

NITROGEN

LNG

REGO[®]

Cryogenic & Industrial Gas Equipment



NITROGEN

CO₂

Cryogenic Cylinder Equipment

Relief Valves

Globe Valves

Gate Valves

Check Valves

Regulators

Master High Pressure Valves

Adapters, Nipples, Pipe & Miscellaneous

Repair Kits

Hydrogen

OXYGEN

CO₂

Argon

Foreword

This catalog briefly describes the Rego® Industrial Gas and Cryogenic Equipment available from the Cryo-Flow division of RegO. As a result of condensing information in this catalog, some highly technical and special application material has been omitted. Proper application, installation and maintenance of the product is essential. Buyers should obtain further information if there are any doubts or questions. All information contained in this catalog is subject to change by RegO without notice. Additional product information is available from RegO or authorized product distributors. Illustrations and drawings of individual products are representative of “product groups” and all products within a product group are similar in construction.

Warning

Never use any product on oxygen service if another gas has been previously used on the product. All RegO® Products are mechanical devices that will eventually become inoperative due to wear, corrosion and aging of components made of materials such as rubber. The environment and conditions of use will determine the safe service life of these products. Periodic inspection and maintenance are essential to avoid serious injury and property damage.

Many RegO® products are manufactured for storage, transport, transfer and use of toxic flammable and dangerous liquids and gases. Such substances should be handled by experienced and trained personnel only, using accepted governmental and industrial safety procedures.

Materials

Rego Cryo-Flow Products Division may make suggestions for a material to use with a specific media. These suggestions will be based on technical compatibility resources through associations and manufacturers. Rego does not guarantee the material to be compatible with the specific media – this is the responsibility of the user. Users must test under their own operating conditions to determine the suitability of any material in a particular application.

Oxygen Service

Rego Cryo-Flow Products Division provides specified product cleaned in accordance with the intermediate level of ASTM G93 and CGA G-4.1 which assures removal of visible particles and combustible residues. System designers must verify the compatibility of the materials used in this product before installation and operation. Specifications of materials for oxygen service is the USER'S RESPONSIBILITY. If there is any doubt consult an expert.

Notice

Installation, usage and maintenance of all RegO® Products must be in compliance with all RegO® instructions as well as requirements and provisions of NFPA 51, CGA, ASME, DOT, ANSI and all applicable federal, state, provincial and local standards, codes, regulations and laws.

Inspection and maintenance on a periodic basis is essential and should be performed only by qualified personnel.

Be sure all instructions are read and understood before installation, operation and service.

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Short Stem Cryogenic Valves T9450 Series & T9460 Series

Application

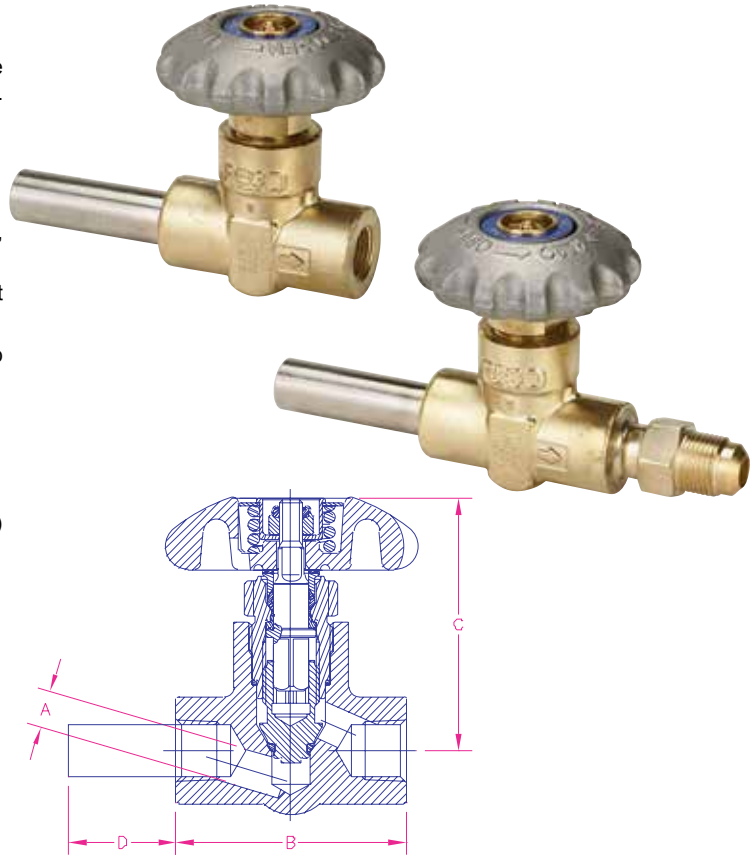
The T9450 and T9460 series valves are designed for use on portable cryogenic cylinders and other in-line shut-off valve applications. Approved for TPED in accordance with EN1626.

Features

- Spring loaded stem seal automatically adjusts for any gasket wear, eliminating the need to constantly retighten the packing nut.
- Non-rising stem and low profile allow the valve to fit into tight areas and still provide easy access.
- Unique pressure-sealed moisture barrier helps prevent freeze up at cryogenic temperatures.
- Conical swivel seal design helps prevent seat galling from over torquing.
- Cleaned for liquid oxygen service per CGA G-4.1.
- Maximum working pressure is 609 PSIG. (42 Bar)
- Working temperature range is -320°F to +165°F. (-196°C to +74°C)
- 100% Factory Tested

Materials

Body	Brass
Bonnet	Brass
Seat Disc	CTFE
Stem Seal Gasket.....	PTFE
Handwheel.....	Aluminum
Spring	Stainless Steel
Upper Stem	Brass
Lower Stem	Brass



Ordering Information

Part Number	Inlet	Outlet	Orifice A	Length B	Height (Approx.) C	Tube D	C _v Factor
T9452	¼" F.NPT	¼" F.NPT	.250	2½"	2¾"	None	.99
T9453	⅜" F.NPT	⅜" F.NPT	.406				1.76
T9454	½" F.NPT	½" F.NPT	.406				1.79
T9464CA	.675" O.D. Tube	⅜" F.NPT	.406	2½"	2¾"	1⅛"	1.76
T9464DA						2½"	
T9464ADA						3⅞"	

Extended Stem Retrofit Kits

Application

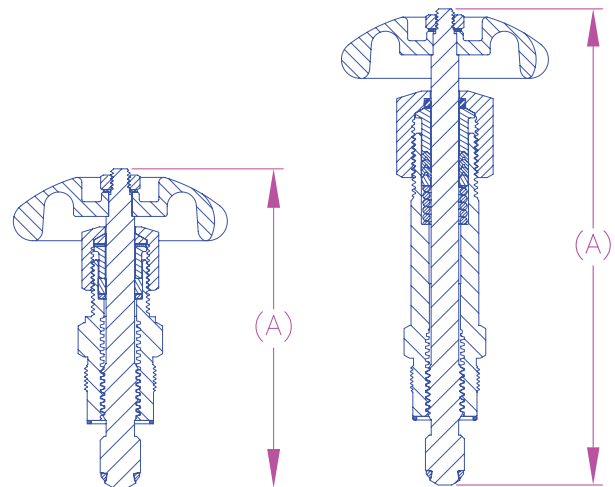
Retrofit kits are used to convert the 9450 and 9460 series short stem shut off valves into extended stem style. The conversion can be done without removing the valve from your system. Available in two stem lengths. All kits are oxygen cleaned and packaged per CGA G-4.1.

Materials

Body	Brass
Seat Disc	CTFE
Handwheel.....	Aluminum
Packing.....	PTFE
Stem	Stainless Steel
Stem Seal Gasket.....	PTFE

Ordering Information

Part Number	Stem Length A	Style
ES8450R	4"	Extended Stem, Std. Bonnet, Manual Packing
BK9450R	6.5"	Extended Bonnet and Stem, Spring Loaded Packing



ES8450 Series Extended Stem Valves BK9450 & BK9470 Series Extended Bonnet Valves

Application

For use as a trycock valve or hose drain valve on cryogenic tanks, or as a use, liquid fill, or vent valve on mini-bulk cryogenic tanks. These valves can be used also for other cold gas applications requiring extended stem valves as LNG fueling.

Features

- Union bonnet.
- One piece stainless steel stem
- Conical seat design.
- Maximum working pressure is 609 psig (42 Bar).
- Working temperature is -320°F to +165°F. (-196°C to 74°C)
- Cleaned for oxygen service per CGA G-4.1.
- 100% Factory Tested

TES8450 Series specific feature:

- Grafoil® packing
- Approved by PED and TPED

ES8450 Series specific feature:

- Manual torque compression packing.

BK9450 and BK9470 Series specific feature:

- Extended bonnet and spring loaded packing.

BK9470 Series specific feature:

- 304 St. Stl Tube brazed into both ends.

Materials

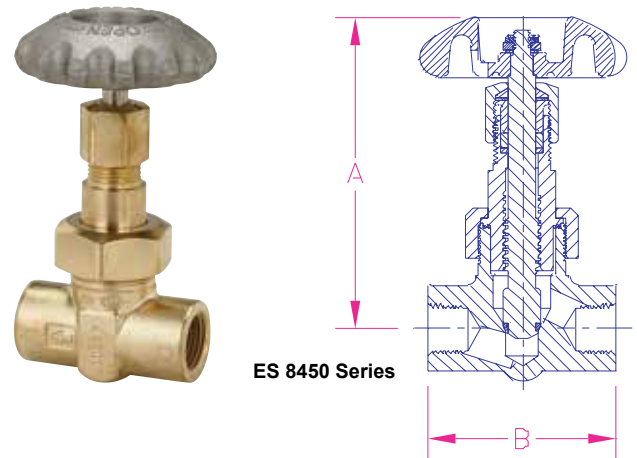
Body and Bonnet..... Brass
 Stem Stainless Steel
 Seat Disc CTFE
 Handwheel..... Aluminum
 Packing and Bonnet Gasket..... PTFE

Conversion Kit

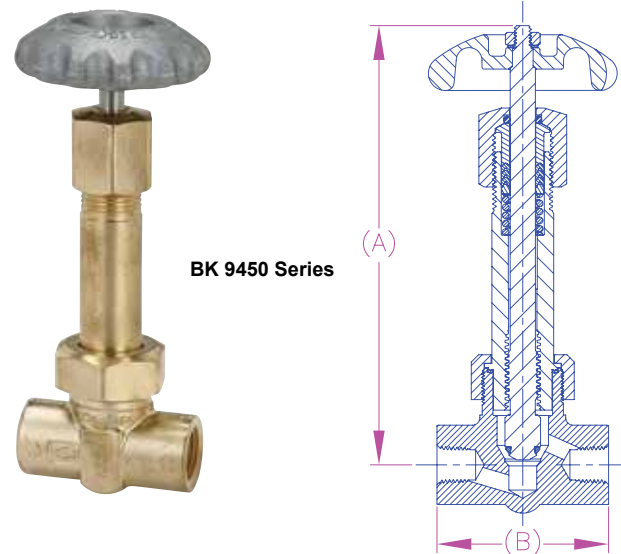
BK 9450-KIT is a bonnet and stem assembly kit to convert ES 8450 series and previous ES 9450 Series to the BK 9450 style.

Ordering Information

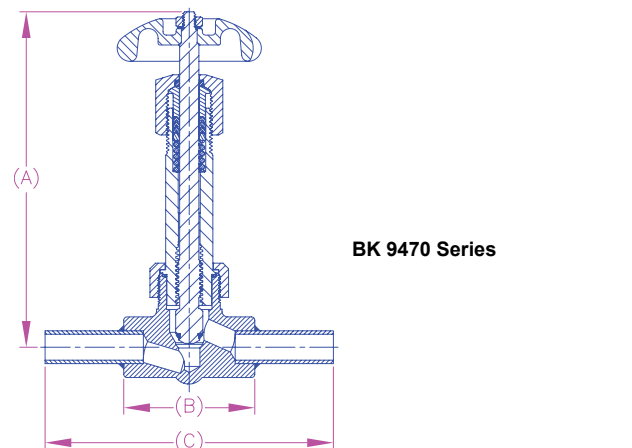
Part Number	Inlet/Outlet Connections	Height "A"	Body Width "B"	Width with Tube "C"	C _v
ES8452	1/4" FNPT	4.2"	2.5"		0.70
ES8453	3/8" FNPT	4.2"			1.10
ES8454	1/2" FNPT	4.2"			1.10
BK9452	1/4" FNPT	6.5"			0.70
BK9453	3/8" FNPT	6.5"			1.10
BK9454	1/2" FNPT	6.5"			1.10
BK9453FA	5/8" OD tubing x 3/8" FNPT	6.5"			4.0"
BK9475A	5/8" OD tubing both ends	6.5"	5.5"	1.10	



ES 8450 Series



BK 9450 Series



BK 9470 Series

REGO-LOK™ for Securing CGA Fittings on Liquid Cylinders

Application

The REGO-LOK™ is designed for installation on the Rego T9450 and T9460 Series liquid cylinder valves to deter and prevent the removal of the CGA fitting from the valve. The REGO-LOK™ retains standard CGA outlet connection so unauthorized persons do not remove the fitting. By use of a special one-way bolt, the REGO-LOK™ is secured to the valve. The REGO-LOK™ installs in a few minutes with the use of screwdrivers, without valve disassembly, brazing, welding, or drilling. The REGO-LOK™ deters and prevents fitting removal by gas customers, however allows the replacement of fittings by authorized gas supplier plant personnel.

Use The REGO-LOK™ for compliance with CGA SB-26 for medical and industrial liquid cylinders.

Features

- Stainless Steel REGO-LOK™ with one-way bolt.
- Retrofit all common liquid cylinder valves.
- Can be supplied on new Rego liquid cylinder valves.
- REGO-LOK™ indicates "WARNING: DO NOT REMOVE"
- Worn CGA fittings can be simply replaced by authorized personnel. Requires new 9464RL-6 Bolt
- Can fit over existing fittings for CGA 540, CGA 440, CGA 295, CGA 320, and CGA 326. Check fitting hex size.

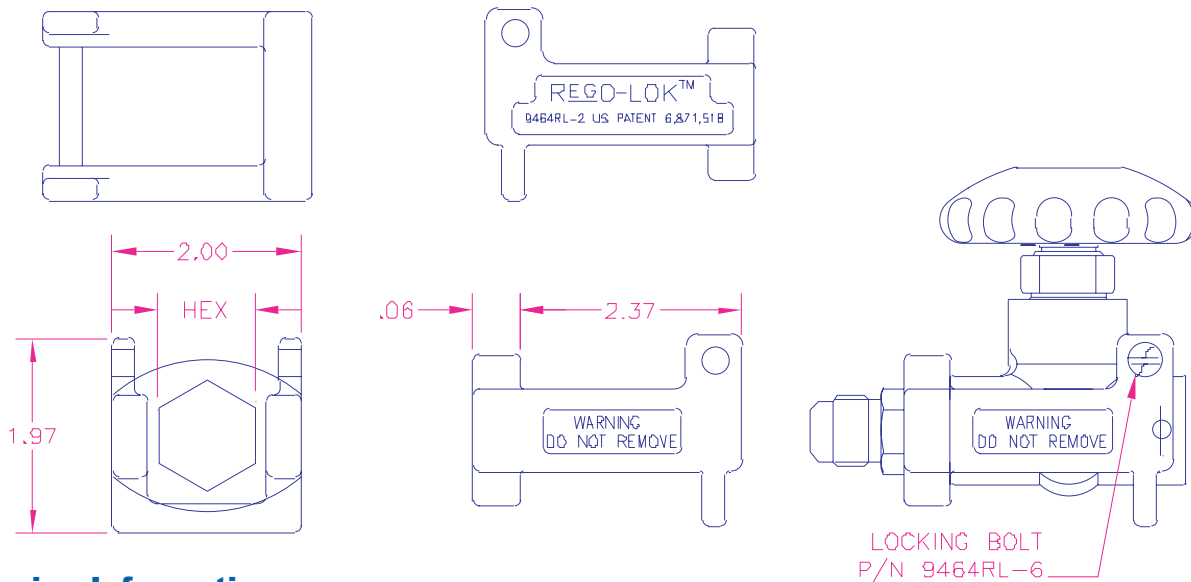
NOTE: Rego supplied fitting P/N CGA580RL is required for REGO-LOK™ use with CGA 580 connection.

- Prevents loosening of CGA fittings on valves.

Rego-Lok™



Satisfies CGA SB-26 and FDA requirements for medical and industrial liquid cylinders.



Ordering Information

Part Number	Item Description	Typical Service Connection
9464RL-0	REGO-LOK™ for 3/4" hex fittings	CGA 295
9464RL-1	REGO-LOK™ for 7/8" fittings	CGA 440, CGA 320 & CGA 326
9464RL-2	REGO-LOK™ for 1" fittings	CGA 540
9464RL-3	REGO-LOK™ for 1 1/8" hex CGA 580RL fitting by Rego	CGA 580
CGA580RL	3/8" MNPTxCGA for use with 9464RL-3	CGA 580

REGO-LOK™ is a registered trademark of Rego Patent applied for.

Cryogenic Pressure Builder RG Series

Application

RG series cryogenic regulators are primarily designed to maintain pressure on cryogenic liquid within cryogenic containers. They may also be used in cryogenic lines, vaporizer and converter applications. They are especially useful in installations where space and cost limitations are important.

Features

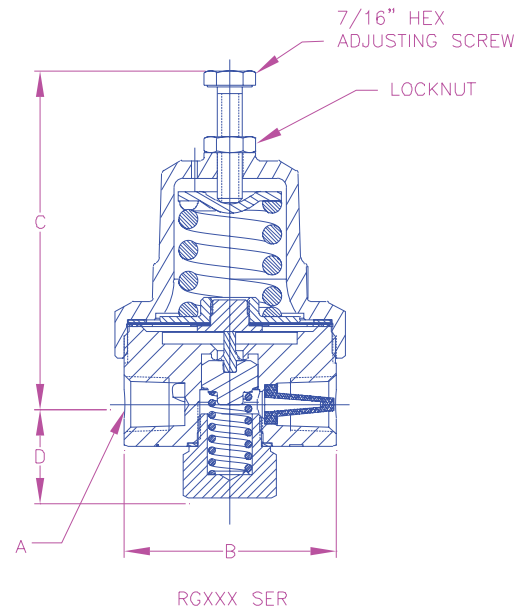
- All parts are copper alloy (brass), PTFE and stainless steel—materials selected specifically for compatibility with cryogenic temperatures down to -320°F. (-196° C)
- PTFE seat helps assure a positive shut-off at cryogenic temperatures down to -320°F. (-196° C)
- High and low pressure regulators are the same compact size—designed to fit in close quarters.
- Interchangeable with existing cryogenic regulator units.
- Inlet filter helps prevent foreign material from entering the regulator.
- Locknut is provided to maintain adjusting screw setting.
- RGXXXC Series available with flat inlet screen.
- RGXXXAG is available with T handle adjustment screw and gauge ports.
- Maximum inlet pressure of 550 PSIG. (37.9 Bar)
- Cleaned for liquid oxygen service per CGA G-4.1
- 100% Factory Tested

Materials

Body	Brass
Bonnet	Brass
Seat	PTFE
Springs	Stainless Steel
Diaphragm Gasket.....	PTFE
Backcap Gasket	Copper
Diaphragm	Bronze



RGXXXAG with gauge port & T handle



Ordering Information

Part Number	Inlet / Outlet Connections (F.NPT) A	Width B	C	D	Pressure Setting (PSIG)	Operating Range (PSIG)
RG022A	1/4"	2 1/16"	3"	1"	22	0-30
RG125A					125	
RG125C3	3/8"	2 1/8"	3.33"	0.80"	175	25-250
RG175C3					300	
RG300A	1/4"	2 1/16"	3"	1"	90	125-350
RG000090AG					25-250	

*Contact factory for additional settings.

Cryogenic Economizers ECL Series

Application

ECL series cryogenic economizers are primarily designed to utilize the gas pressure in a liquid cryogenic cylinder that would otherwise be lost to the atmosphere through the pressure relief valve. They may also be used in cryogenic lines, vaporizer and converter applications and excellent for LNG fuel cylinders. They are especially useful in installations where space and cost limitations are important.

Features

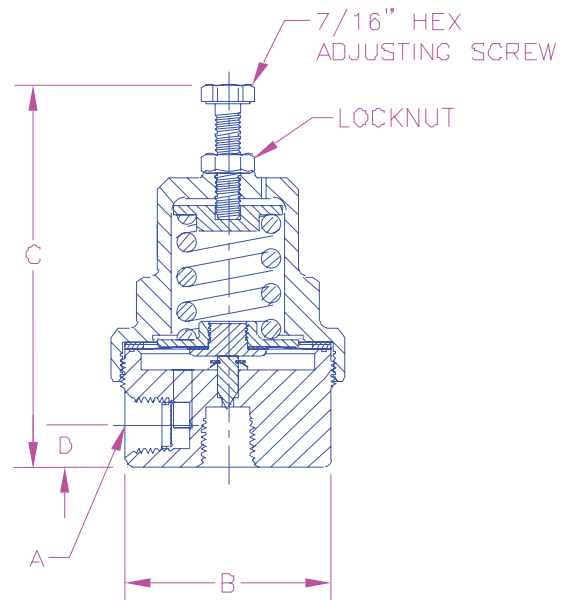
- All parts are copper alloy (brass), PTFE and stainless steel—materials selected specifically for compatibility with cryogenic temperatures down to -320°F. (196°C)
- The ECL Series utilizes a stainless steel needle seat design that provides a very sensitive flow control at lower pressure settings.
- High and low pressure economizers are the same compact size—designed to fit in close quarters. The compact high pressure design has no loss of capacity.
- Interchangeable with existing cryogenic economizer units.
- Inlet screen helps prevent foreign materials from entering the ECL.
- Locknut is provided to maintain adjusting screw settings.
- Maximum inlet pressure of 550 PSIG. (37.9 Bar)
- Cleaned for liquid oxygen service per CGA G-4.1
- 100% Factory Tested
- ECR Series reverse ported for LNG applications

Materials

Body	Brass
Bonnet	Brass
Seat	Stainless Steel
Springs	Stainless Steel
Gasket	PTFE



ECL Series



Ordering Information

Part Number	Inlet / Outlet Connections (F.NPT) A	Width B	C	D	Pressure Setting (PSIG)	Operating Range (PSIG)
ECL22	1/4"	2 1/16"	3"	3/8"	22	1-150
ECR22					70	
ECL70					140	10-150
ECL140					325	150-350
ECR140					19	1-150
ECL325					200	150-350
ECL19					340	150-350
ECL200						
ECL325						

*Contact factory for additional settings.

Cryogenic Regulator 1/2" inlet/outlet for Bulk Vessels CB504

Application

CB504 series regulators maintain the pressure of cryogenic liquid within bulk vessels combining the pressure building (RG) and economizer (ECL) function in one compact unit.

Features

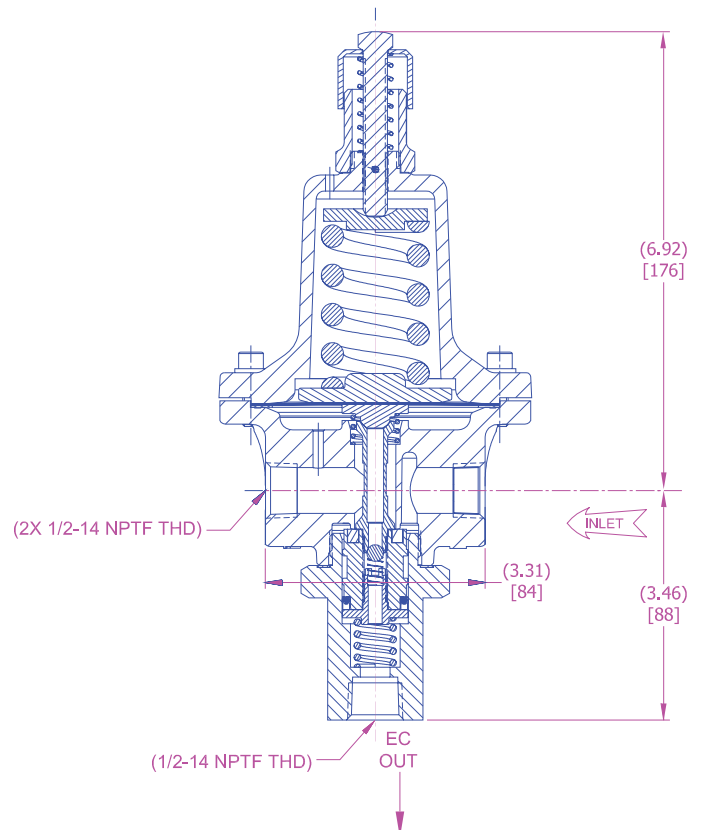
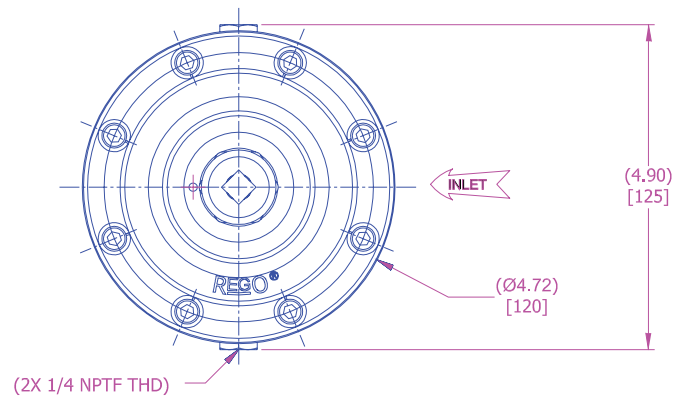
- All parts are copper alloy (brass), PTFE, and stainless steel—materials selected specifically for compatibility with cryogenic temperatures down to -340°F.
- Tamper resistant bonnet cap prevents inadvertent pressure adjustment.
- Maximum inlet pressure of 550 PSIG (37.92 BAR)
- PTFE seat provides positive shut off at cryogenic temperatures
- Compact design fits well in tight plumbing geometries
- 100% factory tested
- Cleaned per CGA G-4.1 for oxygen service
- Suitable for argon, nitrogen, oxygen and LNG



CB504

Materials

Body	Brass
Bonnet	Brass
Spring	Stainless Steel
Diaphragm Gasket.....	PTFE
Diaphragm.....	Phosphor Bronze
Seat.....	PTFE
Backcap Gasket	Copper



Ordering Information

Part Number	Inlet/Outlet Connections (F.NPT)	Operating Range (PSIG)
CB000504-B	1/2"	100-200

RegO Combination Pressure Builder/Economizer CBH & CBC Series

Application

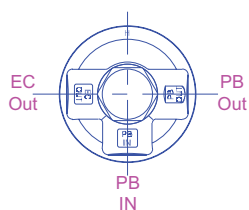
The regulator combines the function of RG and ECL Pressure Building and Economizer functions in one compact unit. Available in Chart and Taylor-Wharton piping geometries and a variety of pressure ratings.

Features

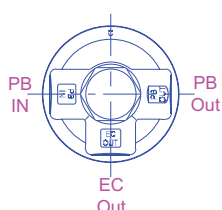
- All parts are copper alloy (brass), PTFE and stainless steel materials selected specifically for compatibility with cryogenic temperatures down to -320° F.
- PTFE seat helps assure a positive shut-off at cryogenic temperatures down to -320° F.
- High and low pressure builder/economizers are the same compact size designed to fit in close quarters.
- Interchangeable with existing cryogenic regulator units.
- Inlet screen helps prevent foreign material from entering the regulator.
- Locknut is provided to maintain adjusting screw setting.
- Maximum inlet pressure of 550 PSIG (37.9 Bar)
- Cleaned for liquid oxygen service per CGA G-4.1
- 100% Factory Tested

Materials

Body	Brass
Bonnet	Brass
Seat Disk	PTFE
Springs	Stainless Steel
Gaskets	PTFE & Copper
Diaphragm	Bronze



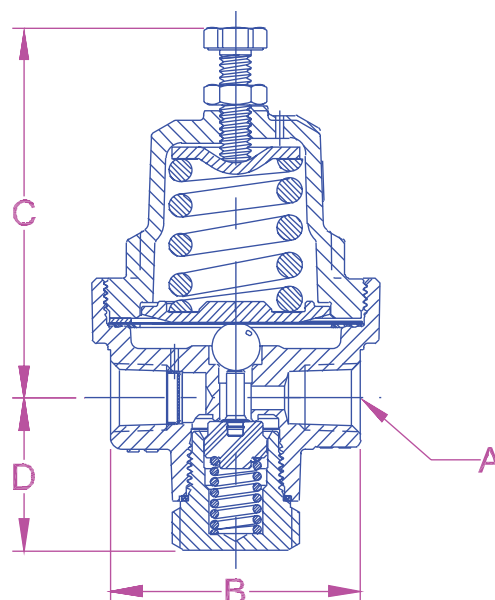
CBH Series



CBC Series



CBH502 Series



Ordering Information

Part Number	Inlet/Outlet Connections (F.NPT)	"A"	"B"	"C"	"D"	Factory Pressure Setting (PSIG)	Operating Range (PSIG)
CBH502-015	1/4"	1/4"	1.97"	2.89"	1.19"	15	10-60
CBH502-125						125	50-175
CBH502-300						300	150-325
CBH502-315						315	150-325
CBH502-325						325	150-325
CBH502-350						350	310-425
CBC502-125						125	50-175
CBC502-300						300	150-325
CBC502-325						325	150-325
CBC502-350						350	310-425

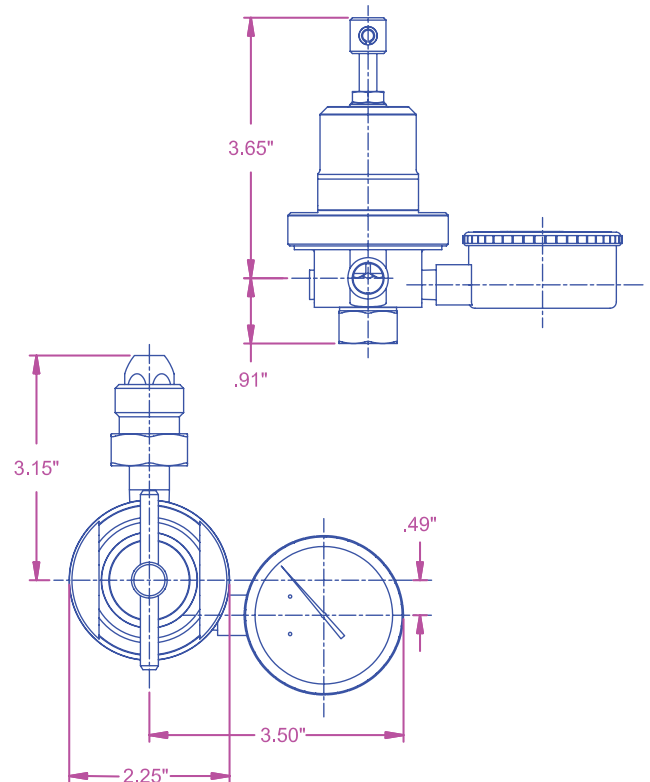
Cryogenic Liquid Cylinder Regulator LCR Series

Application

The REGO LCR Series pressure reducing regulator assembly controls the pressure from the gas use line or the discharge of any liquid cylinder with a flow capacity at least double the capacity of the cylinder vaporization coil. For use with oxygen, nitrogen, argon, or carbon dioxide liquid cylinders.

Features

- Easy adjusting screw to maintain pressure setting
- 100% Factory tested
- CGA fitting inlet connection for ready hook-up and 1/4" F. NPT outlet.
- Gauges with applicable pressure ranges.
- Two delivery pressure ranges available.
- Clean for use in Oxygen per CGA G-4.1
- Temperature range -320°F (-196°C) to + 165°F (74°C)
- Maximum inlet pressure 550 PSI (37.9 Bar)
- Inlet filter helps prevent foreign material from entering the regulator.



Materials

Body & Bonnet.....	Brass
Seat	PTFE
Spring & Nut	Stainless Steel
Diaphragm Gasket.....	PTFE
Diaphragm.....	Bronze
Backcap Gasket	Copper

Ordering Information

Part Number	Gas	Liquid Cylinder Connection	Delivery Pressure Range
LCR200A580	Nitrogen/Argon	CGA 580	25 to 200 PSI
LCR200A540	Oxygen	CGA 540	25 to 200 PSIG
LCR200A320	Carbon Dioxide	CGA 320	25 to 200 PSIG
LCR350A580	Nitrogen/Argon	CGA 580	100 to 350 PSIG
LCR350A540	Oxygen	CGA 540	100 to 350 PSIG
LCR350A320	Carbon Dioxide	CGA 320	100 to 350 PSIG

Relief Valves for Gas & Cryogenic Systems

9400 Series Brass or Stainless Steel, Non-ASME

Application

9400 series relief valves are specifically designed for vapor line safety relief applications and cryogenic liquid containers.

Features

- All valves are cleaned and packaged for oxygen service per CGA G-4.1.
- Bubble tight at 95% of set pressure.
- Easy to read color coded psig / bar labels.
- Tamper resistant
- Adapters provide standard pipe thread connections for venting gas to the outdoors.
- Repeatable performance.
- 100% factory tested.
- Temperatures Range -320° to +165° F. (-196°C to +74°C)
- Rated for gas service only, not liquid.

Materials SS Style

Body	Stainless Steel
Spring	Stainless Steel
Seat Retainer.....	Stainless Steel
Pipe-Away Adapter	Stainless Steel

Materials PRV and B-Style

Body	Brass
Spring	Stainless Steel
Seat Retainer.....	Brass
Pipe-Away Adapter	Brass

Flow Performance

- PRV and SS style flow at 0.783 SCFM Air/PSIA at 110% of set pressure.
- B-9425N flow of 6.7 SCFM Air/PSIA at 120% of set pressure.
- B-9426N flow of 11.0 SCFM Air/PSIA at 120% of set pressure

Seat Material Option

F for Fluorosilicone for PRV and SS styles for 15-139psi.

T for PTFE for PRV and SS styles for 140-600psi

N for B-9425 and B-9426, Fluorosilicone seat, all set pressures.

Drain Hole Option

Relief valves without pipeaway typically provided with drain holes, leave blank. P - for relief valves without drain hole, for example PRV9432TP350

WARNING: Inspection and maintenance of pressure relief valves is very important. Failure to properly inspect and maintain pressure relief valves could result in personal injuries or property damage. The useful safe service life of a pressure relief valve may be significantly affected by the service environment.

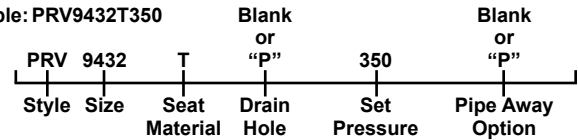
Ordering Information

Style	Size	Inlet M.NPT A	Body and Valve Material	Pressure Setting Range PSIG	Height B	Wrenching Hex C	Orifice Size Sq. Inch	Pipe-Away Adapter P/N	Pipe-Away Outlet F.N.P.T.
PRV	9432	¼"	Brass	17-600	2.6"	⅞"	.062	B-9412-2	⅜"
SS	9432	¼"	Stainless Steel	17-600	2.6"	⅞"	.062	SS-9412-4	½"
PRV	9433	⅜"	Brass	17-600	2.6"	⅞"	.062	B-9412-2	⅜"
SS	9433	⅜"	Stainless Steel	17-600	2.6"	⅞"	.062	SS-9412-4	½"
PRV	9434	½"	Brass	17-600	2.8"	⅞"	.062	B-9412-4	½"
SS	9434	½"	Stainless Steel	17-600	2.8"	⅞"	.062	SS-9412-4	½"
B-	9425	¾"	Brass	50-300	3.4"	1¾"	.43	B-3131-10	1"
B-	9426	1"	Brass	75-300	5.5"	2⅝"	.62	B-3132-10	1½"

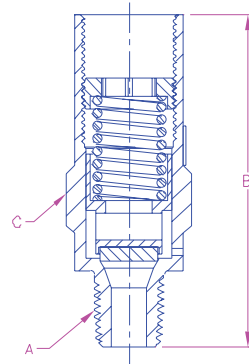
Ordering Information

Fill in the blanks with options below.

Example: PRV9432T350



This example part number indicates a ¼" M.NPT PRV style brass relief valve with PTFE seat, set at 350 PSIG with drain hole and no pipe away adapter.



Pipe Away Option

P Pipeaway included and attached, No drain hole in relief valve.

For example PRV9432TP350P

Leave blank for relief valve without pipe-away attached.

For example PRV9432TP350.

Set Pressure

Specify set pressure within range specified for style and size. The B-9425 & B-9426N are available in select settings only. Special order.

For easy identification, the following standard settings have color coded labels for all PRV and SS Style sizes and settings marked in PSIG and bar:

Color Identification

22 psig	230 psig
35 psig	350 psig
50 psig	450 psig
100 psig	500 psig
150 psig	

ASME Relief Valves for Gas & Cryogenic Systems

PRV 19430 Series Brass Relief Valves & PRV 29430 Series Stainless Steel Relief Valves

Application

The 19430 and 29430 relief valves are designed for oxygen and other industrial gases and for cryogenic service in the vapor space. Apply on piping systems, liquid cylinders or mini-bulk cryogenic containers where an ASME relief valve is required.

Features

- A.S.M.E. rated, National Board Certified.
- Bubble tight at 95% of pressure.
- Full flow at 110% at set pressure.
- Repeatable performance.
- 100% factory tested.
- Temperatures Range -320° F to 165° F. (-196°C TO +74°C)
- Cleaned and packaged for oxygen service per CGA G-4.1.
- Rated for vapor service only, not liquid.

Materials SS Style

Body	Stainless Steel
Spring	Stainless Steel
Seat Retainer.....	Stainless Steel
Pipe-Away Adapter	Stainless Steel

Materials PRV and B-Style

Body	Brass
Spring	Stainless Steel
Seat Retainer.....	Brass
Pipe-Away Adapter	Brass

Flow Performance

PRV19430 and PRV29430 Series: 0.783 SCFM of air per PSIA of flow pressure. Flow pressure per ASME is 10% above set pressure.

Ordering Information

Fill in the blanks with options below.

Example: PRV019432T350		Blank	Blank		
PRV	9432	T	or "P"	350	or "P"
Style	Size	Seat Material	Drain Hole	Set Pressure	Pipe Away Option

Seat Material

F for Fluorosilicone for 90 to 139 psig set.
T for PTFE for 140-600 psig

Drain Hole

Leave blank for relief with drain hole. Insert P if no drain hole.

Set Pressure

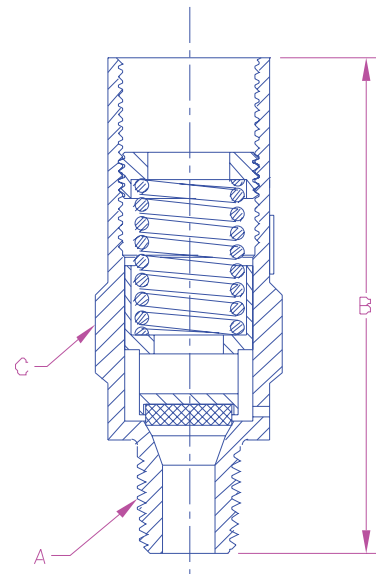
Enter number for set pressure in PSIG from 90 to 600.

Ordering Information

Part Number	Inlet A	Height B	Wrenching Hex C	Orifice Size
PRV 19432	1/4"	2.6	7/8"	.062 sq. inch
PRV29432				
PRV 19433	3/8"	2.6	7/8"	.062 sq. inch
PRV29433				
PRV 19434	1/2"	2.8	7/8"	.062 sq. inch
PRV29434				



1943 Series



WARNING: Inspection and maintenance of pressure relief valves is very important. Failure to properly inspect and maintain pressure relief valves could result in personal injuries or property damage. The useful safe service life of a pressure relief valve may be significantly affected by the service environment.

NRF Series Noise Reduction Relief Valve

Application

For use with cryogenic liquid cylinders to provide substantial reduction of discharge noise in sensitive environments. Our patent pending design allows for an efficient and environmentally friendly flow path.

Features

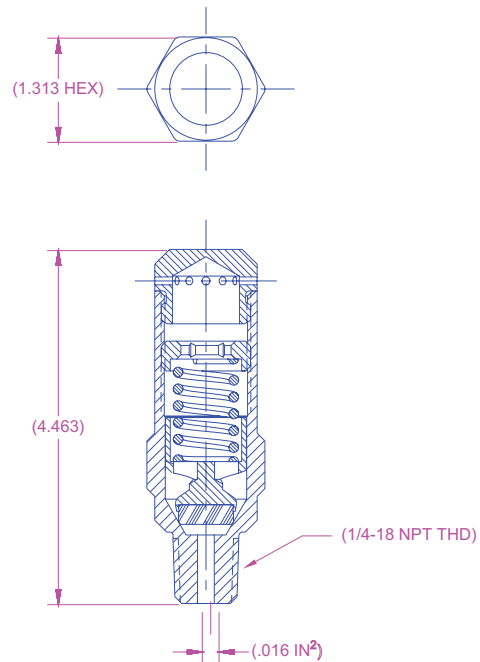
- Packages and cleaned for oxygen service per CGA G-4.1
- Bubble tight at 95% of set pressure
- Temperature range -320°F to +165°F (-196° to +74°)
- 100% factory tested



Materials

BodyBrass
 Spring Stainless Steel
 Seat Retainer.....Brass

NRF Series



Ordering Information

Part Number	Inlet	Set Pressure	
		PSI	Bar
NRF009432T230	1/4"	230	15.9
NRF009432T350		350	24.1
NRF009432T500		500	34.5

RegO® - Angle Pressure Relief Valve AR Series

Application

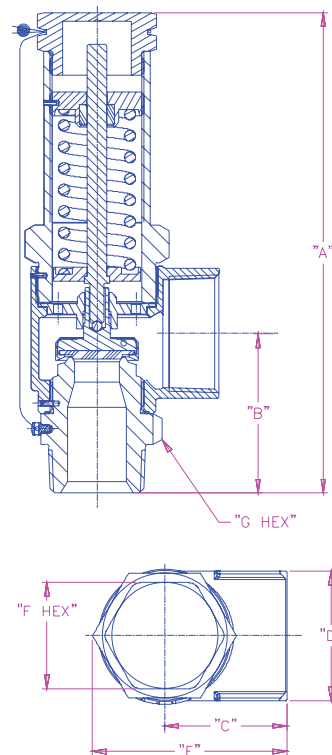
The ASME approved 90° relief valves AR Series, provide precise relief set points which protect cryogenic vessels and piping systems for over-pressurization.

Features

- High flow rates are approved by rigorous testing to ASME Code VIII.
- The ninety degree configuration provides relief of gases eliminating direct flow through the spring.
- Bubble tight seat provides 100% shut off when reseating or static mode.
- A variety of inlets and pressure settings assure adherence to application requirements.
- Temperature Range: -320°F (-196°C) to +165°F (+74°C)
- Cleaned for Liquid Oxygen Service per CGA G-4.1
- 100% Factory Tested.



AR Series



Materials

Body	Bronze ASTM B61
Upper Body.....	Stainless Steel ASTM A582
Seat & Stem	Brass ASTM B16
Poppet Guide.....	Brass ASTM B16
Spring Retainer.....	Brass ASTM B16
Adjusting Screw.....	Brass ASTM B16
Cap.....	Brass ASTM B16
Ball.....	Stainless Steel
Upper Gasket	PTFE ASTM D4894
Lower Gasket	Copper ASTM B152-17
Spring.....	Stainless Steel ASTM A313

Ordering Information

Part Number	Inlet Inches DN (mm)	Outlet Inches DN (mm)	Ends	A Inches (mm)	B Inches (mm)	C Inches (mm)	D Inches (mm)	E Inches (mm)	ASME Flow Capacity SCFM/Air @ 250 PSI *	Weight Lbs (Kg)
AR4104A	½" (15)	1" (25)	Thread NPT	6.03" (153.16)	1.97" (50.04)	1.63" (41.40)	1.63" (41.40)	2.49" (63.25)	406	2.75 (1.25)
AR4106A	¾" (20)			9.64" (244.86)	3.20" (81.28)	2.45" (62.23)	2.60" (66.04)	3.89" (98.81)	451	
AR4108A	1" (25)	1¼" (32)		6.88" (174.75)	2.37" (60.20)	2.00" (50.80)	1.90" (48.26)	3.01" (76.45)	1,003	3.75 (1.70)
AR4112A	1½" (38)	2" (50)		9.64" (244.86)	3.20" (81.28)	2.45" (62.23)	2.60" (66.04)	3.89" (98.81)	2,277	8.00 (3.63)

*Different PSI settings are available

RegO® - Relief Device Diverter (3-Way) Valve DR Series

Application

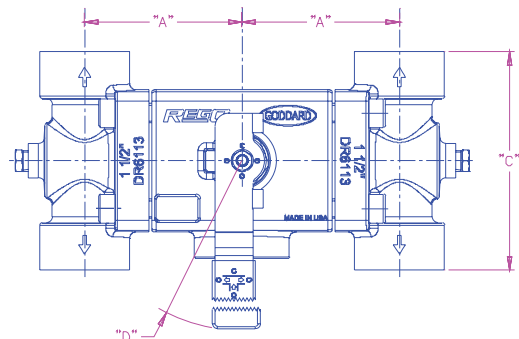
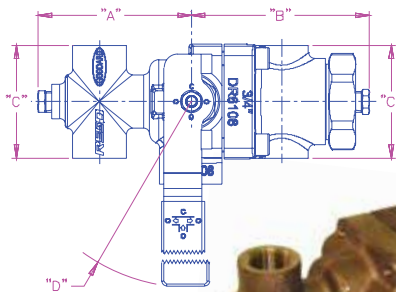
The DR Diverter Valve Series provides a simple solution for the isolation of pressure relief devices during routine change out of a relief valve and burst discs without evacuating the vessel. Excellent for protecting bulk liquid vessels, transport trailers, industrial pipelines, and LNG systems.

Features

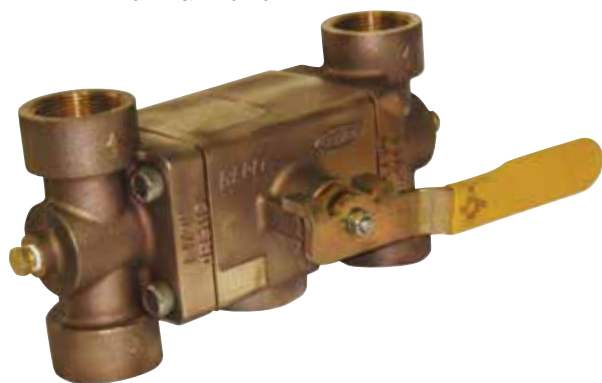
- High flow rates complement our AR series pressure relief valves.
- Valve side selection is accomplished with a heavy duty control arm clearly labeled for positive isolation.
- RegO® needle valves accessorize for easy bleed of gas before removing pressure relief devices.
- Fitted with threaded top Relief Valve ports and bottom Burst Disk connections.
- Pressure Rating: 600 PSI (41.37 Bar) CWP
- Temperature Rating: -320°F (-196°C) to +165°F (+74°C).
- 100% Factory tested
- Oxygen cleaned per CGA G-4.1

Materials

Body Bronze ASTM B61 UNS C92200
 Bushing, End Cap..... Brass B16 C36000
 Seat Rings..... PCTFE ASTM D1430
 Gasket PTFE
 Ball..... 316 Stainless Steel
 Lever..... Cadmium Plated Steel
 Packing..... PTFE
 Stem Stainless Steel ASTM A582 UNS S30300



DR6112 & DR6113



Ordering Information

Part Number	Inlet Inches DN (mm)	Outlet Inches DN (mm)	Connection Type	A Inches (mm)	B Inches (mm)	C Inches (mm)	D Inches (mm)	Height Inches (mm)	Weight Lbs (Kg)
DR6108	1"	¾"	Thread NPT	4" (101.7)	4.65" (118.3)	2.94" (74.90)	R 7.36" (187.1)	5.18" (63.25)	10# (4.50)
DR6112	1½"	1"		5.94" (150.9)	-	5.70 (145.0)	R 7.36" (187.1)	5.770" (146.6)	28# (12.70)
DR6113	1½"	1½"		5.94" (150.9)	-	5.70 (145.0)	R 7.36" (187.1)	5.770" (146.6)	30# (13.60)

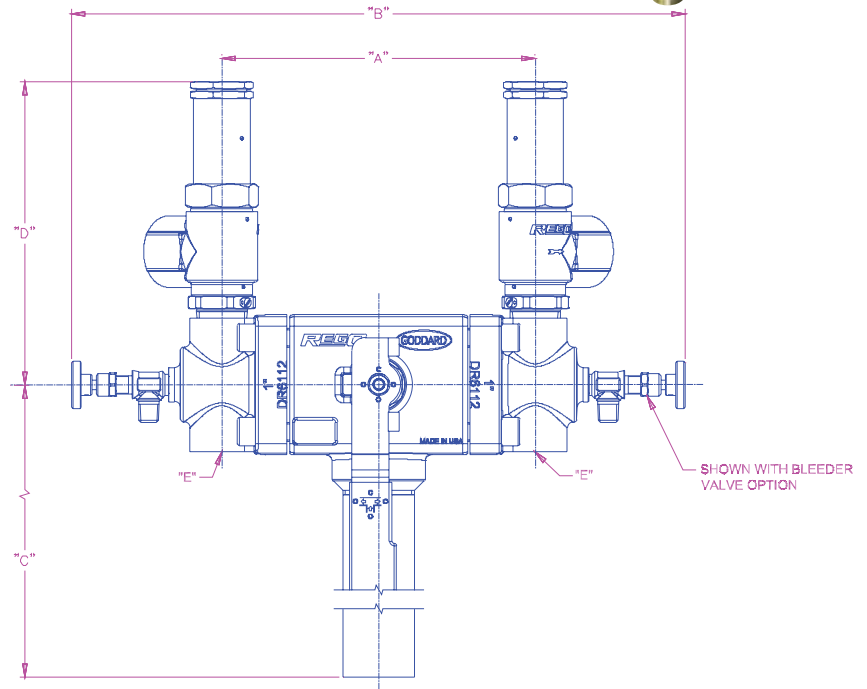
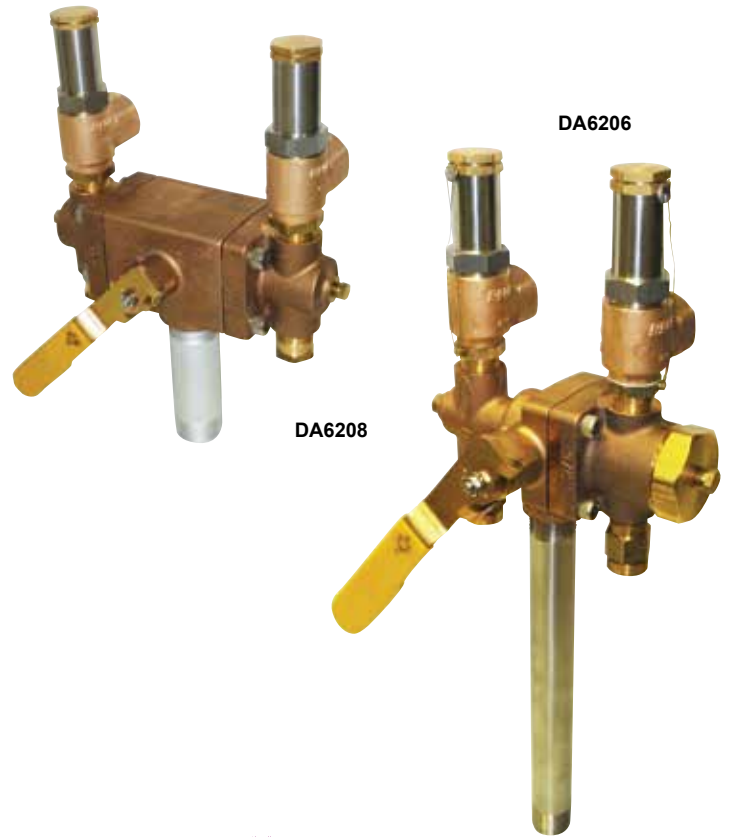
RegO® - Bulk Vessel Safety Assembly – Relief Valve, Diverter & Burst Disk - DA Series

Application

RegO® provides a complete unitized solution for pressure relief devices assembled in a factory setting ready for attachment to cryogenic bulk tanks. Ideal for OEM applications where pre-fabricated assemblies are favored to streamline construction. Excellent for protecting bulk liquid vessels, transport trailers, industrial pipelines and LNG systems.

Features

- High flow rates complement our AR series pressure relief valves and burst disks.
- Valve side selection is accomplished with a heavy duty control arm clearly labeled for positive isolation.
- RegO® needle valves accessorize for easy bleed of gas before removing pressure relief devices.
- Pressure Rating: 600 PSI (41.37 bar).
- Temperature Rating: -325°F (-198°C) to +165°F (+74°C).
- Oxygen cleaned per CGA 4.1
- Packaged ready for installation.



Ordering Information

Part Number	Inlet Inches DN (mm)	Connection Type	A Inches (mm)	B Inches (mm)	C Inches (mm)	D Inches (mm)	E Inches (mm)
DA6206	1"	Thread NPT	4.76" (120.9)	13.08" (332.2)	9.75" (247.7)	7.00" (177.8)	¾" NPT (19.0)
DA6208	1½"		8.33" (211.6)	16.30" (414)	15.75" (400.1)	8.06" (204.7)	1" NPT (25.0)

ASME Carbon Dioxide Relief Valves UA3149A Series

Application

The UA3149A series "pop-type" relief valves are especially designed for use as a secondary relief valve in carbon dioxide transports and stationary storage tanks. The relief valve is designed to protect the tank from excessive over pressure in the event of fire or other emergencies. A small throttling-type primary relief valve must also be provided to control boil-off and maintain tank pressure. Provisions must be made to prevent the accumulation and build-up of water and foreign material in the valve by use of protective cap included.

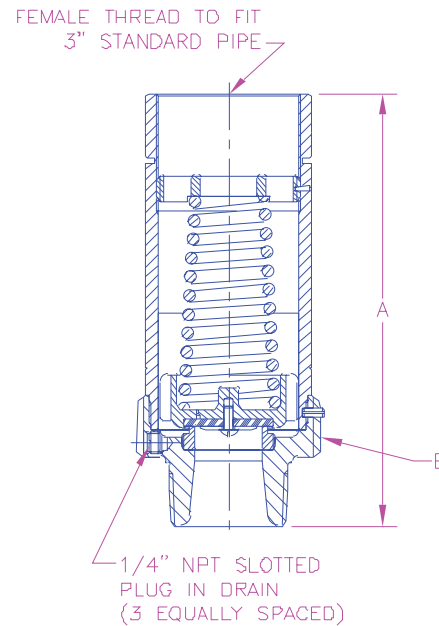
Features

- "Pop-type" design permits the relief valve to open slightly to relieve moderately excessive pressures.
- Relief valve "pops" open to full discharge capacity when pressure exceeds a predetermined point.
- 100% Factory Tested



Materials

Body	Steel and Ductile Iron
Liner.....	Stainless Steel
Seat Insert.....	Stainless Steel
Spring Guide.....	Brass
Adjusting Screw.....	Ductile Iron
Seat Disc.....	Urethane Compound
Spring.....	Corrosion Resistant Steel



Ordering Information

Part Number	Pressure Setting (PSI)**	Flow Capacity (SCFM/Air)	Inlet Connection (M.NPT)	Height A	Wrenching Hex B
UA3149A303	303	9,805*	2½"	10½"	4 ¼"
UA3149A330	330	10,188*			
UA3149A358	358	11,358*			

*Capacity certified by National Board of Boiler and Pressure Vessel Inspectors at 10% above set pressure.

**Other Settings not ASME/NB Certified

Multiport® Pressure Relief Valve Manifold Assemblies For CO₂ Large Storage Containers UA8560, UA8570

Application

Designed especially for use as a primary relief device on large stationary pressurized storage containers with flanged openings. These manifolds incorporate an additional relief valve, not included in the flow rating, allowing for servicing or replacement of any one of the relief valves without evacuating the container. The handwheel on the manifold selectively closes off the entrance port to the relief valve being removed while the remaining relief valves provide protection for the container and its contents. All manifold flow ratings are based on flow through the relief valves after one has been removed for service or replacement.

Features

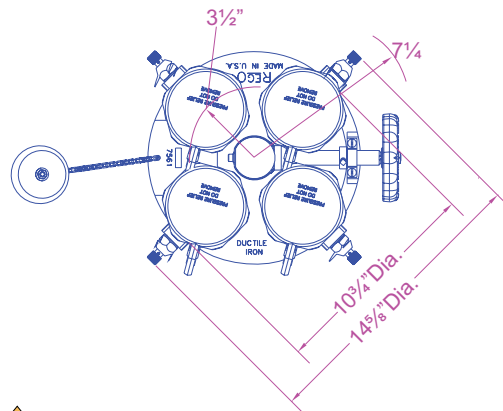
- Allows for relief valve removal and replacement on a periodic basis without shutting down and evacuating the container.
- "Pop-action" design of relief valves insures maximum protection with only minimal product loss at moderately excessive pressures.
- A rubber plug with chain is provided to protect manifold outlet threads where the relief valve has been removed.
- May be mounted directly to a welding neck flange or manway cover plate. Requires no inlet piping.
- Relief valves designed to automatically reseal firmly after discharge.
- Resilient relief valve seat disc provides "bubble-tight" seal.
- Relief valves are ASME rated.

Materials

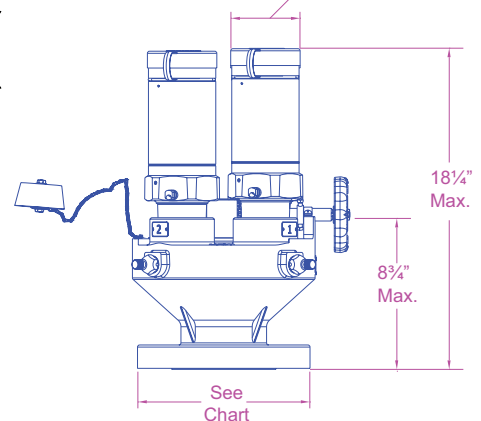
Body Ductile Iron
 Resilient Parts Teflon
 Clapper Disc Stainless Steel
 Bleeder Valve Stainless Steel

A8560

A8570



Pipe-Away Section Will Accept 3" NPT Pipe



Bolt Stud and Nut Assemblies

Part Number	Consists of	For Use With:	For Connection To:	Number Required
7560-55	1-Bolt Stud and Nut	All RegO Multiports™	Modified 3" - 300# and 4"-ASA 300# Welding Neck Flange	8
7560-56			Manway Cover Plate	

Ordering Information

Part Number	Start To Discharge Setting PSIG	Container Flange Connection	Relief Valve			
			Quantity	Part Number	Inlet Connection M. NPT	Accessories
UA8563M303	330	3"-300#*	3	UAB149A303	2 1/2"	Pipeway Adapters **
UA8564M303				UA3149A330		
UA8574A295	295	4"-300#	4	UA3149A295		
UA8563A303	303	3"-300#*		UA3149A303		

* For use with modified 300# ANSI flange with 4" port.
 **Outlet 3 1/2-8N (F) thread, will accept 3" M. NPT pipe thread.

ASME Relief Valves for Gases & Cryogenic Systems B-19434B Series & C-19434B Series

Application

The B-19434B Series relief valves are suitable for use with oxygen and non corrosive industrial gases.

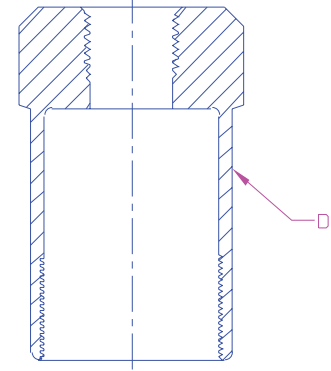
The C-19434B series relief valves are designed for use in carbon dioxide service.

Features

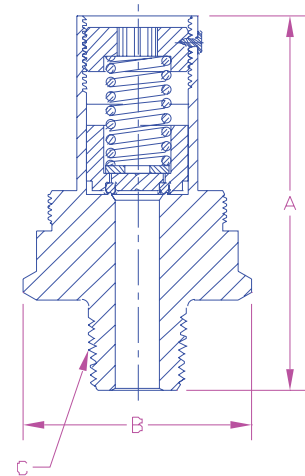
- Both designs permit the valve to open slightly to relieve moderately excessive pressure.
- When the pressure increases beyond a predetermined point, the valve opens to its full discharge capacity in order to quickly reduce excess pressure.
- Pipe-away adapter for venting gas to the outdoors is available.
- ASME Certified.
- B-19434-B Series are cleaned for use in oxygen per CGA G-4.1.

Materials

Body	Brass
Spring	Stainless Steel
Seat Retainer.....	Brass
Seat Disc (B-19434B Series).....	Fluorosilicone
Seat Disc (C-19434B Series)	EPDM Synthetic Rubber
Pipe-Away Adapter	Brass



B-19434B Series



Ordering Information

Part Number	Pressure Setting (PSIG)	ASME Relief Capacity (CFM/Air)	Height A	Width B	Inlet Connection (M.NPT) C	Pipe-Away Adapter Part Number D
B-19434B235	235	476	2 ¹⁵ / ₁₆ "	1 ¹ / ₄ "	1/2"	*B-19434-5 1/2" F.NPT Outlet
B-19434B250	250	505				
B-19434B300	300	601				
B-19434B350	350	691				
B-19434B375	375	736				
C-19434B235	235	476				
C-19434B250	250	505				
C-19434B280	280	555				
C-19434B300	300	601				
C-19434B350	350	691				
C-19434B375	375	736				

* Pipe Away Adapter is sold separately.

** Contact factory for additional settings.

RegO® Goddard – Bronze Globe Valve for Cryogenic Service BB Series

Application

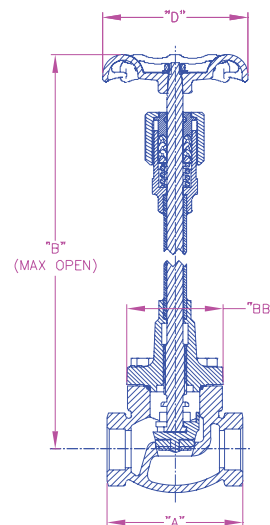
The BB Series globe valves are designed for handling of cryogenic liquids through bulk tanks, trucks, trailers, ISO-containers and piping configurations. Our time tested spring loaded stem packing and superior seat design provide for long life and easy maintenance. Internal components are the identical with the SK Series and SKB Series.

Features

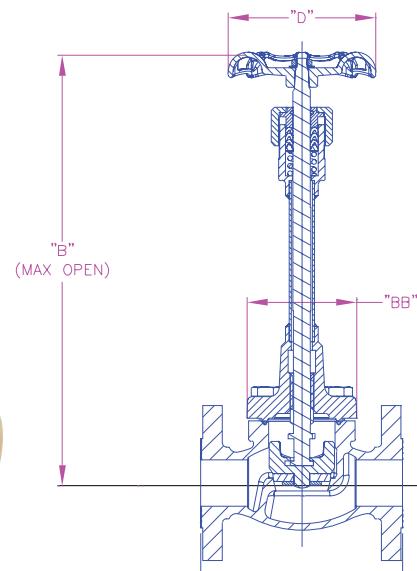
- Superior Flow: Provides high Cv for rapid and reliable loading and unloading.
- V-Ring spring loaded packing: provides extended service life without constant packing adjustment.
- Conical PCTFE Seat: provides exceptional flow; bubble tight seal; less chance of debris trapped in the seat and longer service life.
- Ideal for loading & unloading cryogenic bulk tanks and trucks. The 1½" & 2" valves are designed to be operator friendly, opening and closing completely with only four 360° rotations.
- Connections: NPT, SBT & Flange.
- Sizes: ¼" to 2".
- Bonnet Type: Bolted.
- Pressure Rating: 720 PSI (50 Bar)
- Temperature Rating: -325°F (-198°C) to +150°F (+65°C).
- Service: Liquefied & Vaporized Atmospheric Gases and LNG for Trailers, Bulk Tanks, Iso-Containers and Piping Configurations.
- Cleaned for Liquid Oxygen Service per CGA G-4.1

Materials

BodyBronze ASTM B61 C92200
 Upper BonnetBrass ASTM B16 C36000
 Lower Bonnet Brass ASTM B283 C37700
 StemStainless Steel ASTM A582 S30300
 SpringStainless Steel ASTM A313 S30200
 Packing.....ASTM
 GasketPTFE 25% Glass Fill
 Seat DiscPCTFE ASTM D1430
 Seat Retainer.....Brass ASTM B16
 Bonnet ScrewsASTM B16 C36000
 Handwheel..... Chromated Coated Ductile Iron ASTM A395



BB9412S



BB9412F

Ordering Information

Part Number	Size Inches	Size mm	Connection	A	B	D	BB	C _v	Weight
BB9402S	¼"	8	Silver Brazed Tube	2.68	14.40	3.00	2.00	1.7	8.30
BB9404S	½"	15		2.88				5.0	
BB9406S	¾"	20		3.55		9.4			
BB9408S	1"	25		3.75		14			
BB9412S	1½"	40		4.78		14.60	4.75	3.44	
BB9416S	2"	50	5.88	16.21	5.25	4.06	53	21.60	
BB9402T	¼"	8	Threaded NPT	2.68	14.40	3.00	2.00	1.7	8.30
BB9404T	½"	15		2.88				5.0	
BB9406T	¾"	20		3.55		9.4			
BB9408T	1"	25		3.75		14			
BB9412T	1½"	40		4.78		14.60	4.75	3.44	
BB9416T	2"	50	5.88	16.21	5.25	4.06	53	21.60	
BB9412F	1½"	40	Flanged RF	6.50	14.60	4.75	3.44	28.3	18.56
BB9416F	2"	50		8.00	16.21	5.25	4.06	53	30.00

Extended Bonnet Cryogenic Globe Valves BK and BKA Series Valves

Application

The BK and BKA Series valves are designed exclusively for the handling of cryogenic liquids on bulk storage tanks, transports, and pipelines. These globe valves provide positive shutoff and offer a long, low-maintenance service life. The valves are available with a variety of inlet and outlet connections and stem lengths. Certain BK valves are offered with brazed-in Schedule 5 and schedule 10 Stainless Steel Pipe Stubs.

Features

- CTFE seat disc and swivel seat design offer positive shutoff, minimal seat wear, and a long service life.
- Unique spring-loaded upper packing provides extended service life without constant packing adjustment
- One piece slip-on seat assembly for easy replacement.
- Each valve is cleaned and packaged for oxygen service per CGA G-4.1.
- Maximum working pressure is 600 psig CWP. (-196°C)
- Working temperature range is -320°F to +165°F. (196°C to +79°C)
- 100% Factory Tested

Materials

Body	Bronze
Body and Bonnet	Brass
Seat Disc	PCTFE
Seat Retainer Assembly	Brass
Stem and Bonnet Extension Tube	Stainless Steel
Packing Spring, Washer	Stainless Steel
Jam Ring and Pressure Seal Rings	PTFE
Upper Bonnet, Packing Gland	Brass
Handwheel	Aluminum for up to 1" valve size, Coated Malleable Iron for larger size

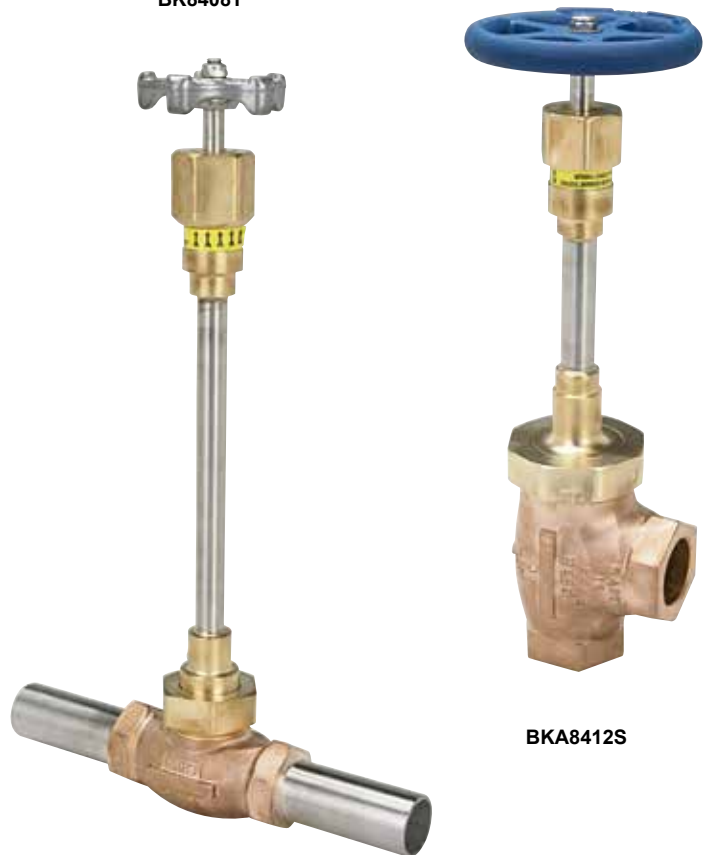
Bonnet Design

Union Bonnet for 1/2", 3/4", 1" valve sizes and on both the 1" model BKA8408S and 1 1/2" model BKA8412S angle valves. Bolted Bonnet design is used on the BK9410 (1 1/4"), BK9412 (1 1/2"), and BK9416 (2") models.



BK8408T

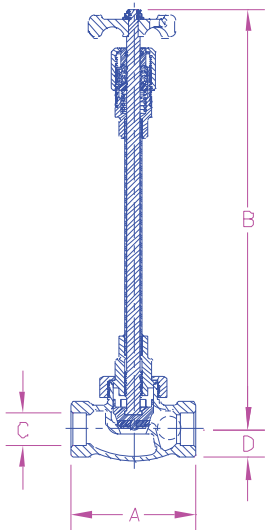
BK9412S



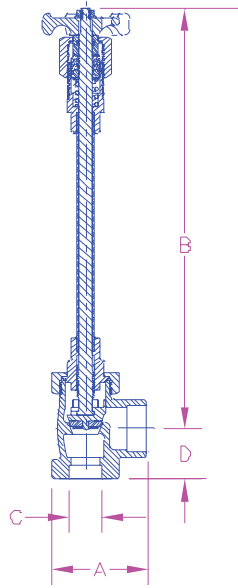
BKA9408AA

BKA8412S

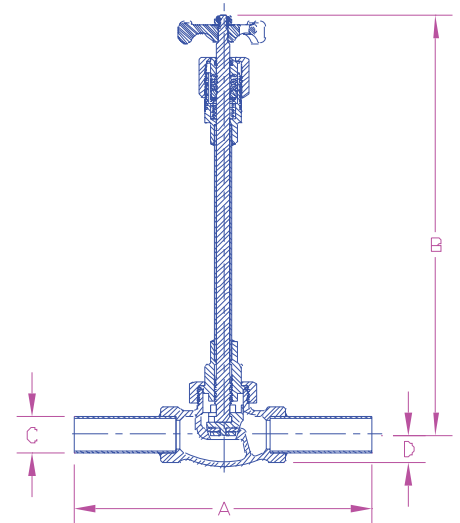
Extended Bonnet Cryogenic Globe Valves BK and BKA Series Valves



Straight Globe Valve



Angle Globe Valve



Straight Globe Valve with Pipe Stubs

Ordering Information

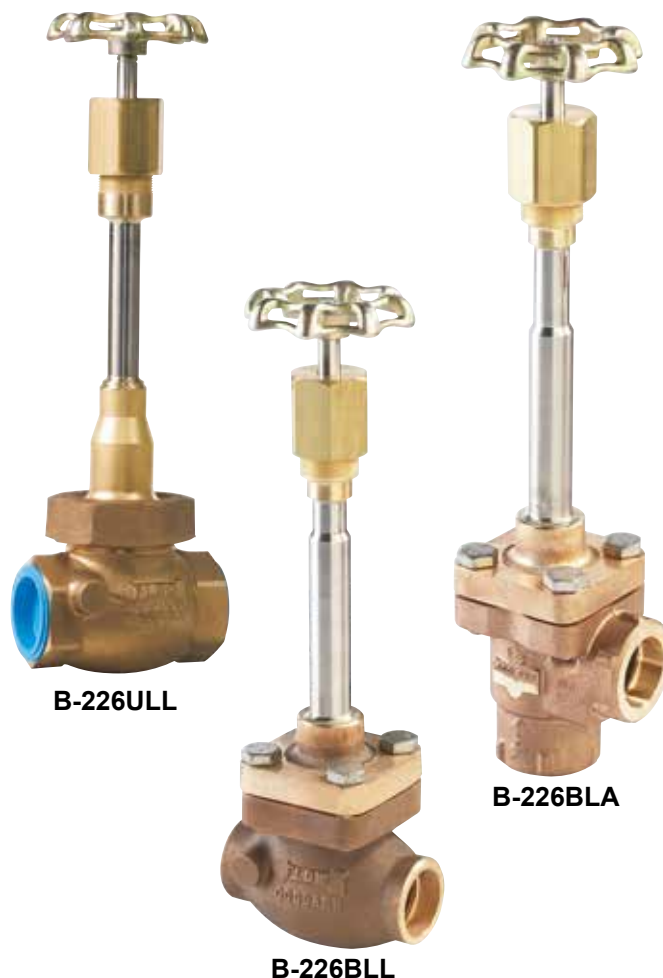
Part Number	Body Style	A Length	B Max Open (Approx)	C Inlet / Outlet Connections	D	Cv Factor					
BK8404S	Straight	3 11/16"	9 5/32"	.631"-.634"	1"	4.7					
BK8404T				1/2" F.NPT							
BK8404ST				.631"-.634"x 1/2" F.NPT							
BK9404S		Straight	9 11/16"	14 1/2"	.631"-.634"	1"	4.7				
BK9404T					1/2" F.NPT						
BK9404AA					1/2" Sch5 Pipe						
BK9404PT-F30					1/2" Sch5 Pipe x 1/2" F.NPT						
BK9404ST	Straight	3 11/16"	14 1/2"	.631"-.634"x1/2" F.NPT	1"	6.7					
BK8406S				.881"-.884"							
BK8406T				3/4" F.NPT							
BK9406S				.881"-.884"							
BK9406T	Straight	3 11/16"	14 1/2"	3/4" F.NPT	1"	6.7					
BK9406AA											
BK8408S				Straight			4 5/16"	9 1/8"	1.131"-1.134"	1 1/8"	11.2
BK8408T									1" F.NPT		
BK9408S	1.131"-1.134"										
BK9408T	1" F.NPT	1 1/8"	11.2								
BK9408AA	1" Sch10 Pipe										
BK9408PT-F30	1" Sch5 Pipe x 1" F.NPT	1 1/8"									
BK9410S*	Straight	5 13/16"	16 7/16"	1.378"-1.380"	1 1/2"	17.5					
BK9412S*				1.631"-1.634"							
BK9412T*				1 1/2" F.NPT							
BK9412AA		Straight	11 3/16"	16 9/16"	1 1/2" Sch10 Pipe	1 1/2"	25.1				
BK9412PT-F30			8 3/16"		1 1/2" Sch5 Pipe x 1 1/2" F.NPT						
BK9416S*			6"		16"			2.131" - 2.134"	1 5/8"	41	
BK9416AA			11.88"		2" Sch5 Pipe						
BK9416T*	Straight	6"	16"	2" F.NPT	1 5/8"	41					
BK9416PT-F30		9"		2" Sch5 Pipe x 2" F.NPT							
BKA8408S	Angle	3 1/4"	9 5/11"	1.131" - 1.134" x 1.631" - 1.634"	1 3/4"	14.5					
BKA9408S			14 5/8"								
BKA8412S		4 1/4"	13"				1.631"-1.634"	30.0			

* Valves with bolted bonnet design.

Bronze Globe Valve for Cryogenic Service Goddard 222 Series Including 226LL, 226GF, 226ULL, 226BLL, 222X, 226LL, 226BLL

Features

- **Top Entry:** This union bonnet valve can be permanently installed in the line and serviced from the top. The stainless steel tube prevents stem distortion. Also available in bolted bonnet configuration.
- **Construction:** Bronze cast body and bonnet
Rugged construction for long life
- **Designed with the unique Kold-Seal™** and high CV. standard PTFE seat design assures bubble tight seating and high cycle life.
- Oxygen cleaned per CGA G-4.1
- **Sizes:** ¼" through 3" (8mm through 80mm)
- **Ends:** Threaded (FNPT), Sil Braze Tube (SBT), Silver Braze Pipe and back brazed threaded pipe nipples
- **Service:** Liquefied and vaporized atmospheric gases, LNG
- **Temperature Rating:** -325°F to 150°F (-196°C to +65°C)
- **Pressure Rating:** (Cold, Non-shock)
400 and 600 PSIG
Sizes 1½" to 3" PED approved per EN10204, 3.1
- **Kold-Seal™ Technology** assures tight seal preventing cryogen gas loss.
- **Extended stem** suitable for cold box, transport vehicles, pipelines, and customer service applications.
- **Live (LL) loaded option** improves life of asset and minimizes service costs.
- **Replaceable top works** equates to low maintenance costs.



Ordering Information

222X

Bronze Globe Valves, Extended Stem - Conical Seat, 400 PSIG Cold Working Pressure

Threaded End

Part Number	NPT size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-00222X-2T4	¼"	8 mm	Threaded	1.50 Lbs.	0.70 Kgs.	1.30
B-00222X-4T4	½"	15 mm	Threaded	1.50 Lbs.	0.70 Kgs.	3.25
B-00222X-6T4	¾"	20 mm	Threaded	3.00 Lbs.	1.40 Kgs.	6.25
B-00222X-8T4	1"	25 mm	Threaded	4.00 Lbs.	1.80 Kgs.	10.00
B-00222X-12T4	1½"	40 mm	Threaded	7.75 Lbs.	3.50 Kgs.	26.00
B-00222X-16T4	2"	50 mm	Threaded	12.50 Lbs.	5.70 Kgs.	45.00
B-00222X-20T4	2½"	63.5 mm	Threaded	61.00 Lbs.	27.70 Kgs.	50.00
B-00222X-24T4	3"	80 mm	Threaded	61.00 Lbs.	27.70 Kgs.	100.00

Ordering Information

SB-222X

Stainless Steel Body, Bronze Topworks, Conical Seat, 450 PSIG Cold Working Pressure

Part Number	NPT size Inches	NPT Size mm	Ends
SB00222X-12SW	1½"	40 mm	Socket Weld

Bronze Globe Valve for Cryogenic Service Goddard 222 Series Including 226LL, 226GF, 226ULL, 226BLL, 222X, 226LL, 226BLL

Sil Brazed End

Part Number	SBT size Inches	SBT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-00222X-4S4	½"	15 mm	Silver Braze	2.00 Lbs.	0.90 Kgs.	3.25
B-00222X-6S4	¾"	20 mm	Silver Braze	2.75 Lbs.	1.30 Kgs.	6.25
B-00222X-8S4	1"	25 mm	Silver Braze	3.75 Lbs.	1.70 Kgs.	10.00
B-00222X-12S4	1½"	40 mm	Silver Braze	7.25 Lbs.	3.30 Kgs.	26.00
B-00222X-16S4	2"	50 mm	Silver Braze	11.50 Lbs.	5.20 Kgs.	45.00
B-00222X-24S4	3"	80 mm	Silver Braze	58.00 Lbs.	26.40 Kgs.	100.00

226LL

Bronze Globe Valves, Live Load Packing, Extended Stem, 600 PSIG Cold Working Pressure

Threaded End

Part Number	NPT size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-0226LL-2T6	¼"	8 mm	Threaded	1.50 Lbs.	0.70 Kgs.	1.30
B-0226LL-3T6	⅜"	10 mm	Threaded	1.50 Lbs.	0.70 Kgs.	2.40
B-0226LL-4T6	½"	15 mm	Threaded	1.50 Lbs.	0.70 Kgs.	3.25
B-0226LL-6T6	¾"	20 mm	Threaded	3.00 Lbs.	1.40 Kgs.	6.25
B-0226LL-8T6	1"	25 mm	Threaded	4.00 Lbs.	1.80 Kgs.	10.00

Sil Brazed Ends

Part Number	SBT size Inches	SBT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-0226LL-4S6	½"	15 mm	Silver Braze	2.00 Lbs.	0.90 Kgs.	3.25
B-0226LL-6S6	¾"	20 mm	Silver Braze	2.75 Lbs.	1.30 Kgs.	6.25
B-0226LL-8S6	1"	25 mm	Silver Braze	5.8 Lbs.	1.70 Kgs.	10.00

226ULL

Bronze Globe Valves, Live Loaded Packing - Union Bonnet, Extended Stem, 600 PSIG Cold Working Pressure

Threaded End

Part Number	NPT size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-226ULL-12T6	1½"	40 mm	Threaded	7.75 Lbs.	3.50 Kgs.	26.00
B-226ULL-16T6	2"	50 mm	Threaded	12.50 Lbs.	5.70 Kgs.	45.00

Sil Brazed Ends

Part Number	SBT size Inches*	SBT Size mm*	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-226ULL-12S6	1½"	40 mm	Silver Braze	7.25 Lbs.	3.30 Kgs.	26.00
B-226ULL-16S6	2"	50 mm	Silver Braze	11.50 Lbs.	5.20 Kgs.	45.00

*Nominal Size

226XGF

Bronze Globe Valves, Extended Stem - Conical Seat Grafoil® Packing, Gasket and PFA Seat
600 PSIG Cold Working Pressure

Threaded End

Part Number	NPT size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
VB-226XGF-4T6	½"	15 mm	Threaded	1.50 Lbs.	0.70 Kgs.	3.25
VB-226XGF-6T6	¾"	20 mm	Threaded	3.00 Lbs.	1.40 Kgs.	6.25
VB-226XGF-8T6	1"	25 mm	Threaded	4.00 Lbs.	1.80 Kgs.	10.00
VB-226XGF-12T6	1½"	40 mm	Threaded	7.75 lbs.	3.5 Kgs.	26.00

226BLL

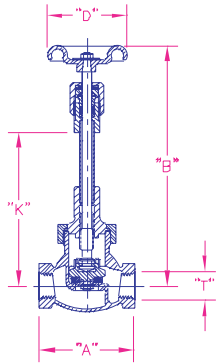
Bronze Globe Valves, Live Loaded Packing - Bolted Bonnet, Extended Stem, 600 PSIG Cold Working Pressure

Threaded End

Part Number	NPT size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-226BLL-12T6	1½"	40 mm	Threaded	7.75 Lbs.	3.50 Kgs.	26.00
B-226BLL-16T6	2"	50 mm	Threaded	12.50 Lbs.	5.70 Kgs.	45.00

Bronze valves standard connection are for tube, not pipe.

Bronze Globe Valve for Cryogenic Service Goddard 222 Series Including 226LL, 226GF, 226ULL, 226BLL, 222X, 226LL

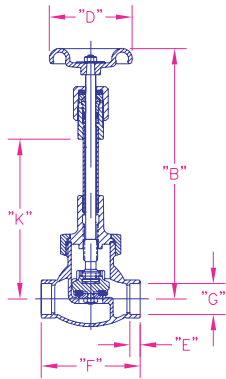


226ULL
 Pressure Rating 600 PSIG
 Temperature Rating -325°F to +150°F

Dimensional data
 All Dimensional Data are in inches.

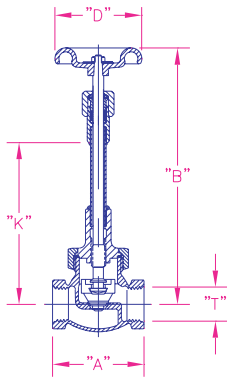
THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT	"K"
1½"	4¾"	14⅝"	4"	1½"	9⅛"
2"	5¾"	15⅝"	4¾"	2"	9⅛"



SIL BRAZED END

Size	"B"	"D"	"E"	"F"	"G"	"K"
1½"	14⅝"	4"	⅝"	5¼"	1.63"	9⅛"
2"	15⅝"	4¾"	2⅜"	6½"	2.13"	9⅛"

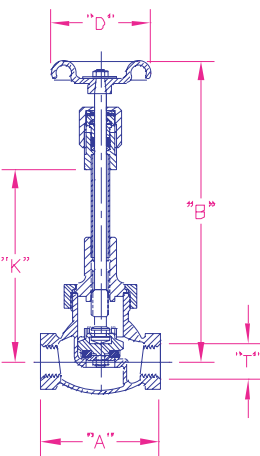


226XGF
 Pressure Rating 600 PSIG
 Temperature Rating -325°F to +150°F

Dimensional data
 All Dimensional Data are in inches.

THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT	"K"
½"	2⅝"	8¼"	2⅜"	½"	4⅞"
¾"	3 ⅜"	8⅝"	2¾"	¾"	4 13/16"
1"	3¾"	10½"	3"	1"	6½"



226LL
 Pressure Rating 600 PSIG
 Temperature Rating +150° F to -325° F

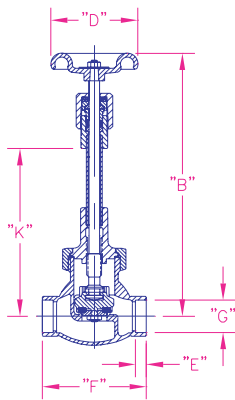
Dimensional Data
 All Dimensions are in Inches

THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT	"K"
¼"	2 ⅝"	7 7/16"	2"	¼"	4 19/32"
⅜"	2 ⅝"	7 7/16"	2"	⅜"	4 19/16"
½"	2⅝"	8¼"	2⅜"	½"	4⅞"
¾"	3 ⅜"	8⅝"	2¾"	¾"	4 13/16"
1"	3¾"	10½"	3"	1"	6½"

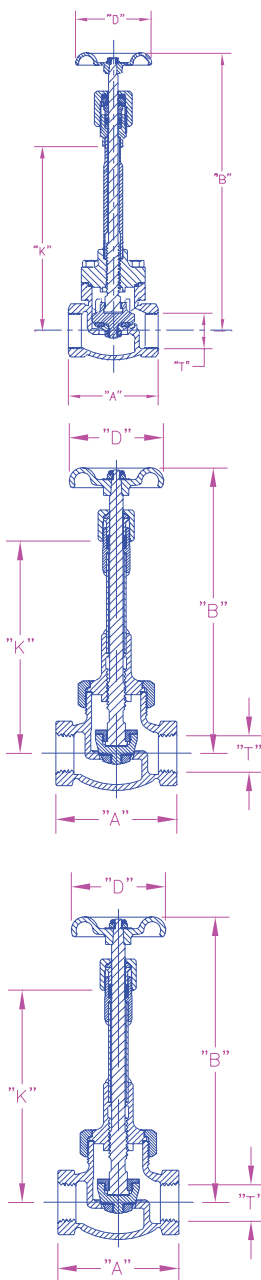
*Bolted Bonnet

Bronze Globe Valve for Cryogenic Service Goddard 222 Series Including 226LL, 226GF, 226ULL, 222X, 226LL



SIL BRAZED ENDS

Size	"B"	"D"	"E"	"F"	"G"	"K"
1/2"	8 1/4"	2 3/8"	3/8"	3 1/4"	.63	4 7/8"
3/4"	8 5/8"	2 3/4"	13/32"	3 3/4"	.88	4 13/16"
1"	10 1/2"	3"	7/16"	4 1/4"	1.13	6 1/2"



226BLL THREADED ENDS - BOLTED BONNET

Size	"A"	"B"	"D"	"T" NPT	"K"
1 1/2"	4 3/4"	14 5/8"	4"	1 1/2"	9 1/16"
2"	5 3/4"	14 15/16"	4 3/4"	2"	

222X

Pressure Rating 400 PSIG

Temperature Rating -325°F to +150°F

Part #	Size	"A"	"B"	"D"	"T" NPT	"K"
B-222X-2T4	1/4"	2.63"	8.38"	2.38"	1/4"	4.8"
B-222X-4T4	1/2"		15.54"		1/2"	
B-222X-4T4A		3/4"	3.19"	8.63"	2.75"	3/4"
B-222X-6T4	1"		3.75"	15.79"		1"
B-222X-8T4		1 1/2"	4.75"	10.50"	4"	1 1/2"
B-222X-8T4A	16.01"			9.7"		
B-222X-12T4	2"	5.75"	14.63"	4.75"	2"	13.5"
B-222X-12T4A			18.44"			9.7"
B-222X-16T4	2 1/2"	8.5"	15.13"	8"	2 1/2"	14.2"
B-222X-16T4A			22.43"			16"
B-222X-20T4	3"	8.5"	22.75"	8"	3"	16"
B-222X-24T4					3"	

SB-222X

Pressure Rating 400 PSIG

Temperature Rating -325°F to +150°F

Size	"A"	"B"	"D"	"BB	"K"
1 1/2"	4 3/4"	14 5/8"	4"	3"	9.7"

Bronze Globe Valve for Cryogenic Service

Goddard 202X Series Including 206LL, 206GF, 206ULL, 206BLL

Features

- **Top Entry:** This union bonnet valve can be permanently installed in the line and serviced from the top
- **Construction:** Rugged construction for long life, bronze cast body and bonnet
- **Designed with the unique Kold-Seal™** and high CV. Standard PCTFE seat design assures bubble tight seating and high cycle life
- **Sizes:** 1/4" through 2" (8mm through 50mm)
- **Ends:** Threaded (FNPT), Sil Braze Tube (SBT), or with stainless steel pipe nipples brazed in.
- **Service:** Liquified and vaporized atmospheric gases, LNG
- **Temperature Rating:** -325°F to 150°F (-196°C to +65°C)
- **Pressure Rating:** (Cold, Non-shock)
202 Series Rated for 400 PSIG
206 Series Rated for 600 PSIG
Sizes 1.5" to 2.0" PED approved per EN10204, 3.1
- **Kold-Seal™ Technology assures tight seal preventing cryogen gas loss. Non-extended stem for selective cold gas service.**



206ULL



206BLL

Ordering Information

202X

Bronze Globe Valves

Non-Extended Stem - Conical Seat

400 PSIG Cold Working Pressure

For selective Cold Gas Applications

Threaded End

Part Number	NPT Valve size Inches	NPT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-00202X-12T4	1½"	40 mm	Threaded	6.50 Lbs.	3.00 Kgs.	29.00
B-00202X-16T4	2"	50 mm	Threaded	10.50 Lbs.	4.80 Kgs.	50.00

Sil Braze Ends

Part Number	SBT Valve size Inches *	SBT Valve Size mm *	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-00202X-4S4	½"	15 mm	Silver Braze	1.50 Lbs.	0.7 Kgs.	3.90
B-00202X-8S4	1"	25 mm	Silver Braze	3.25 Lbs.	1.50 Kgs.	11.50
B-00202X-12S4	1½"	40 mm	Silver Braze	6.50 Lbs.	3.00 Kgs.	29.00
B-00202X-16S4	2"	50 mm	Silver Braze	10.50 Lbs.	4.80 Kgs.	50.00

* Nominal Size

Bronze Globe Valve for Cryogenic Service

Goddard 202X Series Including 206LL, 206GF, 206ULL, 206BLL

206GF

Bronze Globe Valves

Non-Extended Stem - PFA seat with high temperature, low permeability GRAFOIL® packing and gasket.

600 PSIG Cold Working Pressure, For Selective Cold Gas Applications, High Temperature Service Rating +350°F

Threaded Ends

Part Number	NPT Valve size Inches	NPT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
VB-0206GF-2T6	1/4"	8 mm	Threaded	1.25 Lbs.	0.6 Kgs.	1.30
VB-0206GF-4T6	1/2"	15 mm	Threaded	1.50 Lbs.	0.70 Kgs.	3.90
VB-0206GF-6T6	3/4"	20 mm	Threaded	2.50 Lbs.	1.10 Kgs.	7.10
VB-0206GF-8T6	1"	25 mm	Threaded	3.50 Lbs.	1.60 Kgs.	11.50
VB-0206GF-12T6	1 1/2"	40 mm	Threaded	7.00 Lbs.	3.20 Kgs.	29.00
VB-0206GF-16T6	2"	50 mm	Threaded	11.75 Lbs.	5.30 Kgs.	50.00

206LL

Bronze Globe Valves, Non-Extended Stem, Live Loaded Packing, 600 PSIG Cold Working Pressure

For Selective Cold Gas Applications

Threaded Ends

Part Number	NPT Valve size Inches	NPT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-0206LL-2T6	1/4"	8 mm	1/4" NPT	1.25 Lbs.	0.6 Kgs.	1.30
B-0206LL-3T6	3/8"	10 mm	3/8" NPT	1.25 Lbs.	0.6 Kgs.	2.40
B-0206LL-4T6	1/2"	15 mm	1/2" NPT	1.75 Lbs.	0.8 Kgs.	3.90
B-0206LL-6T6	3/4"	20 mm	3/4" NPT	2.5 Lbs.	1.1 Kgs.	7.10
B-0206LL-8T6	1"	25 mm	1" NPT	3.5 Lbs.	1.6 Kgs.	11.50

Sil Brazed Ends

Part Number	SBT Valve size Inches *	SBT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-0206LL-4S6	1/2"	10 mm	Silver Braze	1.25 Lbs.	0.6 Kgs.	3.90
B-0206LL-6S6	3/4"	15 mm	Silver Braze	1.75 Lbs.	0.8 Kgs.	7.10
B-0206LL-8S6	1"	20 mm	Silver Braze	2.5 Lbs.	1.1 Kgs.	11.50

* Nominal Size

206ULL

Bronze Globe Valves, Non-Extended Stem, Live Loaded Packing - Union Bonnet,

600 PSIG Cold Working Pressure For Selective Cold Gas Applications

Sil Brazed Ends

Part Number	SBT Valve size Inches	SBT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-206ULL-12S6	1 1/2"	40 mm	Silver Braze	7 Lbs.	3.2 Kgs.	29.00
B-206ULL-16S6	2"	50 mm	Silver Braze	11.75 Lbs.	5.3 Kgs.	50.00

206BLL

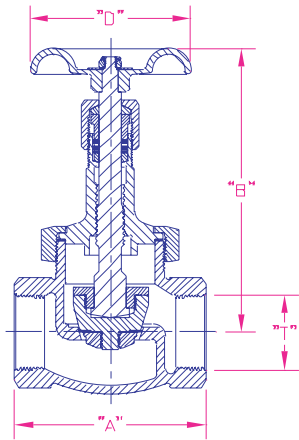
Bronze Globe Valves, Non-Extended Stem, Live Loaded Packing - Bolted Bonnet,

600 PSIG Cold Working Pressure For Selective Cold Gas Applications

Sil Brazed Ends

Part Number	SBT Valve size Inches	SBT Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-206BLL-12S6	1 1/2"	40 mm	Silver Braze	7 Lbs.	3.2 Kgs.	29.00

Bronze Globe Valve for Cryogenic Service Goddard 202X Series Including 206LL, 206GF, 206ULL, 206BLL



202 Series

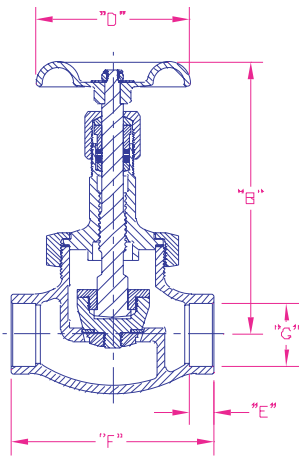
202X

Pressure Rating 400 PSIG
Temperature Rating +150°F to -325°F
Non-Extended Valve for Cold Gas Applications
Conical Seat

Dimensional data
All Dimensional Data are in inches.

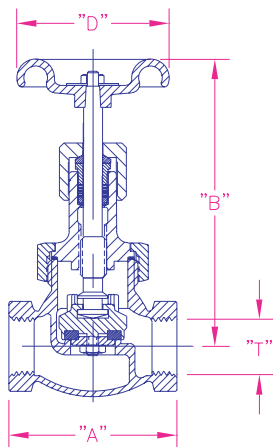
THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT
1½"	4¾"	8⅝"	4"	1½"
2"	5¾"	9½"	4¾"	2"



SILVER BRAZED ENDS

Size	"B"	"D"	"E"	"F"	"G"
½"	4⅝"	2"	.38	¾"	.63/.63
1"	4⅝"	2"	.44	1¼"	1.13/1.13
1½"	5"	2⅜"	.62	5¼"	1.63/1.63
2"	5¾"	2¾"	.66	6½"	2.13/2.13



206GF

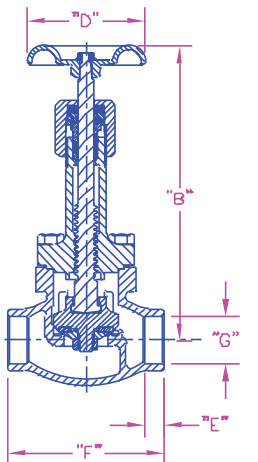
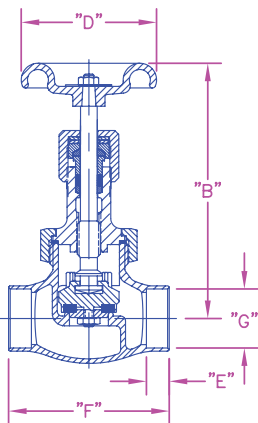
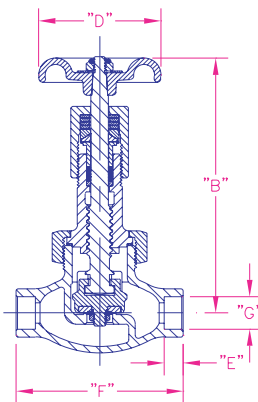
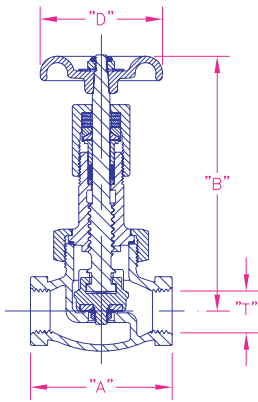
Pressure Rating 600 PSIG
Temperature Rating +350°F to -325°F
Non-Extended Stem - GRAFOIL® Packing, Gasket and PFA Seat
Dimensional data

All Dimensional Data are in inches.

THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT
¼"	2⅝"	4⅝"	2"	¼"
½"	2⅝"	5"	2⅜"	½"
¾"	3⅜"	5¾"	2¾"	¾"
1"	3¾"	6¾"	3"	1"
1½"	4¾"	8⅝"	4"	1½"
2"	5¾"	9½"	4¾"	2"

Bronze Globe Valve for Cryogenic Service Goddard 202X Series Including 206LL, 206GF, 206ULL, 206BLL



206LL

Pressure Rating 600 PSIG
Temperature Rating +150° F to -325° F
Live Load Packing
Union Bonnet

Dimensional Data
All Dimensions are in Inches

THREADED ENDS

Size	"A"	"B"	"D"	"T" NPT
1/4"	2 5/8"	5"	2 3/8"	1/4"
3/8"	2 5/8"	5"	2 3/8"	3/8"
1/2"	2 5/8"	5"	2 3/8"	1/2"
3/4"	3 3/16"	5 3/4"	2 3/4"	3/4"
1"	3 3/4"	5 3/4"	3"	1"

SIL BRAZED ENDS

Size	"B"	"D"	"G"	"E"	"F"
1/4"	5"	2 3/8"	.38/.38	.26	2 3/8"
1/2"	5"	2 3/8"	.63/.63	.38	3 1/4"
1"	6 3/4"	3"	1.13/1.13	.44	4 1/4"

206ULL

Pressure Rating 600 PSIG
Temperature Rating +150° F to -325° F
Live Load Packing - Union Bonnet

Dimensional Data
All Dimensions are in Inches

SIL BRAZED ENDS

Size	"F"	"B"	"D"	"T" NPT
1 1/2"	4 3/4"	8 5/8"	4"	1 1/2"
2"	5 3/4"	11 3/4"	4 3/4"	2"

206BLL

Pressure Rating 600 PSIG
Temperature Rating +150° F to -325° F
Live Load Packing - Bolted Bonnet

Dimensional Data
All Dimensions are in Inches

SIL BRAZED ENDS

Size	"B"	"D"	"G"	"E"	"F"
1 1/2"	8 5/8"	4"	1.62/1.64	.63	5 1/4"

RegO - Goddard Bronze/Stainless Steel Body Globe Valve for Cryogenic Service SKB Series

SKB Series

Application

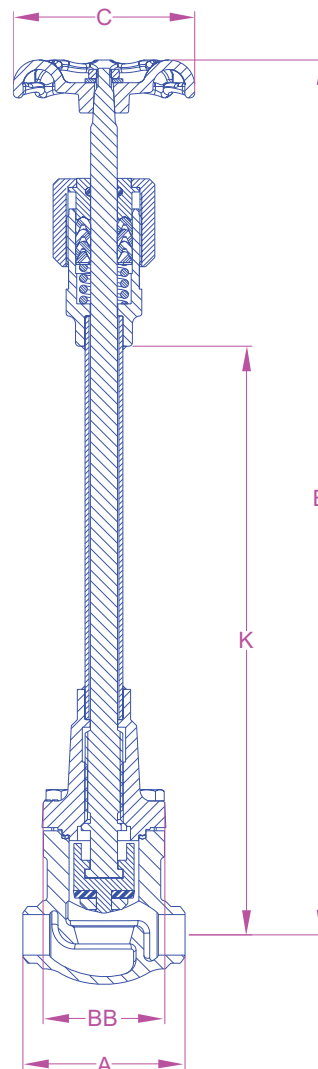
The SKB Series globe valves are designed for the handling of cryogenic liquids through trailer, bulk tanks and piping configurations. Our time tested spring loaded stem packing and superior seat design provide for long life and easy maintenance. Internal components are the same for SKB, SK and BB Series.

Features

- **Superior Flow:** Provides high Cv for rapid and reliable trailer and tank loading and unloading.
- **Top Entry:** This valve can be permanently installed in the line and serviced from the top. Bolted bonnet style provides secure integrity.
- **Soft Seated:** Conical PCTFE seat provides a bubble tight seal. Less chance of debris trapped in the seat and longer service life.
- **Stem Packing:** V-Ring spring loaded packing provides extended service life without constant packing adjustment.
- **Sizes:** 1/4" though 2" - 20mm through 50mm
- **Ends:** Buttweld and Socket Weld
- **Service:** Liquefied and vaporized atmospheric gases, LNG for trailers, bulk tanks ISO containers and piping configurations.
- **Temperature Rating:** -325°F to +150°F (-198°C to +65°C)
- **Pressure Rating:** (Cold, Non-Shock) 720 PSI (50 Bar)
- Cleaned for liquid oxygen service per CGA G-4.1

Materials

Body Stainless Steel ASTM A351
 Upper Bonnet Bronze ASTM B16
 Lower Bonnet Bronze ASTM B283
 Seat Disk PCTFE ASTM D1430
 Seat Retainer ASTM B16
 Stem Stainless Steel ASTM A582
 Spring Stainless Steel ASTM A313
 Packing PTFE
 Handwheel Chromate Coated Ductile Iron ASTM A395
 Bonnet Gasket PTFE, 25% Glass Filled
 Fasteners Stainless Steel ASTM A320



Ordering Information

Part Number	Size Inches	Size mm	Connection	A	B	C	BB	K	Est. Cv
SKB009402BW	1/4"	DN 6	Butt Weld	2.68	14.4	3	2	9.7	1.7
SKB009402SW			Socket Weld						
SKB009404BW	1/2"	DN 15	Butt Weld	3.62	14.6	4	2.66	9.5	5.0
SKB009404SW			Socket Weld						
SKB009406BW	3/4"	DN 20	Butt Weld	4.75	14.6	4.75	3.44	9.3	28.3
SKB009406SW			Socket Weld						
SKB009408BW	1"	DN 25	Butt Weld	5.75	16.21	5.25	4.06	9.9	53
SKB009408SW			Socket Weld						
SKB009412BW	1 1/2"	DN 40	Butt Weld	5.75	16.21	5.25	4.06	9.9	53
SKB009412SW			Socket Weld						
SKB009416BW	2"	DN 50	Butt Weld	5.75	16.21	5.25	4.06	9.9	53
SKB009416SW			Socket Weld						

RegO - Goddard Stainless Steel Globe Valve for Cryogenic Service SK Series

Application

SK Series globe valves are designed for the handling of cryogenic liquids through trailer, bulk vessels and piping configurations. Our time tested spring loaded stem packing and superior seat design provide for long life and easy maintenance. Internal components are the same for SKB, SK and BB series.

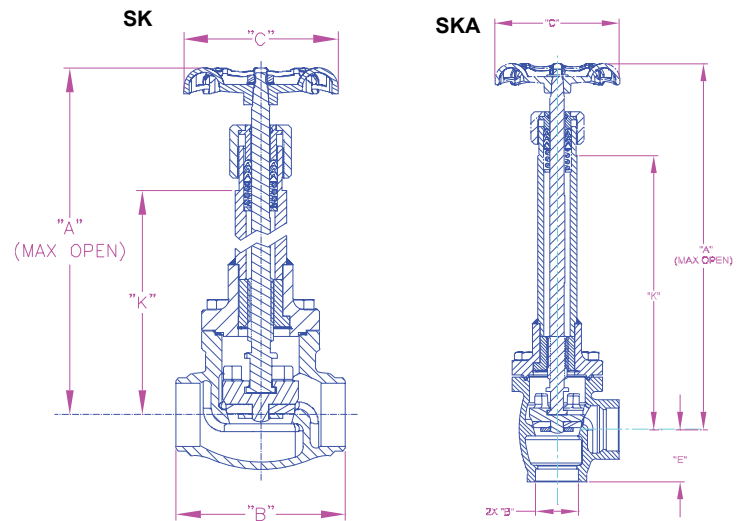
Features

- **Superior Flow:** Provides high Cv for rapid and reliable trailer and tank loading and unloading.
- **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 bubble tight seal and is replaceable.
- **Construction:** Body and Bonnet ASTM A351 J92600 Stainless steel
- **Stem Packing:** RegO BK Series V-Ring spring loaded packing provides extended service life without frequent adjustment.
- **Sizes:** 1/4" Through 2" - (8mm through 50mm)
- **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) 725 PSIG (50 BAR) Class 300



Materials

Body	Stainless Steel
Bonnet and Tube	Stainless Steel
Seat Disk	PCTFE
Seat Retainer.....	Brass
Packing Spring/Washer.....	Stainless Steel
Stem	Stainless Steel
Packing.....	PTFE
Handwheel.....	Chromate Coated Ductile Iron
Bonnet Gasket.....	PTFE
Fasteners (Bolts)	Stainless Steel



Ordering Information

Part Number	Size Inches	Size mm	Connection	A	B	C	K	Cv	Weight
SK9402BW	1/4"	8	Buttweld	14.40	2.68	3.00	10.65	1.7	8.50
SK9404BW	1/2"	15						5.0	
SK9406BW	3/4"	20			9.4				
SK9408BW	1"	25			14				
SK9412BW	1 1/2"	40			28.3				
SK9416BW	2"	50	16.21	5.75	5.25	11.11	53	21.60	
SK9402SW	1/4"	8	Socket Weld	14.40	2.68	3.00	10.65	1.7	8.50
SK9404SW	1/2"	15						5.0	
SK9406SW	3/4"	20			9.4				
SK9408SW	1"	25			14				
SK9412SW	1 1/2"	40			28.3				
SK9416SW	2"	50	16.21	5.25	5.25	11.11	53	21.60	
SKA9412SW	1 1/2" 90°	40	14.60	-	4.75	10.42	26.4	11.50	

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



Goddard 210 Series

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

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

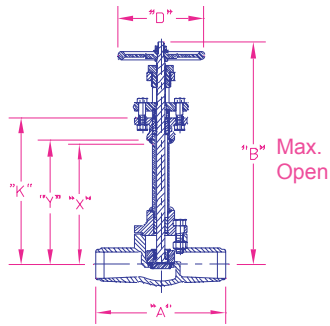
150# Part Number	300# Part Number	Valve Size		Ends	Weight		Estimated Cv
		Inches	MM		Lbs.	Kg	
GS-00210W-4S3	GS-00210W-4S3	½"	15 mm	Socket Weld	15	6.80	3.90
GS-00210W-4T3	GS-00210W-4T3	½"	15 mm	Threaded	15	6.80	3.90
GS-00210W-6S3	GS-00210W-6S3	¾"	20 mm	Socket Weld	15	6.80	7.10
GS-00210W-6T3	GS-00210W-6T3	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

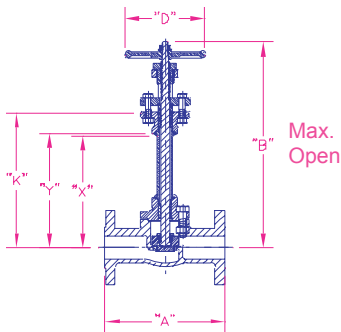


Butt Weld Ends

Size	"A"	"B"	"D"	"K"	"X"	"Y"
2"	10½"	22¼"	7"	15"	12¾"	13 ¹ / ₁₆ "
3"	12"	30½"	10"	21½"	19 ¹ / ₁₆ "	19 ³ / ₈ "
4"	13½"	36¾"	12"	24¼"	21 ¹¹ / ₁₆ "	22"

Δ For SCH. 40 A=12½"
 Θ For SCH. 40 A=14"

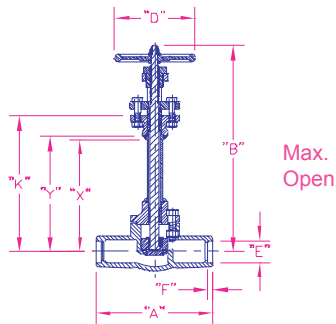
- * Unless otherwise specified, SCH 10 weld ends are supplied
 • Special B,K,X & Y dimensions available.



Raised Face Flange Ends*

Size	"A" 150#	"A" 300#	"B"	"D"	"K"	"X"	"Y"
1"	6½"	8"	18 ¹ / ₈ "	5"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
2"	8"	10½"	22¼"	7"	15"	12¾"	13 ¹ / ₁₆ "
3"	9½"	12½"	30½"	10"	21½"	19 ¹ / ₁₆ "	19 ³ / ₈ "
4"	11½"	14"	36¾"	12"	24¼"	21 ¹¹ / ₁₆ "	22"

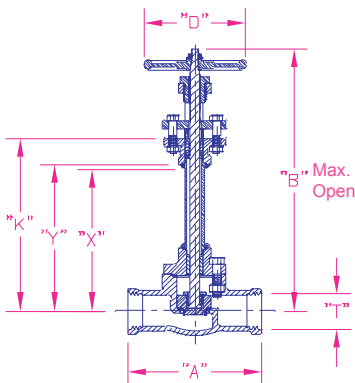
- Special B,K,X & Y dimensions available.



Socket Weld Ends

Size	"A"	"B"	"D"	"E"	"F"	"K"	"X"	"Y"
½"	5"	18 ¹ / ₈ "	5"	.855	¾"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
¾"	5"	18 ¹ / ₈ "	5"	1.065	½"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
1"	5"	18 ¹ / ₈ "	5"	1.330	½"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
1½"	10¼"	22¼"	7"	1.915	½"	15"	12¾"	13 ¹ / ₁₆ "

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



Threaded Ends

Size	"T" - NPT	"A"	"B"	"D"	"K"	"X"	"Y"
½"	½"-14	5"	18 ¹ / ₈ "	5"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
¾"	¾"-14	5"	18 ¹ / ₈ "	5"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "
1"	1"-11½"	5¾"	18 ¹ / ₈ "	5"	12¾"	11 ¹ / ₁₆ "	11 ³ / ₈ "

- 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:** 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)

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

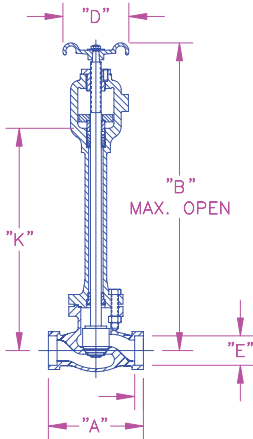
Stainless Body • 400 PSIG Socket Weld Ends

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
S-000231-2S4	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

Stainless Steel Globe Valve for Cryogenic Service Goddard 231 Series



Pressure Rating 400 PSIG

Temperature Rating +150° F to - 425° F

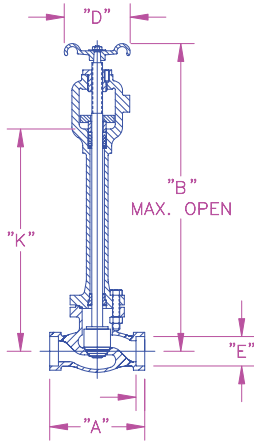
This valve is not approved for gaseous and/or liquid oxygen service
For oxygen service use Goddard series 232H cryogenic globe valve

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 3/8"	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 Cv
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

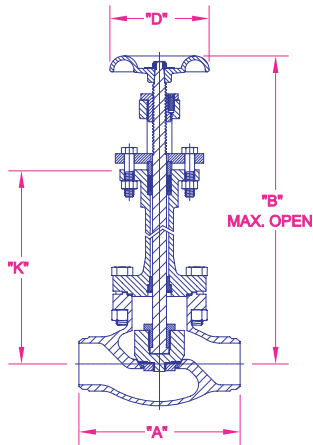
High Purity Cryogenic Bonnet Nickel Plated Naval Brass Yoke Bushing Stainless Steel Body Butt Weld Ends 300 PSIG

Part Number	Valve size Inches	Valve Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
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 Cv
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

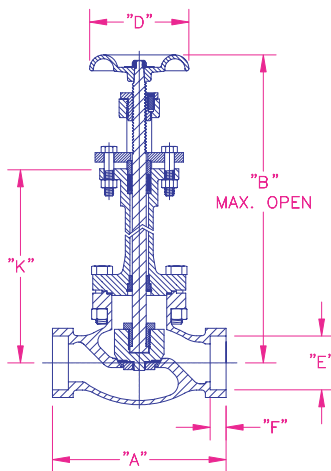
Stainless Steel Globe Valve for Cryogenic Service Goddard 232 Series



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"
½"	4¼"	14 ⁹ / ₁₆ "	2 ³ / ₈ "	10 ³ / ₁₆ "
1"	5"	17"	3"	11 ½"
1½"	6"	18 ⁵ / 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"
½"	4¼"	14 ⁹ / ₁₆ "	2 ³ / ₈ "	0.860	0.375	10 ³ / ₁₆ "
1"	5 ³ / ₈ "	17"	3"	1.335	0.500	11 ½"
1½"	6½"	18 ⁵ / ₈ "	4"	1.920	0.500	12 ⁵ / ₁₆ "

RegO® Goddard - Cryogenic Fill Manifold CFM, AFM, PFM & SFM Series

Application

RegO® Goddard high quality brazed and welded assemblies are ideally suited for the original equipment manufacturer of bulk cryogenic vessels. A wide variety of valve types including union or bolted bonnet, bronze or stainless steel bodies & top works and piping of stainless steel or copper construction are available as production unit.

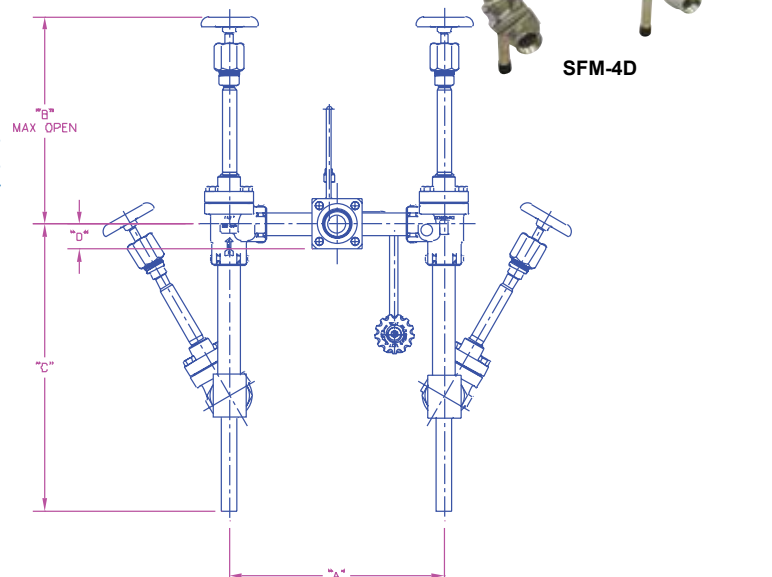
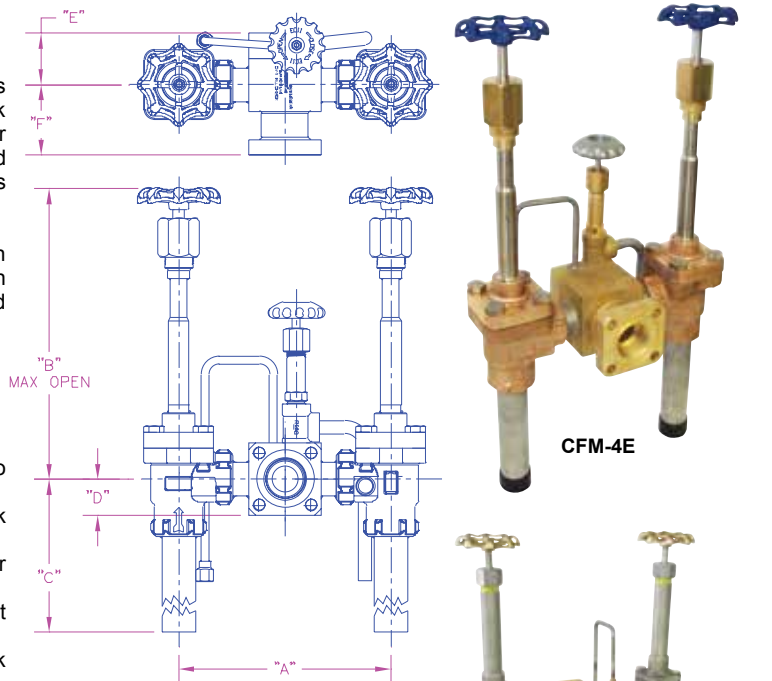
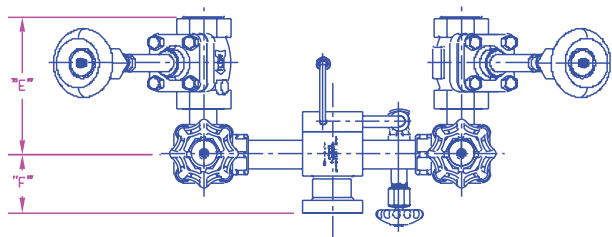
Ideal for all cryogenic liquids including Liquefied Nitrogen, Oxygen and Argon. Safe and reliably used in LNG Systems. In addition RegO® can custom design configurations that are welded and brazed in a factory setting.

Features

- Unitized construction eliminates leaks and provides easy fit-up to tank piping.
- Modules commonly include top and bottom fill valves, fill check with strainer and hose bleed and relief valve.
- Many options are available which can include specific end user dimensions and specifications.
- Our valve products stand up to high cycle environments, without the need for field adjustment of valve packing.
- Available alone or as a unitized welded assembly for bulk tank filling.
- Repeatable performance and geometry.
- Precision silver brazed and welded assembly.
- Cleaned for Liquid Oxygen Service per CGA G-4.1.
- Pressure Rating: SFM Series 600 PSI (41 bar) – CFM Series 600 PSI (41 Bar).
- Temperature Rating: -320°F (-196°C) to +165°F (+74°C).
- 100% Factory tested.

Materials

Globe Valve Bronze or Stainless Steel
 Check Valve Brass
 Bleed Valve Brass
 Tube 304L Stainless Steel or Copper



Ordering Information

Part Number	Size Inches	Size mm	Bonnet Type	Pipe Material	A Inches	B Inches	C Inches	D Inches	E Inches	F Inches	
CFM00002D	1"	25	Union	Stainless Steel	10.25	14.64	7.5	1.75	2.5	3.4	
CFM00004D	1½"	40				Bolted					15.00
CFM00004E											13
AFM00004D	1½"	40	Bolted	Copper	15.00	14.63	20	1.75	8	3.4	
PFM00004D									8		
SFM00004D									2.54		

Diaphragm Type Globe Valves 2500 Series

Application

The 2500 series valves are designed for use in hospital and industrial piping systems where gases are supplied from a central source to branch outlets throughout the system.

Features

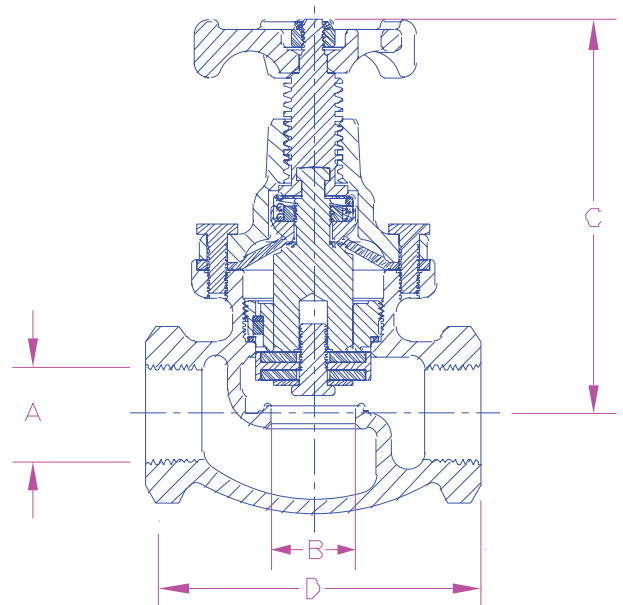
- UL listed for use with air, argon, acetylene, helium, hydrogen, LP-Gas, nitrogen, inert gases and oxygen service.
- Leakage is prevented by a dependable diaphragm stem seal.
- A resilient seat disc provides positive shut-off.
- Heavy duty ACME stem threads assure easy operation and long working life.
- Unique back seat design enabling the diaphragm assembly to be repaired while the valve remains in service.
- Maximum working pressure is 400 PSIG (27.5 Bar).
- Working temperature range is -40°F to +165°F (-40°C to +74°C).
- 100% Factory Tested
- All valves clean for use in oxygen per CGA G-4.1

Materials

Body 2507AC, 2511AC & 2513AC Cast Bronze, Tin Plated
 Body 2505AC Cast Red Brass, Tin Plated
 Bonnet Brass
 Stem Manganese Bronze
 Seat Disc Neoprene
 Diaphragm Neoprene



2505AC



Ordering Information

Part Number	Inlet/Outlet Thread (Female NPT) A	Port Diameter B	Height C	Length D	C _v Factor	
2505AC	3/4"	15/16"	5 1/4"	4"	9.0	
2507AC	1"	1 1/8"	5 3/8"	4 3/8"	15.0	
2511AC	1 1/2"	1 11/16"	6 3/4"	5 3/8"	33.4	
2513AC	2"	2 5/16"	7 1/8"	6 1/4"	51.7	

Diaphragm Type Globe Valves 2550 Series

Application

The 2550 series valves are designed for use in hospital and industrial piping systems where gases are supplied from a central source to branch outlets throughout the system.

Features

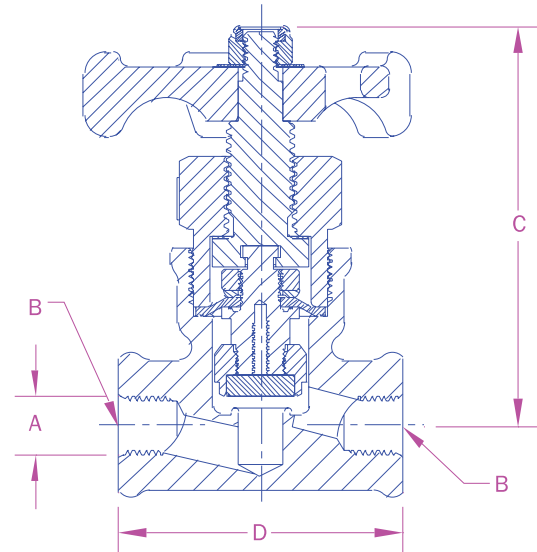
- UL listed for use with acetylene, hydrogen, nitrogen, oxygen service and compressed air.
- Leakage is prevented by a dependable diaphragm stem seal.
- A resilient seat disc provides positive shut-off.
- Heavy duty ACME stem threads assure easy operation and long working life.
- Maximum working pressure is 250 PSIG (17.2 Bar).
- Working temperature range is -40°F to +165°F (-40°C to +74°C).
- 100% Factory Tested
- All valves clean for use in oxygen per CGA G-4.1



2554AC

Materials

Body (2554 series) Cast Red Brass, Tin Plated
 Seat Disc Filled Teflon
 Diaphragm Neoprene
 Bonnet Brass
 Stem Manganese Bronze
 Handwheel Aluminum



Ordering Information

Part Number	Inlet/Outlet Thread (Female NPT) A	Port Diameter B	Height C	Length D	Cv Factor
2554AC	1/2"	21/32"	3 3/8"	3 1/8"	4.3
2554AAC	3/4"				4.3

Extended Bonnet Bronze Gate Valve for Cryogenic Service Goddard 322 and 326 Series

Features

- **Top Entry:** This union bonnet valve can be permanently installed in the line and serviced from the top
- **Construction:**
 - Bronze cast body and Internals
 - Rugged construction for long life
 - Straight through construction for high CV
 - Designed with unique KOLD-SEAL™ packing
 - Standard split wedge design provides better sealing and cycle life
- **Sizes:** ½" - 3" (15mm - 80mm)
- **Ends:** Threaded (FNPT), Sil Braze Tube (SBT), Silver Brazed Pipe (SBP) or with stainless steel pipe nipples brazed in
- **Service:** Liquified and vaporized atmospheric gases, LNG
- **Temperature Rating:** -325°F to +150°F (-196°C + 65°C)
- **Pressure Rating:** (Cold, Non-shock)
 - 322 Series 400 PSIG
 - 326 Series 600 PSIG

Designed to MSS SP-80 and ASME B31.3
Series 1.5" to 3" PED Approved per EN 10204, 3.1

**Ideal for cryogenic supply and storage handling applications.
Straight-through flow for highest CV rating in the industry.**

Also available with GRAFOIL® packing



Extended Bonnet Bronze Gate Valve for Cryogenic Service Goddard 322 and 326 Series

Ordering Information

322 Series

Bronze Gate Valves
400 PSIG COLD WORKING PRESSURE

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000322-20T4	2½"	65 mm	Threaded	19.00	8.64	372.00
B-000322-24T4	3"	80 mm	Threaded	28.00	121.73	588.00

Part Number	SBT Size Inches*	SBT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000322-4S4	½"	15 mm	Silver Braze	1.75	0.80	19.80
B-000322-6S4	¾"	20 mm	Silver Braze	2.25	1.02	36.00
B-000322-8S4	1"	25 mm	Silver Braze	3.50	1.59	60.80
B-000322-12S4	1½"	40 mm	Silver Braze	7.50	3.41	152.00
B-000322-16S4	2"	50 mm	Silver Braze	11.25	5.11	245.00
B-000322-20S4	2½"	65 mm	Silver Braze	17.00	7.73	372.00
B-000322-24S4	3"	80 mm	Silver Braze	24.00	10.91	588.00

*Nominal Size

326 Series

Bronze Gate Valves
600 PSIG COLD WORKING PRESSURE

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000326-4T6	½"	15 mm	Threaded	1.75	0.80	19.80
B-000326-6T6	¾"	20 mm	Threaded	2.25	1.02	36.00
B-000326-8T6	1"	25 mm	Threaded	4.00	1.82	60.80
B-000326-12T6	1½"	40 mm	Threaded	8.25	3.75	152.00
B-000326-16T6	2"	50 mm	Threaded	12.50	5.68	245.00

Extended Bonnet Bronze Gate Valve for Cryogenic Service Goddard 322 and 326 Series

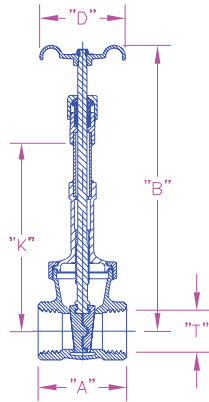
322 Series

MAWP: 400 PSIG Non-Shock Cold
Temperature Rating +150° F to -325°F

Dimensional Data

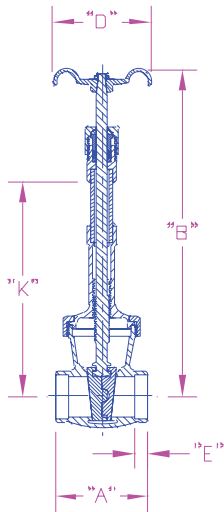
All dimensions are in inches

Threaded End (NPT)



Size	"A"	"B"	"D"	"K"	"T"
2½"	4.68"	22.5"	5.25"	14.5"	2½"
3"	5.12"	24.87"	6.12"	16.31"	3"

Sil Braze End



Size	"A"	"B"	"D"	"K"	"E"
½"	2.5"	9.38"	2.37"	5.5"	.38"
¾"	3"	10.56"	2.75"	6.12"	.40"
1"	3.25"	12.38"	3"	7.68"	.43"
1½"	4"	17"	4"	10.87"	.62"
2"	4.5"	19.62"	4.75"	12.38"	.65"
2½"	5.25"	22.5"	5.25"	14.5"	.78"
3"	6"	24.87"	6.12"	16.31"	.82"

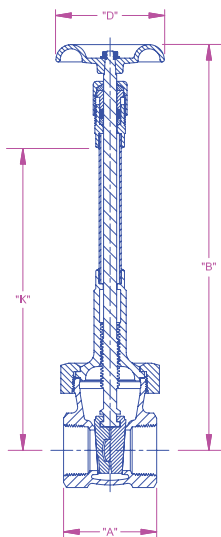
326 Series

MAWP: 600 PSIG Non-Shock Cold
Temperature Rating +150° F to -325°F

Dimensional Data

All dimensions are in inches

Threaded End (NPT)



Size	"A"	"B"	"D"	"K"
½"	2.34"	9.37"	2¼"	5.5"
¾"	2.5"	10.56"	2¾"	6.12"
1"	2.34"	12.37"	3"	7.6"
1½"	3.43"	17"	4"	10.87"
2"	3.81"	19.62"	4¾"	12.37"

Bronze Gate Valves for Cryogenic Service Goddard 302, 306, 310 & 310X Series

Features

- **Top Entry:** This union bonnet valve can be permanently installed in the line and serviced from the top
- **Construction:**
Bronze cast body and bonnet
Rugged construction for long life
Straight through design for high C_v
Designed with unique KOLD-SEAL™
- **Sizes:** ½" - 3" (15mm - 80mm)
- **Ends:** Threaded (FNPT), Sil Braze Tube (SBT), or with stainless steel pipe nipples brazed in
- **Service:** Liquified and vaporized atmospheric gases, LNG
- **Temperature Rating:** -325°F - +150°F (-196°C +65°C)
- **Pressure Rating:** (Cold, Non-shock)
310, 310x Series 300 PSIG
302 Series 400 PSIG
306 Series 600 PSIG

Designed to MSS SP-80 and ASME B31.3
Sizes 1.5" - 3.0" PED approved per EN 10204, 3.1
- **Soft Seated** Series 310 & 310X: Solid wedge with PCTFE (Neoflon®) provides a bubble tight seal and is replaceable.
- **Metal Seated** Series 302 & 306: Split wedge made of Bronze and also replaceable.

Gate design for high flow applications.
Straight-through flow for highest C_v rating in the industry.

302, 306 Non-Extended stem for selective cold gas applications

310, 310X Extended stem ideal for cryogenic supply applications



Bronze Gate Valves for Cryogenic Service

Goddard 302, 306, 310 & 310X Series

Ordering Information

302 Series

Bronze Gate Valves
Bronze Body Non-Extended Bonnet, Split Wedge
For selected cold gas operations
400 PSIG COLD WORKING PRESSURE

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000302-4T4	½"	15	Threaded	1.50	0.70	19.80
B-000302-20T4	2½"	65	Threaded	17.50	8.00	372.00
B-000302-24T4	3"	80	Threaded	26.00	11.80	588.00

Part Number	SBT Size Inches*	SBT Size mm*	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000302-4S4	½"	15	Silver Braze	1.25	0.60	19.80
B-000302-6S4	¾"	20	Silver Braze	2.25	1.00	36.00
B-000302-8S4	1"	25	Silver Braze	3.00	1.40	60.80
B-000302-12S4	1½"	40	Silver Braze	6.00	2.70	152.00
B-000302-16S4	2"	50	Silver Braze	9.50	4.30	245.00
B-000302-20S4	2½"	65	Silver Braze	14.50	6.60	372.00
B-000302-24S4	3"	80	Silver Braze	22.00	10.00	588.00

*Nominal Size

306 Series

600 PSIG Bronze Body, Non-Extended Bonnet, Split Wedge

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000306-6T6	¾"	20	Threaded	2.25	1.00	36.00
B-000306-8T6	1"	25	Threaded	3.00	1.40	60.80
B-000306-12T6	1½"	40	Threaded	6.00	2.70	152.00
B-000306-16T6	2"	50	Threaded	9.50	4.30	245.00

310 Series

300 PSIG Bronze Body, Extended Bonnet, Solid Wedge, Soft Seat

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000310-20T	2½"	65	Threaded	14.50	6.60	372.00
B-000310-24T	3"	80	Threaded	22.00	10.00	588.00

Part Number	SBT Size Inches *	SBT Size mm *	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000310-24S	3"	80	Silver Braze	22.00	10.00	588.00

*Nominal Size

310X Series

Short Top Works for Trailer Service

300 PSIG Bronze Body, Extended Bonnet, Solid Wedge, Soft Seat

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-00310X-20T	2½"	65	Threaded	14.50	6.60	372.00
B-00310X-24T	3"	80	Threaded	22.00	10.00	588.00

Part Number	SBT Size Inches *	SBT Size mm *	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
B-000310X-24S	3"	80	Silver Braze	22.00	10.00	588.00

*Nominal Size

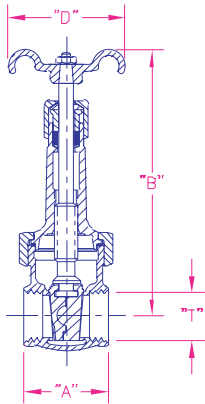
SB-00310X

Stainless Steel Body - Bronze Topworks

Part Number	SBT Size Inches *	SBT Size mm *	Ends	Weight Lbs.	Weight Kgs.	Estimated Cv
SB-00310X-24SW	3"	80	Socketweld	22.00	10.00	588.00

Bronze Gate Valves for Cryogenic Service

Goddard 302, 306 Series



302 Series

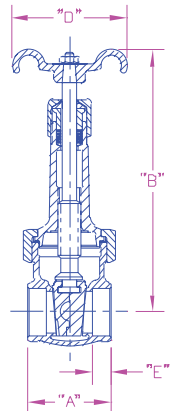
MAWP: 400 PSIG Non-Shock Cold Temperature Rating +150° F to -325°F
Non-Extended Valve for selective cold gas applications

Dimensional Data

All dimensions are in inches

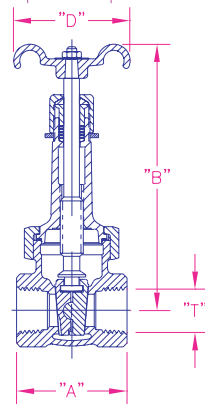
Threaded End (NPT)

Size	"A"	"B"	"D"	"T" NPT
1/2"	2.34"	5.81"	2.37"	1/2"
2 1/2"	4.68"	15.81"	5.25"	2 1/2"
3"	5.12"	18.25"	6.12"	3"



Sil Bronze End

Size	"A"	"B"	"D"	"E"
1/2"	2.50"	5.81"	2.37"	.38"
3/4"	3"	6.94"	2.75"	.40"
1"	3.25"	8.43"	3"	.43"
1 1/2"	4"	11.19"	4"	.62"
2"	4.5"	13.19"	4.75"	.65"
2 1/2"	5.25"	15.81"	5.25"	.78"
3"	6"	18.25"	6.12"	.82"



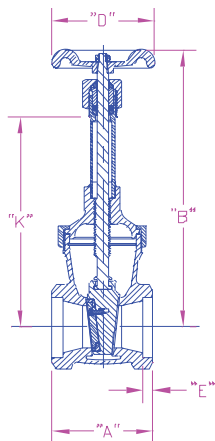
306 Series

MAWP: 600 PSIG Non-Shock Cold-Temperature Rating +150° F to -325°F
Non-Extended Valve for selective cold gas applications

Dimensional Data

All dimensions are in inches

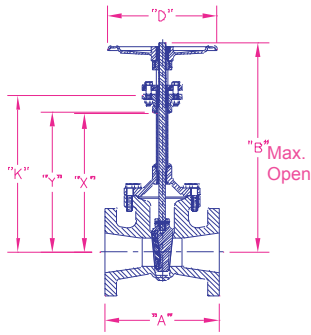
Size	"A"	"B"	"D"	"T" NPT
3/4"	2.5"	6.93"	2 3/4"	3/4"
1"	2.84"	8.43"	3"	1"
1 1/2"	3.43"	11.18"	4"	1 1/2"
2"	3.81"	13.81"	4 3/4"	2"



SB-00310X-24SW Sil Bronze End (Stainless Steel Body)

Size	"A"	"B"	"D"	"E"	"K"
3"	6"	20.38"	6.12	0.63	12.5

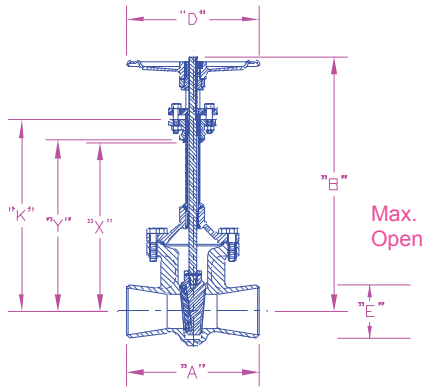
Stainless Steel Gate Valve for Cryogenic Service Goddard 110 Series



Raised Face Flange Ends*

Size	"A" 150#	"A" 300#	"B"	"D"	"K"	"X"	"Y"
1"	4 ¹ / ₈ "	N/A	17 ³ / ₄ "	4 ¹ / ₂ "	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ¹ / ₈ "
1 ¹ / ₂ "	4 ⁵ / ₈ "	6 ¹ / ₈ "*	21 ¹ / ₈ "	7"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "
2"	7"	7 ¹ / ₄ "*	21 ¹ / ₈ "	7"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "
3"	8"	8 ³ / ₄ "*	31 ¹ / ₂ "	12"	20"	17 ³ / ₄ "	18 ¹ / ₁₆ "
4"	9"	12"	33 ³ / ₄ "	12"	21 ¹ / ₂ "	19 ¹ / ₄ "	19 ⁹ / ₁₆ "
6"	10 ¹ / ₂ "	15 ⁷ / ₈ "	41 ¹ / ₂ "	16"	26"	23 ⁹ / ₁₆ "	23 ⁵ / ₈ "

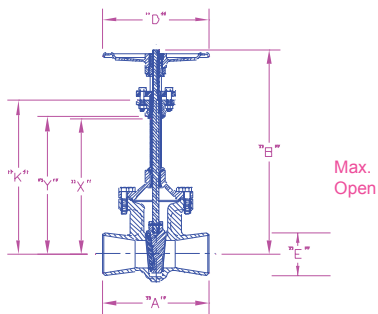
- *Face-to-face dimensions (A) are Goddard standard not to ANSI standard.
 • Special B,K,X & Y Dimensions Available



Socket Weld Ends

Size	"A" 150#	"A" 300#	"B"	"D"	"E"	"F"	"K"	"X"	"Y"
1/2"	3 ³ / ₄ "	3 ³ / ₄ "	17 ³ / ₄ "	4 ¹ / ₂ "	.855	3/8"	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
3/4"	3 ³ / ₄ "	3 ³ / ₄ "	17 ³ / ₄ "	4 ¹ / ₂ "	1.065	1/2"	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
1"	3 ¹ / ₂ "	4"	17 ³ / ₄ "	4 ¹ / ₂ "	1.330	1/2"	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
1 ¹ / ₂ "	4 ⁵ / ₈ "	5"	21 ¹ / ₈ "	7"	1.915	1/2"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "
2"	8 ¹ / ₂ "	N/A	21 ¹ / ₈ "	7"	2.406	5/8"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "

- Special B,K,X & Y Dimensions Available



Butt Weld Ends

Size	"A" 150#	"A" 300#	"B"	"D"	"K"	"X"	"Y"
1/2"	4 ¹ / ₄ "	N/A	17 ³ / ₄ "	4 ¹ / ₂ "	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
3/4"	4 ⁵ / ₈ "	N/A	17 ³ / ₄ "	4 ¹ / ₂ "	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
1"	5"	N/A	17 ³ / ₄ "	4 ¹ / ₂ "	12 ³ / ₄ "	11 ¹ / ₁₆ "	11 ³ / ₈ "
1 ¹ / ₂ "	6"	6"	21 ¹ / ₈ "	7"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "
2"	8 ¹ / ₂ "	8 ¹ / ₂ "	21 ¹ / ₈ "	7"	14"	12 ⁵ / ₁₆ "	12 ⁵ / ₈ "
3"	11 ¹ / ₈ "	11 ¹ / ₈ "	31 ¹ / ₂ "	12"	20"	17 ³ / ₄ "	18 ¹ / ₁₆ "
4"	12"	12"	33 ³ / ₄ "	12"	21 ¹ / ₂ "	19 ¹ / ₄ "	19 ⁹ / ₁₆ "
6"	15 ¹ / ₈ "	15 ⁷ / ₈ "	41 ¹ / ₂ "	16"	26"	23 ⁹ / ₁₆ "	23 ⁵ / ₈ "

- Special B,K,X & Y Dimensions Available
 • Unless otherwise specified, Schedule 10 weld ends are supplied

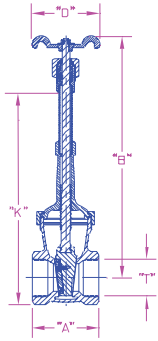
Bronze Gate Valves for Cryogenic Service Goddard 310 & 310X Series

310 Series

MAWP: 300 PSIG Non-Shock Cold-Temperature Rating +150° F to -325°F
Extended Valve for selective cold gas applications

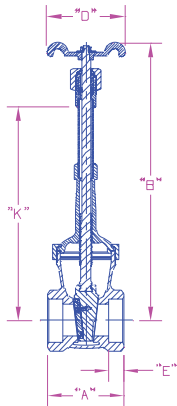
Dimensional Data

All dimensions are in inches



Threaded End (NPT)

Size	"A"	"B"	"D"	"K"
3"	6"	25.38"	6.12"	16.30"



Sil Braze End

Size	"A"	"B"	"D"	"E"	"K"
2½"	6"	25.38"	6.12"	.03"	16.30"
3"					

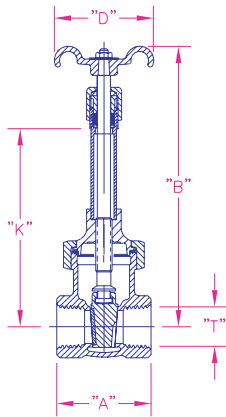
310X Series

MAWP: 300 PSIG Non-Shock Cold-Temperature Rating +150° F to -325°F

Extended Valve for selective cold gas applications, Ideal for Trailer Service

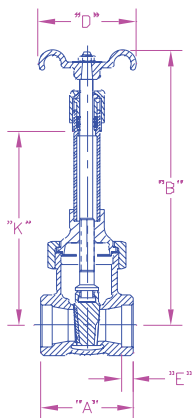
Dimensional Data

All dimensions are in inches



Threaded End (NPT)

Size	"A"	"B"	"D"	"K"
2½"	6"	20.38"	6.12"	11.5"
3"				



Sil Braze End

Size	"A"	"B"	"D"	"E"	"K"
3"	6"	20.38"	6.12"	0.83"	16.3"

Stainless Steel Gate Valve for Cryogenic Service Goddard 110 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-CF8 J92600 Stainless steel
- **Sizes:** ½" - 6" (15mm - 150mm)
- **Ends:** RF Flange, Butt weld, Socket weld, Threaded (FNPT)
- **Service:** Liquefied and vaporized atmospheric gases, LNG
- WHZ valves with Grafoil® stem packing available.
- **Temperature Rating:** -325°F - 150°F (-196°C +65°C)
- 100% Factory Tested
- Clean for use in oxygen per CGA G-4.1
- **Pressure Rating:** (Cold, Non-shock)
Class 150 valve - 275 PSIG (19 bar)
Class 300 valve - 720 PSIG (50 bar)

½" - 6" Class 150
PED Approved, Approved for US and Canada
½" - 6" Class 300
PED Approved, Approved for US and Canada

Goddard 110 Series



Ordering Information Stainless Body • RF Flange Ends

150# Part Number	300# Part Number	Valve Size		Ends	Weight 150#		Weight 300#		Estimated Cv
		Inches	MM		Lbs.	Kg	Lbs.	Kg.	
GS-00110W-8F	-	1"	25 mm	Flange	15	6.80	-	-	30.00
GS-00110W-12F	GS-00110W-12F3	1½"	40 mm		35	15.88	45	20.41	85.00
GS-00110W-16F	GS-00110W-16F3	2"	50 mm		35	15.88	50	22.68	100.00
GS-00110W-24F	GS-00110W-24F3	3"	80 mm		65	29.48	85	35.56	310.00
GS-00110W-32F	GS-00110W-32F3	4"	100 mm		90	40.82	120	54.43	700.00
GS-00110W-48F	GS-00110W-48F3	6"	150 mm		150	68.04	200	90.72	850.00

150# ANSI Class (275 PSIG Cold Working Pressure) 300# ANSI Class (720 PSIG Cold Working Pressure)

Ordering Information 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-00110W-4WA	-	½"	15 mm	Butt Weld SCH10	10	4.54	7.00
GS-00110W-4S3	GS-00110W-4S3	½"	15 mm	Socket Weld	15	6.80	7.00
GS-00110W-4T	-	½"	15 mm	Threaded	10	4.54	7.00
GS-00110W-6WA	-	¾"	20 mm	Butt Weld SCH10	10	4.54	23.00
GS-00110W-6S3	GS-00110W-6S3	¾"	20 mm	Socket Weld	15	6.80	23.00
GS-00110W-8WA	-	1"	25 mm	Butt Weld SCH10	10	4.54	30.00
GS-00110W-8S3	GS-00110W-8S3	1"	25 mm	Socket Weld	15	6.80	30.00
GS-110W-8T	-	1"	25mm	Threaded	10	4.54	30.00
GS-00110W-12WA	-	1½"	40 mm	Butt Weld SCH10	30	13.61	85.00
GS-00110W-12S3	GS-00110W-12S3	1½"	40 mm	Socket Weld	35	15.88	85.00
GS-00110W-16W3A	GS-00110W-16W3A	2"	50 mm	Butt Weld SCH10	35	15.88	100.00
GS-00110W-16W3J	GS-00110W-16W3J	2"	50 mm	Butt Weld SCH40	35	15.88	100.00
GS-00110W-16S	-	2"	50 mm	Socket Weld	30	13.61	100.00
GS-00110W-24W3A	GS-00110W-24W3A	3"	80 mm	Butt Weld SCH10	65	29.48	310.00
GS-00110W-24W3J	GS-00110W-24W3J	3"	80 mm	Butt Weld SCH40	65	29.48	310.00
GS-00110W-32W3A	GS-00110W-32W3A	4"	100 mm	Butt Weld SCH10	80	40.82	700.00
GS-00110W-32W3J	GS-00110W-32W3J	4"	100 mm	Butt Weld SCH40	80	40.82	700.00
GS-00110W-48WA	GS-00110W-48W3A	6"	150 mm	Butt Weld SCH10	120/150*	54.43/68.04*	850.00
GS-00110W-48WJ	GS-00110W-48W3J	6"	150 mm	Butt Weld SCH40	120/150*	54.43/68.04*	850.00

150# ANSI Class (275 PSIG Cold Working Pressure) 300# ANSI Class (720 PSIG Cold Working Pressure)* Second number indicates valve for 300# part number.
Service: 300#-720 PSI Non-shock Cold • Service: 150#-275 PSI Non-shock Cold • Temperature Rating +150°F - 325°F • Mounting plate option available

Stainless Steel Gate Valve for Cryogenic Service Goddard 110WHZ 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:** Stainless steel body and bonnet
- **Sizes:** ½" - 6" (15mm - 150mm)
- **Ends:** RF Flange, Butt weld, Socket weld, Threaded (FNPT)
- **Service:** Liquified and vaporized atmospheric gases, LNG
- Grafoil® stem packing.
- **Temperature Rating:** -325°F - 150°F (-196°C +65°C)
- 100% Factory Tested
- Clean for use in oxygen per CGA G-4.1
- Grafoil® Stem Packing
- **Pressure Rating:** (Cold, Non-shock)
Class 150 valve - 275 PSIG (19 bar)
Class 300 valve - 720 PSIG (50 bar)

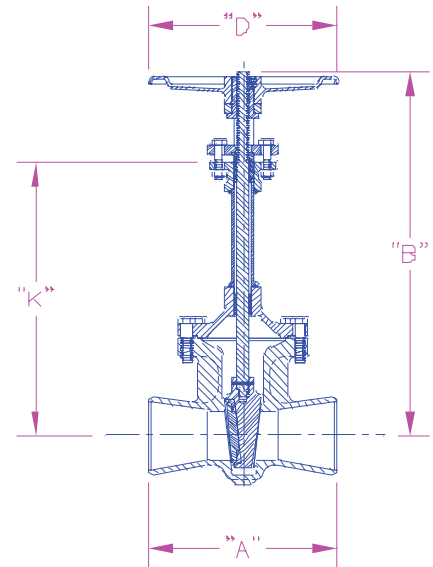
½" - 6" Class 150

PED Approved, Approved for US and Canada

½" - 6" Class 300

PED Approved, Approved for US and Canada

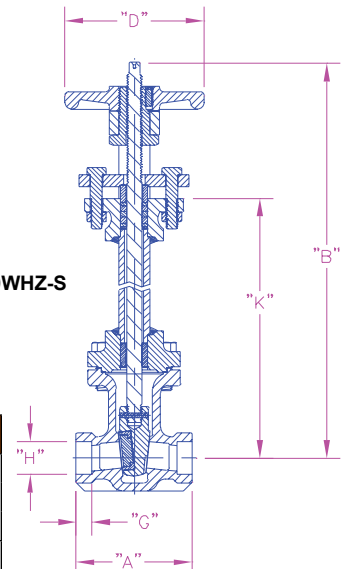
S-110WHZ-W



Ordering Information

Part Number	Ends	Size	"A"	"B"	"D"	"K"	Estimated Cv	Weight (Lbs.)
GS-110WHZ-16W3A	S10	2"	8.50	21.88	7	14	100	35
GS-110WHZ-16W3J	S40							
GS-110WHZ-24W3A	S10	3"	11.12	31.5	12	20	310	65
GS-110WHZ-24W3J	S40							
GS-110WHZ-32W3A	S10	4"	12	33.75	12	21.5	700	80
GS-110WHZ-32W3J	S40							
GS-110WHZ-48W3A	S10	6"	15.88	41.5	16	26	850	150
GS-110WHZ-48W3J	S40							

S-110WHZ-S



Ordering Information

Part Number	Size	"A"	"B"	"D"	"G"	"H"	"K"	Estimated Cv	Weight (Lbs.)
GS-110WHZ-4S3	½"	3.75	17.75	4.5	.38	.86	12.8	7	15
GS-110WHZ-6S3	¾"							1.07	
GS-110WHZ-8S3	1"	4	1.33	30					
GS-110WHZ-12S3	1½"	5	1.92	85	14	35			

Horizontal Lift Check Valves 8500 Series

Application

8500 series valves are designed for use as a check valve on cryogenic bulk stations and pipelines.

Features

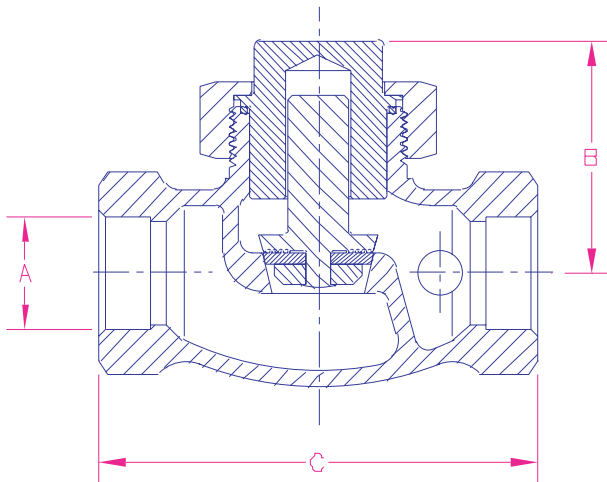
- Replaceable Kel-F seat discs.
- Self-centering cap holds plunger in position.
- Each valve is cleaned and packaged for liquid oxygen service per CGA G-4.1.
- 100% Factory Tested
- Working temperature range is -320°F to +165°F (-196°C to +74°C).
- Maximum working pressure is 600 PSIG CWP (41.3 Bar).
- 2 PSI opening pressure.



BK8508S

Materials

Body Bronze
 Cap Brass
 Plunger Brass
 Seat PCTFE



BK8512S

Ordering Information

Part Number	Inlet / Outlet Connection A	B	Length C	C _v Factor
BK8508S	1.128"-1.130"	2¼"	4 ¹⁵ / ₁₆ "	10
BK8508T	1" F.NPT			
BK8512S	1.629"-1.631"	3¼"	5 ³ / ₁₆ "	27
BK8512T	1½" F.NPT			

Bronze Swing Check Valve for Cryogenic Service Including 846M Goddard 840 Series

Features

- **Top Entry:** This swing check valve can be permanently installed in the line and serviced from the top
 - **Construction:** Designed to prevent back flow in cryogenic systems. Higher fluid capacity (CV) than poppet or lift check valves. Bronze body and internals. Rugged construction for long life and minimal down time
 - **Sizes:** ½" through 2" (15mm through 50mm)
 - **Ends:** Threaded (FNPT), or with Sil Brazed Tube (SBT)
SCH-10, Threaded back brazed pipe nipples in 1" increments up to 6"
SCH-40, Threaded back brazed pipe nipples in 1" increments up to 6"
SCH-80, Threaded back brazed pipe nipples in 1" increments up to 6"
 - **Temperature Rating:** -325°F to +150°F (-196°C to +65°C)
 - **Pressure Rating:** (Cold, Non-shock)
840 Series 400 PSIG
846M Series 600 PSIG
Sizes 1½" to 2" PED Approved Per EN10204 3.1
- Note: Do not use for reciprocating gas service.**
- **Cracking Pressure:** 0.5 PSI (.03 Bar)



Ordering Information

840

Bronze Swing Check Valves - Soft Seated, Threaded, Sil Brazed Ends, Threaded and Back Brazed Pipe Nipples
400 PSIG Cold Working Pressure

Threaded Ends

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000840-4T	½"	15 mm	Threaded	2.00 Lbs.	0.91 Kgs.	4.50
B-000840-6T	¾"	20 mm	Threaded	4.00 Lbs.	1.81 Kgs.	7.00
B-000840-8T	1"	25 mm	Threaded	4.50 Lbs.	2.04 Kgs.	10.00
B-000840-12T	1½"	40 mm	Threaded	8.50 Lbs.	3.86 Kgs.	40.00
B-000840-16T	2"	50 mm	Threaded	14.50 Lbs.	6.58 Kgs.	100.00

Silver Brazed - Pipe Nipple

Part Number	SBT Size Inches*	SBT Size mm*	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000840-4S	½"	15 mm	Silver Braze	2.50 Lbs.	1.13 Kgs.	4.50
B-000840-6S	¾"	20 mm	Silver Braze	4.5 Lbs.	2.05 Kgs.	7.00
B-000840-8S	1"	25 mm	Silver Braze	5.25 Lbs.	2.38 Kgs.	10.00
B-000840-12S	1½"	40 mm	Silver Braze	10.75 Lbs.	4.88 Kgs.	40.00
B-000840-16S	2"	50 mm	Silver Braze	17.50 Lbs.	7.94 Kgs.	100.00

* Nominal Size

846M

Bronze Swing Check Valves - Metal Seated, Threaded, Sil Brazed Ends, Threaded and Back Brazed Pipe Nipples
600 PSIG Cold Working Pressure

Threaded Ends

Part Number	NPT Size Inches	NPT Size mm	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-00846M-4T6	½"	15 mm	Threaded	2.00 Lbs.	0.91 Kgs.	4.50
B-00846M-8T6	1"	25 mm	Threaded	4.50 Lbs.	2.04 Kgs.	10.00
B-00846M-12T6	1½"	40 mm	Threaded	8.50 Lbs.	3.86 Kgs.	40.00
B-00846M-16T6	2"	50 mm	Threaded	14.50 Lbs.	6.58 Kgs.	100.00

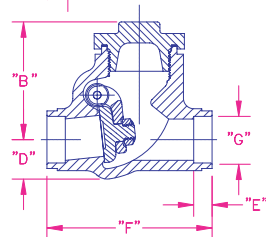
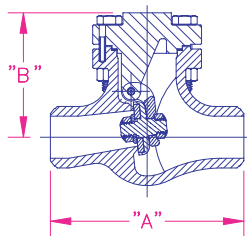
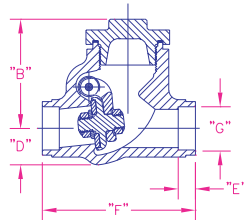
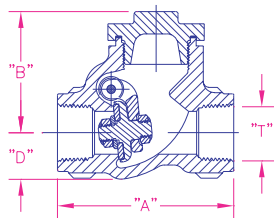
Bronze Swing Check Valve for Cryogenic Service Including 846M Goddard 840 Series

Silver Brazed - Pipe Nipple

Part Number	SBT Size Inches*	SBT Size mm*	Ends	Weight Lbs.	Weight Kgs.	Estimated CV
B-000846M-4S6	½"	15 mm	Silver Braze	2.50 Lbs.	1.13 Kgs.	4.50
B-000846M-6S6	¾"	20 mm	Silver Braze	4.50 Lbs.	2.04 Kgs.	7.00
B-000846M-8S6	1"	25 mm	Silver Braze	5.25 Lbs.	2.38 Kgs.	10.00
B-000846M-12S6	1½"	40 mm	Silver Braze	10.75 Lbs.	4.88 Kgs.	40.00
B-000846M-16S6	2"	50 mm	Silver Braze	17.50 Lbs.	7.94 Kgs.	100.00

* Nominal Size

- Contact company for threaded, back brazed pipe nipple information



840 Series

Pressure Rating MSS SP-80 Class 200
MAWP 400 PSIG Non-Shock Cold
Temperature Rating +150°F to -325°F

Dimensional data
All Dimensional Data are in inches.

Size	"A"	"B"	"D"	"T" NPT	"E"	"F"	"G"
½"	3.00"	2.13"	¾"	½"	.38"	2.94"	.63"
¾"	3.69"	2.81"	1.12"	¾"	.41"	3.60"	.88"
1"	4.00"	2.81"	1.13"	1"	.45"	4.00"	1.13"
1½"	5.03"	3.63"	1.44"	1½"	.63"	5.03"	1.63"
2"	6.35"	4.34"	1.84"	2"	.66"	6.35"	2.13"

846M Series

Pressure Rating MSS SP-80 Class 300
MAWP 600 PSIG Non-Shock Cold
Temperature Rating +150°F to -325°F

Dimensional data
All Dimensional Data are in inches.

Size	"A"	"B"	"D"	"T" NPT	"E"	"F"	"G"
½"	3.00"	2.13"	¾"	½"	.38"	2.94"	.63"
¾"	3.69"	2.81"	1 ⅛"	¾"	.41"	3.60"	.88"
1"	4.00"	2.81"	1 ⅛"	1"	.45"	4.00"	1.13"
1½"	5.03"	3.63"	1 ⅞"	1½"	.63"	5.03"	1.63"
2"	6.35"	4.34"	1 27/32"	2"	.66"	6.35"	2.13"

Stainless Steel Swing Check Valve for Cryogenic Service Goddard 886 Series

Features

- **Top Entry:** This bolted bonnet valve can be permanently installed in the line and services from the top
- **Construction:** Designed to prevent back flow in cryogenic systems. Higher fluid capacity (C_v) than poppet or lift check valves. 316L stainless steel investment cast body, cap and arm
- **Sizes:** ½" through 4" (15mm through 100mm)
- **Ends:** Socket weld and butt weld schedule 10 and 40
- **Temperature Rating:** -325°F to 150°F (-196°C to +66°C)
- **Pressure Rating:** (Cold, Non-shock)
400 PSIG (27 Bar) ½" - 2"
275 PSIG (19 Bar) 150# ANSI Class 3" and 4"
720 PSIG (50 Bar) 300# ANSI Class 3" and 4"
PED Approved, Approved for US and Canada
- **Note: Do not use for reciprocating gas service.**
- **Our investment cast stainless steel is specified by leading industrial gas companies for storage tank and yard operations.**
- **Ideal for liquid atmospheric gases and LNG storage and handling.**
- **High cycle life and superior sealing.**
- **Valves for hydrogen service can be supplied. (-425°F to +350°F)**
- **Cracking Pressure:** 0.5 PSI (0.3) Bar



Ordering Information

886

Stainless Steel Swing Check Valves
Soft Seat

GRAFOIL® Gasket - Hydrogen Service - Socket Weld

Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated C_v	Weight Lbs.
	Inches	mm					
S-0886GF-4S	½"	15 mm	Socket Weld	Soft	400 (26 Bar)	4.50	3 Lbs.
S-0886GF-6S	¾"	20 mm		Soft	400 (26 Bar)	12.00	6 Lbs.
S-0886GF-8S	1"	25 mm		Soft	400 (26 Bar)	61.00	11 Lbs.
S-0886GF-12S	1½"	40 mm		Soft	400 (26 Bar)	99.00	17 Lbs.

PTFE Gasket - Socket Weld

Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated C_v	Weight Lbs.
	Inches	mm					
S-000886-4S	½"	15 mm	Socket Weld	Soft	400 (26 Bar)	4.50	3 Lbs.
S-000886-6S	¾"	20 mm		Soft	400 (26 Bar)	12.00	6 Lbs.
S-000886-8S	1"	25 mm		Soft	400 (26 Bar)	61.00	11 Lbs.
S-000886-12S	1½"	40 mm		Soft	400 (26 Bar)	99.00	17 Lbs.

Stainless Steel Swing Check Valve for Cryogenic Service Goddard 886 Series

PTFE Gasket - Butt Weld

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm						
S-000886-4WA	1/2"	15 mm	Butt Weld	Soft	10	400 (26 Bar)	4.50	3 Lbs.
S-000886-8WA	1"	25 mm			10	400 (26 Bar)	18.00	11 Lbs.
S-000886-12WA	1 1/2"	40 mm			10	400 (26 Bar)	61.00	17 Lbs.
S-000886-16W3A	2"	50 mm			10	720 (50 Bar)	99.00	17 Lbs.
S-000886-24WA	3"	80 mm			10	275 (19 Bar)	255.00	47 Lbs.
S-000886-24WJ	3"	80 mm			40	275 (19 Bar)	225.00	46 Lbs.
S-000886-32W3J	4"	100 mm			40	720 (50 Bar)	475.00	95 Lbs.
S-000886-32WA	4"	100 mm			10	275 (19 Bar)	475.00	95 Lbs.

886M

Stainless Steel Swing Check Valves - Metal Seat

PTFE Gasket - Socket Weld

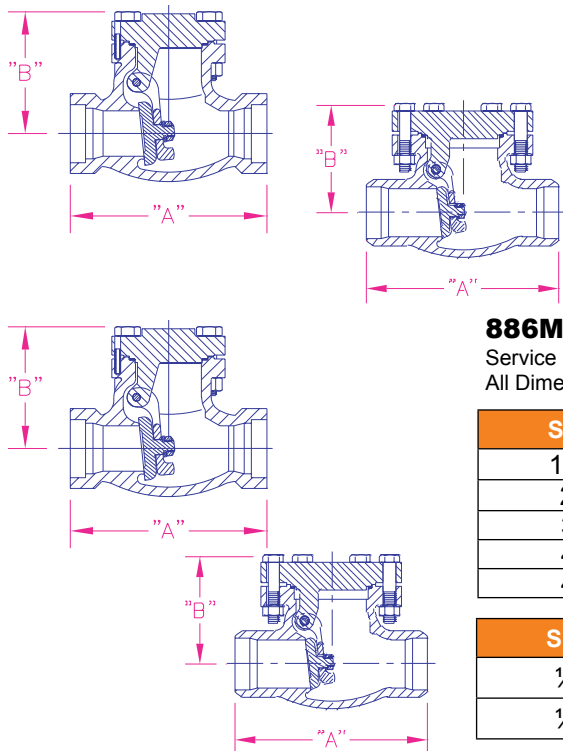
Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm					
S-00886M-4S3	1/2"	15 mm	Socket Weld	Metal	720 (50 Bar)	4.50	3 Lbs.
S-00886M-8S3	1"	25 mm			720 (50 Bar)	18.00	11 Lbs.
S-00886M-12S3	1 1/2"	40 mm			720 (50 Bar)	61.00	17 Lbs.

Butt Weld Ends

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm						
S-00886M-16W3A	2"	50 mm	Butt Weld	Metal	10	720 (50 Bar)	99.00	17 Lbs.
S-00886M-24W3J	3"	80 mm			40	720 (50 Bar)	225.00	46 Lbs.
S-00886M-24W3A	3"	80 mm			10	720 (50 Bar)	225.00	46 Lbs.
S-00886M-32WA	4"	100 mm			10	275 (19 Bar)	475.00	95 Lbs.
S-00886M-32W3J	4"	100 mm	Butt Weld		40	720 (50 Bar)	475.00	95 Lbs.

Butt Weld Ends with GRAFOIL® Gasket for Hydrogen Service

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm						
S-886MGF-16W3A	2"	50 mm	Butt Weld	Metal	10	720 (50 Bar)	99.00	17 Lbs.
S-886MGF-24W3A	3"	80 mm	Butt Weld		10	720 (50 Bar)	225.00	46 Lbs.



886

Pressure Rating 300 PSIG Non-Shock Cold, Temperature Rating +150° F to - 325° F
All Dimensional Data are in inches.

Size	"A"	"B"
1/2"	4 1/4"	2 1/2"
3/4"	5"	3 1/4"
1"	5"	3 1/4"
1 1/2"	6 1/2"	4"
2"	8"	4 1/2"

886M

Service 300 Class 720 PSI Non-Shock Cold, Temperature Rating +150° F to - 325° F
All Dimensional Data are in inches.

Size	"A"	"B"	Butt Weld End Schedule
1 1/2"	6 1/2"	4"	10
2"	8"	4 1/2"	10
3"	9 1/2"	5 3/4"	10 & 40
4"	11 1/2"	8 3/8"	10
4"	14"	8 3/8"	40

Size	"A"	"B"	End	End Dimension
1/2"	2 7/16"	4 1/4"	Socket Weld	SCH 10
1/2"	2 7/16"	4 1/4"		1/2" Pipe Socket

Inline Check Valves

CG Series Gas and Cryogenic Check Valves

Application

Inline check valves with metal seat option for cryogenic service or with soft seat option for leak free operation in gas service.

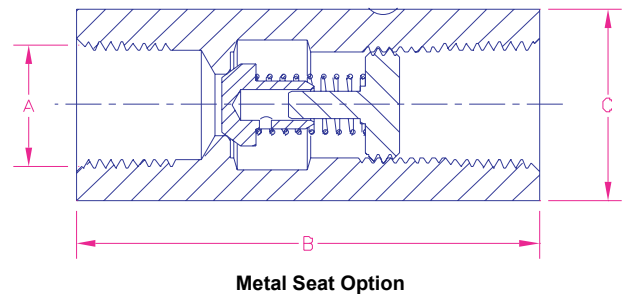
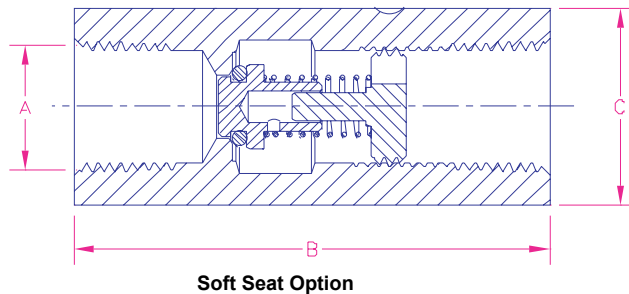
Features

- One directional flow indicated by arrow on body.
- Large Cv for high flow capability and low pressure drop.
- Working temperature range:
-320° F to +165° F for metal seats.
-20° F to +165° F for soft seats.
- 1 psig opening pressure.
- Cleaned for use in oxygen service per CGA G-4.1



Materials

Body (B and BL suffix) ASTM B16 Brass
 Body (SS and SSL suffix) 203 Stainless Steel
 Spring Stainless Steel
 Piston Stainless Steel
 O-Ring (soft seat option units only) Viton
 Metal Seat 303 Stainless Steel



Ordering Information

Part Number	Seating Option	Inlet/Outlet Connections FNPT A	Length B	Wrenching Hex Size C	C _v	Maximum Operating Pressure
Stainless Steel Check Valves						
CG250SS	Metal	1/4"	2 ³ / ₈ "	1 ³ / ₁₆ "	.87	5000 PSIG
CG375SS	Metal	3/8"	2 ¹ / ₂ "	1"	2.3	5000 PSIG
CG500SS	Metal	1/2"	3"	1 ¹ / ₈ "	3.5	5000 PSIG
CG750SS	Metal	3/4"	3 ⁵ / ₈ "	1 ¹ / ₂ "	5.2	5000 PSIG
CG250SSL	Soft	1/4"	2 ³ / ₈ "	1 ³ / ₁₆ "	.87	250 PSIG
CG375SSL	Soft	3/8"	2 ¹ / ₂ "	1"	2.3	250 PSIG
CG500SSL	Soft	1/2"	3"	1 ¹ / ₈ "	3.5	3000 PSIG
CG750SSL	Soft	3/4"	3 ⁵ / ₈ "	1 ¹ / ₂ "	5.2	3000 PSIG
Brass Body Check Valves						
CG250B	Metal	1/4"	2 ³ / ₈ "	1 ³ / ₁₆ "	.87	3000 PSIG
CG375B	Metal	3/8"	2 ¹ / ₂ "	1"	2.3	3000 PSIG
CG500B	Metal	1/2"	3"	1 ¹ / ₈ "	3.5	3000 PSIG
CG750B	Metal	3/4"	3 ⁵ / ₈ "	1 ¹ / ₂ "	5.2	3000 PSIG
CG250BL	Soft	1/4"	2 ³ / ₈ "	1 ³ / ₁₆ "	.87	250 PSIG
CG375BL	Soft	3/8"	2 ¹ / ₂ "	1"	2.3	250 PSIG
CG500BL	Soft	1/2"	3"	1 ¹ / ₈ "	3.5	3000 PSIG
CG750BL	Soft	3/4"	3 ⁵ / ₈ "	1 ¹ / ₂ "	5.2	3000 PSIG

RegO® LNG Check Valves NG Series

Application

NG301

For use with LNG liquid lines as an effective shut off utilizing ball and spring mechanism. 1/8" design fits compact piping systems.

Heavy duty spring and precision ball provide dependable service in LNG fuel applications.

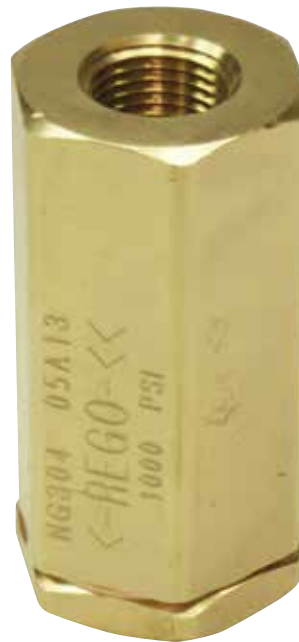
NG304

For use with LNG fuel lines as an effective one way shut off utilizing soft seated design for quick acting response to flow.

Poppet design is ideal for LNG and resistant to particulates.

Features

- Materials selected specifically for compatibility with LNG
- Quick acting ball and spring mechanism (NG301)
- NG-301 metal to metal seating provides durable service life
- NG-304 maximum inlet pressure 1000 PSI (69 Bar)
- 100% factory tested
- Temperature Range: -320° F to 165°F (-196°C to 74°C)



NG304



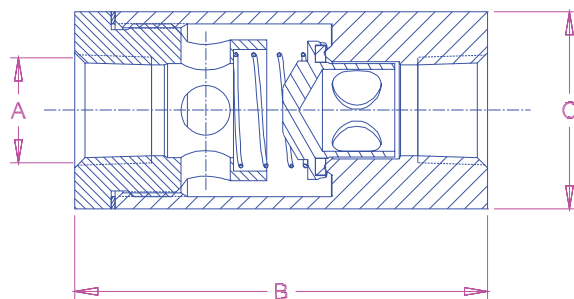
NG301

Materials for NG301

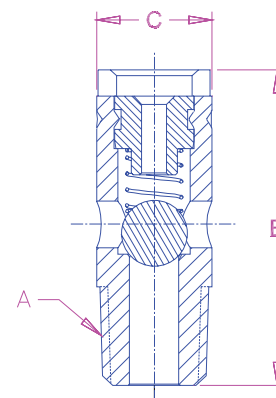
Body Brass ASTM B16 C36000
 Spring Stainless Steel 302 ASTM A313
 Plug Brass ASTM B16 C36000
 Ball Stainless Steel 316

Materials for NG304

Body Brass ASTM B16 C36000
 Spring Stainless Steel 302 ASTM A313
 Gasket Copper ASTM B152 UNS C11000
 Poppet Brass ASTM B16 UNS C36000
 Seat Disc PTFE Virgin Teflon



NG304



NG301

Ordering Information

Part Number	Connection (A)	B	C	Weight Lbs
NG301	Threaded M.NPTF 1/8"	1.200	.438	0.01
NG304	Threaded F.NPTF 1/2"	3.135	1.5 (Hex)	1.25

RegO® Excess Flow Valve NG-303

Application

For use with LNG liquid lines as an effective shut off when an excess flow condition occurs downstream to prevent uncontrolled release of system media.

Features

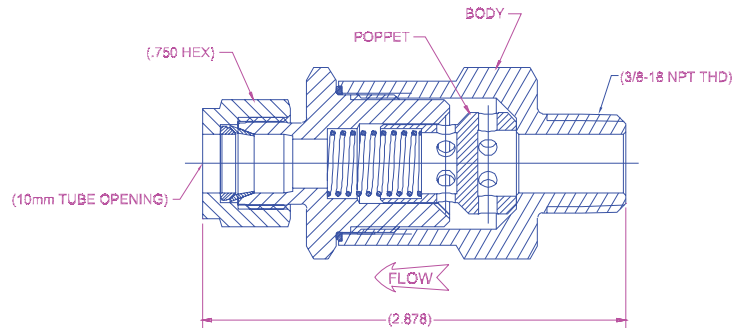
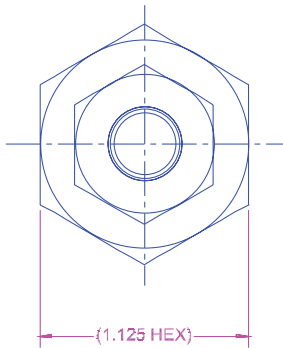
- Materials selected specifically for compatibility with LNG
- Poppet design provides high-flow capacity.
- Design allows spring to reset poppet automatically when system pressure equalizes
- Maximum inlet pressure: 4MPa
- Temperature range: -320° F to 165° F
- 100% factory tested

Materials

Body Brass
 Spring Stainless Steel
 Poppet Brass
 Bonnet Stainless Steel



NG303



Ordering Information

Part Number	Inlet	Outlet	Closing Flow
NG303	3/8"	10mm Tube	3.5 - 5.5 GPM

Threaded Internal Valves For Bobtail Delivery Trucks, Transports and Stationary Storage Tanks A3212C Series

Designed primarily for use with CO₂ for liquid withdrawal of delivery trucks, transports, stationary storage tanks, and in-line installations. The valve may be operated manually by cable or pneumatically.

Ordering Information

Part Number	Inlet Connection M. NPT	Outlet Connection F. NPT	Accessories	
			Thermal Latch	Rotary Actuator
TA3212R105	2"	2"	A3213TL	A3212RA
TA3212RT105		2" T-body		

Left operating position available



A3212R Series

Threaded Internal Valves For Bobtail Delivery Trucks, Transports and Stationary Storage Tanks A3213C Series

Designed primarily for use with CO₂ for liquid withdrawal of delivery trucks, transports, stationary storage tanks, and in-line installations. The valve may be operated manually by cable or pneumatically.

Ordering Information

Part Number	Inlet Connection M-NPT	Outlet Connections F-NPT	Accessories	
			Rotary Actuator	Thermal Latch
TA3213R150	3"	3"	A3213RA	A3213TL
TA3213RT150		3" T-body		
TA3213R200		3"		

Left operating position available



A3213RA

3" Flanged Internal Valves for Bobtail Delivery Trucks, Transports and Large Stationary Storage Containers A3217C & A3217DA

Designed primarily for CO₂ filling and/or withdrawal on delivery trucks, transports and stationary storage tanks with flanged pumps or piping. Installation is quick and easy, and the valve may be operated manually by cable or pneumatically.

Lever available on right or left side to allow for installation without the use of an extra pulley.

Ordering Information

Part Number	Operating Lever Position	Inlet Connection	Outlet Connection	Accessories	
				Pneumatic Actuator	
				Right Operation	Left Operation
Single Flange					
TA3217AD160	Left or Right	3" 300# ANSI RF Modified Flange*	3" 300# ANSI RF Flange	A3217RA	A3217LA
TA3217AD210					
TA3217AD260					
TA3217AD410					
TA3217AD510					
Double Flange					
TA3217DAD160	Left or Right	3" 300# ANSI RF Modified Flange*	3" 300# ANSI RF Flange	A3217RA	A3217LA
TA3217DAD210					
TA3217DAD260					
TA3217DAD410					
TA3217DAD410					
TA3217DAD510					



A3217RA and Pneumatic Actuators

Heavy Duty Gas Line Regulator 1780 Series

Application

The 1780 Series Regulators are designed for final line pressure regulation on gas distribution systems. They are suitable for a variety of gases in medical or industrial applications. The 1780 Series Regulators have a balanced seat, are constructed with oxygen compatible materials, and have the same valve design, brass body, and internal parts as the premium BR-1780 Series. Flow performance is equal to the BR-1780 Series.

Features

- Maintains a steady downstream pressure across a range of inlet pressures commonly provided by a cryogenic bulk tank.
- Large seat and diaphragm areas provide high capacity with sensitive control of delivery pressure with low falloff.
- Two 1/4" FNPT delivery pressure gauge ports are located (plugged) on each side of the valve.
- Two bonnet drain/vent holes to allow for different mounting orientation.
- T-handle adjusting screw.
- Maximum inlet pressure is 435 psig (30 Bar).
- Available in four delivery pressure ranges (A-D).
- Temperature range: -40° F to +165° F. (-40°C to +74°C)
- Cleaned per CGA G-4.1 for oxygen service.
- 100% Factory Tested

Materials

Body Forged Brass
 Bonnet Nickel Plated Aluminum
 Diaphragm Nitrile with PTFE liner
 Springs and Fasteners Stainless Steel
 Other valve parts Brass
 Seat Disc & O-Rings Viton is standard

For Carbon Dioxide or Nitrous Oxide service: Specify EPDM material for seat disc and O-rings, add "E" to end of part number.

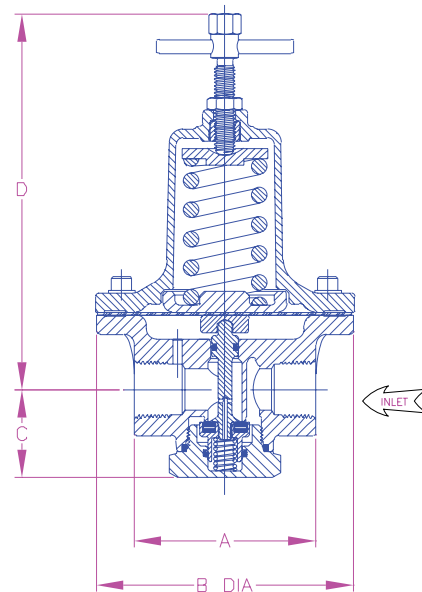
Ordering Information

Part Number	Delivery Pressure Range	Pressure Gauge*		Inlet & Outlet (F.N.P.T.)	Dimensions				C _v
		Range (PSI)	P/N		"A"	"B"	"C"	"D"	
1784A	5-55 psig	1-100	1286	1/2"	2.82"	3.62"	1.38"	5.47"	3.1
1784B	40-110 psig	1-200	S1679						
1784C	100-200 psig	1-400	15578						
1784D	175-300 psig								
1786A	5-55 psig	1-100	1286	3/4"	3.31"	4.69"	1.60"	6.84"	4.8
1786B	40-110 psig	1-200	S1679						
1786C	100-200 psig	1-400	15578						
1786D	175-275 psig								
1788A	5-55 psig	1-100	1286	1"	3.31"	4.69"	1.60"	6.84"	5.5
1788B	40-110 psig	1-200	S1679						
1788C	100-200 psig	1-400	15578						
1788D	175-275 psig								

*Regulator sold without gauge. Order gauge separately.



1780 Series



1780 SER

Heavy Duty Brass Final Line Pressure Regulator BR-1780 Series

Application

BR-1780 Series Regulators are designed for final line pressure regulation on medical oxygen systems. They are equally suitable for a variety of gases in medical or industrial applications. The BR-1780 Series Regulators have a balanced seat, are constructed with oxygen compatible materials, and offer a tamper resistant adjustment screw cap. Flow performance is impressive as well offering up to 30,000 SCFH for the ¾" and 1" model and up to 20,000 SCFH for the ½" model.

Features

- Maintains a steady downstream pressure across a range of inlet pressures commonly provided by a cryogenic bulk tank.
- Large seat and diaphragm areas provide high capacity with sensitive control of delivery pressure with low falloff.
- Two ¼" FNPT plugged delivery pressure gauge ports are located on each side of the valve.
- Two bonnet drain/vent holes to allow for various mounting orientations.
- Bonnet cap covering adjusting screw for tamper protection.
- Maximum inlet pressure is 435 psig.
- Available in four delivery pressure ranges. (A-D)
- Temperature range: -40° F to +165° F. (-40°C to +74°C)
- Cleaned per CGA G-4.1 for oxygen service.
- 100% Factory Tested

Materials

Body Forged Brass
 Bonnet Forged brass
 Diaphragm Nitrile with PTFE liner
 Springs, fasteners, and adjusting screw Stainless Steel
 Other valve parts Brass
 Seat Disc & O-Rings Viton is standard

For Carbon Dioxide and Nitrous Oxide Service: Specify EPDM material for seat disc and O-Rings, add "E" to end of part number.

Ordering Information

Part Number	Delivery Pressure Range	Pressure Gauge*		Inlet & Outlet (F.N.P.T.)	Dimensions				C _v
		Range (PSI)	P/N		"A"	"B"	"C"	"D"	
BR-1784A	5-55 psig	1-100	1286	½"	2.82"	3.62"	1.38"	5.21"	3.1
BR-1784B	40-110 psig	1-200	S1679						
BR-1784C	100-200 psig	1-400	15578						
BR-1784D	175-300 psig								
BR-1786A	5-55 psig	1-100	1286	¾"	3.31"	4.69"	1.60"	6.46"	4.8
BR-1786B	40-110 psig	1-200	S1679						
BR-1786C	100-200 psig	1-400	15578						
BR-1786D	175-275 psig								
BR-1788A	5-55 psig	1-100	1286	1"	3.31"	4.69"	1.60"	6.46"	5.5
BR-1788B	40-110 psig	1-200	S1679						
BR-1788C	100-200 psig	1-400	15578						
BR-1788D	175-275 psig								

*Regulator sold without gauge. Order gauge separately.



BR-1784



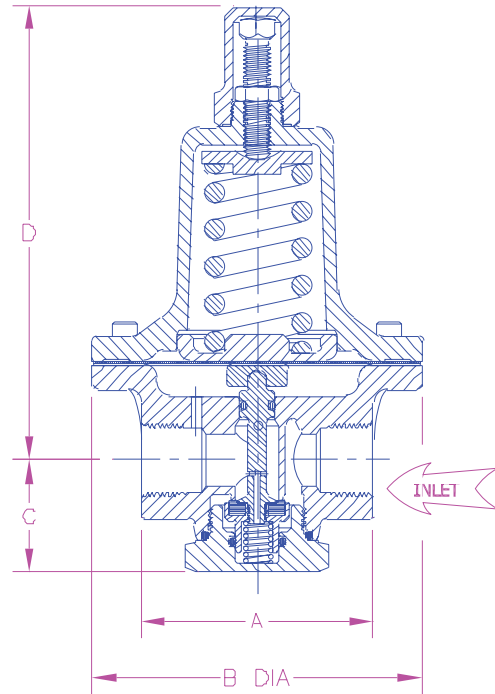
BR1786 and BR1788

Heavy Duty Brass Final Line Pressure Regulator BR-1780 Series

Flow Performance

See the Rego Flow Performance Curves section of the catalog for more detailed flow curves.

For Carbon Dioxide or Nitrous Oxide Service, add "E" to end of part number.

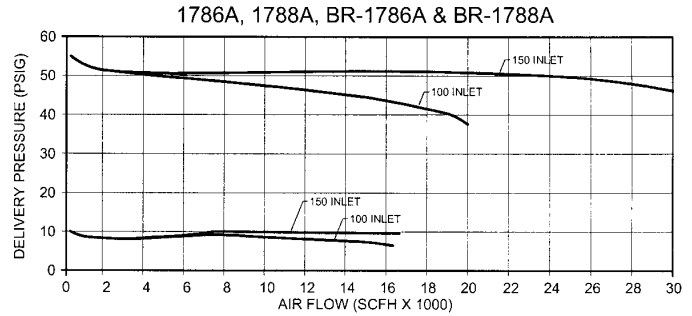
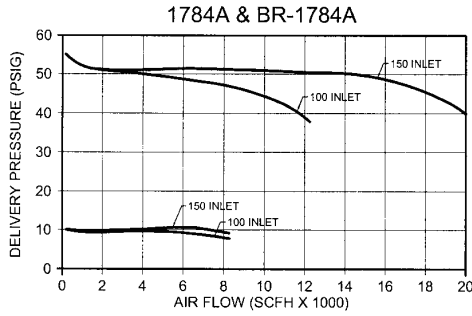


Maintenance and Options Kits

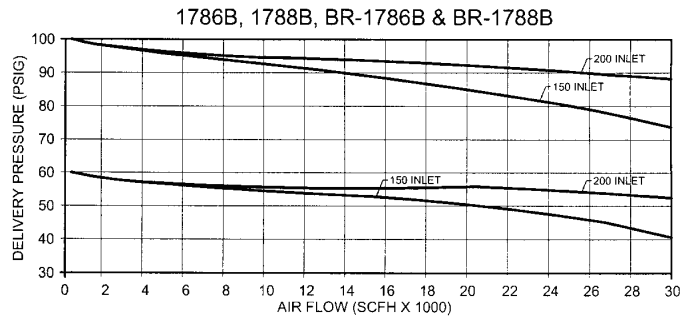
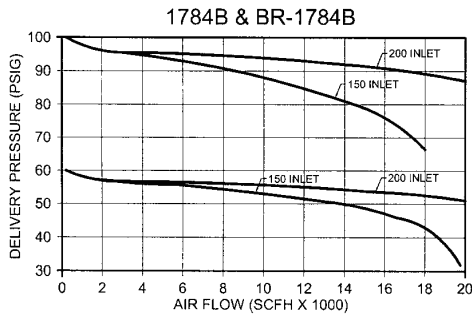
Regulator Models	BR1784	BR1786	BR1788
Repair Kit Part Number	BR-1784-80	BR-1786-80	BR-1786-80
Spring Kit Part Numbers:			
"A" spring 5 –55 psig	BR-1784-7SKA	BR-1786-7SKA	BR-1788-7SKA
"B" spring 40-110 psig	BR-1784-7SKB	BR-1786-7SKB	BR-1788-7SKB
"C" spring 100-200 psig	BR-1784-7SKC	BR-1786-7SKC	BR-1788-7SKC
"D" spring 175-275 psig	BR1784-7SKD	BR-1786-7SKD	BR-1788-7SKD
T-Handle Screw Option Kit	BR-1784ST	BR-1786ST	BR-1786ST

Heavy Duty Line Regulators Performance Curves 1780 Series & BR-1780 Series

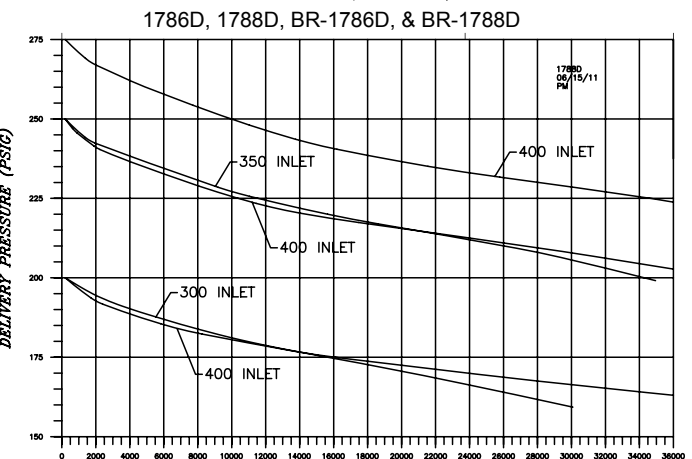
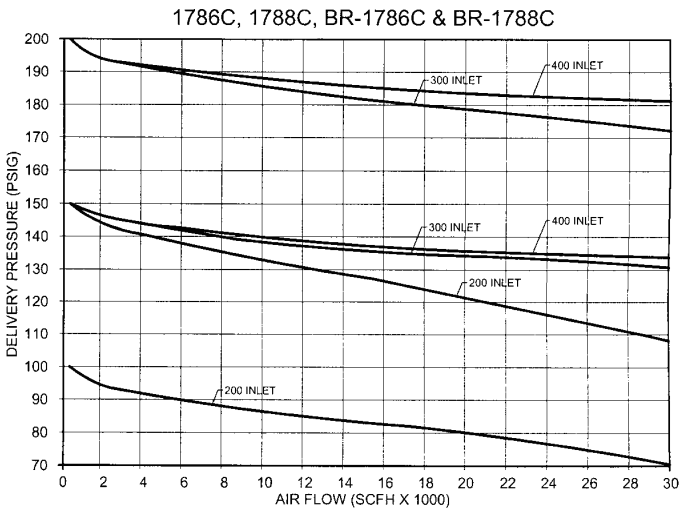
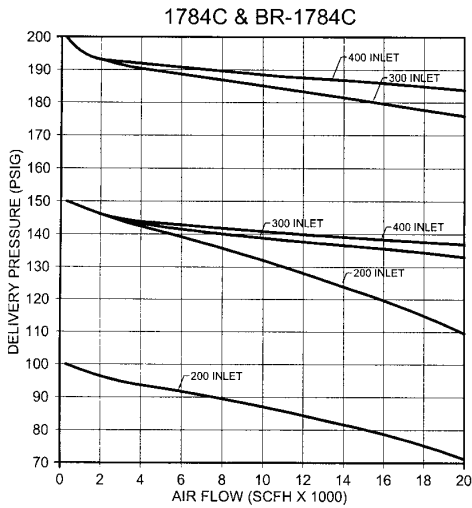
"A" spring range 5 - 55 psig



"B" spring range 40 - 110 psig



"C" spring range 100 - 200 psig



Gas Conversion Table

Service	Multiply Air Capacity By:
Acetylene (15 psi max.)	1.06
Argon	0.85
Carbon Dioxide	0.81

Service	Multiply Air Capacity By:
Fuel Gases	0.86
Helium	2.69
Hydrogen	3.79
Nitrogen	1.02
Natural Gas	1.25

Service	Multiply Air Capacity By:
Nitrous Oxide	0.81
Oxygen	0.95

Aluminum Pressure Regulators 1682M Series & C-1682M Series

Application

The 1682M Series Regulators are designed primarily for second stage regulation of a variety of gases in industrial and hospital piping systems and manifolds. The C-1682M Series is specifically designed for use with Carbon Dioxide.

Features

- Maximum inlet pressure is 400 PSIG.
- Two ¼" F.NPT gauge ports are located 180° apart to allow for gauge mounting in convenient positions.
- Each 1680M Series regulator is cleaned and packaged for oxygen per CGA G-4.1.
- 100% Factory Tested
- T-handle adjusting screw.
- Available in three delivery pressure ranges.
- Temperature Range: -40° F to +165°F (-40°C to +74°C)

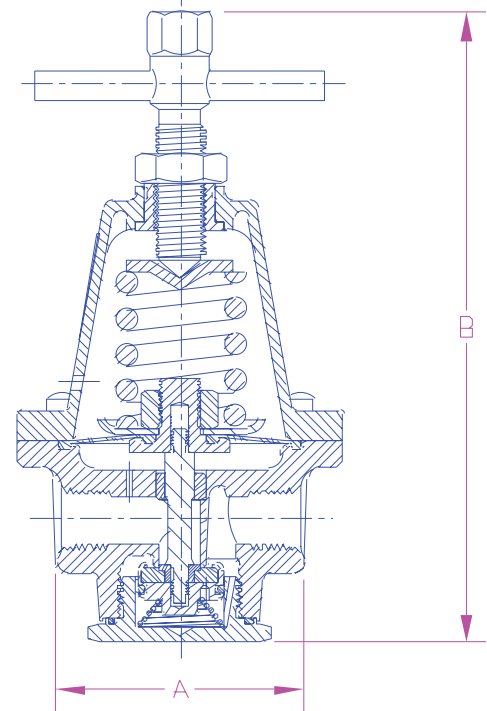
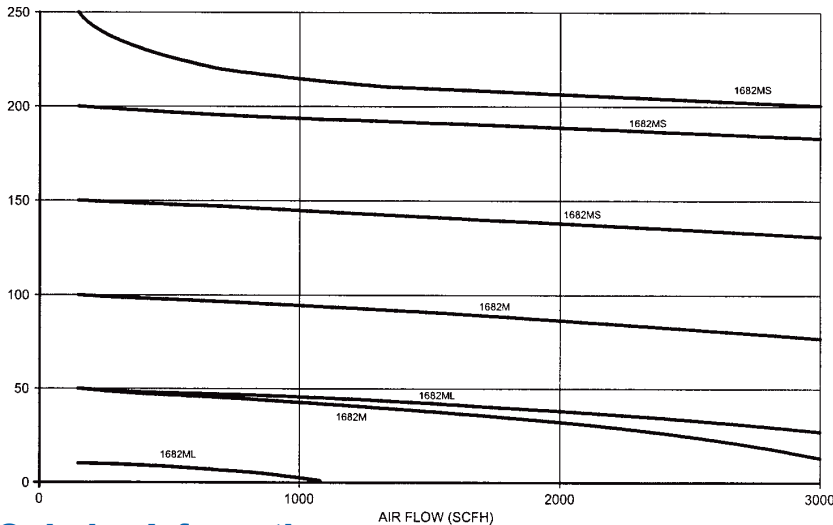


C-1682M

Materials

Body Forged Aluminum
 Bonnet Cast Aluminum
 Seat Disc (1682M) Neoprene
 Seat Disc (C-1682M) EPDM
 Diaphragm (1682M) Neoprene
 Diaphragm (C-1682M) EPDM

1682M SERIES REGULATOR FLOW PERFORMANCE



Ordering Information

Part Number		Delivery Pressure Range (PSI)	Pressure Gauge		Inlet & Outlet Connection (F.NPT)	Width A	Maximum Height B
			Range (PSI)	Part Number			
1682ML	C-1682ML	5-50	*	*	¼"	2 ³ / ₁₆ "	4 ¼"
1682MLG	C-1682MLG		1-100	1286			
1682M	C-1682M	50-125	*	*			
1682MG	C-1682MG		1-200	S1679			
1682MS	C-1682MS	100-250	*	*			
1682MSG	C-1682MSG		1-400	15578			

* Pressure gauge not included.

Automatic Changeover Regulators M2523HP Series

Application

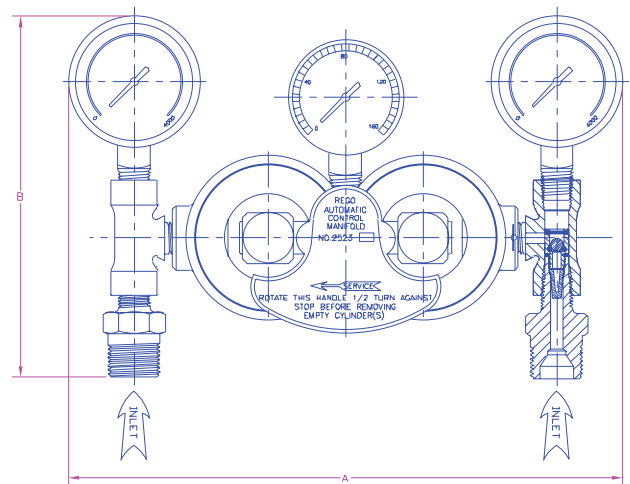
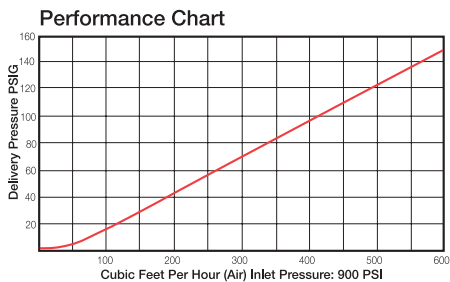
M2523HP series automatic changeover regulators are designed especially for use in systems where a reserve cylinder is used to provide a continuous, uninterrupted supply of gas. These regulators are suitable for use with carbon dioxide, hydrogen, oxygen, industrial air, nitrous oxide, nitrogen, helium and argon.

Features

- Automatically withdraws from the reserve cylinder after exhausting the "service" cylinder.
- Cylinder pressure gauges let you know at a glance which cylinder is in use. There is no need to shutdown the system to replace empty cylinders.
- Nickel plated.
- 100% Factory Tested
- Cleaned per CGA G-4.1 for oxygen service.
- Porous bronze filters are installed in each inlet to minimize the entry of foreign particles.
- Back pressure check valves are installed in each inlet to help assure positive shut-off in case of reverse flow.
- Each unit comes complete with mounting bracket and a special delivery pressure adjustment wrench.
- Factory set at 50 PSIG on service side. CO₂ and N₂O regulators are factory set at 100 PSIG on service side.

Materials

Body	Brass
Bonnet	Brass
Seat Disc (all gases except CO ₂)	Viton
Seat Disc (CO ₂ Only)	Butyl Rubber
Diaphragm (all gases except CO ₂)	Neoprene
Diaphragm (CO ₂ Only)	Buna N
Handle	Aluminum
Bonnet Spring	Steel
Backcap Spring	Stainless Steel



Conversion Table

Source	Multiply
Carbon Dioxide	.81
Nitrogen	1.02
Nitrous Oxide	.81
Argon	.85
Oxygen	.95
Helium	2.69
Hydrogen	3.79

Ordering Information

Part Number	Gas Service	CGA Inlet Connection	Outlet Connection	Width A	Height B	Maximum Inlet Pressure (PSIG)	Delivery Pressure Range (PSIG)	Accessory Regulators*
M2523HP320	Carbon Dioxide	320	1/4" F.NPT	7 3/4"	5 1/8"	1800	30-130	BR-1784E, 1784E C-1682 M Series
M2523HP326	Nitrous Oxide	326						
M2523HP350	Hydrogen	350						
M2523HP540	Oxygen	540						
M2523HP580	Nitrogen, Argon, Helium	580						
M2523HP590	Industrial Air	590						
						3000		1784 Series 1682 M Series BR 1784 Series

* Can be used downside of the M2523HP as a final line pressure regulator. See pages 27 through 30 and page 33.

Low Pressure Line Regulators 4403 Series

Application

The 4403 series regulators provide very sensitive control of a variety of gases at low pressures. The large molded diaphragm assures responsive regulation with inlet pressures up to 250 PSI.

Features

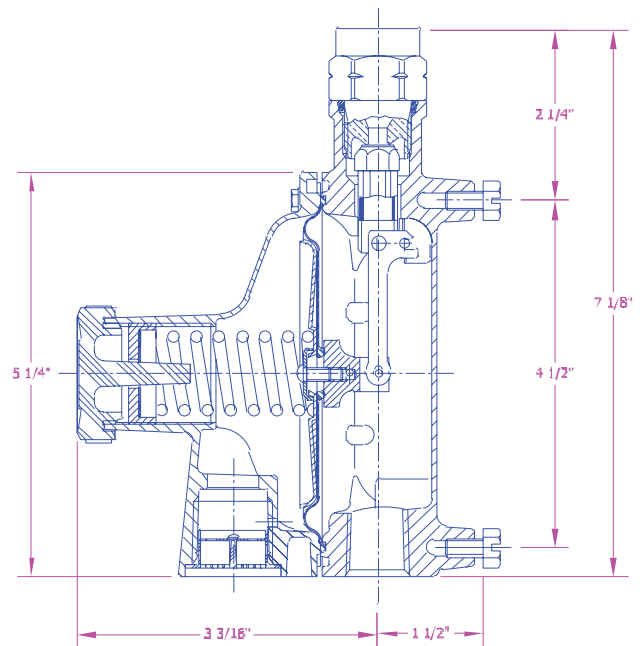
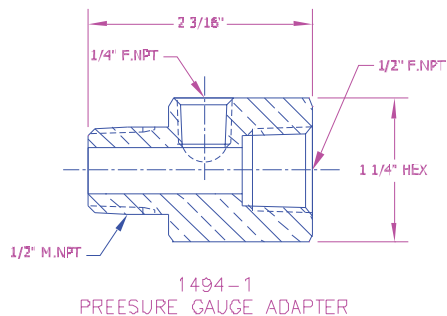
- Large molded diaphragm provides highly sensitive and accurate low pressure control.
- Zinc body and bonnet resist corrosion and provide longer life.
- Teflon seat disc, teflon faced diaphragms, and stainless steel nozzles make the T4403J regulators compatible with a variety of gases.
- LV4403C2H42 features integral relief valve set at 3 psig.
- Adjusting screw is concealed by a plastic cap which helps prevent pressure adjustments by unauthorized personnel.
- Pressure gauge adapter available part # 1494-1
- Working temperature range is -40°F to +165°F. (-40°C to +74°C)
- Not suitable for oxygen applications



4403

Materials

Body	Zinc
Bonnet	Zinc
Diaphragm	T4403J, 4403W, S4, T4, U4 Teflon Faced Buna N
4403WP4, R4	Buna N
(LV4403C)	Integrated Fabric and Synthetic Rubber
Spring	STEEL
Seat (T4403J)	PTFE
(4403W) (LV4403C)	Buna N
Nozzle (T4403J)	Stainless Steel
(4403W, LV4403C)	Brass



Ordering Information

Part Number	Inlet Connection	Outlet Connection	Factory Delivery Pressure*	Delivery Adjustment Range	Relief Setting
4403W-P4	½" F.NPT	½" F.NPT	6" w.c.	3.5 - 6" w.c.	None
4403W-R4			25" w.c.	15 - 28" w.c.	
4403W-S4			5 PSIG	1 - 5 PSIG	
4403W-T4			10 PSIG	5 - 10 PSIG	
4403W-U4			15 PSIG	10 - 15 PSIG	
LV4403C2H42	¼" F.NPT		1.5 PSIG	1.5 PSIG	3 PSIG ± 20%
T4403JS2			5 PSIG	1 - 5 PSIG	None
T4403JT2			10 PSIG	5 - 10 PSIG	

* Based on 50 PSIG inlet pressure. LV4403C2H42 based on 100 PSIG inlet pressure.

Inertrol Outfits 4286 Series, 4289 Series & 4291 Series

Application

The 4286, 4289, and 4291 series Inertrol outfits are three stage nitrogen regulators especially designed to maintain oil filled transformer atmospheres at 0.5 PSIG. Each Inertrol outfit consists of a two-stage regulator connected in series to a highly sensitive single-stage regulator which maintains the 0.5 PSIG pressure. A built-in pressure relief valve in the third stage regulator helps protect against over-pressurization of the system. Inertrol units are designed for oil-filled transformers manufactured by ABB, Inc., General Electric, and Cooper Power. Some outfits are equipped with an alarm switch that activates a customer equipped warning device should the cylinder pressure drop below 300 PSIG.

Features

- Heavy duty brass and aluminum construction resists corrosion and provides for longer life.
- The 4289 series incorporates a special by-pass valve to allow for quick filling of the transformer.
- Hidden pressure adjusting screw helps protect against tampering by unauthorized personnel.
- Large diameter diaphragm in the third-stage regulator provides for sensitive and precise control of the gas flow.
- Maximum inlet pressure - 3000 PSIG.

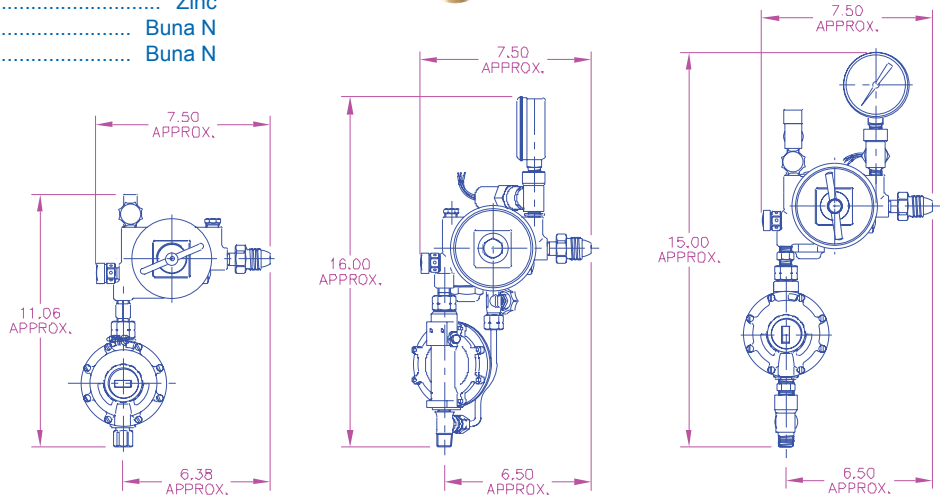
Materials

Two-Stage Regulator:

Body Brass
 Bonnet Brass
 Diaphragms Synthetic Rubber
 1st Stage Seat Disc Nylon
 2nd Stage Seat Disc Neoprene

Third-Stage Regulator:

Body Zinc
 Bonnet Zinc
 Diaphragm Buna N
 Seat Disc Buna N



Ordering Information

Part Number	Gas Service	Inlet	Outlet	Two Stage Regulator Part number	Third Stage Regulator Part Number	Alarm Gauge	Transformer Manufacturer
4286A580	Nitrogen	CGA580	1/8" NPT	4286A-2NW	4286-10-8	None	ABB, Inc.
4289AG			9/16" -18 L.H.	4289A-2G	4289-10	4285-9B	General Electric
4289G						None	
4291A			3/8" NPT	4291B-2	4286-10-8	4285-9B	Cooper Power

Low Pressure Regulators 4286-10 Series & 4289-10 Series

Application

The 4286 and 4289 series Inertrol third-stage low pressure regulators are designed especially for secondary regulation of gaseous nitrogen on electrical transformer systems.

Factory preset at 14" to 15" water column delivery pressure with an inlet pressure of 5 to 10 PSIG.

Features

- Large diaphragm allows for highly sensitive and accurate low pressure control.
- Incorporates integral relief valves (except on 4289-10).
- Zinc body and bonnet resist corrosion and provide longer life.
- Adjusting screw is concealed by a cap to help prevent against tampering by unauthorized personnel.
- Operating temperature range is -40°F to +160°F.

Materials

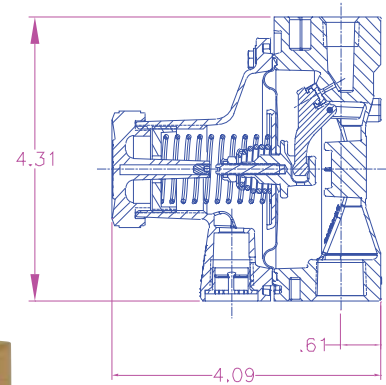
Body	Zinc
Bonnet	Zinc
Diaphragm	Buna N
Seat Disc	Buna N
Spring	Steel

Ordering Information

Part Number	Inlet (NPT)	Outlet (NPT)	Delivery Pressure Setting	Relief Valve Setting
LV4286-10-5	¼"	½"	14"-15" w. c.	5 PSIG
LV4286-10-8				8 PSIG
LV4289-10				None



4286-10



Alarm Gauges 4285-9B

Application

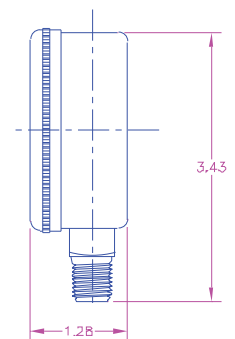
The 4285-9B inertrol alarm gauges are designed to alert the user when pressure has fluctuated ±90 PSIG from the 300PSIG factory setting. Under these conditions, electrical contacts in the switch will close and set off a user-furnished alarm system.

Features

- Solid brass gauge casing resists corrosion and provides for longer life.
- Equipped with a heavy-duty, 36" long, 3-wire electrical cable.
- Each gauge is factory pre-set at 300 PSIG, then sealed to help prevent against tampering once in service.
- Electrical circuit is rated for a maximum of 3 AMPS at 460 volts AC.



4285-9B



Materials

Gauge Case	Brass
------------------	-------

Ordering Information

Part Number	Inlet M.NPT	Diameter	Pressure Range (PSIG)	Adjustable	Alarm Furnished
4285-9B	¼"	2½"	0 - 4000	No	None

High Pressure Gas Master Valves HP9560 Series

Application

The HP9560 Series high pressure brass valves are used on cylinder filling panels, tube trailers, and high pressure manifolds and piping systems. The HP9560 Series exhibits a very low operating torque under pressure for ease of manual operation.

Features

- 5600 PSI (386 Bar) maximum working pressure
- Non-rising stem design with O-Ring Seal for durable service.
- Large brass handwheel for easy low torque operation under pressure.
- All valves cleaned for use in oxygen per CGA G-4.1.
- Temperature range -40°F to +165°F.
- 100% Factory Tested

Materials

Body, bonnet, stem, and seat retainer, stem seal retaining rings and washer Brass
Stem O-ring Viton
Thrust bearing PCTFE

Soft Seat Option

The soft seat valves use a CTFE seat disc in the seat retainer to create a “bubble-tight” seal against a machined seat surface on the brass body. Valve Cv is 2.6. The soft seat option is especially useful for small molecule gases like hydrogen and helium, but can be used for a variety of non-corrosive industrial gases including argon, nitrogen, carbon dioxide, nitrous oxide, and acetylene.

Metal Seat Option:

A copper seat disc is used in the seat retainer to create a seal against a Monel body seat, which is installed into the body and can be replaced. Valve Cv is 2.3. The metal seat option minimizes the possibility of seat decomposition or ignition in oxygen service under adiabatic compression. The metal seat option is recommended for oxygen, and can also be used for other non-corrosive industrial gases. The metal seat option is not to be used for acetylene due to the copper seat. Not to be applied in hydrogen or helium service or where a “bubble-tight” seal is essential. (Note: C in part number)

Nylon seat option: available also (ex. HP9560NB).

Bonnet Versions

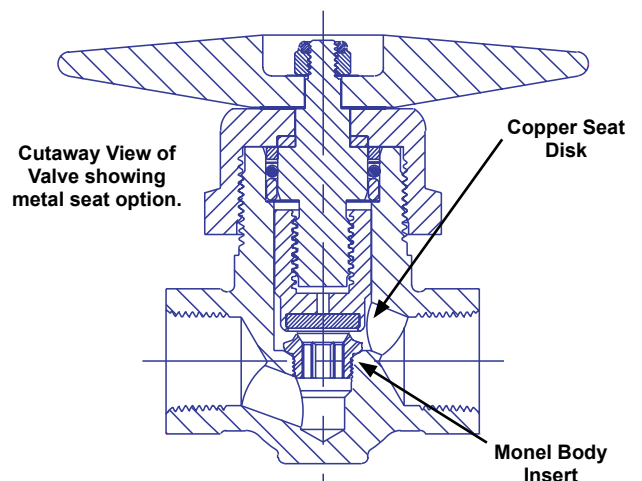
- Standard Bonnet for low profile.
- Panel Mount Bonnet for ease of panel installation. Includes threaded bonnet and nickel plated brass mounting nut. Metal Seat Option 1.625" diameter panel hole required for mounting. (Note: P in part number)



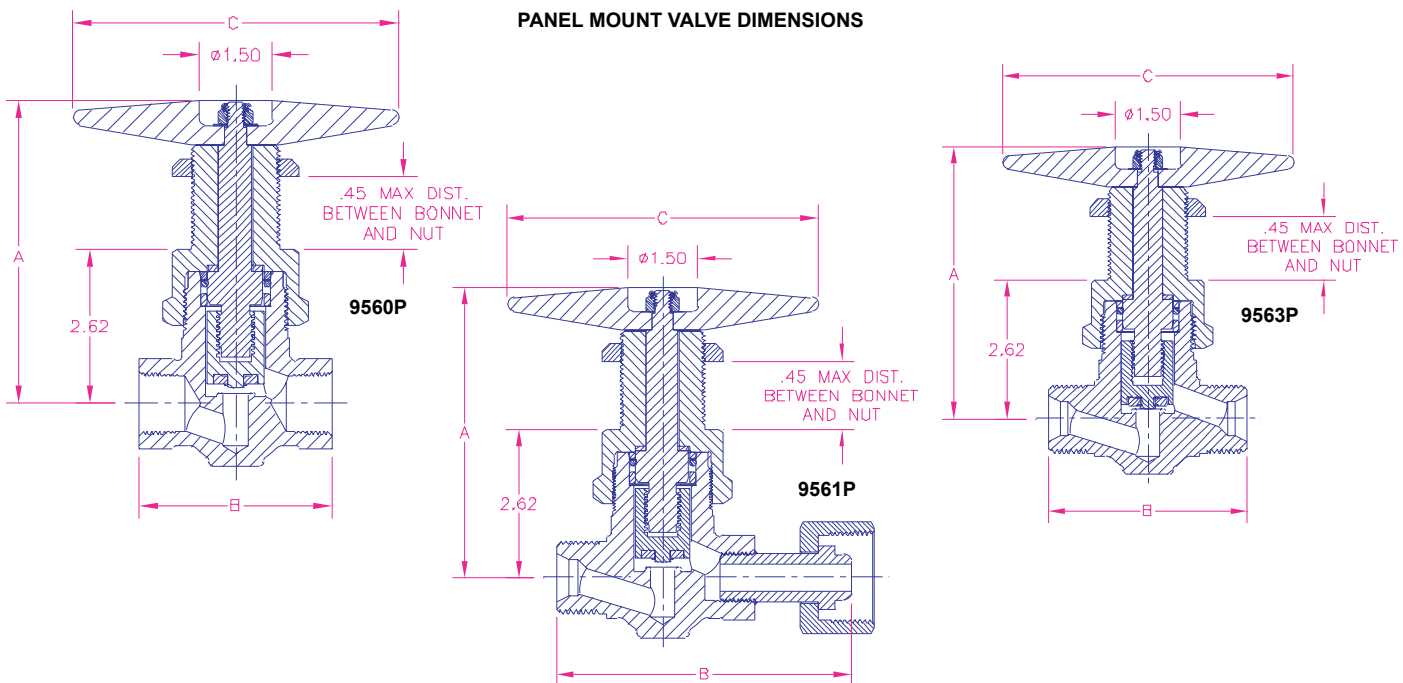
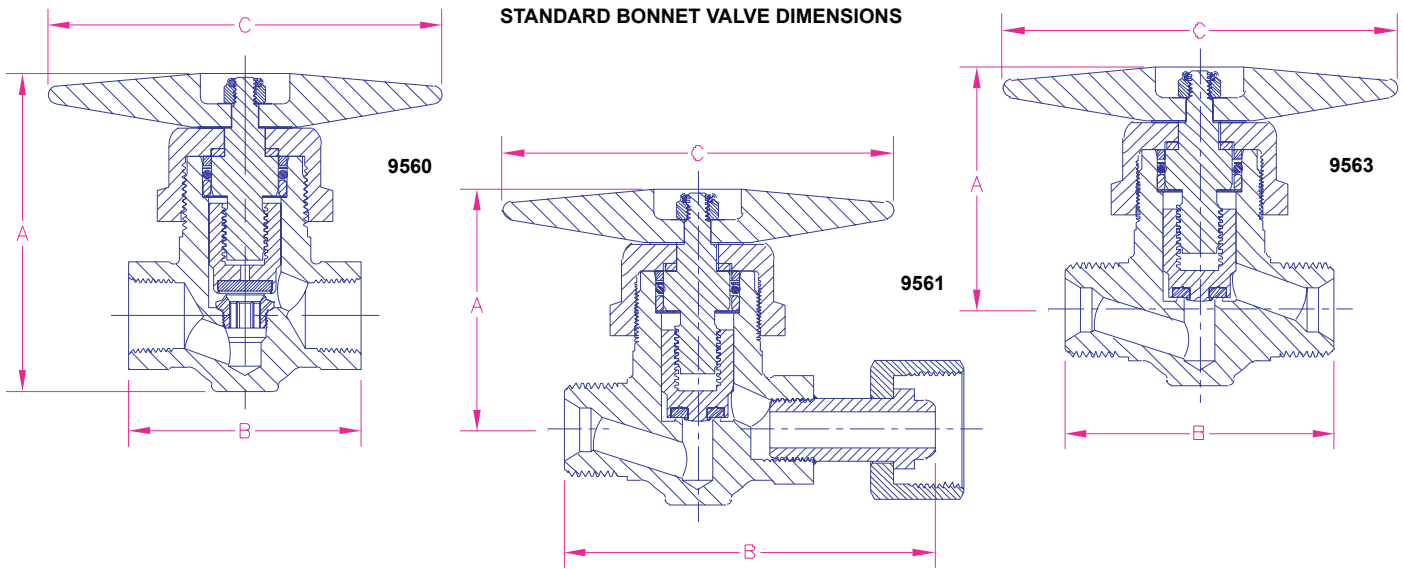
STANDARD BONNET VALVE



PANEL MOUNT VALVE



High Pressure Gas Master Valves HP9560 Series



Part Number		Inlet Connection	Outlet Connection	Height A	Length B	Handwheel Length C
Soft Seat	Metal Seat					
HP9560A	HP9560CA	½" F. NPT	½" F. NPT	4.36" *[6.19" for panel mount version]	3.25"	5.5"
HP9560B	HP9560CB	¾" F. NPT	¾" F. NPT			
HP9561R	HP9561CR	1"-11½" NPSM R.H.	1"-11½" R.H. Female Swivel		5.27"	
HP9561RL	HP9561CRL	1"-11½" NPSM R.H.	1"-11½" NPS L.H. Female Swivel			
HP9561L	HP9561CL	1"-11½" NPSM L.H.	1"-11½" L.H. Female Swivel			
HP9563R	HP9563CR	1"-11½" NPSM R.H.	1"-11½" NPSM R.H.		3.79"	
HP9563L	HP9563CL	1"-11½" NPSM L.H.	1"-11½" NPSM L.H.			
HP9560ASE	HP9560CASE	.843 - .847	.843 - .847	3.25"		
HP9560BSE	HP9560CBSE	1.053 - 1.057	1.053 - 1.057			
HP9560BSE-B	HP9560CBSE-B	1.053 - 1.057	¾" F.NPT			

Note: Place "P" at end of part number for panel mount version.
Nylon seat option is also available (ex: HP9560NBP)
For different handwheel size consult factory.

Line Station Valves 7160 Series



Application

7160 series valves are designed for use with oxygen and all fuel gases at station outlets of line distribution systems such as welder's benches, cutting stations, hospital rooms, etc.

Features

- UL Listed Approved for oxygen and all fuel gas services at 400 PSIG maximum working pressure.
- All valves cleaned for use in oxygen per CGA G-4.1
- O-ring stem seal works with the pressure causing a tighter seal as pressure increases.
- A reverse flow check valve installed in the valve outlet connection helps prevent reverse flow.
- Available with brass cap and chain protection.
- Meets the requirements of National Fire Protection Association (NFPA) Pamphlet No. 51.

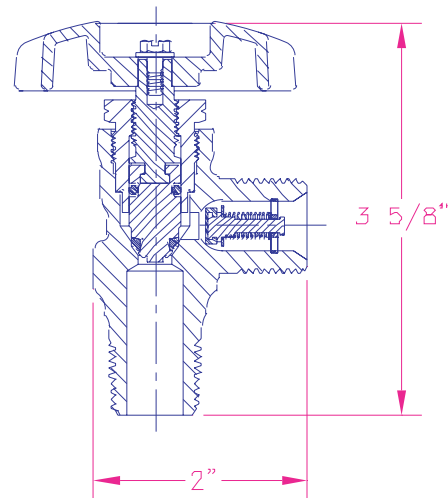
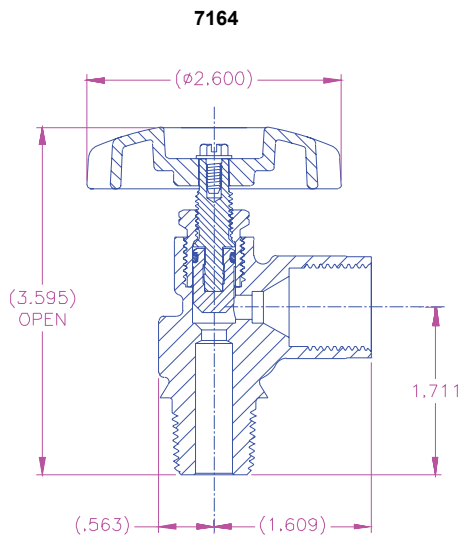


7160 Series

Materials

Body	Brass
Stem and Seat Retainer	Brass
O-ring.....	Neoprene
Seat Disc.....	Nylon
Reverse Flow Check Seat.....	Neoprene

7160 and 7161 Series



Ordering Information

Part Number	Gas Service	Inlet Thread	Outlet Thread	CGA Connection	C _v Factor	Outlet Protection*
7160V	Oxygen and Inert Gases	½" NGT	7/8" - 14 M. R.H.	024	.76	10663 Brass Cap & Chain
7160VL						None
7161V	Fuel Gases		7/8" - 14 M. L.H.	025		10664 Brass Cap & Chain
7161VL						None
7164	Inert Gasses	½" NPT	7/8" - 14 F. R.H.	034	None	

*Outlet Protection is recommended.

Pressure Gauges

Application

Gauges are available in a variety of popular pressure ranges for gas plant applications.

Gauges should be selected so that the maximum working pressure of the particular system represents 66% to 75% of the maximum gauge reading. Greater safety and accuracy may be realized by following these guidelines.



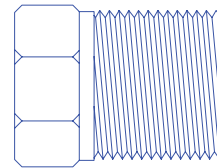
15578

Ordering Information

Part Number	Maximum Calibration (PSIG)	Size	M. NPT	Increment Division (PSIG)	Case Material
1286	100	2"	1/4"	2	Steel
2523HP-7	160		1/8"	5	
S1679	200		1/4"	10	Brass
15578	400			50	Steel
5562C	4000				

Brass Plugs

(for pressures to 3000 PSIG)
Safety factor = 5:1

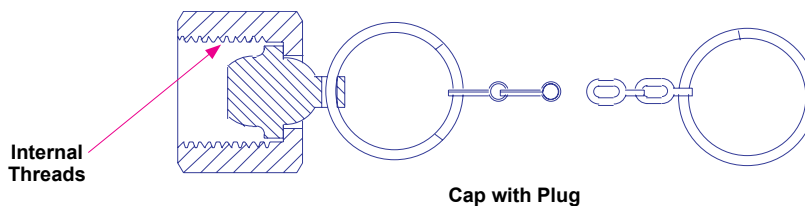


Typical Plug

Ordering Information

Part Number	Thread Connection	Hex Flats
985B	1/4" NPT	9/16"
985D	1/2" NPT	7/8"
985E	3/4" NPT	1 1/8"
985F	1" NPT	1 5/16"

Brass Outlet Cap and Chain Assemblies



Cap with Plug

Ordering Information

Part Number	Thread Connection	End Ring Fits Pipe
10663	7/8"-14NF-RH	1/2"
10664	7/8"-14NF-LH	1/2"

Needle Valves CMM250 Series and CFF250 Series

Application

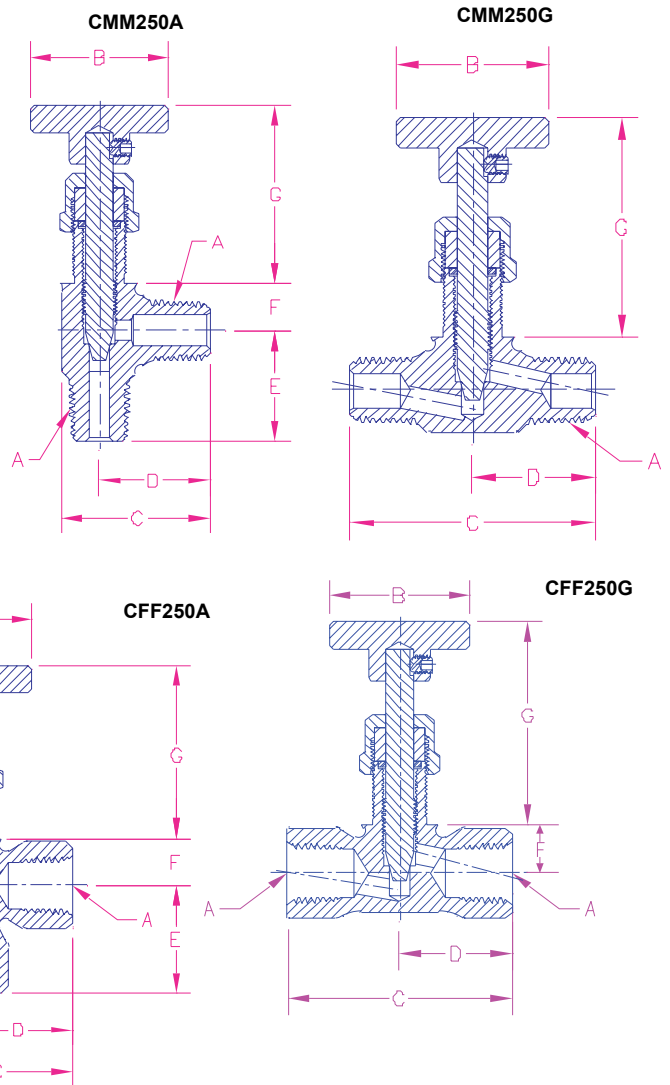
Ideal for use as a gauge isolation valve or applications requiring accurate throttling of pressure or in bulk vessel gauging lines .

Features

- Compact design provides easy installation.
- Fine stem threading and long taper allow precise metering and leak-free shut-off.
- Internal stop prevents the stem from being accidentally unscrewed from the body.
- Rugged forged brass bodies withstand higher pressures.
- Unbreakable brass handwheel.
- Valves come equipped for panel mounting.
- Working temperature range is -40°F to +165°F (-40°C to +74°C).
- Maximum operating pressure: 2000 psig air (137.9 Bar).
- Cleaned for oxygen service per CGA G-4.1.
- Female ports available - consult factory.

Materials

Body ASTM B283 Brass
 Stem Brass
 Knob Brass
 Bonnet Nut..... Brass
 Panel Mount Nut (Optional)..... Brass
 Set Screw Steel
 Stem Packing PTFE with Brass Gland



Ordering Information

Part Number	A (NPT)	B (In.)	C (In.)	D (In.)	E (In.)	F (In.)	G (In.) Open	G (In.) Closed	Cv
CMM250A	¼	1¼	1 ¹¹ / ₃₂	1	1	7/16	2 ⁵ / ₃₂	1 ¹⁹ / ₃₂	.7
CMM250G	¼	1¼	2		1	7/16	2 ³ / ₈	1 ¹³ / ₁₆	.5
CFF250A	¼	1¼	1 ¹³ / ₃₂		1	7/16	2 ⁵ / ₃₂	1 ¹⁹ / ₃₂	.7
CFF250G	¼	1¼	2		7/16	2 ³ / ₈	1 ¹³ / ₁₆	.5	

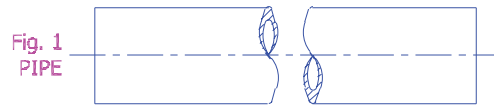
Brass Pipe & Pipe Nipples

Heavy-duty, yellow brass pipe and pipe nipples are designed with a high quality, seamless thick wall construction. They are suitable for use in most industrial piping applications.

ASTM B135 Alloy 330

1/2" I.D. pipe, O.D. is 0.840".

3/4" I.D. pipe, O.D. is 1.050".



Ordering Information

Part Number	Figure	Inside Diameter	Inlet / Outlet Connections (M.NPT)	Length	Maximum Operating Pressure (PSIG)*
TNE1050-14400	1	1/2"	Not Available	12 Feet	3600
TNE1075-14400		3/4"			
1050-15	2	1/2"	1/2"	1 1/2"	
1050-20				2"	
1050-40				4"	
1050-60				6"	
1050-80				8"	
1075-20				2"	
1075-30				3"	
1075-40				4"	
1075-50	5"				
1075-60	6"				
		3/4"	3/4"	2"	
				3"	
				4"	
				5"	
				6"	

Brass Elbows

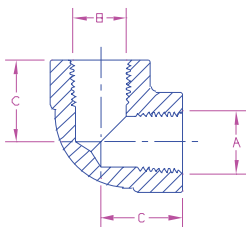


Fig. 1

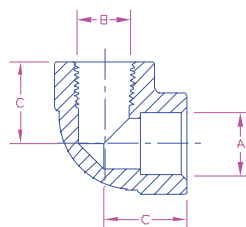


Fig. 2

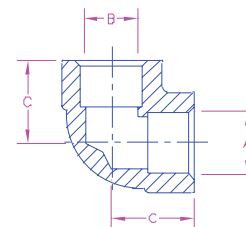


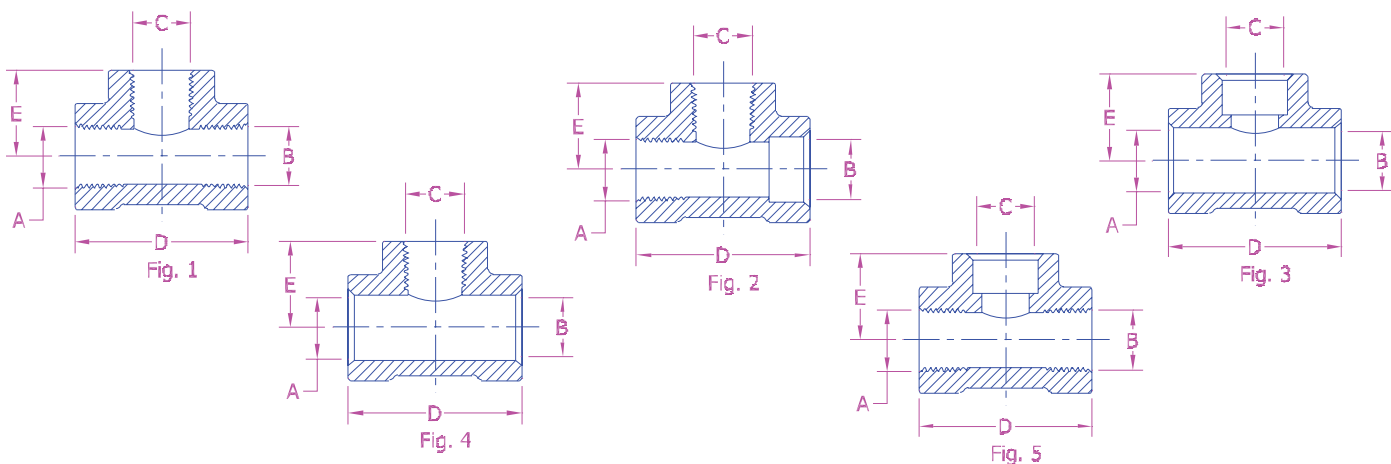
Fig. 3

Ordering Information

Part Number	Figure	A (Female)	B (Female)	C (Ref.)	Working Pressure PSIG*
1228-1	1	1/2" NPT	1/2" NPT	1 1/8"	3750
HP1228-1		1/2" NPT	1/2" NPT	1 1/2"	4500
1043		3/4" NPT	3/4" NPT	1 1/2"	4500
1228-2	2	1/2" NPT	.843-.847	1 1/8"	3750
HP1228-2		1/2" NPT	.843-.847	1 1/2"	4500
2223-2		3/4" NPT	1.053-1.057	1 1/2"	4500
1228-4	3	.843-.847	.843-.847	1 1/8"	3750
HP1228-4		.843-.847	.843-.847	1 1/2"	6000
2233-6		1.053-1.057	1.053-1.057	1 1/2"	4500

*Safety factor = 4:1

Brass Tees

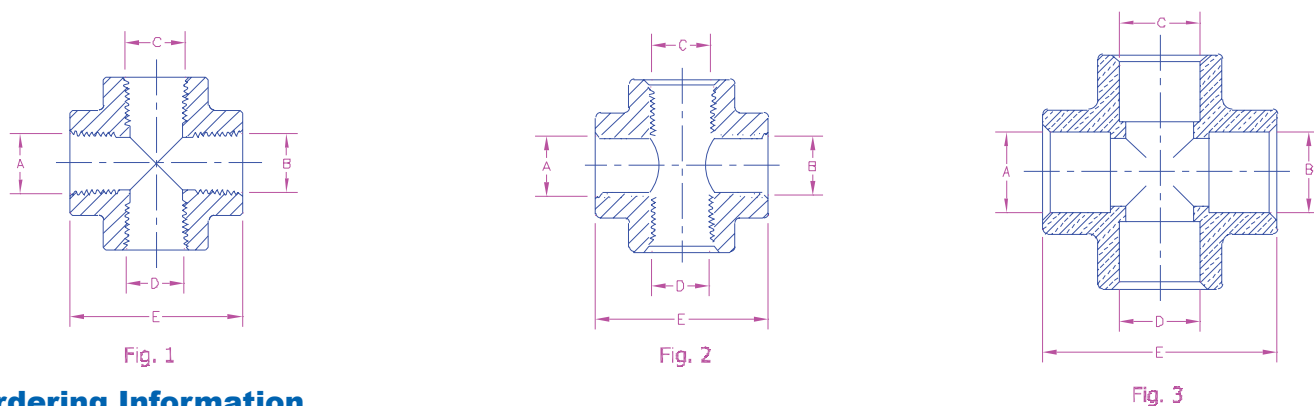


Ordering Information

Part Number	Figure	A (Female)	B (Female)	C (FEMALE)	D (Ref.)	e (Ref.)	Working Pressure PSIG*
1227-1	1	½" NPT	½" NPT	½" NPT	2¼"	1⅝"	3750
HP1227-1		¾" NPT	¾" NPT		¾" NPT	3"	1½"
1042-20				1042			
1227-3	2	½" NPT	.843-.847	½" NPT	2¼"	1⅝"	3750
HP1227-3		¾" NPT	1.053-1.057	¾" NPT	3"	1½"	4500
4608-5	3	.843-.847	.843-.847	.843-.847	2¼"	1⅝"	3750
HP1227-28		1.053-1.057	1.053-1.057	1.053-1.057	3"	1½"	6000
2118-2					4500		
1227-9	4	.843-.847	.843-.847	½" NPT	2¼"	1⅝"	3750
HP1227-9		1.053-1.057	1.053-1.057	¾" NPT	3"	1½"	4500
2223-3							
HP1227-5	5	½" NPT	½" NPT	.843-.847			

*Safety factor = 4:1

Brass Crosses

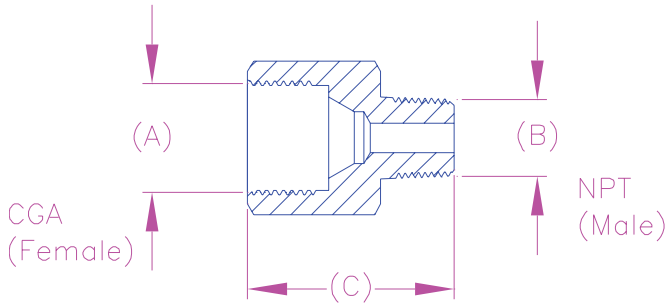


Ordering Information

Part Number	Figure	A (Female)	B (Female)	C (Female)	D (Female)	E (Ref.)	Working Pressure PSIG*
1225-1	1	½" NPT	½" NPT	½" NPT	½" NPT	2¼"	3750
HP1225-1		¾" NPT	¾" NPT	¾" NPT	¾" NPT	3"	4500
1045						4500	
1225-3	2	.843-.847	.843-.847	½" NPT	½" NPT	2¼"	3750
HP1225-3		1.053-1.057	1.053-1.057	¾" NPT	¾" NPT	3"	4500
2222-2	3	.843-.847	.843-.847	.843-.847	.843-.847	3"	6000
HP1225-4		1.053-1.057	1.053-1.057	1.053-1.057	1.053-1.057	3"	4500
2222-4							

*Safety factor = 4:1

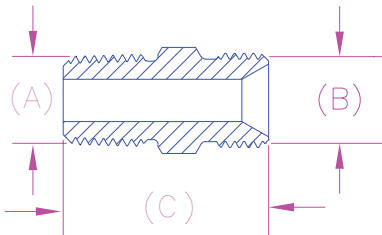
Brass Adapters CGA x Misc.



Ordering Information

Part Number	A	B	C (Ref.)
1877C	580	1/2"	1 3/4"
1877D		3/4"	

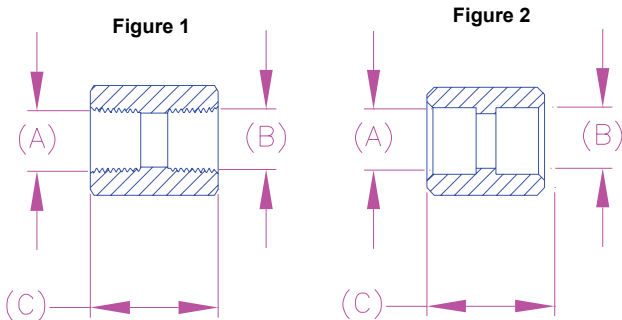
Brass Adapters Male x Male



Ordering Information

Part Number	A (Male)	B (Male)	C (Ref.)
1300	1/4 NPT	9/16" - 18NF-LH	1 1/4"
1200		9/16" - 18NF-RH	1 1/4"
2233-4HAL	1/2 NPT	1" - 11 1/2 NPS-LH	2 3/8"
2233-4HA		1" - 11 1/2 NPS-RH	2 3/8"
2233-4HL	3/4 NPT	1" - 11 1/2 NPS-LH	2 9/16"
2233-4H		1" - 11 1/2 NPS-RH	

Brass Adapters Female x Female

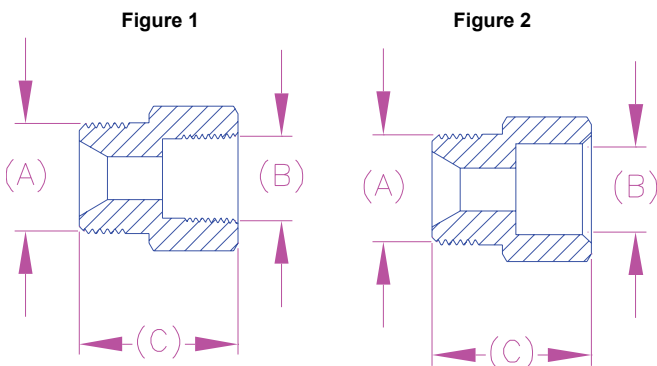


Ordering Information

Part Number	Figure	A (Female)	B (Female)	C (Ref.)
1125-15	1	1/2" NPT	1/2" NPT	1 5/8"
1044		3/4" NPT	3/4" NPT	2"

Part Number	Figure	A (Female)	B (Female)	C (Ref.)
1125-16	2	.843-.847	.843-.847	1 5/8"
1044-1		1.053-1.057	1.053-1.057	2"

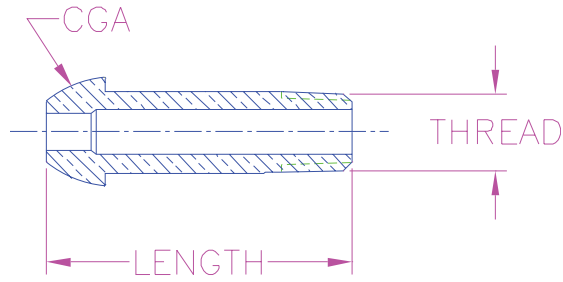
Brass Adapters Male x Female



Ordering Information

Part Number	Figure	A (Male)	B (Female)	C (Ref.)
489-10	1	1/2" NPT	1/4" NPT	1 1/4"
1252		3/4" NPT	1/4" NPT	1 19/64"
1252A			1/2" NPT	1 19/64"
2165-3	2	1" - 11 1/2 NPS-RH	3/4" NPT	1 27/32"
2165-3B			.843-.847	1 13/16"
2165-3A			1.053-1.057	1 27/32"

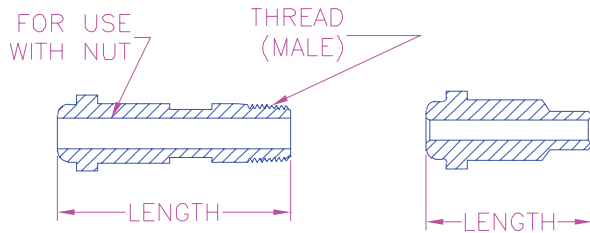
CGA Brass Tailpeices



Ordering Information

Part Number	CGA Connection	Thread of Bore for Tubing	Length (Approx.)
2603-2U	510, 580, 590	1/4" NPT	13/32"

Miscellaneous Brass Tailpeice



Ordering Information

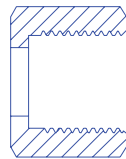
Part Number	For Use with Nut (RH or LH)	Figure	Thread of Bore for Tubing	Length (Approx.)
2233-3A	1" - 11 1/2 NPS	1	1/2" NPT	37/16"
2670-35		2	.312 I.D.	27/16"

Fig 1 THREADED

Fig 2 SWEAT END

Brass Union Connection Nuts

Internal Threads



Ordering Information

Part Number	Figure	Thread Connection	Wrench Flats
1302-1	2	9/16" - 18-LH	11/16"
1271-1		7/8" - 14-RH	1 1/8"
1371-1		7/8" - 14-LH	
2223-6		1" - 11 1/2 NPS-RH	1 3/4"
2223-6A		1" - 11 1/2 NPS-LH	

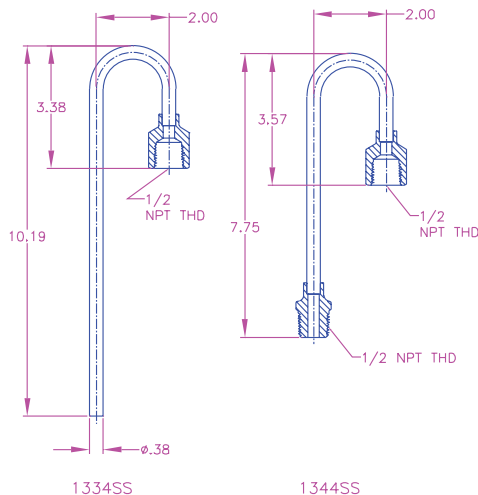
Candy Cane Riser Tubes and Assemblies For Piping-Away PRV9400, SS9400, PRV19400 & PRV29400 Series Relief Valves from Cryogenic Piping.

Materials

Tubing..... Stainless Steel
 Fitting: 1332SS..... Brass
 Fitting: 1334SS, 1344SS, 1344SSA..... Stainless Steel

Ordering Information

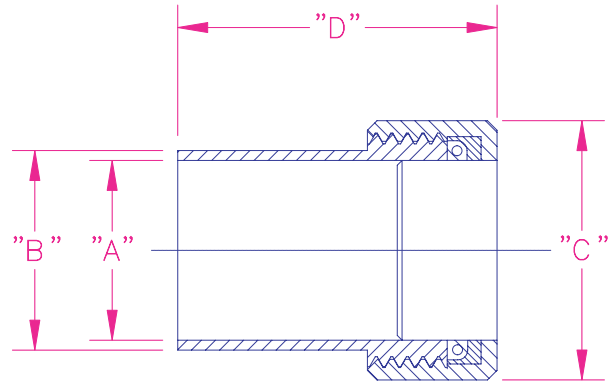
Part Number	Tubing Material	Fitting Material	"A" Relief Valve Connection	"B" Tubing OD
1332SS	Stainless Steel	Brass	1/4" FNPT	.375"
1334SS		Stainless Steel	1/2" FNPT	
1344SS				
1344SSA				.625"



Goddard Quikconnect Vacuum Couplings

Features

- An extensive range of tube sizes available. Most sizes nest, and can be used as reducers in combination with one another.
- May be used for vacuum down to 1×10^{-8} Microns
- Viton O-rings are standard
- “Quikconnect” vacuum couplings have four basic components:
 - * Knurled Nut
 - * Retainer Ring
 - * O-ring
 - * Sleeve



Ordering Information

Quikconnect Vacuum Couplings

Brass Machine Finish	“A”	“B”	“C”	“D”	Tube OD Size
B-000006-M	0.072”	0.375”	5/8”	1 1/32”	1/16”
B-000012-M	0.135”	0.375”	5/8”	1 1/32”	1/8”
B-000018-M	0.197”	0.375”	5/8”	1 1/32”	3/16”
B-000025-M	0.260”	0.375”	5/8”	1 1/32”	1/4”
B-000031-M	0.322”	0.500”	13/16”	1 1/4”	5/16”
B-000038-M	0.385”	0.500”	13/16”	1 1/4”	3/8”
B-000050-M	0.510”	0.625”	7/8”	1 1/4”	1/2”
B-000062-M	0.635”	0.750”	1 1/8”	1 3/8”	5/8”
B-000075-M	0.760”	0.875”	1 1/4”	1 1/2”	3/4”
B-000087-M	0.885”	1.000”	1 7/16”	1 23/32”	7/8”
B-000100-M	1.010”	1.125”	1 1/2”	1 13/16”	1”
B-000112-M	1.135”	1.250”	1 5/8”	1 15/16”	1 1/8”
B-000125-M	1.260”	1.500”	2”	1 3/16”	1 1/4”
B-000138-M	1.385”	1.625”	2”	1 3/16”	1 3/8”
B-000150-M	1.150”	1.750”	2 1/4”	1 3/16”	1 1/2”
B-000162-M	1.635”	1.875”	2 3/8”	2 1/4”	1 5/8”
B-000200-M	2.010”	2.250”	2 3/4”	2.70”	2”

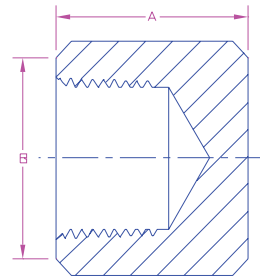
Brass Pipe Caps

Application

For capping cryogenic tank piping or gas pipelines.

Features

- Machined from brass.
- For 600 psig maximum working pressure service.
- Part number stamped on cap.
- Cleaned for oxygen per CGA G-4.1.



Ordering Information

Part Number	Thread Connections	Dim. A	Dim. B	Dim. C
CAP750	3/4" Female NPT	1.250"	1.313"	1.313"
CAP1000	1" Female NPT	1.500"	1.750"	1.750"
CAP1500	1 1/2" Female NPT	1.750"	2.375"	2.375"
CAP2000	2" Female NPT	2.000"	3.250"	3.250"

RegO® Repair Kits

Ordering Information - Valves

Kit Number	Part Number	Kit Contents
CFM-2D-82	CFM3D - CFM4D - AFM4D-PFM-4D & SFM-4D	Piston Assy, Spring, Strainer, Gasket
CFM-2D-86	CFM-2D & CFM-4D	Rear Flange Assy, Flange Screw, Gasket
2505AC-80	2505AC	Seat disc, diaphragm, washers, gaskets.
2507AC-80	2507AC	
2511AC-80	2511AC	
2513AC-80	2513AC	
2553AC-80	2553AC 2553AAC	
2554AC-80	2554AC 2554AAC	Diaphragm and seat disc assembly stem washer.
7160-80B	7160V 7161V	Complete valve trim assembly.
9500-80K	UL9500 series NUL9500 Series**	Seat disc and retainer assembly, seal washer, packing ring set, washer.
9550-80	9550 Series	Seat disc, retainer assembly, seal washer, packing nut set, washer.
9550-3-80	9550 Series	Sleeve.
9550-4-80	9550 Series	Stem, back-up ring, o-ring, washer.
9560-81 Maintenance Kit	9560 Series	CTFE Seat Disc & Retainer Assembly, Seal
9560C-81 Maintenance Kit	9560C Series	Copper Seat Disc & Retainer Assembly, Seal Monel Body Seat Insert
9560C-80 Repair Kit	HP9560C, 9560C Series	Seat Assembly, Retainer Assembly
9560-80 Repair Kit	HP9560, 9560 Series	
BK8400-80J	BK8404 Series BK8406 Series BK8408 Series BKY8408 Series BK9404 Series BK9406 Series BK9408 Series	Jam ring, o-ring, pressure seal rings (3), spring, tape, washer.
BK8400-80AJ	BK8404 Series BK8406 Series BK9404 Series BK9406 Series	Seat disc assembly, teflon o-ring.
BK8400-80BJ	BK8408 Series BK9408 Series	Seat disc assembly, teflon o-ring.
BKA8412-80J	BKA8412S	Jam ring, o-ring, pressure seal rings (3), spring, tape, washer.
BKA8412-80JA		o-ring seal, seat disc retainer assembly.
BK9416-80JS	BK9416 Series	Jam ring, o-ring, pressure seatings (3), spring, tape, washer
BK9416-80AJ3	BK9416 Series	Seat disc assembly and gasket
BK9400-80J	BK9410 Series	Jam ring, o-ring, pressure seal rings (3), spring, tape, washer.
BK9400-80AJ	BK9412 Series	
BKY8408-80AJ	BKY8408 Series	Seat disc assembly, and gasket
BK8404-Kit	BK8404S, BK8404T, BK8404ST	Seat disc assembly and gasket.
		Complete Valve Top Works

Ordering Information - Retrofit Kits

Kit Number	Part Number	Kit Contents
ES8450R	T9450 Series T9460 Series	Stem assembly (4"), packing, bonnet, handwheel
BK9450R	9460 Series 9450 Series	Extended Bonnet Assembly Kit, Spring load packing for conversion of extended stem valves and topworks replacement
BKA8400R	BKA8412SE	Stem assembly, handwheel, seat assembly Converts SE Series to New Style S Series
T9464-80	T9450 Series 9450 Series T9460 Series 9460 Series	Complete valve trim assembly including handwheel
BK-9450-KIT	ES8450 Series ES9450 Series BK9450 Series	Extended Bonnet Assembly Kit, Spring load packing for conversion of extended stem valves and topworks replacement

Ordering Information - Regulators

Kit Number	Part Number	Kit Contents (Qty)
BR-1684M-80N	BR-1684M Series	Diaphragm assembly, stem and seat assembly, seal.
BR-1686M-80N	BR-1686M Series	
1682Y-80	1682Y Series	Diaphragm assembly, stem and seat assembly seal.
1682M-80	1682M Series	Molded diaphragm assembly, stem and seat assembly seal.
C-1682M-80	C-1682M Series	
1684Y-80	1684Y Series	Diaphragm assembly, stem and seat assembly seal, guide.
1684M-80	1684M Series	Molded diaphragm assembly, stem and seat assembly seal, guide.
1686Y-80	1686Y, 1688Y Series	Diaphragm assembly, stem and seat assembly seal.
1686M-80	1686M, 1688M Series	Molded diaphragm assembly, stem and seat assembly seal.
1684MHP-80	1684MHP	
1684M-80	BR-1684M Series	Diaphragm assembly, stem and seat assembly, seal
1686M-80	BR-1686M Series	
BR-1784-80	BR-1784 Series, 1784 Series	
BR-1784-80E	BR-1784 E Series, 1784 E Series	Diaphragm assembly, stem and seat assembly, seal, EPDM seat for C02 Service
BR-1784ST	BR-1784 Series	T-Handle adjusting screw kit
BR-1784-7SKA BR-1784-7SKB BR-1784-7SKC	BR-1784 Series	Spring kit for BR-1784, "A" spring range, 5 to 55 psig delivery pressure BR-1784 "B" spring range, 40 to 110 psig delivery pressure
BR-1784-7SKD		Spring kit for BR-1784, "C" spring range, 100 to 200 psig delivery pressure
BR-1786-80	BR-1786 Series, BR-1788 Series, 1786 Series, 1788 Series	Diaphragm assembly, stem and seat assembly, seal, viton seat for oxygen service
BR-1786-80E	BR-1786 E Series, BR-1788 E Series, 1786 E Series, 1788 E Series	Diaphragm assembly, stem and seat assembly, seal, EPDM seat for C02 service
BR-1786ST	BR-1786 Series, BR-1788 Series	T-handle adjusting screw kit
BR-1786-7SKA BR-1786-7SKB BR-1786-7SKC	BR-1786 Series	Spring kit for BR-1786, "A" spring range, 5 to 55 psig delivery pressure Spring kit for BR-1786, "B" spring range, 40 to 110 psig delivery pressure
BR-1786-7SKD		Spring kit for BR-1786, "C" spring range, 100 to 200 psig delivery pressure
BR-1788-7SKA BR-1788-7SKB BR-1788-7SKC	BR-1788 Series	Spring Kit for BR-1786, "D" spring range 175 to 275 psig delivery pressure
BR-1788-7SKD		Spring kit for BR-1788, "A" spring range, 5 to 55 psig delivery pressure Spring kit for BR-1788, "B" spring range, 40 to 110 psig delivery pressure Spring kit for BR-1788, "C" spring range, 100 to 200 psig delivery pressure
BR-1780SC	BR-1780 Series	Brass Bonnet Cap
2523HP-80A	M2523HP350, M2523HP540, M2523HP580, M2523HP590, M2523HP1320	Seat and centerpiece assembly, diaphragm assembly, nozzle, spring, washer, gaskets.
2523HP-80B	M2523HP320	
ECL-80	ECL22, ECL70, ECL100, ECL140	Diaphragm assembly, diaphragm gasket, poppet, retaining ring, spring, washer.
ECL-80A	ECL325	
RG-80	RG22, RG75, RG125, BC125, CBH125	
RG-80A	RG300	Backcap gasket, diaphragm assembly, diaphragm gasket, seat assembly.
RG-81	RG75A, RG125A, CBC125A & CBH125A	
RG-81A	RG300A, CBC300A & CBH300A	
B-9472-80	B-9472	Diaphragm assembly, gasket, stem, and seat assembly.
B-9473-80	B-9473, B-9474	
B-9473M-80	B-9473M, B-9474M, BR-9473	Diaphragm assembly, gasket, stem, and seat assembly.

Goddard Repair Kits

Stainless Steel Gate 110 Series

Kit Number	Description
S-000110-8-81	Upper Packing ½", ¾" & 1"
S-000110-8-82	Seat/Stem Assy ½", ¾" & 1"
S-000110-8-83	Bonnet Gasket ½", ¾" & 1"
S-000110-8-84	Seat Replacement ½", ¾" & 1"
S-000110-16-81	Upper Packing 1½" & 2"
S-000110-16-82	Seat/Stem Assy 1½" & 2"
S-000110-16-83	Bonnet Gasket 1½" & 2"
S-000110-16-84	Seat Replacement 1½" & 2"
S-000110-24-81	Upper Packing 3"
S-000110-24-82	Seat/Stem Assy 3"
S-000110-24-83	Bonnet Gasket 3"
S-000110-24-84	Seat Replacement 3"
S-000110-32-81	Upper Packing 4"
S-000110-32-82	Seat/Stem Assy 4"
S-000110-32-83	Bonnet Gasket 4"
S-000110-32-84	Seat Replacement 4"
S-000110-48-81	Upper Packing 6"
S-000110-48-82	Seat/Stem Assy 6"
S-000110-48-83	Bonnet Gasket 6"
S-000110-48-84	Seat Replacement 6"

Gate 110WH2 Series (Grafoil®)

Kit Number	Description
S-110WHZ-8-81	Upper Packing ½", ¾" & 1"
S-110WHZ-8-82	Seat/Stem Assy ½", ¾" & 1"
S-110WHZ-8-83	Bonnet Gasket ½", ¾" & 1"
S-110WHZ-9-84	Seat Replacement ½", ¾" & 1"
S-110WHZ08-853	Upper Assembly Repair Kit ½", ¾" & 1"
S-110WHZ-16-81	Upper Packing 1½" & 2"
S-110WHZ-16-82	Seat/Stem Assy 1½" & 2"
S-110WHZ-16-83	Bonnet Gasket 1½" & 2"
S-110WHZ-16-84	Seat Replacement 1½" & 2"
S-110WHZ16-853	Upper Assembly Repair Kit 1½" & 2"
S-110WHZ-24-81	Upper Packing 3"
S-110WHZ-24-82	Seat/Stem Assy 3"
S-110WHZ-24-83	Bonnet Gasket 3"
S-110WHZ-24-84	Seat Replacement 3"
S-110WHZ24-853	Upper Assembly Repair Kit 3"
S-110WHZ-32-81	Upper Packing 4"
S-110WHZ-32-82	Seat/Stem Assy 4"
S-110WHZ-32-83	Bonnet Gasket 4"
S-110WHZ-32-84	Seat Replacement 4"
S-110WHZ32-853	Upper Assembly Repair Kit 4"
S-110WHZ-48-81	Upper Packing 6"
S-110WHZ-48-82	Seat/Stem Assy 6"
S-110WHZ-48-83	Bonnet Gasket 6"
S-110WHZ-48-84	Seat Replacement 6"
S-110WHZ48-853	Upper Assembly Repair Kit 6"

Globe 210 Series

Kit Number	Description
S-000210-8-81	Upper Packing ½", ¾" & 1"
S-000210-8-82	Seat/Stem Assy ½", ¾" & 1"
S-000210-8-83	Bonnet Gasket ½", ¾" & 1"
S-000210-16-81	Upper Packing 1½" & 2"
S-000210-16-82	Seat/Stem Assy 1½" & 2"
S-000210-16-83	Bonnet Gasket 1½" & 2"
S-000210-24-81	Upper Packing 3"
S-000210-24-82	Seat/Stem Assy 3"
S-000210-24-83	Bonnet Gasket 3"
S-000210-32-81	Upper Packing 4"
S-000210-32-82	Seat/Stem Assy 4"
S-000210-32-83	Bonnet Gasket 4"

Gate 210WH2 Series (Grafoil®)

Kit Number	Description
S-210WHZ-8-81	Upper Packing ½", ¾" & 1"
S-210WHZ-8-82	Seat/Stem Assy ½", ¾" & 1"
S-210WHZ-8-83	Bonnet Gasket ½", ¾" & 1"
S-210WHZ-9-84	Seat Replacement ½", ¾" & 1"
S-210WHZ08-853	Upper Assembly Repair Kit ½", ¾" & 1"
S-210WHZ-16-81	Upper Packing 1½" & 2"
S-210WHZ-16-82	Seat/Stem Assy 1½" & 2"
S-210WHZ-16-83	Bonnet Gasket 1½" & 2"
S-210WHZ-16-84	Seat Replacement 1½" & 2"
S-210WHZ16-853	Upper Assembly Repair Kit 1½" & 2"

Globe 231 Series

Kit Number	Description
S-000231-4-81	Upper Packing ½"
S-000231-4-82	Seat/Stem Assy ½"
S-000231-4-83	Bonnet Gasket ½"
S-000231-4-85	Kit Upper Assembly ½"
S-000231-8-81	Upper Packing
S-000231-8-82	Seat/Stem Assy
S-000231-8-83	Bonnet Gasket
S-000231-8-85	Kit Upper Assembly
S-000231-12-81	Upper Packing
S-000231-12-82	Seat/Stem Assy
S-000231-12-83	Bonnet Gasket
S-000231-12-85	Kit Upper Assembly

Globe 232 Series

Kit Number	Description
S-000232-4-81	Upper Packing ½"
S-000232-4-82	Seat/Stem Assy ½"
S-000232-4-83	Bonnet Gasket ½"
S-000232-4-85	Kit Upper Assembly ½"
S-000232-8-81	Upper Packing 1"
S-000232-8-82	Seat/Stem Assy
S-000232-8-83	Bonnet Gasket
S-000232-8-85	Kit Upper Assembly
S-000232-12-81	Upper Packing
S-000232-12-82	Seat/Stem Assy
S-000232-12-83	Bonnet Gasket
S-000232-12-85	Kit Upper Assembly

Goddard Repair Kits

Check 886 Series

Kit Number	Description
S-000886-4-82	Seat Assembly 1/2"
S-000886-4-83	Bonnet Gasket 1/2"
S-000886-8-82	Seat Assembly 1"
S-000886-12-82	Seat Assembly 1 1/2"
S-000886-16-82	Seat Assembly 2"
S-000886-24-82	Seat Assembly 3"
S-000886-32-82	Seat Assembly 4"
S-0886GF-4-82	Seat Assembly 1/2"
S-0886GF-4-83	Bonnet Gasket 1/2"
S-0886GF-8-82	Seat Assembly 1"
S-0886GF-8-83	Bonnet Gasket 1"
S-0886GF-12-82	Seat Assembly 1 1/2"
S-0886GF-12-83	Bonnet Gasket 1 1/2"
S-0886M-04-82	Seat Assembly 1/2"
S-0886M-8-82	Seat Assembly 1"
S-0886M-8-83	Bonnet Gasket 1"
S-0886M-12-82	Seat Assembly 1 1/2"
S-0886M-12-83	Bonnet Gasket 1 1/2"
S-0886M-16-82	Seat Assembly 2"
S-0886M-16-83	Bonnet Gasket 2"
S-0886M-24-82	Seat Assembly 3"
S-0886M-24-83	Bonnet Gasket 3"
S-0886M-32-82	Seat Assembly 4"
S-0886M-32-83	Bonnet Gasket 4"

Bronze Gate 302 Series

Kit Number	Description
B-000302-4KIT	Kit Upper Assembly 1/2"
B-000302-8KIT	Kit Upper Assembly 1"
B-000302-12KIT	Kit Upper Assembly 1 1/2"
B-000302-16KIT	Kit Upper Assembly 2"
B-000302-20KIT	Kit Upper Assembly 2 1/2"
B-000302-24KIT	Kit Upper Assembly 3"

Gate 306 Series

Kit Number	Description
B-000306-6KIT	Kit Upper Assembly 3/4"
B-000306-8KIT	Kit Upper Assembly 1"
B-000306-12KIT	Kit Upper Assembly 1 1/2"
B-000306-16KIT	Kit Upper Assembly 2"

Gate 310 Series

Kit Number	Description
B-000310-24KIT	Kit Upper Assembly 3"

Gate 310X Series

Kit Number	Description
B-00310X-24-81	Upper Packing 3"
B-00310X-24-82	Seat Assembly 3"
B-00310X-24-83	Bonnet Gasket 3"
B-00310X-24KIT	Kit Upper Assembly 3"

Gate 322 Series

Kit Number	Description
B-000322-4KIT	Kit Upper Assembly 1/2"
B-000322-8-81	Upper Packing 1"
B-000322-8-82	Seat Assembly 1"
B-000322-8-83	Bonnet Gasket 1"
B-000322-8KIT	Kit Upper Assembly 1"
B-000322-12-81	Upper Packing 1 1/2"
B-000322-12-82	Seat Assembly 1 1/2"
B-000322-12-83	Bonnet Gasket 1 1/2"
B-000322-12KIT	Kit Upper Assembly 1 1/2"
B-000322-16-81	Upper Packing 2"
B-000322-16-82	Seat Assembly 2"
B-000322-16-83	Bonnet Gasket 2"
B-000322-16KIT	Kit Upper Assembly 2"
B-000322-20-81	Upper Packing 2 1/2"
B-000322-20-82	Seat Assembly 2 1/2"
B-000322-20-83	Bonnet Gasket 2 1/2"
B-000322-20KIT	Kit Upper Assembly 2 1/2"
B-000322-24-81	Upper Packing 3"
B-000322-24-82	Seat Assembly 3"
B-000322-24-83	Bonnet Gasket 3"
B-000322-24KIT	Kit Upper Assembly 3"

Goddard Repair Kits

Gate 326 Series

Kit Number	Description
B-000326-4-81	Upper Packing 1/2"
B-000326-4-82	Seat Assembly 1/2"
B-000326-4-83	Bonnet Gasket 1/2"
B-000326-4KIT	Kit Upper Assembly 1/2"
B-000326-6-81	Upper Packing 3/4"
B-000326-6-82	Seat Assembly 3/4"
B-000326-6-83	Bonnet Gasket 3/4"
B-000326-6KIT	Kit Upper Assembly 3/4"
B-000326-8-81	Upper Packing 1"
B-000326-8-82	Seat Assembly 1"
B-000326-8-83	Bonnet Gasket 1"
B-000326-8KIT	Kit Upper Assembly 1"
B-000326-12-81	Upper Packing 1 1/2"
B-000326-12-82	Seat Assembly 1 1/2"
B-000326-12-83	Bonnet Gasket 1 1/2"
B-000326-12KIT	Kit Upper Assembly 1 1/2"
B-000326-16-81	Upper Packing 2"
B-000326-16-82	Seat Assembly 2"
B-000326-16-83	Bonnet Gasket 2"
B-000326-16KIT	Kit Upper Assembly 2"

Globe 202X Series - Conical Seat - Short Stem

Kit Number	Description
B-00202X-4KIT	Kit Upper Assembly 1/2"
B-00202X-8-81	Upper Packing 1"
B-00202X-8-82	Seat Assembly 1"
B-00202X-8-83	Bonnet Gasket 1"
B-00202X-8KIT	Kit Upper Assembly 1"
B-00202X-12-81	Upper Packing 1 1/2"
B-00202X-12-82	Seat Assembly 1 1/2"
B-00202X-12-83	Bonnet Gasket 1 1/2"
B-00202X-12KIT	Kit Upper Assembly 1 1/2"
B-00202X-16-81	Upper Packing 2"
B-00202X-16-82	Seat Assembly 2"
B-00202X-16-83	Bonnet Gasket 2"
B-00202X-16KIT	Kit Upper Assembly 2"

Globe 206GF Series - Grafoil® - Short Stem

Kit Number	Description
VB-0206GF-2-81	Upper Packing 1/4"
VB-0206GF-2-82	Seat Assembly 1/4"
VB-0206GF-2-83	Bonnet Gasket 1/4"
B-0206GF-2-85	Kit Upper Assembly 1/4"
VB-0206GF-4-81	Upper Packing 1/2"
VB-0206GF-4-82	Seat Assembly 1/2"
VB-0206GF-4-83	Bonnet Gasket 1/2"
B-0206GF-4-85	Kit Upper Assembly 1/2"
VB-0206GF-6-81	Upper Packing 3/4"
VB-0206GF-6-82	Seat Assembly 3/4"
VB-0206GF-6-83	Bonnet Gasket 3/4"
B-0206GF-6-85	Kit Upper Assembly 3/4"
VB-0206GF-8-81	Upper Packing 1"
VB-0206GF-8-82	Seat Assembly 1"
VB-0206GF-8-83	Bonnet Gasket 1"
B-0206GF-8-85	Kit Upper Assembly 1"
VB-0206GF-12-81	Upper Packing 1 1/2"
VB-0206GF-12-82	Seat Assembly 1 1/2"
VB-0206GF-12-83	Bonnet Gasket 1 1/2"
B-0206GF-12-85	Kit Upper Assembly 1 1/2"
VB-0206GF-16-81	Upper Packing 2"
VB-0206GF-16-82	Seat Assembly 2"
VB-0206GF-16-83	Bonnet Gasket 2"
B-0206GF-16-85	Kit Upper Assembly 2"

Globe 206LL Series - Live Loaded - Union Bonnet - Short Stem

Kit Number	Description
B-0206LL-4KIT	Kit Upper Assembly 1/2"
B-0206LL-8KIT	Kit Upper Assembly 1"

Globe 206ULL Series - Live Loaded - Union Bonnet - Short Stem

Kit Number	Description
B-206ULL-12KIT	Kit Upper Assembly 1 1/2"
B-206ULL-16KIT	Kit Upper Assembly 2"

Globe 206LL Series - Live Loaded - Bolted Bonnet - Short Stem

Kit Number	Description
B-206BLL-12KIT	Kit Upper Assembly 1 1/2"

Goddard Repair Kits

Globe 222X Series - Conical Seat - Extended Stem

Kit Number	Description
B-00222X-4-81	Upper Packing 1/2"
B-00222X-4-82	Seat Assembly 1/2"
B-00222X-4-83	Bonnet Gasket 1/2"
B-00222X-4KIT	Kit Upper Assembly 1/2"
B-00222X-6-81	Upper Packing 3/4"
B-00222X-6-82	Seat Assembly 3/4"
B-00222X-6-83	Bonnet Gasket 3/4"
B-00222X-6KIT	Kit Upper Assembly 3/4"
B-00222X-8-81	Upper Packing 1"
B-00222X-8-82	Seat Assembly 1"
B-00222X-8-83	Bonnet Gasket 1"
B-00222X-8KIT	Kit Upper Assembly 1"
B-00222X-12-81	Upper Packing 1 1/2"
B-00222X-12-82	Seat Assembly 1 1/2"
B-00222X-12-83	Bonnet Gasket 1 1/2"
B-00222X-12KIT	Kit Upper Assembly 1 1/2"
B-00222X-16-81	Upper Packing 2"
B-00222X-16-82	Seat Assembly 2"
B-00222X-16-83	Bonnet Gasket 2"
B-00222X-16KIT	Kit Upper Assembly 2"
B-00222X-24-81	Upper Packing 2 1/2" & 3"
B-00222X-24-82	Seat Assembly 2 1/2" & 3"
B-00222X-24-83	Bonnet Gasket 2 1/2" & 3"
B-00222X-24KIT	Kit Upper Assembly 2 1/2" & 3"

Globe 226LL Series - Live Loaded - Union Bonnet - Extended Stem

Kit Number	Description
B-0226LL-4-81	Upper Packing 1/2"
B-0226LL-4-82	Seat Assembly 1/2"
B-0226LL-4-83	Bonnet Gasket 1/2"
B-0226LL-4KIT	Kit Upper Assembly 1/2"
B-0226LL-8-81	Upper Packing 1"
B-0226LL-8-82	Seat Assembly 1"
B-0226LL-8-83	Bonnet Gasket 1"
B-0226LL-8KIT	Kit Upper Assembly 1"

Globe 226ULL Series - Live Loaded - Union Bonnet - Extended Stem

Kit Number	Description
B-226ULL-12-81	Upper Packing 1 1/2"
B-226ULL-12-82	Seat Assembly 1 1/2"
B-226ULL-12-83	Bonnet Gasket 1 1/2"
B-226ULL-12KIT	Kit Upper Assembly 1 1/2"
B-226ULL-16-81	Upper Packing 2"
B-226ULL-16-82	Seat Assembly 2"
B-226ULL-16-83	Bonnet Gasket 2"
B-226ULL-16KIT	Kit Upper Assembly 2"

Globe 226BLL Series - Live Loaded - Bolted Bonnet - Extended Stem

Kit Number	Description
B-226BLL-12-81	Upper Packing 1 1/2"
B-226BLL-12-82	Seat Assembly 1 1/2"
B-226BLL-12-83	Bonnet Gasket 1 1/2"
B-226BLL-12KIT	Kit Upper Assembly 1 1/2"
B-226BLL-16-81	Upper Packing 2"
B-226BLL-16-82	Seat Assembly 2"
B-226BLL-16-83	Bonnet Gasket 2"
B-226BLL-16KIT	Kit Upper Assembly 2"

Globe 226XGF Series - Grafoil® - Extended Stem

Kit Number	Description
VB-226XGF-4-81	Upper Packing 1/2"
VB-226XGF-4-82	Seat Assembly 1/2"
VB-226XGF-4-83	Bonnet Gasket 1/2"
VB-226XGF-4KIT	Kit Upper Assembly 1/2"
VB-226XGF-6-81	Upper Packing 3/4"
VB-226XGF-6-82	Seat Assembly 3/4"
VB-226XGF-6-83	Bonnet Gasket 3/4"
VB-226XGF-6KIT	Kit Upper Assembly 3/4"
VB-226XGF-8-81	Upper Packing 1"
VB-226XGF-8-82	Seat Assembly 1"
VB-226XGF-8-83	Bonnet Gasket 1"
VB-226XGF-8KIT	Kit Upper Assembly 1"
VB-226XGF-12-81	Upper Packing 1 1/2"
VB-226XGF-12-82	Seat Assembly 1 1/2"
VB-226XGF-12-83	Bonnet Gasket 1 1/2"
VB-226XGF-12KIT	Kit Upper Assembly 1 1/2"

Check 840 & 846M Series

Kit Number	Description
B-000840-4-82	Seat Assembly 1/2"
B-000840-8-82	Seat Assembly 1"
B-000840-12-82	Seat Assembly 1 1/2"
B-000840-16-82	Seat Assembly 2"
B-000846M-4-82	Metal Seat Assembly 1/2"
B-000846M-4-83	Bonnet Gasket 1/2"
B-000846M-6-82	Metal Seat Assembly 3/4"
B-000846M-6-83	Bonnet Gasket 3/4"
B-000846M-8-82	Metal Seat Assembly 1"
B-000846M-8-83	Bonnet Gasket 1"
B-000846M-12-82	Metal Seat Assembly 1 1/2"
B-000846M-12-83	Bonnet Gasket 1 1/2"
B-000846M-16-82	Metal Seat Assembly 2"
B-000846M-16-83	Bonnet Gasket 2"

Limited Warranty and Limitation of Liability



LIMITED 10 YEAR WARRANTY AND LIMITATION OF LIABILITY

LIMITED 10 YEAR WARRANTY

REGO® warrants to the original purchasers the products and repair kits manufactured by it to be free from defects in materials and workmanship under normal use and service for a period of 10 years from the date of manufacture. If within thirty days after buyer's discovery of what buyer believes is a defect, buyer notifies in writing and ships the product to REGO® at 3181 Lear Drive Burlington, NC 27215, REGO®, at its option, and within forty-five days of receipt, will repair, replace F.O.B. point of manufacture, or refund the purchase price of that part or product found by REGO® to be defective. Failure of buyer to give such written notice and ship the product within thirty days shall be deemed an absolute and unconditional waiver of any and all claims of buyer arising out of such defect.

This warranty does not extend to any product or part that is not installed and used continuously after installation in accordance with REGO®'s printed instructions, all applicable state and local regulations, and all applicable national standards, such as those promulgated by NFPA, DOT and ANSI. This warranty does not extend to any product or part that has been damaged by accident, misuse, abuse, failure to maintain, or neglect, nor does it extend to any product or part which has been modified, altered, disassembled, or repaired in the field. This warranty does not cover any cosmetic issues, such as scratches, dents, marring, fading of colors or discoloration.

Except as expressly set forth above, and subject to the limitation of liability below, REGO® MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, with respect to its products and parts, whether used alone or in combination with others. REGO® disclaims all warranties not stated herein.

LIMITATION OF LIABILITY

REGO®'s total liability for any and all losses and damages arising out of any cause whatsoever shall in no event exceed the purchase price of the products or parts in respect of which such cause arises, whether such cause be based on theories of contract, negligence, strict liability, tort or otherwise.

REGO® shall not be liable for incidental, consequential or punitive damages or other losses. REGO® shall not be liable for, and buyer assumes any liability for, all personal injury and property damage connected with the handling, transportation, possession, further manufacture, other use or resale of products, whether used alone or in combination with any other products or materials.

From time to time buyers might call to ask REGO® for technical advice based upon limited facts disclosed to REGO®. If REGO® furnishes technical advice to buyer, whether or not at buyer's request, with respect to application, further manufacture or other use of the products and parts, REGO® shall not be liable for such technical advice or any such advice provided to buyer by any third party and buyer assumes all risks of such advice and the results thereof.

NOTE: Some states do not allow the exclusion or limitation of incidental, consequential or punitive damages, so the above limitation or exclusion may not apply to you. The warranty gives you specific legal rights, and you may have other rights that vary from State to State. The portions of this limited warranty and limitation of liability shall be considered severable and all portions which are not disallowed by applicable law shall remain in full force and effect.

WARNING

All RegO products are mechanical devices that will eventually become inoperative due to wear, corrosion and aging of components made of material such as

NOTICE TO USERS OF PRODUCTS

The Limited Warranty stated above is a factory warranty to the first purchasers of REGO® products. Since most users have purchased these products from REGO® distributors, the user must within thirty (30) days after the user's discovery of what user believes is a defect, notify in writing and return the product to the distributor from whom he purchased the product/part. The distributor may or may not at the distributor's option choose to submit the product/parts to REGO®, pursuant to this Limited Warranty. Failure by buyer to give such written notice within thirty (30) days shall be deemed an absolute and unconditional waiver of buyer's claim for such defects. Acceptance of any alleged defective product/parts by REGO®'s distributor for replacement or repairs under the terms of REGO®'s Limited Warranty in no way determines REGO®'s obligations under this Limited Warranty.

Because of a policy of continuous product improvement, REGO® reserves the right to change designs, materials or specifications without notice.

EUROPEAN PED/TPED CERTIFICATION			
The following product categories have received PED/TPED certification by the notified body Tüv, #0036			
Valve number	Maximum Connection Size	DN	PED Category
9560 series	1"	25	SEP
9500 series	1"	25	SEP
BK8400 series	2"	50	II
BK9400 series	2"	50	II
T9450 series	½"	15	TPED
T9460 series	½"	15	TPED
1682 series	¼"	8	SEP
BR-&1780 series	1"	25	SEP
RG series	¼"	8	SEP
ECL series	¼"	8	SEP
PRV9430 & PRV19430 series	½"	15	IV
SS9430 & PRV29430 series	½"	15	IV

Canadian Registration Numbers
The majority of products in this catalog are registered with the Canadian Department of Labor under the following reference Number: 0* 7770.5**
* Represents Fitting Categories: A, C, G, H
** Represents Province code number



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