# 219 Valves - Check Valves



## **REGO HORIZONTAL CHECK VALVES**

The Rego 8500 series are designated for use as a check valve on large cryogenic bulk stations and cryogenic pipelines.

- 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.
- Working temperature range is -320 degrees F to +165 degrees F.
- Maximum working pressure is 600 PSIG CWP.
- 2 PSI crack pressure.

#### **REGO HORIZONTAL CHECK VALVES**

RMI Part No.	Inlet/Outlet Connection	Mid-Inlet to Top of Valve	Lenght	Cv
BK8508S	1.128" - 1-1.30"	2 1/4"	4 5/16"	10
BK8508T	1" FNPT	2 1/4"	4 5/16"	10
BK8512S	1.6929" - 1.631"	3 14"	5 3/16"	27
BK85112T	1 1/2" FNPT	3 14"	5 3/16"	27



## **REGO INLINE CHECK VALVES**

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

- One directional flow indicated by arrow on body.
- Large Cv for high flow capacity 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 cracking pressure
- Cleaned for use in oxygen service per GCA G-4-1









#### **REGO INLINE CHECK VALVES**

RMI Part No. Connections FNPT	Seating Option	Inlet/Outlet	Lenght HEX Size	Wrenching	Cv	Max Operating Pressure		
Stainless Steel Check Valv	Stainless Steel Check Valves							
CG250SS	METAL	1/4"	2 3/8"	13/16"	.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		
CG250SSS	SOFT	1/4"	2 3/8"	13/16"	.87	250 PSIG		
CG375SSS	SOFT	3/8"	2 1/2"	1"	2.3	250 PSIG		
CG500SSS	SOFT	1/2"	3"	1 1/8"	3.5	3000 PSIG		
CG750SSS	SOFT	3/4	3 5/8"	1 1/2"	5.2	3000 PSIG		
Brass Body Check Valves	Brass Body Check Valves							
CG250B	METAL	1/4"	2 3/8"	13/16"	.87	5000 PSIG		
CG375B	METAL	3/8"	2 1/2"	1"	2.3	5000 PSIG		
CG500B	METAL	1/2"	3"	1 1/8"	3.5	5000 PSIG		
CG750B	METAL	3/4	3 5/8"	1 1/2"	5.2	5000 PSIG		
CG250BL	SOFT	1/4"	2 3/8"	13/16"	.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		

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or call for personal assistance





#### **SERIES 322 BRONZE GATE VALVE FOR CRYOGENIC SERVICE**

Top Entry: Union bonnet valve can be permanently installed in the line and serviced from the top.

Soft Seated: Bronze cast body and internals. Rugged construction for long life.

Construction: Bronze cast body and bonnet. Rugged construction for long life.

Sizes: 1/2" through 3" (15mm through 80mm)

Ends: Threaded (FNPT), Sil braze tube (SBT) or with stainless steel pipe nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

**Shut Off/Cryogenic** 

Pressure Rating (cold, non-shock): 300 psig (20 bar) also available in 400 psig (27 bar) and 600 psig (40 bar) see series 326.

#### **UPDATES:**

1/4" - 2" has been changed to the 326 Series (see above description). 2.5" and 3" remain 322 series which tested at 400 PSI (only major difference).





840

#### SERIES 840 - SWING CHECK VALVE FOR CRYOGENIC **SERVICE**

Top Entry: Can be permanently installed in the line and serviced from the top.

Soft Seated: Replaceable PCTFE seat for enhanced seating.

Construction: Bronze body and internals designed to prevent back-flow in cryogenic systems. Higher fluid capacity (Cv) than poppet or Lift-Check Valves.

Sizes: 1/2" through 2" (15mm through 50mm)

Ends: Threaded (FNPT) or with stainless steel nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

Pressure Rating: 400 psig (27 bar).

#### UPDATES:

Same valve. Also available 846M series, which tested at 600 PSI and has a metal seat.

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**SERIES 886 - CHECK VALVE FOR CRYOGENIC SERVICE** 

Top Entry: Can be permanently installed in the line and serviced from the top.

Soft Seated: Replaceable PCTFE disc provides a high performance seal. The disc/arm assembly is easily replaced. Metal -to-metal seating also available.

Construction: 316L stainless steel investment cast body, cap and arm.

Sizes: 1/2" through 1 1/2" SW, BW Schedule 10; 2" through 4" as BW Schedule 10 and BW Schedule 40.

Ends: Threaded (FNPT) or with stainless steel nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

Pressure Rating (non-shock cold): 1/2" through 2" 300 psig (20 bar) 400 psig (27 bar); 3" and 4" 105# Class 275 psig (19 bar); 3" and 4" 300# Class 720 psig (50 bar).

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#### **UPDATES:**

Same valve with some nomenclature changes for end connection designators.

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# Valves - **221** Cylinder/Cryogenic



## **REGO EXTENDED STEM CRYOGENIC VALVES**

# ES8450 SERIES EXTENDED STEM VALVES BK9450 & BK9470 SERIES EXTENDED STEM VALVES

These valves are designed for use as a trycock valve or hose drain valve on cryogenic tanks. Another application is as a use, liquid fill or vent valve on mini bulk cryogenic tanks. These valves can be used likewise for other cold gas applications requiring extended stem valves.



- Union Bonnet
- One piece stainless steel stern
- Conical seat design
- Maximum working pressure is 600 psig
- Working temperature is -320°F to +165°F
- Cleaned for oxygen per CGA G-4.1
- ES8450 Series also features manual torque compression packing.
- BK9450 and BK9470 features extended bonnet and spring loaded package.
- BK9470 features 304 stainless steel tube brazed into one or both ends.

RMI Part No.	Inlet/Outlet	Height	Body width	Width with inlet/outlet tubes	Cv
ES 8452	1/4" FNPT	4"	2.5"	does not apply	0.70
ES 8453	3/8" FNPT	4"	2.5"	does not apply	1.10
ES 8454	1/2" FNPT	4"	2.5"	does not apply	1.10
BK 9452	1/4" FNPT	6.5"	2.5"	does not apply	0.70
BK 9453	3/8" FNPT	6.5"	2.5"	does not apply	1.10
BK 9454	1/2" FNPT	6.5"	2.5"	does not apply	1.10
BK 9453FA	5/8" OD tubing x 3/8" FNPT	6.5"	2.5"	4.0"	1.10
BK 9475A	5/8" OD tubing both ends	6.5"	2.5"	5.5"	1.10

<sup>\*</sup>Call for complete REGO catalog.

## **REGO SHORT STEM CRYOGENIC VALVES**

#### 9450 SERIES 9460 SERIES

- The 9450 and 9460 series valves are designed for use on portable cryogenic and other in-line shut-off valve applications.
- Spring loaded stem seal automatically adjusts fo 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-torque tightening.
- Cleaned for liquid oxygen service per CGA G-4.1.
- Maximum working pressure is 600 psig.
- Working temperature range is -320°F to +165°F.

• •							
RMI Part No.	Inlet	Outlet	Orafice	Length	Height (app.)	Tube	Cv
T9452	1/4" FNPT	1/4" FNPT	.250	2 1/2"	2 3/4"	none	.72
T9453	3/8" FNPT	3/8" FNPT	.406	2 1/2"	2 3/4"	none	1.08
T9454	1/2" FNPT	1/2" FNPT	.406	2 1/2"	2 3/4"	none	1.10
T9464CA	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	1 1/8"	1.08
T9464DA	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	2 1/8"	1.08
T9464ADA	.675 Tube	3/8" FNPT	.406	2 1/2"	2 3/4"	3 3/8"	1.08

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# Valves -Shut Off/Cryogenic



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#### SERIES 110 - GATE VALVE FOR CRYOGENIC SERVICE

Top Entry: Can be permanently installed in the line and serviced from the top.

Soft Seated: Replaceable PCTFE seat provides a virtually bubble-tight seal.

Construction: Stainless steel investment cast body and bonnet.

Sizes: 1/2" through 6" (15mm through 150mm)

Ends: RF flange, butt weld, socket weld, threaded (FNPT).

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

Pressure Rating (cold, non-shock): Class 150 valve to 275 psig. (19 bar) Class 300 valve to 720 psig (50 bar).

UPDATES: Same valve with some nomenclature changes. Most valves (except flanged connections) are offered only in Class 300# (check with us on Class 150# as some sizes are available).

#### SERIES 202/212 - BRONZE GLOBE VALVE FOR CRYOGENIC **SERVICE**

Top Entry: Union-bonnet can be permanently installed in the line and serviced from the top.

Construction: Bronze cast body and bonnet. Rugged construction for long life. 202: non-extended silicon brass stem; 212: extended silicone steel stem.

Sizes: 1/4" through 2" (202 and 212 Series).

Ends: Threaded (FNPT), Sil braze tube (SBT) or with stainless steel pipe nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F

 $(196^{\circ} \text{ C to} + 38^{\circ} \text{ C}).$ 

Pressure Rating (cold, non-shock): 300 psig (20 bar) also available in 400 psig (27 bar) for a series 202 and 600 psig (40 bar) see series 206.

212

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#### **UPDATES:**

202 to 206 - New valve has live loaded packing and is tested at 600 PSI. Older version was tested at 300 or 400 PSI.

212 to 226 - 212 was an extended stem/short bonnet and is no longer available. It has been replaced with an extended stem and extended bonnet (looks much like Goddard's 222 series). New valve has live loaded packing and is tested at 600 PSI. Old valve tested at 300 or 400 PSI.

#### **SERIES 222 - BRONZE GLOBE VALVE FOR CRYOGENIC SERVICE**

Top Entry: Union-bonnet can be permanently installed in the line and serviced from the top. Stainless tube prevents excessive stem distortion.

Construction: Bronze cast body and bonnet. Rugged construction for long life.

Sizes: 1/4" to 3" FNPT ends (8mm to 80mm); 3/8" to 3" SPT Ends (10mm to 80mm).

Ends: Threaded (FNPT), Sil braze tube (SBT) or with stainless steel pipe nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

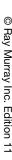
Pressure Rating (cold, non-shock): 300 psig (20 bar) also available in 400 psig (27 bar) for a series 202 and 600 psig (40 bar) see series 226.

#### **UPDATES:**

Replaced with 226 Series. See description above. 222X series valve is still available. This valve is different because it has a conical seat (used primarily in trailer valves).

\* Call for complete Goddard catalog

222



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# Valves -**Shut Off/Cryogenic**





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#### SERIES 210 - GLOBE VALVE FOR CRYOGENIC SERVICE

Top Entry: This valve can be permantly installed in the line and serviced from the top.

Soft Seated: PCTFE disc in stainless steel globe assembly provides a virtually bubble-tight seal. Stem/globe assembly is replaceable

Construction: Stainless Steel investment cast body and bonnet to match your piping requirements.

Sizes: 1/2" through 6" (15mm through 150mm).

Ends: RF flange, butt weld, socket weld, threaded (FNPT).

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

Pressure Rating (cold, non-shock): Class 150 valve to 275 psig (19 bar); class 300 valve to 720 psig

(50 bar).

UPDATES: Same valve with nomenclature changes. Most valves (except flanged connections) offered only in Class 300# (Class 150# available in some sizes).



#### SERIES 302/312 - BRONZE GATE VALVE FOR CRYOGENIC SERVICE

Top Entry: Union bonnet valve can be permanently installed in the line and serviced from the top.

Soft Seated: Bronze cast body and bonnet. Rugged construction for long life.

Construction: Bronze cast body and bonnet. Rugged construction for long life.

Sizes: 1/2" through 3" (15mm through 80mm)

Ends: Threaded (FNPT), Sil braze tube (SBT) or with stainless steel pipe nipples brazed in.

Service: Liquefied and vaporized atmospheric gases, LNG.

Temperature Rating: -325° F to 100° F (196° C to + 38° C).

Pressure Rating (cold, non-shock): 300 psig (20 bar) also available in 400 psig (27 bar) for a series 302 and 600 psig (40 bar) see series 306.

302 has changed to 306. Only difference is 306 is tested at 600 PSI and 302 is tested at 300 or 400 PSI.

312 has changed to 326 series. 312 was an extended stem/short bonnet and is no longer available. It has been replaced with extended stem/short bonnet and is no longer available. It has been replaced with extended stem/extended bonnet. It looks like Goddard's 332 series. New valve is tested at 600 PSI while old valve tested at 300 or 400 PSI.

\* Call for complete Goddard catalog

312

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## **EXTENDED BONNET CRYOGENIC GLOBE VALVES**

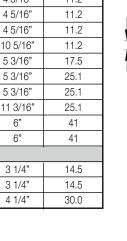
The BK and BKA series valves are designed exclusively for the handling of cryogenic liquids on bulk storage tanks, transports and pipelines. These globe valves provide positive shutoff and offer a long, low maintenance service life. The valves are available with a variety of inlet and outlet connections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

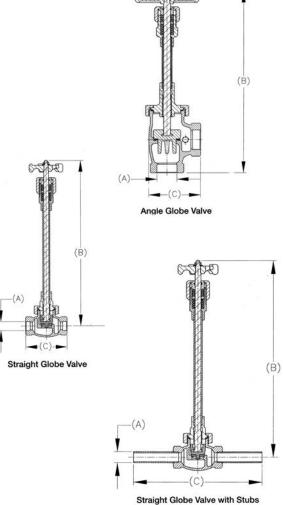
#### **FEATURES**

- CTFE seat disc and swivel seat design offer positive shut-off, 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 pressure tested to be leak free.
- Each valve is cleaned and packaged for oxygen service per CGA G-4.1.
- Maximum working pressure is 600 psig CWP.
- Working Temperature Range is -320° F to +165° F
- Union Bonnet for 1/2", 3/4" and 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, BK9412 and BK9416 models.



RMI Part #	Inlet/Outlet Connections	Height Open	Length	Cv Factor	
	A	B (app.)	С		
Straight Body	Style				
BK8404S	.631"634"	9 5/32"	3 11/16"	4.7	
BK8404T	1/2" F.NPT	9 5/32"	3 11/16"	4.7	
BK8404ST	.631"634" x 1/2" F.NPT	9 5/32"	3 11/16"	4.7	
BK9404S	.631"634"	14 1/2"	3 11/16"	4.7	
BK9404T	1/2" F.NPT	14 1/2"	3 11/16"	4.7	
BK9404ST	.631"634" x 1/2" F.NPT	14 1/2"	3 11/16"	4.7	
BK8406S	.881"884"	9 5/32"	3 11/16"	6.7	
BK8406T	3/4" F.NPT	9 5/32"	3 11/16"	6.7	
BK9406S	.881"884"	14 1/2"	3 11/16"	6.7	
BK9406T	3/4" F.NPT	14 1/2"	3 11/16"	6.7	
BK8408S	1.131"-1.134"	9 1/8"	4 5/16"	11.2	
BK8408T	1" F.NPT	9 1/8"	4 5/16"	11.2	
BK9408S	1.131" - 1.134"	14 1/2"	4 5/16"	11.2	
BK9408T	1" F.NPT	14 1/2"	4 5/16"	11.2	
BK9048AA	1" Sch5 pipe	14 1/2"	10 5/16"	11.2	
BK9410S*	1.378"-1.380"	16 7/16"	5 3/16"	17.5	
BK9412S*	1.631"-1.634"	16 9/16"	5 3/16"	25.1	
BK9412T*	1 1/2" F.NPT	16 9/16"	5 3/16"	25.1	
BK9412AA	1 1/2" Sch5 pipe	16 9/16"	11 3/16"	25.1	
BK9416S*	2.131"-2.134"	16"	6"	41	
BK9416T*	2" F.NPT	16"	6"	41	
ANGLE BODY	STYLE				
BKA8404S	1.131-1.134" x 1.631"-1.634"	11 1/4"	3 1/4"	14.5	
BKA9408S	1.131-1.134" x 1.631"-1.634"	14 5/8"	3 1/4"	14.5	
BKA8412S	1.631"-1.634"	13"	4 1/4"	30.0	





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\*Valves with bolted body design.

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