

Stainless Steel Globe Valve for Cryogenic Service

Goddard 210 Series

Features

- **Top Entry:** This valve can be permanently installed in the line and serviced from the top
- **Soft Seated:** PCTFE Seat provides a bubble tight seal and is replaceable
- **Construction:** Body and Bonnet ASTM A351 J92600 Stainless steel
- **Sizes:** ½" - 4" (15mm - 100mm)
- **Ends:** RF Flange, Butt weld, Socket weld, Threaded (FNPT)
- **Service:** Liquified and vaporized atmospheric gases, LNG
- **100% Factory Tested**
- **Clean for use in oxygen** per CGA G-4.1
- **Temperature Rating:** -325°F - 150°F (-196°C +65°C)
- **Pressure Rating:** (Cold, Non-shock)
Class 150 valve - 275 PSIG (19 bar)
Class 300 valve - 720 PSIG (50 bar)

½" - 4" Class 150

PED Approved, Approved for US and Canada

½" - 4" Class 300

PED Approved, Approved for US and Canada

Our investment cast stainless steel is specified by leading industrial gas companies for storage tank and yard operations. Special order bonnet extensions are available for cold box applications. Valves for hydrogen use can be supplied



Goddard 210 Series

Ordering Information

Stainless Body • RF Flange Ends

150# Part Number	300# Part Number	Valve Size		Ends	150# Weight		300# Weight		Estimated Cv
		Inches	MM		Lbs.	Kg.	Lbs.	Kg.	
GS-00210W-8F	GS-00210W-8F3	1"	25 mm	Flange	15	6.80	20	9.07	11.50
GS-00210W-16F	GS-00210W-16F3	2"	50 mm		35	15.88	40	18.14	40.00
GS-00210W-24F	GS-00210W-24F3	3"	80 mm		65	29.48	70	31.75	60.00
GS-00210W-32F	GS-00210W-32F3	4"	100 mm		90	40.82	95	43.09	175.00

150# ANSI Class (275 PSIG Cold Working Pressure)

300# ANSI Class (720 PSIG Cold Working Pressure)

Stainless Body • Butt Weld, Socket Weld, Threaded Ends

150# Part Number	300# Part Number	Valve Size		Ends	Weight		Estimated Cv
		Inches	MM		Lbs.	Kg	
GS-00210W-4S3	GS-00210W-4S3	½"	15 mm	Socket Weld	15	6.80	3.90
GS-00210W-4T3	GS-00210W-4T3	½"	15 mm	Threaded	15	6.80	3.90
GS-00210W-6S3	GS-00210W-6S3	¾"	20 mm	Socket Weld	15	6.80	7.10
GS-00210W-6T3	GS-00210W-6T3	¾"	20 mm	Threaded	15	6.80	7.10
GS-00210W-8S3	GS-00210W-8S3	1"	25 mm	Socket Weld	15	6.80	11.50
GS-00210W-8T3	GS-00210W-8T3	1"	25 mm	Threaded	15	6.80	11.50
GS-00210W-12S3	GS-00210W-12S3	1½"	40 mm	Socket Weld	25	11.34	29.00
GS-00210W-16W3A	GS-00210W-16W3A	2"	50 mm	Butt Weld SCH10	35	15.88	40.00
GS-00210W-16W3J	GS-00210W-16W3J	2"	50 mm	Butt Weld SCH40	35	15.88	40.00
GS-00210W-24W3A	GS-00210W-24W3A	3"	80 mm	Butt Weld SCH10	55	24.95	60.00
GS-00210W-24W3J	GS-00210W-24W3J	3"	80 mm	Butt Weld SCH40	55	24.95	60.00
GS-00210W-32W3A	GS-00210W-32W3A	4"	100 mm	Butt Weld SCH10	80	36.29	175.00
GS-00210W-32W3J	GS-00210W-32W3J	4"	100 mm	Butt Weld SCH40	80	36.29	175.00

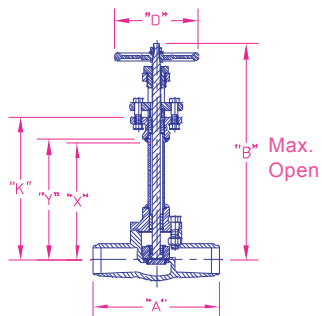
150# ANSI Class (275 PSIG Cold Working Pressure)

300# ANSI Class (720 PSIG Cold Working Pressure)

* Second number indicates valve for 300# part number.

Stainless Steel Globe Valve for Cryogenic Service

Goddard 210 Series



Butt Weld Ends

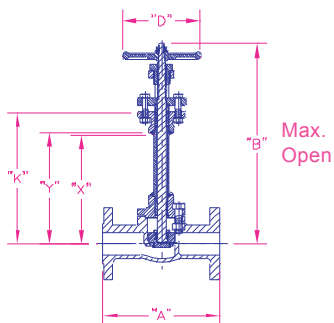
Size	"A"	"B"	"D"	"K"	"X"	"Y"
2"	10½"	22¼"	7"	15"	12¾"	13⅛"
3"	12"	30½"	10"	21½"	19⅛"	19⅝"
4"	13½"	36¾"	12"	24¼"	21⅛"	22"

Δ For SCH. 40 A=12½"

Θ For SCH. 40 A=14"

* Unless otherwise specified, SCH 10 weld ends are supplied

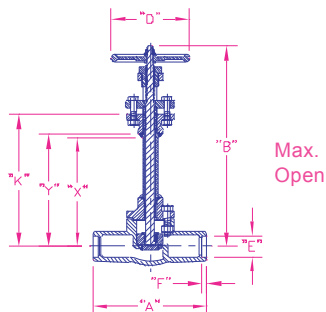
• Special B,K,X & Y dimensions available.



Raised Face Flange Ends*

Size	"A" 150#	"A" 300#	"B"	"D"	"K"	"X"	"Y"
1"	6½"	8"	18⅞"	5"	12¾"	11⅛"	11⅜"
2"	8"	10½"	22¼"	7"	15"	12¾"	13⅛"
3"	9½"	12½"	30½"	10"	21½"	19⅛"	19⅝"
4"	11½"	14"	36¾"	12"	24¼"	21⅛"	22"

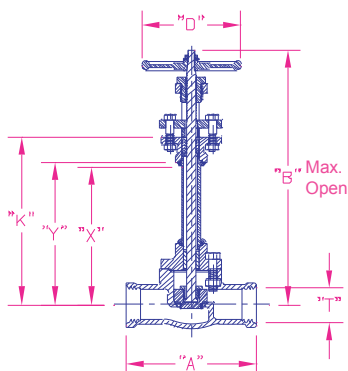
• Special B,K,X & Y dimensions available.



Socket Weld Ends

Size	"A"	"B"	"D"	"E"	"F"	"K"	"X"	"Y"
½"	5"	18⅞"	5"	.855	⅜"	12¾"	11⅛"	11⅜"
¾"	5"	18⅞"	5"	1.065	½"	12¾"	11⅛"	11⅜"
1"	5"	18⅞"	5"	1.330	½"	12¾"	11⅛"	11⅜"
1½"	10¼"	22¼"	7"	1.915	½"	15"	12¾"	13⅛"

• Special B,K,X & Y dimensions available.



Threaded Ends

Size	"T" - NPT	"A"	"B"	"D"	"K"	"X"	"Y"
½"	½"-14	5"	18⅞"	5"	12¾"	11⅛"	11⅜"
¾"	¾"-14	5"	18⅞"	5"	12¾"	11⅛"	11⅜"
1"	1"-11½"	5¾"	18⅞"	5"	12¾"	11⅛"	11⅜"

• Special B,K,X & Y dimensions available.

Stainless Steel Globe Valve for Hydrogen Cryogenic Service Goddard 231 Series

Features

- **Top Entry:** Rugged stainless steel ASTM A351-CF3M (316L) soft seated cryogenic globe valve. This valve can be permanently installed in the line and serviced from the top
- **Soft Seated:** PCTFE Seat provides a bubble tight seal and is replaceable
- **Construction:** One piece investment cast bonnet eliminates welded joint in topworks
- **Stem Packing:** Proprietary Goddard system utilizing GRAFOIL® flexible graphite
- **Sizes:** 1/4" through 1 1/2" (6mm through 40mm)
- **Ends:** Socket weld, Butt weld
- **Service:** Liquified and Gaseous hydrogen service only (see series 232 for non-hydrogen service)
- **Temperature Rating:** -425°F to 150°F (-254°C to +65°C)
- **Pressure Rating:** (Cold, Non-shock)
300 PSIG (20 Bar)
400 PSIG (27 Bar)

PED Approved, Approved for US and Canada
Designed to ASME B16.34

A rugged construction and easy access are design features which provide minimum installation and maintenance cost while maintaining superior performance and operator safety. This valve replaces higher cost bellows-seated valves in many applications. The proprietary Goddard GRAFOIL® stem packing system provides excellent performance when the valve operates in liquid hydrogen service.



Goddard 231 Series

Ordering Information

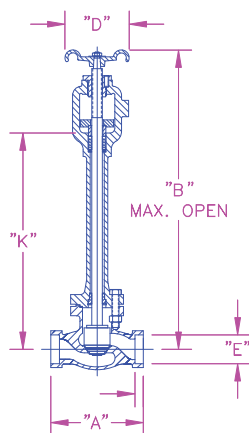
Stainless Body • 400 PSIG Socket Weld Ends

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
S-000231-2S4	1/4"	6 mm	Socket Weld	6 lbs.	2.72 Kgs.	1.30
S-000231-4S4	1/2"	15 mm	Socket Weld	6 lbs.	2.72 Kgs.	3.90
S-000231-6S4	3/4"	20 mm	Socket Weld	10 lbs.	4.54 Kgs.	7.10
S-000231-8S4	1"	25 mm	Socket Weld	10 lbs.	4.54 Kgs.	10.50
S-000231-12S4	1 1/2"	40 mm	Socket Weld	15 lbs.	6.80 Kgs.	25.00

Stainless Body • 300 PSIG Butt Weld Ends

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
S-000231-4WA	1/2"	15 mm	Butt Weld	6 lbs.	2.72 Kgs.	3.90
S-000231-8WA	1"	25 mm	Butt Weld	10 lbs.	4.54 Kgs.	10.50
S-000231-12WA	1 1/2"	40 mm	Butt Weld	15 lbs.	6.80 Kgs.	25.00

Stainless Steel Globe Valve for Cryogenic Service Goddard 231 Series



Pressure Rating 400 PSIG

Temperature Rating +150° F to - 425° F

This valve is not approved for gaseous and/or liquid oxygen service

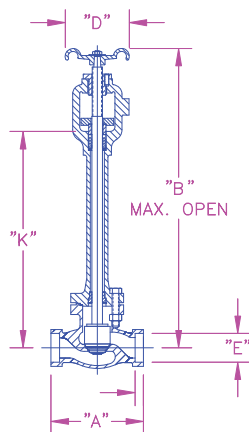
For oxygen service use Goddard series 232H cryogenic globe valve

Dimensional data

All Dimensional Data are in inches.

SOCKET WELD ENDS

Size	"A"	"B"	"D"	"E"	"F"	"K"
1/4"	4 1/4"	14 9/16"	2 3/8"	0.560	0.375	10 3/16"
1/2"	4 1/4"	14 9/16"	2 3/8"	0.860	0.375	10 3/16"
3/4"	5 3/8"	17"	3"	1.070	0.500	11 1/2"
1"	5 3/8"	17"	3"	1.335	0.500	11 1/2"
1 1/2"	6 1/2"	18 14/16"	4"	1.920	0.500	12 15/16"



Pressure Rating 300 PSIG

Temperature Rating +150° F to - 425° F

This valve is not approved for gaseous and/or liquid oxygen service

For oxygen service use Goddard series 232H cryogenic globe valve

Dimensional data

All Dimensional Data are in inches.

BUTT WELD ENDS

Size	"A"	"B"	"D"	"K"	"E"
1/2"	4 1/4"	14 9/16"	2 3/8"	10 3/16"	1/2"
1"	5"	17"	3"	11 1/2"	1"
1 1/2"	6 1/2"	18 5/8"	4"	12 5/16"	1 1/2"

Stainless Steel Globe Valve for Cryogenic Service Goddard 232 Series

Features

- **Top Entry:** Rugged stainless steel ASTM A351-CF3M (316L) soft seated cryogenic globe valve. This valve can be permanently installed in the line and serviced from the top
- **Soft Seated:** PCTFE Seat provides a bubble tight seal and is replaceable
- **Construction:** One piece investment cast bonnet eliminates welded joint in topworks.
- **Sizes:** ½" through 1½" (15mm through 40mm)
- **Ends:** Socket weld and Butt weld
- **Service:** Liquified and vaporized atmospheric gases, LNG
- **Temperature Rating:** -325°F to 150°F (-198°C to +65°C)
- **Pressure Rating:** (Cold, Non-shock)
300 PSIG (20 Bar)
400 PSIG (27 Bar)

PED Approved, Approved for US and Canada

A rugged construction and easy access are design features which provide minimum installation and maintenance cost while maintaining superior performance and operator safety.



Goddard 232 Series

Ordering Information

Stainless Body Socket Weld Ends 400 PSIG

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated C _v
S-000232-4S4	½"	15 mm	Socket Weld	6 lbs.	2.72 Kgs.	3.90
S-000232-8S4	1"	25 mm	Socket Weld	10 lbs.	4.54 Kgs.	10.50

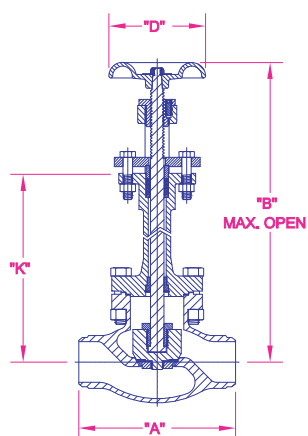
High Purity Cryogenic Bonnet Nickel Plated Naval Brass Yoke Bushing Stainless Steel Body Butt Weld Ends 300 PSIG

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated C _v
S-232HCB-4WA	½"	15 mm	Butt Weld	6 Lbs.	2.72 Kgs.	3.90
S-232HCB-8WA	1"	25 mm	Butt Weld	10 Lbs.	4.54 Kgs.	10.50
S-232HCB-12WA	1½"	40 mm	Butt Weld	15 Lbs.	6.80 Kgs.	25.00

High Purity Cryogenic Bonnet Nickel Plated Naval Brass Yoke Bushing, Stainless Steel Body Socket Weld Ends 400 PSIG

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated C _v
S-232HCB-4S4	½"	15 mm	Socket Weld	6 lbs.	2.72 Kgs.	3.90
S-232HCB-8S4	1"	25 mm	Socket Weld	10 Lbs.	4.54 Kgs.	10.50
S-232HCB-12S4	1½"	40 mm	Socket Weld	15 Lbs.	6.80 Kgs.	25.00

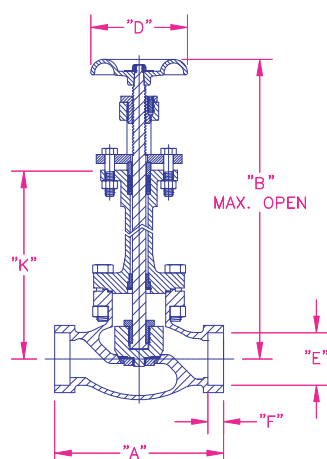
Stainless Steel Globe Valve for Cryogenic Service Goddard 232 Series



Pressure rating 300 PSIG non-shock cold
Temperature rating +150° F to -325° F
Dimensional Data
All dimensions are in inches

BUTT WELD ENDS

Size	"A"	"B"	"D"	"K"
1/2"	4 1/4"	14 9/16"	2 3/8"	10 3/16"
1"	5"	17"	3"	11 1/2"
1 1/2"	6"	18 7/8"	4"	12 5/16"



Pressure rating 400 PSIG non-shock cold
Temperature rating +150° F to -325° F
Dimensional Data
All dimensions are in inches

SOCKET WELD ENDS

Size	"A"	"B"	"D"	"E"	"F"	"K"
1/2"	4 1/4"	14 9/16"	2 3/8"	0.860	0.375	10 3/16"
1"	5 3/8"	17"	3"	1.335	0.500	11 1/2"
1 1/2"	6 1/2"	18 7/8"	4"	1.920	0.500	12 5/16"