

## Cryogenic Check Valves

### BRONZE SWING CHECK VALVE FOR CRYOGENIC SERVICE INCLUDING 846M GODDARD 840 SERIES

#### Application

The RegO Goddard 846M and 840 series check valve is designed for handling cryogenic liquids through bulk tanks, trucks, trailers, ISO-containers and piping configurations. Compatible with oxygen, nitrogen, CO<sub>2</sub>, argon and LNG.

#### 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: 1/2" 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: -320°F to +150°F (-196°C to +65°C)
- Cleaned for Oxygen Service per CGA G-4.1.
- Pressure Rating: (Cold, Non-shock) 840 Series 400 psig (27.6 barg) 846M Series 600 psig (41.4 barg) Sizes 1-1/2" to 2" PED Approved Note: Do not use for reciprocating gas service.
- Cracking Pressure: 0.5 psig (.03 barg)

#### 840 BRONZE SWING CHECK VALVES - SOFT SEATED, THREADED, SIL BRAZED ENDS, THREADED AND BACK BRAZED PIPE NIPPLES 400 PSIG (28 BARG) COLD WORKING PRESSURE

##### THREADED ENDS

Part Number	NPT Size Inches	NPT Size DN	Ends	Weight Lbs.	Weight Kg	Estimated Cv (Kv)
B-840-4T	1/2"	15	Threaded	2	0.91	4.50 (3.89)
B-840-6T	3/4"	20		4	1.81	7.00 (6.05)
B-840-8T	1"	25		4.5	2.04	10.00 (8.65)
B-840-12T	1-1/2"	40		8.5	3.86	40.00 (34.6)
B-840-16T	2"	50		14.5	6.58	100.00 (86.5)

##### SILVER BRAZED - PIPE NIPPLE

Part Number	SBT Size Inches*	SBT Size DN*	Ends	Weight Lbs.	Weight Kg	Estimated Cv (Kv)
B-840-4S	1/2"	15	Silver Braze	2.5	1.13	4.50 (3.89)
B-840-6S	3/4"	20		4.5	2.05	7.00 (6.05)
B-840-8S	1"	25		5.25	2.38	10.00 (8.65)
B-840-12S	1-1/2"	40		10.75	4.88	40.00 (34.6)
B-840-16S	2"	50		17.5	7.94	100.00 (86.5)

\* nominal size

#### 846M BRONZE SWING CHECK VALVES - METAL SEATED, THREADED, SIL BRAZED ENDS, THREADED AND BACK BRAZED PIPE NIPPLES 600 PSIG (42 BARG) COLD WORKING PRESSURE

##### THREADED ENDS

Part Number	NPT Size Inches	NPT Size DN	Ends	Weight Lbs.	Weight Kg	Estimated Cv (Kv)
B-846M-4T6	1/2"	15	Threaded	2	0.91	4.50 (3.89)
B-846M-8T6	1"	25		4.5	2.04	10.00 (8.65)
B-846M-12T6	1-1/2"	40		8.5	3.86	40.00 (34.6)
B-846M-16T6	2"	50		14.5	6.58	100.00 (86.5)

##### SILVER BRAZED - PIPE NIPPLE

Part Number	SBT Size Inches*	SBT Size DN*	Ends	Weight Lbs.	Weight Kg	Estimated CV
B-846M-4S6	1/2"	15	Silver Braze	2.5	1.13	4.5
B-846M-6S6	3/4"	20		4.5	2.04	7
B-846M-8S6	1"	25		5.25	2.38	10
B-846M-12S6	1-1/2"	40		10.75	4.88	40
B-846M-16S6	2"	50		17.5	7.94	100



B-840-6T

## Cryogenic Check Valves

### **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 MAWP (41.3 barg) • 2 psig opening pressure



**BK-8508S**

Part Number	Inlet / Outlet Connection	inches	mm	inches	Length mm	C v (Kv)
BK8508S	1.128"-1.130"	2-1/4"	57.15	4 15/16"	125.47	10 (8.65)
BK8508T	1" F.NPT					
BK8512S	1.629"-1.631"	3-1/4"	82.55	5 3/16"	131.82	27 (23.35)
BK8512T	1-1/2" F.NPT					

**Cryogenic Check Valves**

**STAINLESS STEEL SWING CHECK VALVE FOR CRYOGENIC SERVICE 886 SERIES**

Application

The RegO Goddard 886 Series check valve is designed for handling cryogenic liquids through bulk tanks, trucks, trailers, ISO-containers and piping configurations. Compatible with oxygen, nitrogen, CO2 argon and LNG.

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 (Cv) than poppet or lift check valves. 316L stainless steel investment cast body, cap and arm, according to ASME B16.34
- Sizes: 1/2" through 4" (15mm through 100mm)
- Ends: Socket weld and butt weld schedule 10 and 40
- Temperature Rating: -320°F to 150°F (-196°C to +66°C)
- Cleaned for Oxygen Service per CGA G-4.1.
- Pressure Rating: (Cold, Non-shock) 400 psig (27 barg) 1/2" - 2" 275 psig (19 barg) 150# ANSI Class 3" and 4" 720 psig (50 barg) 300# ANSI Class 3" and 4" PED Approved
- 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) (-254° C to 176° C.)
- Cracking Pressure: 0.5 psig (0.03) barg

**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 (Kv)	Weight	
	Inches	DN					Lbs.	Kg
S-886GF-4S	1/2"	15	Socket Weld	Soft	400 (27.5 barg)	4.50 (3.89)	3	1.36
S-886GF-8S	1"	25				18.00 (15.57)	11	4.98
S-886GF-12S	1-1/2"	40				61.00 (52.76)	17	7.71



S-886-8S

**PTFE GASKET - SOCKET WELD**

Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated C v (Kv)	Weight	
	Inches	DN					Lbs.	Kg
S-886-4S	1/2"	15	Socket Weld	Soft	400 (27.5 barg)	4.50 (3.89)	3	1.36
S-886-8S	1"	25				18.00 (15.57)	11	4.98
S-886-12S	1-1/2"	40				61.00 (52.76)	17	7.71

**PTFE GASKET - SOCKET WELD**

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated C v (Kv)	Weight	
	Inches	DN						Lbs.	Kg
S-886-4WA	1/2"	15	Butt Weld	Soft	10	400 (27.5 barg)	4.50 (3.89)	3	1.36
S-886-8WA	1"	25					18.00 (15.57)	11	4.98
S-886-12WA	1-1/2"	40					61.00 (52.76)	17	7.71
S-886-16W3A	2"	50					99.00 (85.63)		
S-886-24WA	3"	80			275 (19 barg)	225.00 (194.62)	47	21.31	
S-886-24WJ						46	20.86		
S-886-32W3J	4"	100			720 (50 barg)	475.00 (410.87)	95	43.09	
S-886-32WA						10			275 (19 barg)



## Cryogenic Check Valves

**886M STAINLESS STEEL SWING CHECK VALVES - METAL SEAT - PTFE GASKET - SOCKET WELD**

Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated C v (Kv)	Weight	
	Inches	DN					Lbs.	Kg
S-886M-4S3	1/2"	15	Socket Weld	Metal	720 (50 barg)	4.50 (3.89)	3	1.36
S-886M-8S3	1"	25				18.00 (15.57)	11	4.98
S-886M-12S3	1-1/2"	40				61.00 (52.76)	17	7.71

**BUTT WELD ENDS**

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated C v (Kv)	Weight	
	Inches	DN						Lbs.	Kg
S-886M-16W3A	2"	50	Butt Weld	Metal	10	720 (50 barg)	99.00 (85.63)	17	7.71
S-886M-24W3J	3"	80			40		225.00 (194.62)	46	20.86
S-886M-24W3A	3"	100			10	275 (19 barg)	475.00 (410.87)	95	43.09
S-886M-32WA	4"				40	720 (50 barg)			
S-886M-32W3J	4"								

**BUTT WELD ENDS WITH GRAFOIL® GASKET FOR HYDROGEN SERVICE**

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated C v (Kv)	Weight	
	Inches	DN						Lbs.	Kg
S-886MGF-16W3A	2"	50	Butt Weld	Metal	10	720 (50 barg)	99.00 (85.63)	17	7.71
S-886MGF-24W3A	3"	80			40		225.00 (194.62)	46	20.86

