crane 1625G (or equivalent) & Grafoil® GTK with corrosion inhibitor.

DSI® 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.

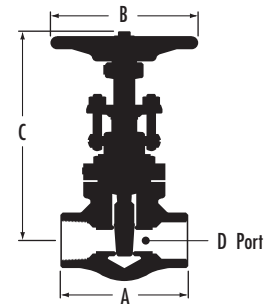
External Material					Trim Material			Sealing Material	
ASTM	Body Bonnet	Bolts	Gland Bolt	Gland Nuts	Stem	Seats	Wedge	Packing	Gasket
		ASTM	ASTM A193	ASTM A194					
A105	A105N	B7M	B8	2HM	410	410HF	410	Grafoil® Sandwich Stack: Braided Construction Grafoil® and die-formed Grafoil® rings	316 Stainless Steel Spiral Wound Grafoil®
					316	316HF	316		
					410	410HF	410HF		
					Monel	Monel	Monel		
A350	LF2	L7M	B8	7M	410	410HF	410		
					316	316HF	316		
A182	F5	B16	B8	4	410	410HF	410		
	F11								
	F9								
	F316L								
	F316	B8M	B8	8M	316L	316LHF	316L		
					316	316HF	316		

NOTE: Monel trim valves are fitted with a Monel spiral wound Grafoil® filled gasket.

Gate Valves

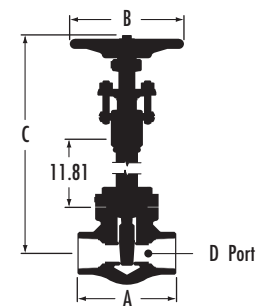
Class 800 • Standard and Full Port – Bolted Bonnet – OS&Y Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				1/2	3/4	1	1 1/4	1 1/2	2	—	
Standard Port	4121	4101	4111	—	1/2	3/4	1	1 1/4	1 1/2	2	—
Full Port	4171	—	4161	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
End to End	A			3.19	3.19	3.46	4.33	5.04	5.04	5.51	5.94
Handwheel	B			3.62	3.62	3.62	4.02	5.12	5.91	5.91	6.89
Center to Top	C (Closed)			5.24	5.59	5.79	6.69	7.76	8.46	9.37	10.98
Port Diameter	D			.28	.37	.50	.71	.94	1.20	1.44	1.80
Weight	Lbs.			4.19	4.19	5.73	7.94	10.58	16.53	23.59	35.27



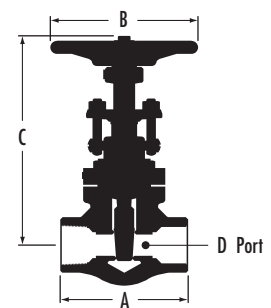
Class 800 • Standard Port – Bolted & Welded Cryogenic Extended Bonnet – Threaded Ends – Min. Temp. -325° F

Dimensions	Thrd	Size (in.)								
		3/8	1/2	3/4	1	1 1/4	1 1/2	2		
Standard Port	4121 Cryogenic	3/8	1/2	3/4	1	1 1/4	1 1/2	2		
End to End	A	3.19	3.19	3.46	4.33	5.04	5.04	5.04		
Handwheel	B	3.62	3.62	3.62	4.02	5.12	5.91	6.89		
Center to Top	C (Closed)	17.64	17.64	17.64	18.39	19.29	20.20	20.95		
Port Diameter	D	.28	.37	.50	.71	.94	1.20	1.44		
Weight	Lbs.	6.39	6.39	7.94	10.14	13.67	19.84	26.90		



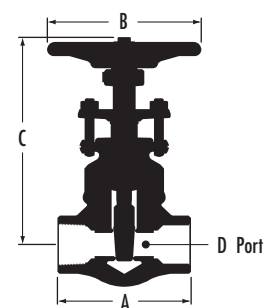
Class 1500 • Standard and Full Port – Bolted Bonnet – OS&Y Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	6121	6101	6111	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Full Port	6171	—	6161	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	
End to End	A			3.19	3.46	4.33	5.04	5.04	5.51	5.94	
Handwheel	B			3.62	3.62	4.02	5.12	5.91	5.91	6.89	
Center to Top	C (Closed)			5.59	5.79	6.69	7.76	8.46	9.37	10.98	
Port Diameter	D			.28	.37	.50	.71	.94	1.20	1.44	
Weight	Lbs.			4.19	5.73	7.94	10.58	16.53	23.59	35.27	



Class 800 • Standard Port – Welded Bonnet – OS&Y Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	4123	4103	4113	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
End to End	A			3.19	3.19	3.46	4.33	5.04	5.04	5.51	
Handwheel	B			3.62	3.62	3.62	4.02	5.12	5.91	5.91	
Center to Top	C (Closed)			5.24	5.59	5.79	6.69	7.76	8.46	9.37	
Port Diameter	D			.28	.37	.50	.71	.94	1.20	1.44	
Weight	Lbs.			3.97	3.97	4.85	6.61	9.26	14.33	20.28	

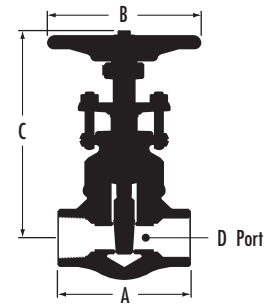




Gate Valves

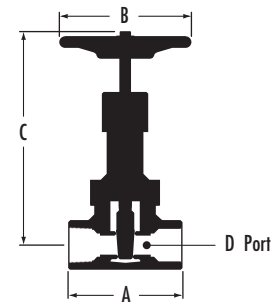
Class 1500 • Standard Port – Welded Bonnet – OS&Y Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)						
				$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Standard Port	6123	6103	6113							
End to End		A		3.19	3.46	4.33	5.04	5.04	5.51	5.94
Handwheel		B		3.62	3.62	4.02	5.12	5.12	5.91	6.89
Center to Top		C (Closed)		5.59	5.79	6.69	7.76	8.07	9.37	10.98
Port Diameter		D		.28	.37	.50	.71	.94	1.20	1.44
Weight		Lbs.		4.19	5.73	7.94	10.58	16.53	23.59	35.27



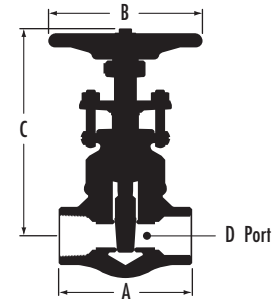
Class 800 • Standard Port – Union Bonnet – IS – Threaded and Socketweld Ends

Dimensions	Thrd	SWE	Size (in.)						
			$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Standard Port	4125	4115							
End to End		A	2.76	2.76	3.39	3.98	—	4.72	5.24
Handwheel		B	3.62	3.62	3.62	4.02	—	5.12	5.91
Center to Top		C (Closed)	5.91	5.91	5.91	7.48	—	9.45	10.63
Port Diameter		D	.37	.50	.50	.75	—	1.25	1.50
Weight		Lbs.	3.09	3.09	3.75	6.61	—	9.26	17.20



Class 2500 • Full Port – Welded Bonnet – OS&Y Threaded and Socketweld Ends

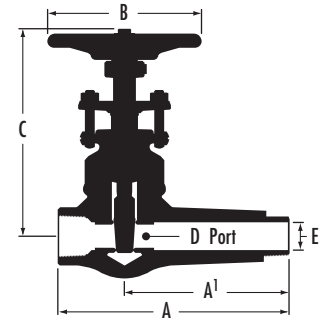
Dimensions	Thrd	SWE	Size (in.)						
			$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Full Port	7173	7163							
End to End		A	3.46	5.04	5.04	5.04	8.27	8.27	9.45
Handwheel		B	4.02	5.91	5.91	5.91	6.89	6.89	7.48
Center to Top		C (Closed)	5.79	8.46	8.46	9.37	10.98	10.98	13.70
Port Diameter		D	.37	.50	.71	.94	1.20	1.44	1.80
Weight		Lbs.	6.61	9.26	9.26	20.28	30.42	30.42	55.12



Gate Valves

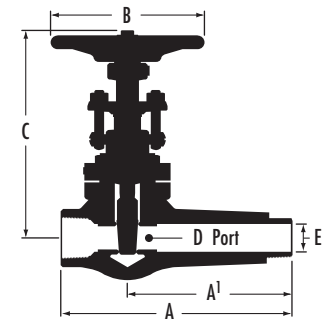
Class 800/1500 • Standard Port – Take Off – Welded Bonnet – Female Thread x Male Thread Ends

Dimensions	F. Thrd x M. Thrd		Size (in.)							
	4143	4153	1/2	3/4	1	1 1/2				
Standard Port										
End to End	A		6.00	6.00	6.00	6.00	7.5	7.5	8.5	—
Center to End	A ¹		4.41	4.41	4.27	4.27	5.41	5.41	5.45	—
Handwheel	B		3.62	3.62	3.62	3.62	4.02	4.02	5.91	—
Center to Top	C (Closed)		5.59	5.59	5.79	5.79	6.69	6.69	8.46	—
Port Diameter	D		.37	.37	.50	.50	.71	.71	1.20	—
Insert O.D.	E		.52	.52	.65	.65	.89	.89	1.42	—
Weight	Lbs.		4.63	4.63	5.95	5.95	8.82	8.82	16.53	—



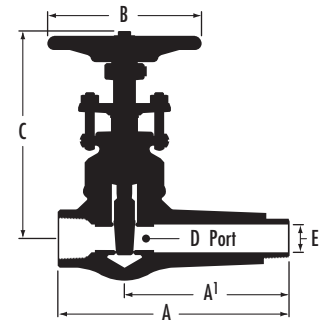
Class 800 • Standard Port – Take Off – Bolted Bonnet – Female Thread x Male Socketweld Ends

Dimensions	F. Thrd x M. SWE		Size (in.)							
	4151	4191	1/2	3/4	1	1 1/2	2			
Standard Port										
End to End	A		6.00	7.56	6.00	8.23	7.50	9.23	8.50	9.98
Center to End	A ¹		4.41	6.18	4.27	6.42	5.41	7.05	5.45	7.48
Handwheel	B		3.62	3.62	3.62	3.62	4.02	4.02	5.91	6.89
Center to Top	C (Closed)		5.59	5.47	5.79	5.63	6.69	6.42	8.46	8.39
Port Diameter	D		.37	.37	.50	.50	.71	.71	1.20	1.44
Insert O.D.	E		.52	.69	.65	.87	.89	1.12	1.42	1.62
Weight	Lbs.		4.63	5.07	5.95	7.05	8.82	11.02	16.53	19.84



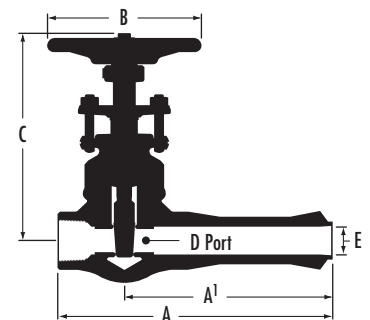
Class 800/1500 • Standard Port – Take Off – Welded Bonnet – Female Thread x Male Couplet

Dimensions	F. Thrd x M. Cplt	Size (in.)		
	4153CT	1/2	3/4	1
Standard Port				
End to End	A	5.29	6.07	6.76
Center to End	A ¹	4.38	4.38	4.76
Handwheel	B	3.62	3.62	4.02
Center to Top	C (Closed)	5.59	5.79	6.69
Port Diameter	D	.37	.50	.71
Insert O.D.	E	.52	.65	.89
Weight	Lbs.	4.63	5.95	8.16



Class 800/1500 • Standard Port – Take Off – Welded Bonnet – Female Thread x Integrally Reinforced Ends

Dimensions	F. Thrd x IREB		Size (in.)							
	4193	6193	1/2	3/4	1	1 1/2	2			
Standard Port										
End to End	A		7.56	8.23	8.23	9.23	9.23	9.98	9.98	10.35
Center to End	A ¹		6.18	6.42	6.42	7.05	7.05	7.48	7.48	7.60
Handwheel	B		3.62	3.62	3.62	4.02	4.02	5.91	5.91	6.89
Center to Top	C (Closed)		5.47	5.63	5.63	6.42	6.42	8.39	8.39	9.29
Port Diameter	D		.37	.37	.50	.50	.71	.71	1.20	1.44
Insert O.D.	E		.69	.69	.87	.87	1.12	1.12	1.62	1.81
Weight	Lbs.		5.07	7.05	7.05	11.02	11.02	19.84	19.84	28.66

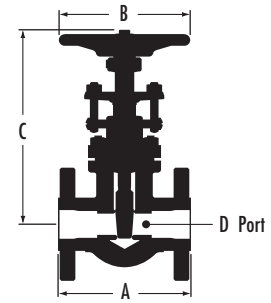




Gate Valves

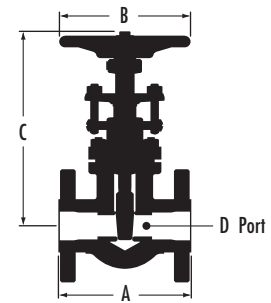
Class 150 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)					
		1/2	3/4	1	1 1/2	2	3
Standard Port	1131	1/2	3/4	1	1 1/2	2	3
Face to Face	A	4.25	4.61	5.00	6.50	7.01	7.99
Handwheel	B	3.62	3.62	4.02	5.91	6.89	7.48
Center to Top	C (Closed)	6.46	6.97	7.24	8.70	9.33	11.81
Port Diameter	D	.37	.50	.71	1.20	1.44	2.00
Weight	Lbs.	6.61	10.58	13.23	22.05	35.27	55.12



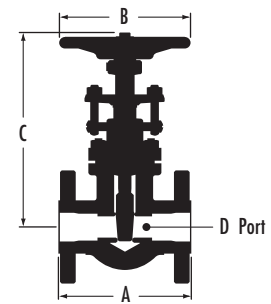
Class 300 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	2131	1/2	3/4	1	1 1/2	2
Face to Face	A	5.51	5.98	6.50	7.48	8.50
Handwheel	B	3.62	3.62	4.02	5.91	6.89
Center to Top	C (Closed)	7.09	6.97	7.24	8.70	9.33
Port Diameter	D	.37	.50	.71	1.20	1.44
Weight	Lbs.	8.81	13.23	17.64	37.48	48.50



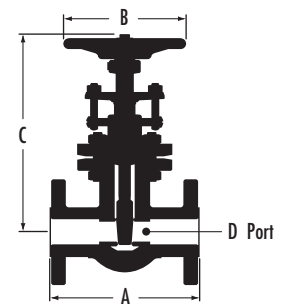
Class 600 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	3131	1/2	3/4	1	1 1/2	2
Face to Face	A	6.50	7.48	8.50	9.49	11.54
Handwheel	B	3.62	3.62	4.02	5.91	6.89
Center to Top	C (Closed)	6.46	6.97	7.24	8.70	9.33
Port Diameter	D	.37	.50	.71	1.20	1.44
Weight	Lbs.	10.14	13.89	18.52	38.36	50.71



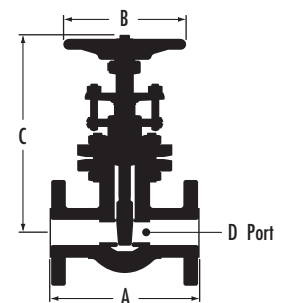
Class 1500 • Full Port – RTJ – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Full Port	6187	1/2	3/4	1	1 1/2	2
Face to Face	A	8.50	9.02	10.00	12.01	14.49
Handwheel	B	5.12	5.91	5.91	6.89	6.89
Center to Top	C (Closed)	10.63	11.81	12.28	13.27	13.66
Port Diameter	D	.50	.71	.94	1.44	1.80
Weight	Lbs.	22.05	35.27	44.09	83.77	119.05



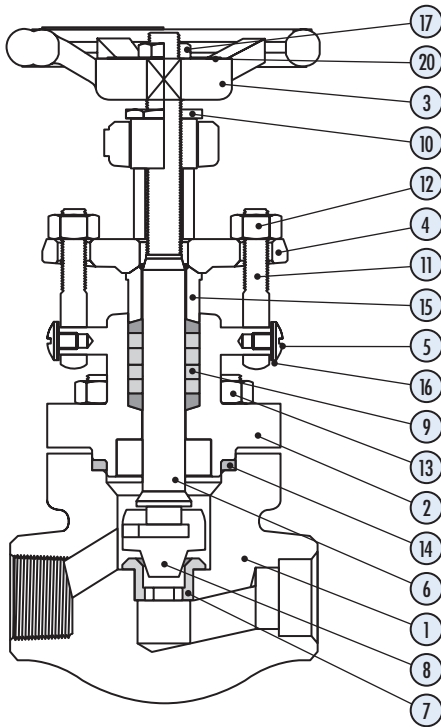
Class 2500 • Full Port – RTJ – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Full Port	7187	1/2	3/4	1	1 1/2	2
Face to Face	A	10.39	10.75	12.13	15.12	17.76
Handwheel	B	5.91	5.91	6.89	7.48	7.48
Center to Top	C (Closed)	12.28	12.28	13.27	13.66	15.75
Port Diameter	D	.50	.71	.94	1.44	1.80
Weight	Lbs.	44.09	44.09	83.77	119.05	165.35



Globe Valves

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



No.	Part	Material
1	Body	ASTM A105N Carbon Steel
2	Bonnet	ASTM A105N Carbon Steel
3	Handwheel	Carbon Steel
4	Gland Flange	ASTM A105 Carbon Steel
5	Eyebolt Screws	Zinc Plated Carbon Steel
6	Stem	ASTM A182 F6 Alloy Steel
7	Seat	ASTM S182 F6/Stellite® 6 Facing
8	Disc	ASTM A182 F6 Alloy Steel
9	Packing	Graphite Stack*
10	Yoke Nut	AISI Type 416 Stainless Steel
11	Eyebolts	ASTM A193 B8 Stainless Steel
12	Eyebolt Nuts	ASTM A194 2HM Carbon Steel
13	Cap Screws	ASTM A193 B7M Alloy Steel
14	Gasket	316 SS Spiral Wound Grafoil®
15	Packing Gland	AISI Type 416 Stainless Steel
16	Lock Nut Washer	Stainless Steel
17	Handwheel Nut	Carbon Steel
20	Name Plate	Aluminum

*Braided and die-formed graphite rings, John Crane 1625G (or equivalent) & Grafoil® GTK with corrosion inhibitor.

DSI® 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	Disc	Seat	Packing	Gasket
A105	A105N	B7M	B8	2HM	410	410	410HF	Grafoil® Sandwich Stack: Braided Construction Grafoil® and die-formed Grafoil® rings	316 Stainless Steel Spiral Wound Grafoil®
					316	316	316HF		
					410	410HF	410HF		
					Monel	Monel	Monel		
A350	LF2	L7M	B8	7M	410	410	410HF		
					316	316	316HF		
A182	F5	B16	B8	4	410	410	410HF		
	F11								
	F9	B8M	B8	8M	316L	316L	316LHF		
	F316L				316	316	316HF		

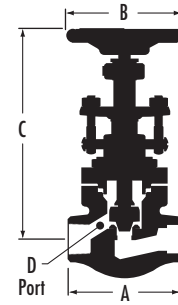
NOTE: Monel trim valves are fitted with a Monel spiral wound Grafoil® filled gasket.



Globe Valves

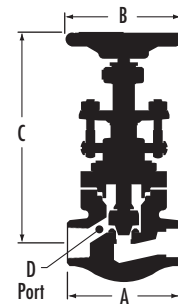
Class 800 • Standard Port – Bolted Bonnet – Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	4221	4201	4211								
End to End		A		3.19	3.19	3.46	4.33	6.06	6.06	6.73	
Handwheel		B		3.62	3.62	3.62	4.02	5.12	5.91	6.89	
Center to Top		C (Closed)		5.71	6.10	6.26	7.04	8.98	9.21	10.12	
Port Diameter		D		.28	.39	.49	.69	.94	1.14	1.30	
Weight		Lbs.		4.19	4.19	5.73	7.94	14.77	14.77	26.46	



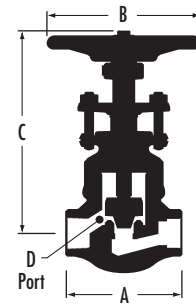
Class 1500 • Standard Port – Bolted Bonnet – Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	6221	6201	6211								
End to End		A		3.19	3.46	4.33	5.04	5.04	5.51	5.94	
Handwheel		B		3.62	3.62	4.02	5.12	5.12	5.91	6.89	
Center to Top		C (Closed)		5.59	5.79	6.69	7.76	8.46	9.37	10.98	
Port Diameter		D		.28	.37	.50	.71	.94	1.20	1.44	
Weight		Lbs.		4.19	5.73	7.94	10.58	16.53	23.59	35.27	



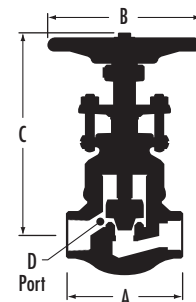
Class 800 • Standard Port – Welded Bonnet – Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	4223	4203	4213								
End to End		A		3.19	3.19	3.46	4.33	6.06	6.06	6.73	
Handwheel		B		3.62	3.62	3.62	4.02	5.12	5.91	6.89	
Center to Top		C (Closed)		5.71	6.10	6.26	7.05	8.97	9.21	10.12	
Port Diameter		D		.28	.39	.49	.69	.94	1.14	1.30	
Weight		Lbs.		3.97	3.97	4.85	6.61	14.77	14.77	26.46	



Class 1500 • Standard Port – Welded Bonnet – Threaded and Socketweld Ends

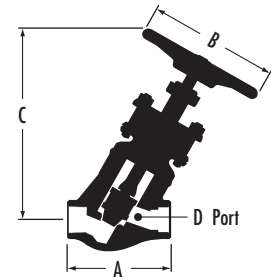
Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)							
				—	1/2	3/4	1	1 1/4	1 1/2	2	
Standard Port	6223	6203	6213								
End to End		A		—	3.46	4.31	5.06	6.06	6.06	8.31	
Handwheel		B		—	3.62	4.02	5.12	5.91	5.91	6.89	
Center to Top		C (Closed)		—	6.26	7.05	8.46	8.98	9.21	12.40	
Port Diameter		D		—	.39	.50	.69	.94	1.13	1.30	
Weight		Lbs.		—	5.95	7.94	10.58	14.77	19.84	28.66	



Globe Valves

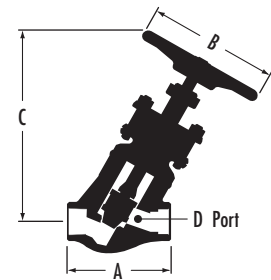
Class 1500 • Full Port—Y Pattern—Welded Bonnet—Threaded and Socketweld Ends

Dimensions	Thrd	SWE	Size (in.)					
Full Port	6273Y	6263Y	1/2	3/4	1	1 1/4	1 1/2	2
End to End	A		4.37	5.98	7.52	7.52	8.50	8.50
Handwheel	B		4.02	5.12	6.89	6.89	6.89	6.89
Center to Top	C (Closed)		7.87	9.45	11.81	11.81	13.78	13.78
Port Diameter	D		.43	.57	.75	.91	1.26	1.46
Weight	Lbs.		8.37	14.33	33.07	33.07	39.68	39.68



Class 2500 • Full Port—Y Pattern—Welded Bonnet—Threaded and Socketweld Ends

Dimensions	Thrd	SWE	Size (in.)					
Full Port	7273Y	7263Y	1/2	3/4	1	1 1/4	1 1/2	2
End to End	A		5.98	7.52	7.52	8.50	8.50	8.5
Handwheel	B		5.12	6.89	6.89	7.48	7.48	7.48
Center to Top	C (Closed)		9.45	11.81	11.81	13.78	13.78	13.78
Port Diameter	D		.43	.57	.75	.91	1.26	1.46
Weight	Lbs.		8.37	14.33	33.07	33.07	39.68	39.68



For years Industry professionals have specified DSI® valve products for their most demanding projects, and consistently Zy-Tech Global Industries delivers the highest performance fluid control products available anywhere.

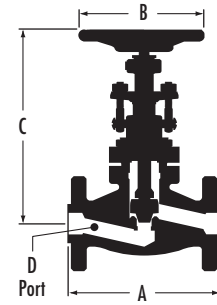
Ask your DSI® representative about our other fine flow control products.



Globe Valves

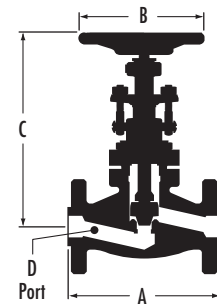
Class 150 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	1231	1/2	3/4	1	1 1/2	2
Face to Face	A	4.25	4.61	5.00	6.50	8.00
Handwheel	B	3.62	3.62	4.02	5.91	6.89
Center to Top	C (Closed)	6.97	7.44	7.60	9.45	10.12
Port Diameter	D	.39	.49	.67	.98	1.30
Weight	Lbs.	6.61	10.58	13.23	22.05	33.07



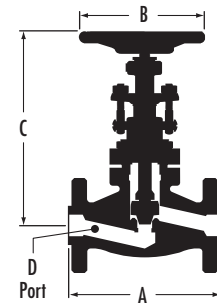
Class 300 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	2231	1/2	3/4	1	1 1/2	2
Face to Face	A	5.98	7.00	7.99	9.02	10.51
Handwheel	B	3.62	3.62	4.02	5.91	6.89
Center to Top	C (Closed)	6.97	7.44	7.60	9.45	10.12
Port Diameter	D	.39	.49	.67	.98	1.30
Weight	Lbs.	9.92	12.13	17.64	26.46	37.48



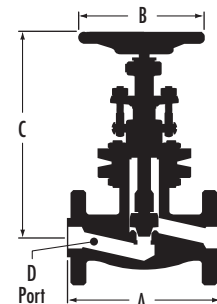
Class 600 • Standard Port – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	3231	1/2	3/4	1	1 1/2	2
Face to Face	A	6.50	7.50	8.50	9.50	11.50
Handwheel	B	3.62	3.62	4.02	5.91	6.89
Center to Top	C (Closed)	6.97	7.44	7.60	9.49	10.12
Port Diameter	D	.39	.49	.67	.98	1.30
Weight	Lbs.	9.92	13.89	18.52	38.36	49.96



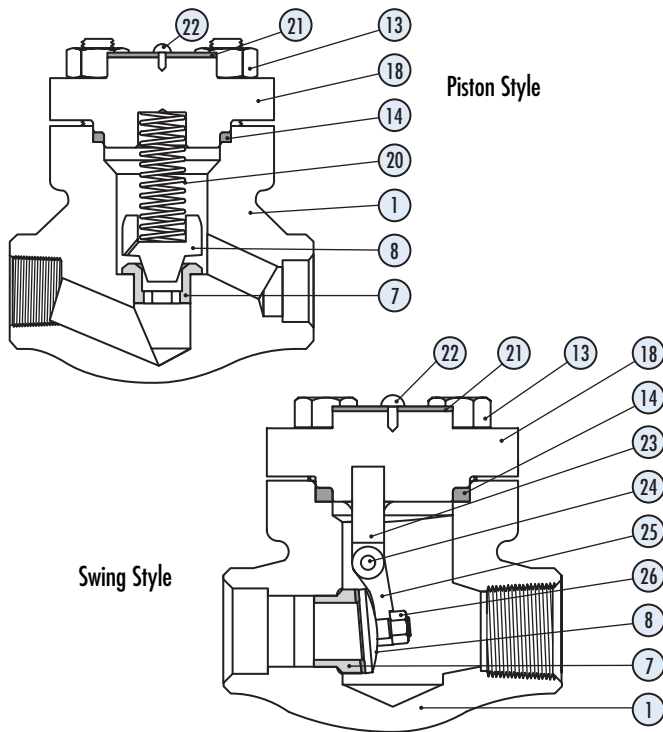
Class 1500 • Full Port – RTJ – Bolted Bonnet – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Full Port	6287	1/2	3/4	1	1 1/2	2
Face to Face	A	8.50	9.02	10.00	12.01	14.49
Handwheel	B	5.12	5.91	5.91	6.89	6.89
Center to Top	C (Closed)	11.10	12.28	12.76	13.90	14.29
Port Diameter	D	.43	.57	.75	1.24	1.48
Weight	Lbs.	28.66	35.27	47.40	83.77	132.28



Check Valves

Bolted, Welded & Union Cap • Class 150, 300, 600, 800, 1500, & 2500



No.	Part	Material
1	Body	A105N Carbon Steel
7	Seat	ASTM A182 F6/Stellite® 6 Alloy Steel
8	Piston	ASTM A182 F6 Alloy Steel
8	Disc	ASTM A182 F6 Alloy Steel
13	Cap Screws	ASTM A193 B7M
14	Gasket	316 SS Spiral Wound Grafoil®
18	Bolted Cover	A105N Carbon Steel
20	Spring	AISI 304 Stainless Steel
21	Name Plate	Aluminum
22	Rivet	Stainless Steel
23	Pin	ASTM A182 F6 Alloy Steel
24	Hinge Pin	Stainless Steel
25	Arm	ASTM A182 F6 Alloy Steel
26	Retaining Nut	ASTM A194 2HM

DSI® 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.

External Material		Trim Material		Sealing Material	
ASTM	Body Bonnet	Bolts ASTM	Piston or Ball AISI	Seat Gasket	
A105	A105N	ASTM A193-B7M	410 316 410 Monel	410HF 316HF 410HF Monel	316 Stainless Steel Spiral Wound Grafoil®
A350	LF2	ASTM A320-L7M	410 316	410HF 316HF	
A182	F5	ASTM A193-B16	410	410HF	
	F11				
	F9				
	F316L	ASTM A193-B8M	316L	316LHF	
F316	316		316HF		

NOTE: Monel trim valves are fitted with a Monel spiral wound Grafoil® filled gasket.

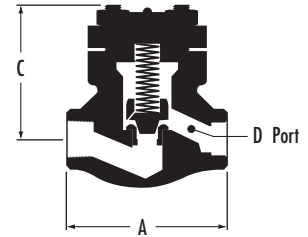




Check Valves

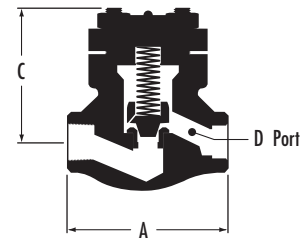
Class 800 • Standard and Full Port – Piston – Bolted Cover – Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)								
				3/8	1/2	3/4	1	1 1/4	1 1/2	2	—	
Standard Port	4321	4301	4311									
Full Port	4371	—	4361	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
End to End		A		3.19	3.19	3.46	4.33/5.04	6.06	6.06/6.73	6.73	8.27	
Center to Top		C		2.17	2.24	2.36	2.83/3.15	3.70	3.70/4.06	4.06	4.84	
Port Diameter		D		.28	.39	.49	.69	.94	1.14	1.30	1.54	
Weight		Lbs.		3.09	3.09	3.97	5.73	11.24	11.24	19.84	28.66	



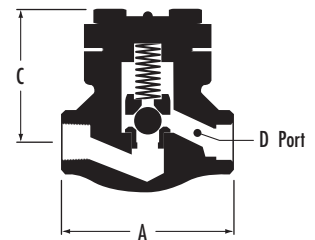
Class 1500 • Standard Port – Piston – Bolted Cover – Threaded and Socketweld Ends

Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)								
				3/8	1/2	3/4	1	1 1/4	1 1/2	2		
Standard Port	6321	6301	6311									
End to End		A		3.19	3.46	4.33	5.04	6.06	6.69	8.27		
Center to Top		C		2.24	2.36	2.83	3.15	3.70	4.06	4.92		
Port Diameter		D		.28	.37	.50	.71	.94	1.20	1.44		
Weight		Lbs.		3.97	3.97	5.73	7.05	11.24	19.84	28.66		



Class 800 • Standard Port – Ball – Bolted Cover – Threaded and Socketweld Ends

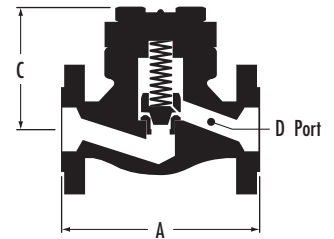
Dimensions	Thrd	Thrd x SWE	SWE	Size (in.)								
				3/8	1/2	3/4	1	1 1/4	1 1/2	2		
Standard Port	4521	4501	4511									
End to End		A		3.19	3.19	3.46	4.33	6.06	6.06	6.73		
Center to Top		C		2.17	2.24	2.36	2.83	3.15	3.70	4.06		
Port Diameter		D		.28	.39	.49	.69	.94	1.14	1.30		
Weight		Lbs.		3.09	3.09	3.97	5.73	11.24	11.24	19.84		



Check Valves

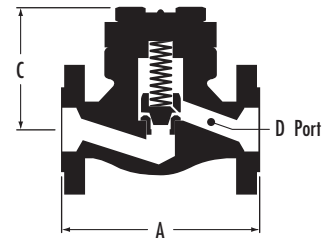
Class 150 • Standard Port – Piston – Bolted Cover – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	1331	1/2	3/4	1	1 1/2	2
Face to Face	A	4.25	4.61	5.00	6.50	8.00
Center to Top	C	3.07	3.50	3.35	3.90	4.06
Port Diameter	D	.39	.51	.67	.98	1.30
Weight	Lbs.	4.63	7.05	9.70	15.43	21.61



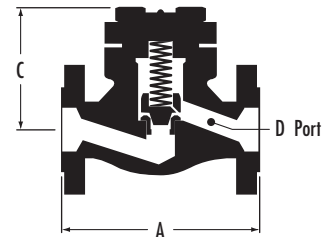
Class 300 • Standard Port – Piston – Bolted Cover – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	2331	1/2	3/4	1	1 1/2	2
Face to Face	A	5.98	7.01	7.99	9.02	10.51
Center to Top	C	3.07	3.50	3.35	3.90	4.06
Port Diameter	D	.39	.51	.67	.98	1.30
Weight	Lbs.	7.05	8.60	12.35	18.52	26.23



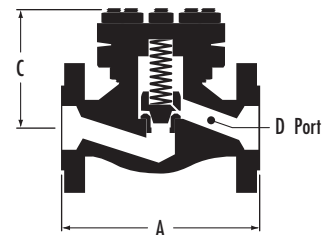
Class 600 • Standard Port – Piston – Bolted Cover – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Standard Port	3331	1/2	3/4	1	1 1/2	2
Face to Face	A	6.50	7.48	8.50	9.49	11.50
Center to Top	C	3.07	3.50	3.35	3.90	4.06
Port Diameter	D	.39	.51	.67	.98	1.30
Weight	Lbs.	8.82	10.80	14.33	33.07	39.68



Class 1500 • Full Port – Piston – RTJ – Bolted Cover – Flanged Ends

Dimensions	Flanged End	Size (in.)				
		1/2	3/4	1	1 1/2	2
Full Port	6387	1/2	3/4	1	1 1/2	2
Face to Face	A	8.50	9.02	10.00	12.01	14.49
Center to Top	C	5.83	6.30	6.97	7.87	8.90
Port Diameter	D	.43	.57	.75	1.22	1.48
Weight	Lbs.	27.56	35.27	41.89	79.37	119.05

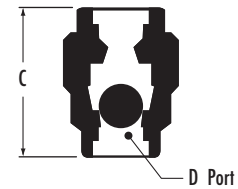




Check Valves

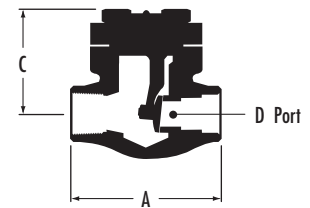
Class 800 • Full Port – Vertical Ball – Union Cap – Threaded and Socketweld Ends

Dimensions	Ends		Size (in.)				
	Thrd	SWE	1/2	3/4	1	1 1/2	2
Full Port	4672	4662					
End to End	A		3.39	3.89	5.31	5.63	6.76
Key	C		2.12	2.56	2.83	3.94	4.33
Port Diameter	D		.55	.81	1.06	1.53	2.00
Weight	Lbs.		2.20	3.31	5.51	9.48	17.64



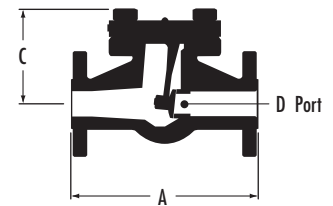
Class 800 • Standard Port – Swing – Bolted Cover – Threaded and Socketweld Ends

Dimensions	Ends			Size (in.)				
	Thrd	Thrd x SWE	SWE	1/2	3/4	1	1 1/2	2
Standard Port	4421	4401	4411					
End to End	A			3.19	3.46	4.33	6.06	6.73
Center to Top	C			2.24	2.36	2.83	3.70	4.06
Port Diameter	D			.37	.50	.71	1.20	1.44
Weight	Lbs.			3.09	3.97	5.73	11.24	19.84



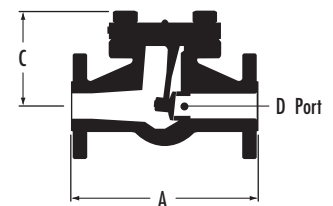
Class 150 • Standard Port – Swing – Bolted Cover – Flanged Ends

Dimensions	Ends		Size (in.)				
	Flange End		1/2	3/4	1	1 1/2	2
Standard Port	1431						
End to End	A		4.25	4.61	5.00	6.50	7.99
Center to Top	C		3.07	3.50	3.35	3.90	4.06
Port Diameter	D		.37	.50	.71	1.20	1.44
Weight	Lbs.		4.63	7.05	9.70	9.70	26.23



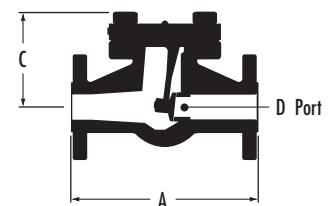
Class 300 • Standard Port – Swing – Bolted Cover – Flanged Ends

Dimensions	Ends		Size (in.)				
	Flange End		1/2	3/4	1	1 1/2	2
Standard Port	2431						
End to End	A		5.98	7.01	7.99	9.02	10.51
Center to Top	C		3.07	3.50	3.35	3.90	4.06
Port Diameter	D		.37	.50	.71	1.20	1.44
Weight	Lbs.		7.05	8.60	12.35	18.52	26.23



Class 600 • Standard Port – Swing – Bolted Cover – Flanged Ends

Dimensions	Ends		Size (in.)				
	Flange End		1/2	3/4	1	1 1/2	2
Standard Port	3431						
End to End	A		6.50	7.48	8.50	9.49	11.50
Center to Top	C		3.07	3.50	3.35	3.90	4.06
Port Diameter	D		.37	.50	.71	1.20	1.44
Weight	Lbs.		8.82	10.80	14.33	33.07	39.68



Technical Data

Pressure/Temperature Ratings

Temp. °F	Material/Class																	
	A105* & A350 LF2**					A182 F11***		A182 F5		A182 F9		A182 316		A182 316L				
	150	300	600	800	1500	800	1500	800	1500	800	1500	800	1500	800	1500			
-20 to 100	285	740	1480	1975	3705	2000	3750	2000	3750	2000	3750	1920	3600	1600	3000			
200	260	675	1350	1800	3375	2000	3750	1985	3725	2000	3750	1655	3095	1350	2530			
300	230	655	1315	1750	3280	1925	3610	1910	3580	1940	3640	1495	2795	1210	2270			
400	200	635	1270	1690	3170	1850	3465	1880	3530	1880	3530	1370	2570	1100	2065			
500	170	600	1200	1595	2995	1775	3325	1775	3325	1775	3325	1275	2390	1020	1910			
600	140	550	1095	1460	2735	1615	3025	1615	3025	1615	3025	1205	2255	960	1800			
650	125	535	1075	1430	2685	1570	2940	1570	2940	1570	2940	1185	2220	935	1750			
700	110	535	1065	1420	2665	1515	2840	1515	2840	1515	2840	1160	2170	915	1715			
750	95	505	1010	1345	2520	1420	2660	1410	2640	1420	2660	1140	2135	895	1680			
800	80	410	825	1100	2060	1355	2540	1355	2540	1355	2540	1125	2110	875	1645			
850	65	270	535	715	1340	1300	2435	1290	2415	1300	2435	1115	2090	860	1610			
900	50	170	345	460	860	1200	2245	985	1850	1200	2245	1105	2075					
950	35	105	205	275	515	850	1595	735	1370	1005	1885	1030	1930					
1000	20	50	105	140	260	575	1080	530	995	675	1270	935	1750					
1050	<i>A350 LF2 is suitable to -50°F at -20°F pressure ratings.</i>					385	720	385	720	460	855	915	1720					
1100						255	480	265	495	300	565	815	1525					
1150						165	310	165	310	200	375	630	1185					
1200						100	190	95	170	140	255	495	925					
1250												390	735					
1300															310	585		
1350															255	480		
1400															200	380		
1450															155	290		
1500															110	205		

Data in table are maximum fluid pressures at temperatures shown in side column in accordance with ANSI B16.34 and API 602.

Notes: *Permissible, but not recommended for prolonged use above 800°F.

**Not to be used over 650°F.

***Permissible, but not recommended for prolonged use above 1100°F.

Body and Bonnet Materials

	Description		Carbon Steel	Low Temp. Steel	Alloy Steel ASTM A182			Austenitic SS ASTM A182	
			ASTM A105	ASTM A350 LF2	F5	F11	F9	F316L	F316
Chemical Composition	Carbon	%	0.35 max.	.030 max.	0.15 max.	0.10-0.20	0.15 max.	.035 max.	0.08 max.
	Manganese	%	0.60-1.05	1.35 max.	0.30-0.60	0.30-0.80	0.30-0.60	2.0 max.	2.0 max.
	Phosphorus	%	0.040 max.	0.035 max.	0.030 max.	0.040 max.	0.030 max.	0.040 max.	0.040 max.
	Sulphur	%	0.050 max.	0.040 max.	0.030 max.	0.040 max.	0.030 max.	0.030 max.	0.030 max.
	Silicon	%	0.35 max.	0.15-0.30	0.50 max.	0.50-1.00	0.50-1.00	1.00 max.	1.00 max.
	Nickel	%	—	—	0.50 max.	—	—	10.00-15.00	10.00-14.00
	Chromium	%	—	—	4.0-6.0	1.00-1.50	8.00-10.0	16.00-18.00	16.00-18.00
	Molybdenum	%	—	—	0.44-0.65	0.44-0.65	.90-1.10	2.0-3.0	2.0-3.0

Trim Materials

	Description		410	316	316L	Monel	Stellite® Gr. 6
			Chemical Composition	Carbon	%	0.15 max.	.08 max.
Manganese	%	1.00 max.		2.0 max.	2.0 max.	2.0 max.	2.00 max.
Phosphorus	%	0.040 max.		.040 max.	.040 max.	—	—
Sulphur	%	0.030 max.		0.030 max.	0.030 max.	0.024	—
Silicon	%	1.00 max.		1.00 max.	1.00 max.	0.5 max.	2.00 max.
Nickel	%	—		10.00-14.00	10.00-15.00	63.0 min.	3.00 max.
Chromium	%	12.00-14.00		16.00-18.00	16.00-18.00	—	25.0-32.0
Molybdenum	%	—		2.0-3.0	2.0-3.0	—	1.00 max.
Copper	%	—		—	—	28.0-34.0	—
Other Elements	%	—		—	—	Fe: 2.5 max.	Fe: 5.00 max. W: 3.0-6.0 Co: balance





Selective Purpose Valves

Many flow applications require equipment that is manufactured specifically to meet the needs of a particular service, such as low temperature valves for Cryogenic systems or Bellow Seal Valves for special service applications. In these instances you can rely on DSI® selective purpose products.

Contact your DSI® manufacturer representative for your next project.



Our Quality Commitment...

Zy-Tech Global Industries is dedicated to continually improving its state-of-the-art engineering and manufacturing capabilities to improve the overall quality of their products and customer service. Zy-Tech's entire global network of flow control experts consist of highly trained technicians, qualified

engineers, and superior testing laboratories to ensure that all products supplied to our customers are 100% in accordance with industry standards as well as our own internal Quality Assurance and Quality Control procedures.

Warranty

The warranty described below applies only to new or unused goods, or goods reconditioned by ZY-TECH GLOBAL INDUSTRIES (Seller). The Seller specifically disclaims any warranty for used goods or goods sold "as is". For a period of one (1) year after date of purchase of any of the goods described herein, Seller warrants such goods shall remain free from failure due to defects in workmanship and materials incorporated therein by or for Seller provided such failure shall not have been caused or contributed to, by improper usage, service or application, improper installation or maintenance, repairs, alterations, or modifications effected by or for the user, misuse, negligence or accident.

In the event of failure for which Seller has assumed warranty obligations hereunder, and provided written notification of such failure shall be immediately given to Seller, it agrees to repair, or at its option, to replace the goods sold at its sold expense.

Apart from the warranty and undertakings above set forth, Seller assumes no obligation or liability for losses, expenses or damages, direct or consequential, suffered or incurred as a result of any failure of, or defect in, the goods described herein, including but not limited to, such costs, expenses or damages as may result from the necessity to remove, replace, restore or transport the goods from any location or service in which they may be used, regardless of the cause of such failure or defect.

This warranty extends only to the original Purchaser of the goods and is the only warranty made by Seller in connection therewith. There are not other warranties, express or implied, of any kind given with respect to the goods, their merchantability, fitness for any particular purpose or usage, or otherwise, nor is any person authorized to extend on behalf of Seller any form of warranty other than that above set forth.

The goods described herein are not sold or distributed by Seller for personal, family or household purposes, nor are they normally suited for use as such.

Terms And Conditions of Sale

Prices

Prices and other terms of sale where set forth in current price sheets are subject to change without notice. Stenographic or clerical errors are subject to corrections. Prices are subject to stabilization controls, if any, on or after May 1, 1974.

Acceptance of Orders And Special Orders

All orders are subject to acceptance by Seller at its home office, Stafford, Texas, only. No assignment of the Purchaser's rights may be made without the written consent of the Seller. Orders for special material are subject to cancellation only upon agreement to make payment for the work performed, material used and reasonable profit.

Terms, Payment And Partial Shipment

Net-10th prox. One percent (1%) per month interest charged on accounts after 30 days, or twelve percent (12%) annually. All accounts are payable in United States funds, free of exchange, collection, or any other charges. If, in the sole discretion of Seller, the financial condition of the Purchaser at any time so requires, Seller retains the right to require full or partial payment in advance or to require other adequate advances of financial responsibility. Seller reserves the right to make partial shipments from time to time and render invoices therefor, which shall be due and payable as provided in said invoices.

Taxes

Unless otherwise specifically noted, the amount of any sales, use, occupancy, excise tax, or other tax, of any nature, federal, state, or local, for which Seller is legally liable, either initially or through failure of payment by Purchaser, shall be added or be in addition to the price quoted and Purchaser agrees to pay the same to Seller.

Unavoidable Conditions

Seller shall not be liable for failure to deliver or delays in delivery occasioned by causes beyond its control, including, without limitation, strikes, lockouts, fires, embargoes, war or other outbreaks of hostilities, acts of God, inability to obtain shipping space, machinery, breakdowns, delays of carriers or suppliers, and governmental acts or regulations.

Returns And Cancellations

No product may be returned without Seller's prior written consent. All goods returned are subject to a handling charge plus freight in both directions and charges for any required reconditioning, unless otherwise specified in writing by Seller. Overages, shortages and incorrect material claims must be made in writing within ten (10) days of receipt of goods. Cancellation of orders once placed with and accepted by Seller may be made only with its written consent.

No Waiver

Seller's failure to insist upon any of the terms, covenants, or conditions listed herein or to exercise any right hereunder shall not be construed as a waiver or relinquishment of the future performances of any such term, covenant or condition, or the future exercise of such right or a waiver or relinquishment or waiver of any other term, covenant or condition or the exercise of any other rights hereunder.

Governing Law

This contract shall be governed by, construed and enforced in accordance with the laws of the State of Texas.

Totality of Agreement: Special Provisions, Modifications

This instrument constitutes the entire agreement of the parties with respect to all matters and things herein mentioned. Purchaser warrants, represents and agrees that it has inspected the goods and has otherwise made inquiry and review on its own behalf, concerning the nature, characteristics and quality of the materials and workmanship incorporated therein at or prior to delivery, that it is fully contented and satisfied therewith and has independently determined that the goods are in all respects fit and usable for all purposes for which they are intended to be employed by Purchaser. It is expressly acknowledged and agreed by and between the parties that neither party has, nor is now, relying upon any collateral, prior or contemporaneous agreement, written or oral, assurance or assurances, representation or warranty, of any kind or nature as to or respecting the condition or capabilities of the goods and the other matters and things, rights and responsibilities herein fixed and described. No modification, waiver or discharge of any term or provision of this instrument shall be implied by law, nor shall any alteration, modification or acquittance of any such term or provision be effective for any purpose unless in writing signed by or upon behalf of the party charged therewith.



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