

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

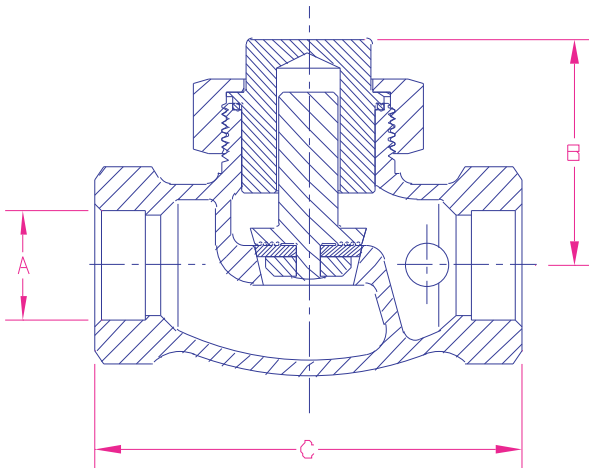
- Replaceable Kel-F seat discs.
- Self-centering cap holds plunger in position.
- Each valve is cleaned and packaged for liquid oxygen service per CGA G-4.1.
- 100% Factory Tested
- Working temperature range is -320°F to +165°F (-196°C to +74°C).
- Maximum working pressure is 600 PSIG CWP (41.3 Bar).
- 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"	2 1/4"	4 15/16"	10
BK8508T	1" F.NPT			
BK8512S	1.629"-1.631"	3 1/4"	5 3/16"	27
BK8512T	1 1/2" 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

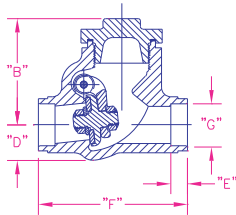
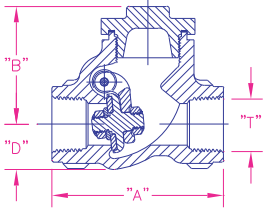
Bronze Swing Check Valve for Cryogenic Service Including 846M Goddard 840 Series

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

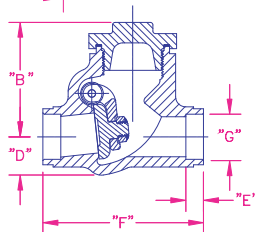
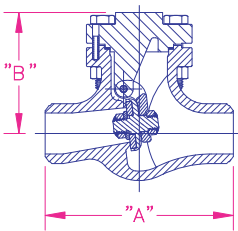


840 Series

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 1/8"	¾"	.41"	3.60"	.88"
1"	4.00"	2.81"	1 1/8"	1"	.45"	4.00"	1.13"
1½"	5.03"	3.63"	1 7/16"	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 serviced 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	½"	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	1½"	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

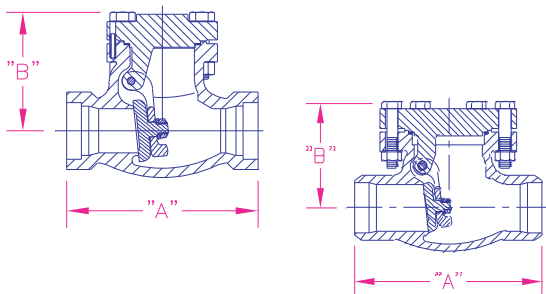
Part Number	Valve Size		End Connection	Seat	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm					
S-00886M-4S3	½"	15 mm	Socket Weld	Metal	720 (50 Bar)	4.50	3 Lbs.
S-00886M-8S3	1"	25 mm			720 (50 Bar)	18.00	11 Lbs.
S-00886M-12S3	1½"	40 mm			720 (50 Bar)	61.00	17 Lbs.

Butt Weld Ends

Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm						
S-0886M-16W3A	2"	50 mm	Butt Weld	Metal	10	720 (50 Bar)	99.00	17 Lbs.
S-0886M-24W3J	3"	80 mm			40	720 (50 Bar)	225.00	46 Lbs.
S-0886M-24W3A	3"	80 mm			10	720 (50 Bar)	225.00	46 Lbs.
S-0886M-32WA	4"	100 mm			10	275 (19 Bar)	475.00	95 Lbs.
S-0886M-32W3J	4"	100 mm	Butt Weld		40	720 (50 Bar)	475.00	95 Lbs.

Butt Weld Ends with GRAFOIL® Gasket for Hydrogen Service

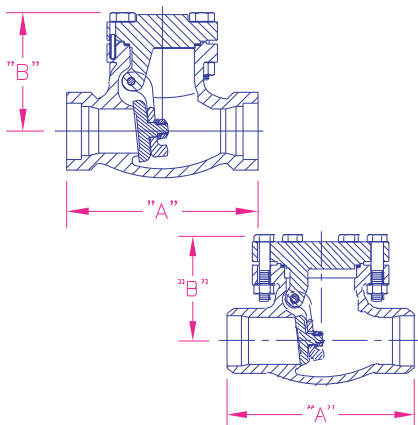
Part Number	Valve Size		End Connection	Seat	Butt Weld Schedule	Pressure Rating	Estimated Cv	Weight Lbs.
	Inches	mm						
S-886MGF-16W3A	2"	50 mm	Butt Weld	Metal	10	720 (50 Bar)	99.00	17 Lbs.
S-886MGF-24W3A	3"	80 mm	Butt Weld		10	720 (50 Bar)	225.00	46 Lbs.



886

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

Size	"A"	"B"
½"	4¼"	2½"
¾"	5"	3¼"
1"	5"	3¼"
1½"	6½"	4"
2"	8"	4½"



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
1½"	6½"	4"	10
2"	8"	4½"	10
3"	9½"	5¾"	10 & 40
4"	11½"	8⅝"	10
4"	14"	8⅝"	40

Size	"A"	"B"	End	End Dimension
½"	2 7/16"	4¼"	Socket Weld	SCH 10
½"	2 7/16"	4¼"		½" 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.

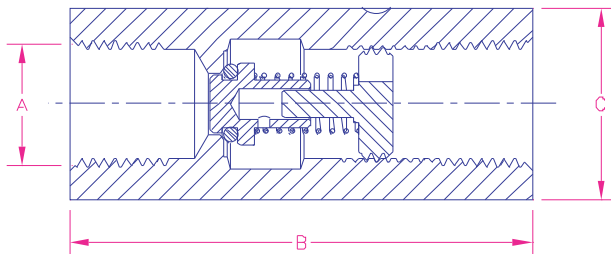
Features

- 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

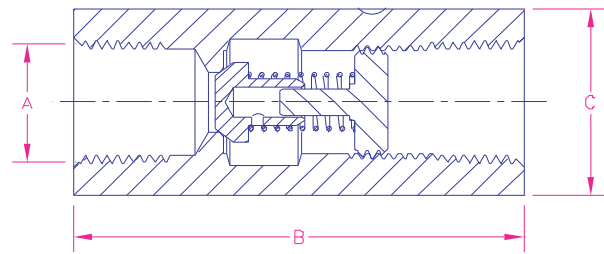


Materials

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



Soft Seat Option



Metal Seat Option

Ordering Information

Part Number	Seating Option	Inlet/Outlet Connections FNPT A	Length B	Wrenching Hex Size C	Cv	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



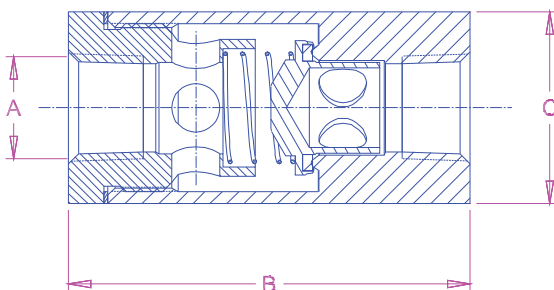
NG301

Materials for NG301

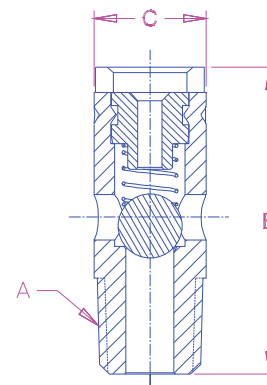
Body Brass ASTM B16 C36000
 Spring Stainless Steel 302 ASTM A313
 Plug Brass ASTM B16 C36000
 Ball Stainless Steel 316

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