



Goddard 231 Series Stainless Steel Globe Valve for Cryogenic Service



FEATURES:

- **Top Entry:** Rugged stainless steel * 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 virtually bubble tight seal. Stem/Globe assembly is replaceable
- **Construction:** One piece investment cast bonnet eliminates welded joint in topworks
- **Stem Packing:** Proprietary Goddard system utilizing GRAFOIL®** flexible graphite
- **Sizes:** ¼" through 1½" (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)

*Stainless steel ASTM A351-CF3M (316L)
**GRAFOIL® is a UCAR Carbon Company development

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 Stainless Steel Globe Valve for Cryogenic Service

Stainless Body • 400 PSIG Socket Weld Ends

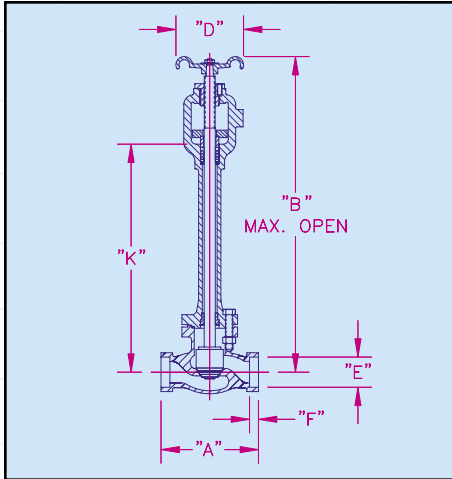
Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
S-000231-2S4	¼"	6 mm	Socket Weld	6 lbs.	2.72 Kgs.	1.30
S-000231-4S4	½"	15 mm	Socket Weld	6 lbs.	2.72 Kgs.	3.90
S-000231-6S4	¾"	20 mm	Socket Weld	10 lbs.	4.54 Kgs.	7.10
S-000231-8S4	1"	25 mm	Socket Weld	10 lbs.	4.54 Kgs.	10.50
S-000231-12S4	1½"	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	½"	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	1½"	40 mm	Butt Weld	15 lbs.	6.80 Kgs.	25.00



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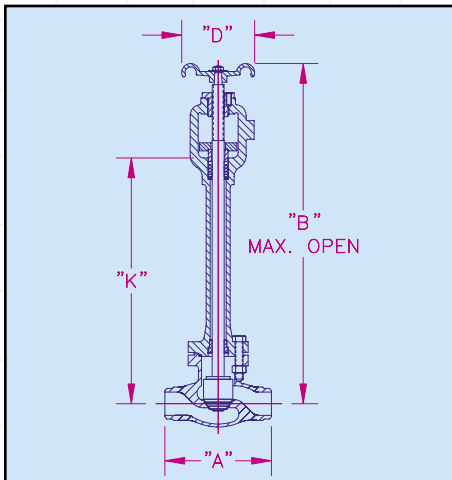


Pressure Rating 400 PSIG
 Temperature Rating +150° F to - 425° F
 This valve is not approved for gaseous and/or liquid oxygen service
 For oxygen service use Goddard series 232H cryogenic globe valve

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 5/16"



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"
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 1/2"	18 7/8"	4"	12 5/16"