



Specialists for the Tank Transportation Industry Since 1952









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Manlids



SECTION 1 pg. 1

Girard Pressure Relief Vents



SECTION 2 pg. 6

Girard Equipment, Inc. is dedicated to providing superior products with exceptional value.

We invest in the latest production technologies and apply the best business practices to create an exceptional buying experience for our customers.

We take great pride in our well-trained domestic and international field representatives and customer service personnel. Representatives of Girard Equipment provide customers with the highest level of technical knowledge in the industry.

Girard promotes the principles of a growth-oriented environment that encourages employees to be highly productive and to advance personally and professionally every day.

Airline Ball Valves



SECTION 3 pg. 16

Top
Discharge Equipment



SECTION 4 pg. 22

Caps, Adaptors, Gaskets, Gauges and Other Accessories



pg. 43

Bottom
Discharge Equipment



SECTION 5 pg. 28

500mm Manlid



SECTION

We are proud to display Swift Engineering products alongside our own. As a world-class builder of Inspection Covers, Swift combines expert craftsmanship with 21st century technology.

Their state-of-the-art production facility, located in Cape Town South Africa, has catered to the needs of the heavy transport industry for over half a century.

The 500mm Manlid assembly consists of a low profile neck ring welded to a compensating ring, with either 6 or 8 point fastening. The 4 BAR MAWP unit has a one piece, pressed neck ring. A 300mm Inspection Cover unit with 4 point fastening is also available. Lids are electropolished, while neckrings are passivated and pickled for a corrosive-resistant, long-lasting finish.

CONTENTS:

300mm Inspection Cover	2
500mm Manlid	3
Gaskets	4
Swing Bolt & Swing Bolt Tools	5

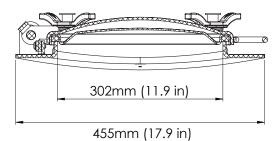


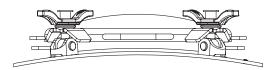


- 4 point swing bolt bracketed dome Inspection Cover
- Low profile neckring welded to a compensating ring
- Lids are electropolished and neckrings are passivated and pickled



GP20055 Complete 4 Point Low Profile Lid Assembly





REPLACEMENT PARTS

GP19921	3/4" x 65mm Swing Bolt*
GP19928	M12 x 134mm Hinge Pin Assembly

^{*}For Swing Bolt material options see page 5.

PERFC	DRMAN	CE SPE	CIFICAT	IONS
FERFC	MINIMIN	CE SFE	CIFICAL	IUIVO

Weight:	18 kg (40 lbs)
Design Pressure:	4 BAR (58 PSI)
Test Pressure:	6 BAR (87 PSI)

SEAL OPTIONS

SEAL OF HONS	
PTFE Solid	Viton®
PTFE Braided	Nitrile
EPDM	

(Call for additional details or materials)

GP19921 3/4" X 65mm Swing Bolt



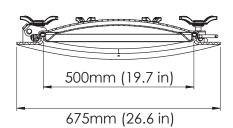


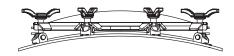


- 8 point swing bolt bracketed dome manlid
- Low profile neckring welded to a compensating ring
- Lids are electropolished and neckrings are passivated and pickled
- Also available in 460mm



PART #	DESCRIPTION
GP20042	Complete 8 Point Low Profile Lid Assembly

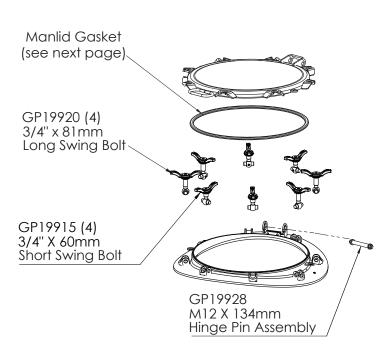




REPLACEMENT PA	ARTS
GP19920	3/4" x 81mm Long Swing Bolt*
GP19915	3/4" x 60mm Short Swing Bolt*
GP19928	M12 x 134mm Hinge Pin Assembly

^{*}For Swing Bolt material options see page 5.

PERFORMANCE S	PECIFICATIONS
Weight:	36 kg (80 lbs)
Design Pressure:	4 BAR (58 PSI)
Test Pressure:	6 BAR (87 PSI)





GASKET OPTIONS:







040	GP800
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DESCRIPTION	PART #	DIMENSIONS	USES
EPDM Core	GP19040	14.5mm x 14mm	Excellent resistance to corrosive cargo -50°C to 150°C (-58°F to 302°F)
PTFE Impregnated Braided	GP80010	14mm x 14mm	Resilient and chemical resistant to the most corrosive cargo -30°C to 120°C (-22°F to 248°F)
EPDM	GP19020	15.3mm x 11.8mm	General purpose, not mineral oils or solvents -50°C to 150°C (-58°F to 302°F)
Sweet White Rubber James Walker®	GP19030	15.3mm x 11.8mm	Repeated food exposure -50°C to 80°C (-58°F to 176°F)
White Nitrile	GP19997	15.3mm x 11.8mm	General Purpose -30°C to +120°C (-22°F to 248°F)
HALO® O-Ring James Walker®	GP09010	15mm	Suitable for use with chemicals and food -50°C to 150°C (-58°F to 302°F)
Tef-O-Sil Gasket	GP19870	13mm	Resistant to practically all chemicals Up to 149°C (300°F)
Viton® Gasket	GP19885	15mm x 10mm	Resistant to practically all chemicals Up to 149°C (300°F)
VSP Gasket	VS99690	15mm x 15mm	Best grade of proprietary Teflon® blend -156°C to 232°C (-250°F to 450°F)



GP19030 / GP19997



GP09010





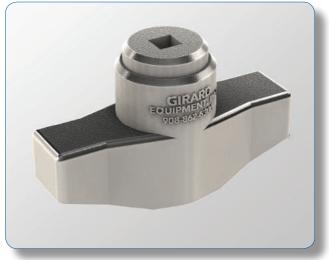




SWING BOLTS

- 3/4" x 81mm Long Swing Bolt **GP19920**
- 3/4" x 65mm Swing Bolt **GP19921**
- 3/4" x 60mm Short Swing Bolt **GP19915**
- Available in Brass, Stainless Steel and Nitronic 60 (Alloy 28)





GP19897

ISO MANLID SWING BOLT TOOL

- Heavy duty stainless steel casting
- Compatible with most swing bolts on the market
- Fits onto a standard torque wrench

PRESSURE RELIEF VENTS





2 ½", 65mm BSP Pressure/Vacuum Relief Vent

Girard has put their name and reputation on the line for over 65 years. We start with the best raw materials that are precision machined to absolute tolerances.

Stainless steel springs are heat treated and designed with a specific resistance load, making them ready to go right out of the box. Springs are formed with an exact straightness while under a pressure load, and a grinding process is added to ensure all springs are uniform. This makes for a nearly perfect spring with only minor adjustments necessary during installation.

O-Rings are made from an industry standard PTFE encapsulated silicone construction. Girard IM Vents are designed to accept most other major vent/stroke valve manufacturers' O-Rings without adverse effect on performance.

CONTENTS:

2 ½", 65mm BSP Pressure/Vacuum Relief Vent7-8
3", 80mm Flanged Pressure/Vacuum Relief Vent9-10
3", 80mm Flanged, PTFE Lined Pressure/Vacuum Relief Vent11-12
Relief Vent Tank Flanges13
Safety Relief Vent Accessories
Coating Options15

SECTION 2





- Pressure / Vacuum or Pressure only styles available
- Hardened coil springs for extra durability
- Highest flow rate of any pressure relief vent through a 2 ½" opening
- PTFE seals and O-Rings are interchangeable with other major brands
- Optional Teflon® spray coating available upon request
- Test certificates are supplied with each vent



CATALOG #	DESCRIPTION
IM(XX)	Standard 2 ½" BSP connection, Tef-O-Sil O-Rings (PTFE), rugged cast 316 stainless steel construction, electropolished to a bright finish, tested and certified with documentation and a unique serial number
IM(XX)-WV	Same as above, except this model provides vacuum protection as well as pressure relief

For pressure settings: Substitute (xx) with pressure rating in BAR. For example, GE-IM44 is a relief vent set to discharge at 4.4 BAR (63.8 PSI)

PERFORMAN	CE SPEC	IFICATIONS

Pressure Range Capabilities:	0.6 to 11 BAR (9 to 160 PSI)
Vacuum Range:	1 to 12" Hg
Standard Vacuum Setting:	-0.2 BAR (6" Hg)

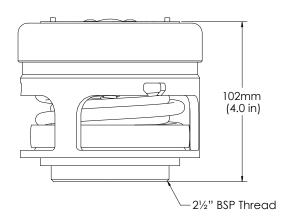
MATERIALS OF CONSTRUCTION

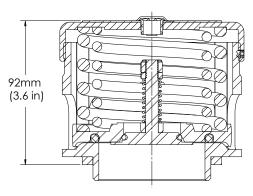
All contact parts are made from 316 stainless steel

Standard O-Rings are PTFE encapsulated silicone

PRODUCT DIMENSIONS

Weight: 2.72 kg (6 lbs)

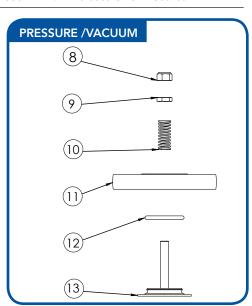




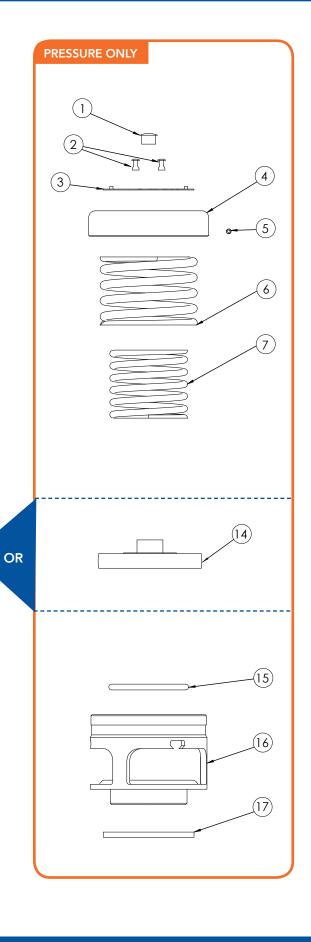
Pressure/Vacuum Combination Relief Vent Shown

GIRARD EQUIPMENT, INC.

ITEM	PART #	DESCRIPTION
TTEIVI	TAKI #	DESCRIPTION
1	GR98000	Plug
2	GB98030	Rivets 5/32"
3	GR01550	Blank Disc Polished
4	GR02510	Сар
5	GR03000	Set Screw
6	GR04400	Outer Spring (4.4 BAR)
7	GR04410	Inner Spring (4.4 BAR)
8	GR05010	Hex Lock Nut
9	GR05000	Hex Jam Nut
10	GR06000	Vacuum Spring (6 to 9" Hg)
11	GR07000	Pressure/Vacuum Pallet
12	GR09020	Vacuum O-Ring
13	GR10000	Vacuum Poppet
14	GR07501	Pressure Only Pallet
15	GR08020	Pressure O-Ring
16	GR11002	2½" BSP Male Housing
17	GM22030	2½" Duraseal® Tank Gasket



SET PRESSURE (BAR)	SPRING PART #
0.60 - 0.75	GQ60175
1.10 - 1.72	GR04410
2.00 - 2.38	GR04100
2.62 - 2.69	GR04400
3.30	GQ60175 and GR04400
3.71 - 3.80	GR04410 and GR04100
4.40	GR04410 and GR04400
5.00	GR04510 and GR04400
6.00 - 8.00	GR04620 and GR04630
11	GR04600 and GR04610







- Pressure / Vacuum or Pressure only styles available
- Hardened coil springs for extra durability
- PTFE seals and O-Rings are interchangeable with other major brands
- Slotted holes to fit flange sizes: DN65 PN10 DN80 PN6 3" ANSI 150#
- Electropolished for easy cleaning
- 1/4" tapped gauge port
- Optional Teflon® spray coating available upon request
- Test certificates are supplied with each vent



CATALOG #	DESCRIPTION
IMF XX	80mm flanged connection, Tef-O-Sil O-Rings (PTFE), rugged cast 316 stainless steel construction, electropolished to a bright finish, tested and certified with documentation and a unique serial number
IMF(XX)-WV	Same as above, except this model provides vacuum protection as well as pressure relief

For pressure settings: Substitute (xx) with pressure rating in BAR. For example, GE-IMF44 is a relief vent set to discharge at 4.4 BAR (63.8 PSI)

Pressure Range:	0.6 to 8 BAR (9 to 116 PSI)
Vacuum Range:	1 to 12" Hg
Standard Vacuum Setting:	-0.2 BAR (6" Hg)

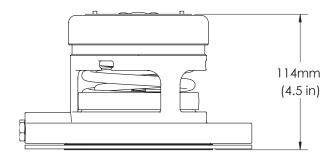
MATERIALS OF CONSTRUCTION

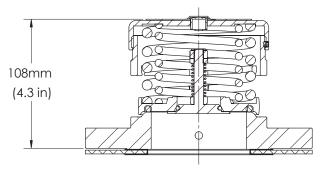
All contact parts are made from 316 stainless steel

Standard O-Rings are PTFE encapsulated silicone

PRODUCT DIMENSIONS

Weight: 5.89 kg (13 lbs)

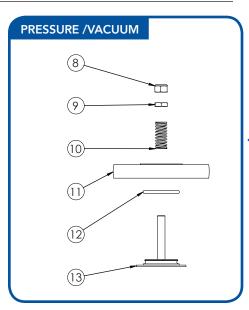




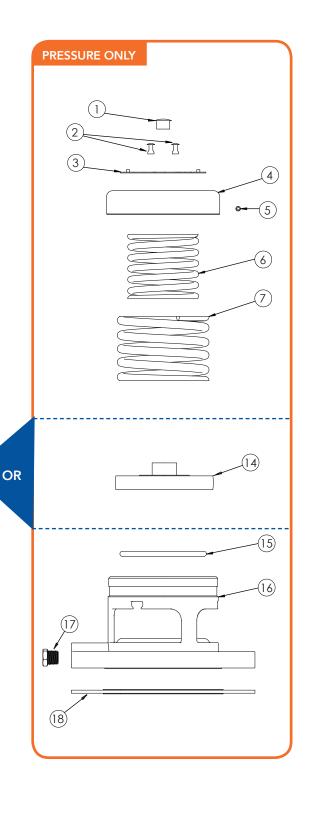
Pressure/Vacuum Combination Relief Vent Shown



ITEM	PART #	DESCRIPTION
1	GR98000	Plug
2	GB98030	Rivets 5/32"
3	GR01550	Blank Disc Polished
4	GR02510	Сар
5	GR03000	Set Screw
6	GR04510	Inner Spring (4.4 BAR)
7	GR04500	Outer Spring (4.4 BAR)
8	GR05010	Hex Lock Nut
9	GR05000	Hex Jam Nut
10	GR06000	Vacuum Spring (6 to 9" Hg)
11	GR07005	Pressure/Vacuum Pallet
12	GR09020	Vacuum O-Ring
13	GR10000	Vacuum Poppet
14	GR07505	Pressure Only Pallet
15	GR08040	Pressure O-Ring
16	GR11516	Flanged Housing with Port
17	GR98040	1/4" Stainless Steel Hex Plug
18	GR11521	3" DN80 Flange Gasket Assembly



SET PRESSURE (BAR)	SPRING PART #
0.60 - 0.75	GF05110
1	GR04410
1.30 - 1.50	GR04510
2.00 - 2.21	GR04221
2.60	GR04500
3.00 - 3.40	GR04410 and GR04221
3.71 - 3.90	GR04510 and GR04221
4.40	GR04510 and GR04500
6.00 - 8.00	GR04610 and GR04600







- Pressure / Vacuum or Pressure Only styles available
- Internally lined with PTFE
- Electropolished for easy cleaning
- Slotted holes to fit flange sizes:
 - DN65 PN10
 - DN80 PN6
 - 3" ANSI 150#
- Optional Teflon® spray coating available upon request
- Test certificates are supplied with each vent



CATALOG #	DESCRIPTION
IMF-TL XX	80mm slotted flanged connection, Tef-O-Sil O-Rings (PTFE), rugged cast 316 stainless steel construction, electropolished to a bright finish, tested and certified with documentation and a unique serial number
IMF-TL(XX)-WV	Same as above, except this model provides vacuum protection as well as pressure relief

For pressure settings: Substitute (xx) with pressure rating in BAR. For example, GE-IMF-TL4.4 is a relief vent set to discharge at 4.4 BAR (63.8 PSI)

PERFORMANCE SPECIFICATIONS

Pressure Range:	0.6 to 8 BAR (9 to 116 PSI)
Vacuum Range:	1 to 12" Hg
Standard Vacuum Setting:	-0.2 BAR (6" Hg)

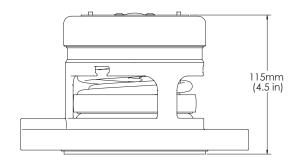
MATERIALS OF CONSTRUCTION

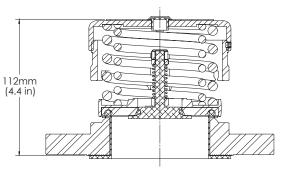
All contact parts are made from 316 stainless steel

Standard O-Rings are PTFE encapsulated silicone

PRODUCT DIMENSIONS

Weight: 5.89 kg (13 lbs)



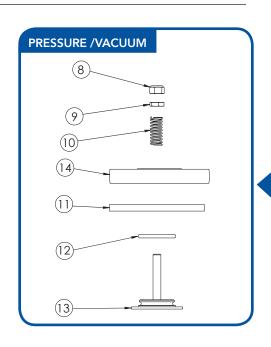


Pressure/Vacuum Combination Relief Vent Shown

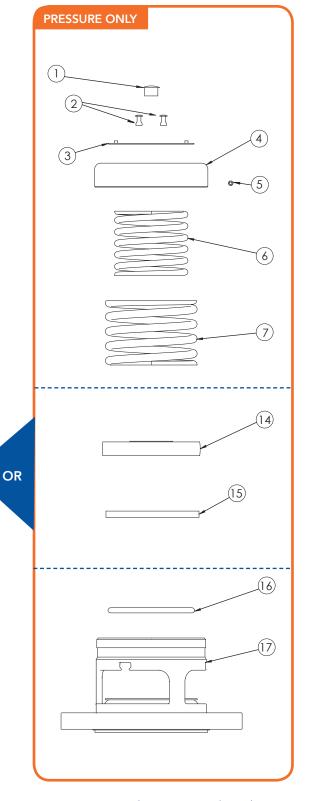
 ${\it \ref{BTeflon}}$ is a registered trademark of Dupont.



ITEM	PART #	DESCRIPTION
1	GR98000	Plug
2	GB98030	Rivets 5/32"
3	GR01550	Blank Disc Polished
4	GR02510	Сар
5	GR03000	Set Screw
6	GR04510	Inner Spring (4.4 BAR)
7	GR04500	Outer Spring (4.4 BAR)
8	GR05010	Hex Lock Nut
9	GR05000	Hex Jam Nut
10	GR06000	Vacuum Spring (6 to 9" Hg)
11	GR13001	Teflon® Vacuum Pallet
12	GR09020	Vacuum O-Ring
13	GR10003	Vacuum Poppet Lined
14	GR07006	Vacuum/Pressure Pallet Lined
15	GR13002	Teflon® Pallet Less Vacuum
16	GR08040	Pressure O-Ring
17	GR11513	Flanged Lined Housing



SET PRESSURE (BAR)	SPRING PART #
0.60 - 0.75	GF05110
1	GR04410
1.30 - 1.50	GR04510
2.00 - 2.21	GR04221
2.60	GR04500
3.00 - 3.40	GR04410 AND GR04221
3.71 - 3.90	GR04510 AND GR04221
4.40	GR04510 AND GR04500
6.00 - 8.00	GR04610 AND GR04600



*Note: PTFE liner acts as an inlet gasket, no additional gasket required for mounting.















PRV TANK WELD-IN, THREADED FLANGE

- Part Number GP30300
- Tank Weld Flange
- 65mm nominal bore to accept a 2½" BSP male connection
- 1.25 kg (3 lbs)

PRV TANK WELD-IN, NON-THREADED FLANGE

- Part number GP30605
- 6-hole, top mounting flange for bursting disc holder
- 70mm nominal bore
- 6 x M10 blind-tapped holes on a 105mm PCD bolt circle
- 1.45 kg (3 lbs)

PRV DUAL-STYLE TANK MOUNTING FLANGE

- Part Number GP30320
- Dual-Style Flange with 2 ½" BSP female thread with a provision for a rupture disc holder
- 65mm nominal bore
- 6 x M10 blind-tapped holes on a 105mm PCD bolt circle
- 1.58 kg (3 lbs)

PRV TOP MOUNTING FLANGE/RUPTURE DISC HOLDER

- Part Number GP30850 without gauge guard
 GP30860 with gauge guard
- 6 x M10 countersunk holes on a 105mm PCD bolt circle
- 65mm nominal bore to accept a 2 ½" BSP male connection
- Tapped ¼" for pressure gauge port
- 1.36 kg (3 lbs)

METRIC CAPS CREWS FOR SECURING PRV TOP MOUNTING FLANGES

- Part Number GQ97912
- M10 x 25mm socket head cap screws
- Spring washers included

PRV BLANKING FLANGE

- Part Number GP30900
- 6-hole, Blanking Flange used when a PRV opening to the tank is provided for but not in use
- 6 holes equally spaced on a 105mm PCD bolt circle
- .57 kg (1 lbs)

Detailed flange drawings are available upon request



3" SAFETY RELIEF VENT TANK WELD PAD

- Part number GP20410
- 4 x M16 Blind-tapped holes on a 145mm PCD bolt circle
- 80mm nominal bore
- 4 kg (9 lbs)

BOLTING KIT

- Part number GQ98200
- 4 pcs. of M16 stud, washer, nut
- 304 stainless steel

PRV ACCESSORIES

RUPTURE DISCS

- Part number GP30800
- For Pressure Only PRV's.
 Fits between GP30605 (PRV Tank Weld-In Flange)
 and GP30850 (PRV Top Mounting Flange)
- 2½" (65mm) Rupture Disc, stainless steel, PTFE coating (4.8 BAR)

Special pressure settings available upon request.

FLAME SCREEN

- Part number GR97000
- Wrap around flame screen, 304 stainless steel mesh
- Highest flow rate in the industry
- Meets ADR/RID & IMDG Code 6.7.2.2.11

PRESSURE GAUGES

- Part Number **GF19010**
- All stainless steel construction, glycerin filled to withstand the vibrations of the tank container while in transit, ¼" male connection, 0-7 BAR (0-100 PSI) gradients

TEST BOX

- Part Number GW00010
- User-friendly and reliable portable testing box for testing Safety Relief Vents
- Easy to read digital compound gauges register both pressure and vacuum settings
- 2½" BSP connection
- Other connections available

















DuPont® Teflon® PTFE (polytetrafluoroethylene)

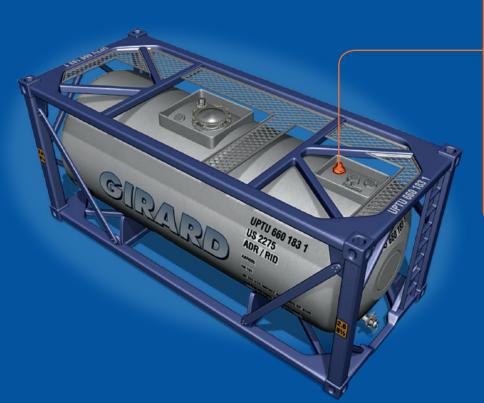
- · Black in color
- One coat process
- Formulated with special blends of fluoroplastics and other high-performance resins to improve toughness and abrasion resistance
- Excellent corrosion resistance and good dry lubrication properties
- Resins provide adhesion and abrasion resistance
- Low friction, nonstick characteristics
- No VOC emissions



DuPont® Tefzel® ETFE (ethylene/tetrafluoroethylene)

- Three coat process (primer, midcoat and topcoat)
- Dark green in color
- Excellent chemical resistance
- The toughest of the fluoroplastics (a copolymer of ethylene and tetrafluoroethylene)
- Abrasion-resistant
- Applied through a spray-and-bake procedure in multiple coats, with each coat sprayed and baked individually
- Perfect for applications in harsh chemical environments
- High temperature resistance (150°C)

AIRLINE BALL VALVES





2" Airline Ball Valve

SECTION

Girard $1\frac{1}{2}$ " Airline Ball Valve is fitted with a standard $1\frac{1}{2}$ " bore stainless steel ball between two solid PTFE seals.

The ball is equipped with a relief hole which faces the pressure side of the tank and allows effective communication with the pressure gauge while the valve is in the closed position. The relief hole also ensures there is no retention of product or build up of pressure inside the body.

The valve is machined with a 1½" BSP male connection, flat faced to seal against a gasket on a compressed airline connection or a blanking cap.

CONTENTS:

1 ½" Airline Ball Valve17	-18
2" Airline Ball Valve	. 19
Hydraulic Airline Valve	20
Flanged and Dual Port Airline Ball Valves	21





- Gauge will continue to register tank pressure with valve in both the open or closed position
- Machined to accept a gauge guard to protect the gauge from damage. Gauge guard is available upon request
- Optional 90 mesh stainless steel screen to help protect tank from possible contamination that may be changed in place
- Can be equipped with a dual connection pipe "T" with a 11/2" BSP and 11/2" NPT thread
- Can be equipped with cable or hydraulic remote control to avoid having to climb on top of the tank
- Produced with heavy duty investment castings and with an electropolished finish



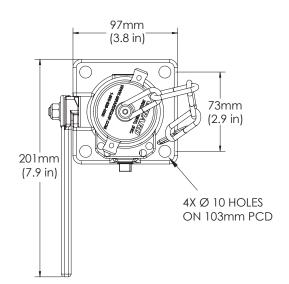
PART #	DESCRIPTION
GQ40500	Standard valve with PTFE seals, $\mbox{$lambda''$}$ gauge plug. Gauge guard and screen filter sold separately.

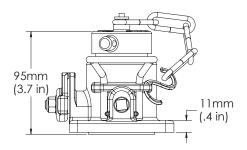
ASSOCIATED PARTS	5
GF19010	1⁄4" liquid filled gauge 0-7 BAR (0-100 PSI)
GP40205	Weld-In Tank Pad
GQ40150	Gauge Guard

PERFORMANCE SPECIFICATIONS	
Max Working Pressure:	10 BAR (145 PSI)
Test Pressure:	15 BAR

PRODUCT DIMENSIONS

Weight: 2.15 kg (5 lbs)





ITEM	PART #	DESCRIPTION
1	GQ40510	1.5" Airline Ball Valve Body G3
2	GQ40010	Screen Filter (sold separately)
3	GQ40450	Stem
4	GQ40530	ABV Handle
5	GQ40540	Front Seal
6	GQ40520	1.5" Ball
7	GQ40550	Rear Seal
8	GQ40451	Teflon® Washer
9	GQ40452	Teflon® Seal
10	GQ40453	Shaft Spacer
11	GQ40454	Bellville Washer
12	GK10115	1.5" BSP Stainless Steel Peened Cap
13	GK98010	1/8" 316 Stainless Steel Chain (per metre)
14	GM15000	1.5" Teflon® Gasket
15	GK98020	#10 SS Flat Washer
16	GK10001	1/8" 316 Stainless Steel "S" Hook
17	GQ40020	Retaining Ring
18	GQ40030	1/8" NPT Plug - Square Head
19	GQ50170	M8 Flat Washer
20	GR05010	M8 Hex Lock Nut
21	GQ40150	Gauge Guard (sold separately)



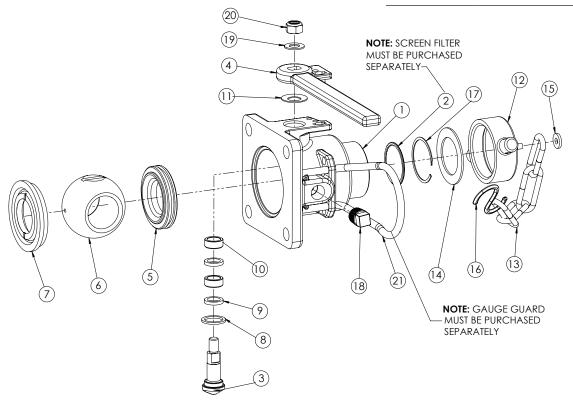
GP40205 Airline Ball Valve Weld-In Tank Pad 4 x M10 Blind-tapped holes on 103.4 PCD



GK98010 GE Chain (order by the foot or metre) Stainless Steel chain and two "S" hooks



GQ98012	M10 x 35mm Bolt Kit
The above Bolt	Kit contains 4 each of:
GQ97970	M10 x 35mm Stud
GQ97900	M10 Split Ring Lock Washer
GQ97910	M10 Hex Nut







- Gauge will continue to register tank pressure with valve in both the open or closed position
- Machined to accept a gauge guard to protect the gauge from damage. Gauge guard is available upon request
- Optional 90 mesh stainless steel screen to help protect tank from possible contamination that may be changed in place
- Can be equipped with cable or hydraulic remote control to avoid having to climb on top of the tank
- Produced with heavy duty investment castings and electropolished to a shiny finish



PART #	DESCRIPTION
GQ40700	Standard valve with PTFE seals, 1/4" gauge plug. Gauge guard and screen filter sold separately.

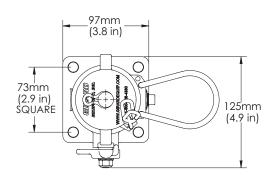
ASSOCIATED PARTS	
GF19010	¼" liquid filled gauge 0-7 BAR (0-100 PSI)
GP40205	Weld-In Tank Pad
GQ40150	Gauge Guard

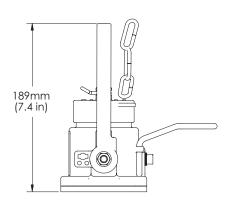
ASSOCIATED PARTS	
GF19010	¼" liquid filled gauge 0-7 BAR (0-100 PSI)
GP40205	Weld-In Tank Pad
GQ40150	Gauge Guard

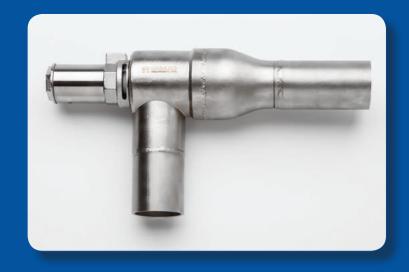
PERFORMANCE SPECIFICATIONS		
Max Working Pressure:	10 BAR (145 PSI)	
Test Pressure:	15 BAR	

PRODUCT DIMENSIONS

Weight: 2.72 kg (6 lbs)







- Designed for 4 BAR MAWP tank
- Teflon® seals
- Additional flange options available:
 - 3" ASME
 - 2" ANSI
 - 3" TTMA
 - DN80



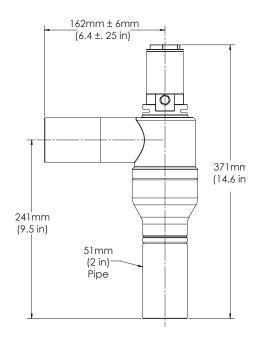
PART #	DESCRIPTION
GU00025	Hydraulic Airline Valve

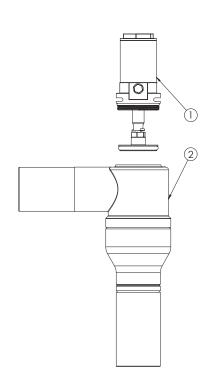
PERFORMANCE SPECIFICATIONS		
Hydraulic Pressure:	344 BAR (5000 PSI) Maximum	
Test Pressure:	6 BAR	

PRODUCT DIMENSIONS

Weight: 4.54 kg (10lbs)

ITEM	PART #	DESCRIPTION
1	GV20007	Modified, GVRA-B2 Assembly
2	GV14030	GVRA BR, Extended, Weldment









PART #	DESCRIPTION
GQ40001	Flanged 1½" Ball Valve Available with slotted connection flange allowing 1½" ANSI 150#, 1½" BS 10 Table D & E, and DN40 PN6 fittings

PERFORMANCE SPECIFICATIONS	
Max Working Pressure:	10 BAR (145 PSI)
Test Pressure:	15 BAR

PRODUCT DIMENSIONS

Weight: 4.08 kg (9lbs)

Dual Port Airline Ball Valve





PART #	DESCRIPTION
GQ40004	1½" Airline Ball Valve with Dual Ports Available with slotted connection flange allowing 1½" ANSI 150#, 1½" BS 10 Table D & E, and DN40 PN6 fittings

PERFORMANCE SPECIFICATIONS	
Max Working Pressure:	10 BAR (145 PSI)
Test Pressure:	15 BAR

PRODUCT DIMENSIONS

Weight: 3.36 kg (7 lbs.)

TOP DISCHARGE EQUIPMENT





3" Flanged Top Discharge Butterfly Valve

Our Top Discharge Valves can be retrofitted into most existing top discharge arrangements on tanks up to 26,000 litres without the need for a recessed weld pad. The connection flange holes are slotted to allow connection to most known bolting pattern for common and uncommon tank weld pads.

The valve can be hermetically sealed and locked with a padlock or tamper evident seals to protect precious cargoes from unauthorized access. All flange mating surfaces are machined with serrations to comply with ASME B16.5 standards.

Replacement parts are interchangeable with most other major brands. This makes your choice to use Girard Equipment practical as well as economical.

The valve is made entirely of 316 stainless steel with both PTFE and fluoroelastomer low temperature seals to guarantee the highest in chemical compatibility and reliability even in the harshest operating conditions.

CONTENTS:

3" Top Discharge Butterfly Valve	23-24
2" Flanged Ball Valve	25-26
Remote Cable Assembly	27

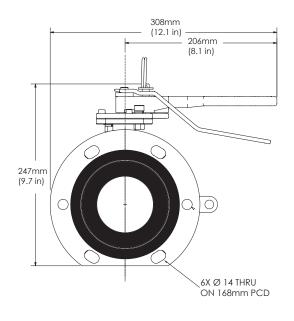
SECTION





- Designed to mount on top of container
- Top discharge assembly
- Integrally cast TIR locking tags for adding tamper evident seals
- All contact parts are 316 stainless steel with PTFE and perfluoroelastomeric seals
- Dual drilling to accept all available bolt patterns

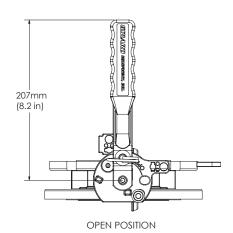




Ø191mm (7.5 in) OUTLET SIDE
INLET/TANK SIDE
CLOSED POSITION

PART #	DESCRIPTION
GQ51300	3" Top Discharge Butterfly Valve

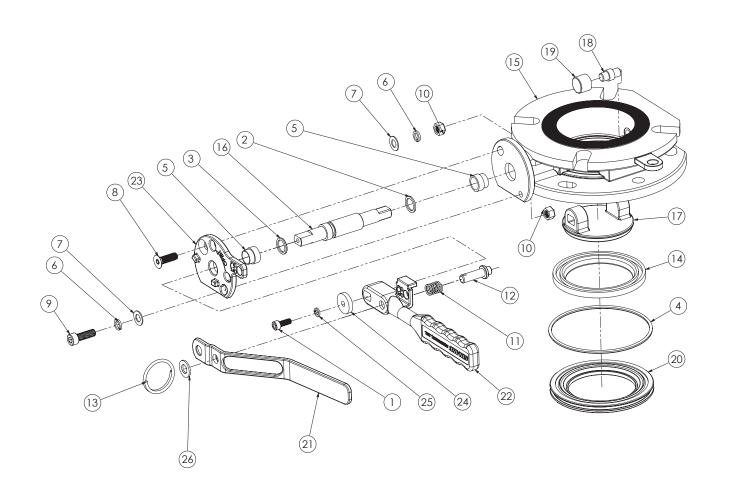
PRODUCT SPECIFICATIONS	
Design Pressure:	6 BAR (87 PSI)
Test Pressure:	9 BAR (130 PSI)
Weight:	7.2 kg (16 lbs)





ITEM	PART #	DESCRIPTION
1	GQ101014	M6 Socket Head Cap Screw
2	GQ50030	Lower Shaft O-Ring
3	GQ50031	Upper Shaft O-Ring - Viton®
4	GQ50070	Seat Tef-O-Seal O-Ring -245
5	GQ50090	Bushing
6	GQ50160	8mm Lock Washer
7	GQ50170	M8 Flat Washer
8	GQ50185	M8 Flat Head Socket Cap Screw
9	GQ50187	M8 Socket Head Cap Screw
10	GQ50190	M8 Nut
11	GQ50200	Lever Spring
12	GQ50210	Lock Pin
13	GQ50230	Pull Ring

ITENA	DADT #	DESCRIPTION
ITEM	PART #	DESCRIPTION
14	GQ50501	Butterfly Seal
15	GQ51011	Main Body, Flanged
16	GQ51020	G2 Shaft
17	GQ51040	G2 Disc
18	GQ51047	G2 Disc Pivot Pin
19	GQ51048	G2 Pivot Pin Bushing
20	GQ51080	G2 Seat Ring
21	GQ51092	G2 Handle Lever
22	GQ51094	G2 Handle
23	GQ51101	G2 Handle Lock Plate
24	GQ60080	Flat Washer
25	GQ60310	M6 Split Lock Washer
26	GQ97898	M10 Flat Washer

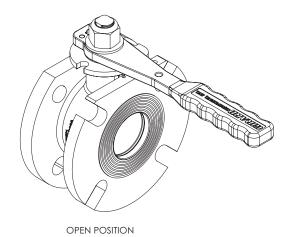






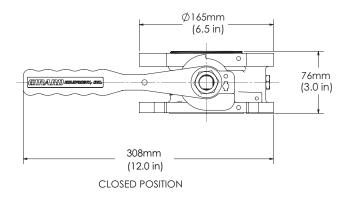
- Low profile, heavy duty design
- Valve fitted with ¼" stainless steel port for blow down line for gauge
- Built-in port for optional gauge guard
- Optional ETFE coating
- Integrally cast TIR locking tags for adding tamper evident seals
- Teflon® seals standard
- Available with 2" Hastelloy® ball
- Optional Remote Cable Assembly (see page 27)

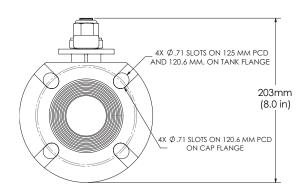




PART #	DESCRIPTION
GQ55000	2" Flanged Ball Valve

PRODUCT SPECIFICATIONS		
Design Pressure:	16.5 BAR (240 PSI)	
Test Pressure:	15 BAR (218 PSI)	
Weight:	6.3 kg (14 lbs)	





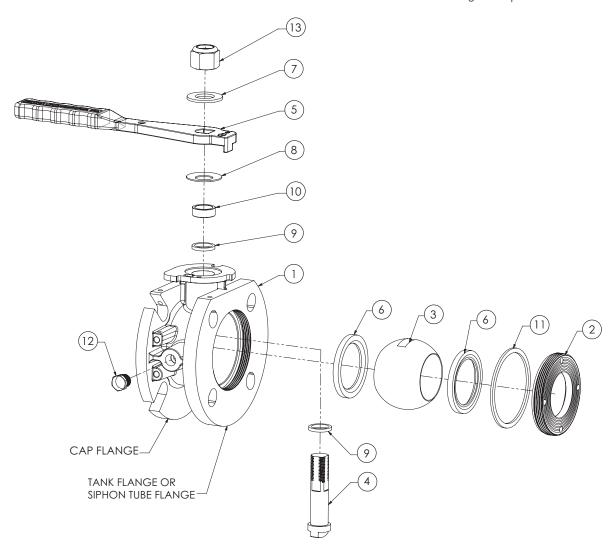
ITEM	PART #	DESCRIPTION
1	GQ55100	Flanged Housing
2	GQ55120	Threaded Ring
3	GQ55140	Ball
4	GQ55160	Shaft
5	GQ55195	Mechanical Handle
6	GQ55200	Ball Seal
7	GQ55220	Flat Washer
8	GQ55230	Disc Washer
9	GQ55240	Thrust Seal Shaft
10	GQ55250	Shaft Spacer
11	GQ55260	Ring Seal
12	GR98040	1⁄4" Stainless Steel Plug Hex
13	GQ55210	Nylok Hex Nut



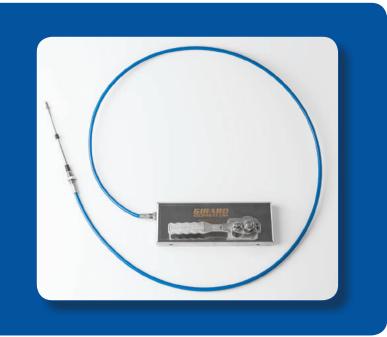
GQ101015 Teflon Gasket



GQ101008 2" Flanged Adaptor

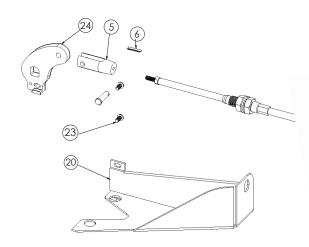




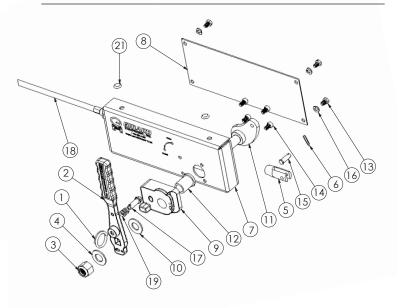


PART #	DESCRIPTION
GQ55302	Remote Cable Assembly, 4 metre (13.12 ft) Cable*

*3 metre, 5 metre, 6 metre and custom lengths available. Other flange brackets also available. Contact a Girard Sales Representative.



ITEM	PART #	DESCRIPTION
1	GQ50230	Pull Ring
2	GQ55190	Manual Handle
3	GQ55210	Nylok Hex Nut
4	GQ55220	Flat Washer
5	GQ55330	Clevis Yoke
6	GQ55331	Cotter Pin Stainless Steel
7	GQ55350	Control Box
8	GQ55355	Box Cover Plate
9	GQ55365	Handle Block
10	GQ55370	PTFE Washer
11	GQ55385	Shaft
12	GQ55390	Bronze Bushing
13	GQ55399	Hex Bolt Stainless Steel
14	GQ55348	5/16" Socket Head Cap Screw
15	GQ55398	Clevis Pin
16	GQ55347	Lock Washer
17	GQ50210	Lock Pin
18	GQ55312	Cable Assembly 4 Metres
19	GQ50200	Lever Spring
20	GQ55337	Flange Bracket, Remote Cable
21	GQ55395	Cap Plug
22	GQ55001	2" Flanged Ball Valve (optional)
23	GQ60095	M6 Stainless Steel Socket Button Head Screw
24	GQ55320	Flat Valve Link Arm



BOTTOM DISCHARGE EQUIPMENT

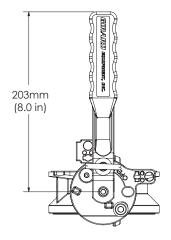




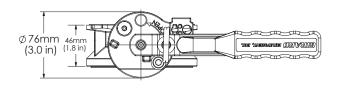


- Designed to be mounted between the two flange faces of a Bottom Outlet Valve and a Spigot Flange
- All parts are 316 stainless steel with PTFE seals
- Left hand operation Butterfly Valve with TIR and a security lock facility





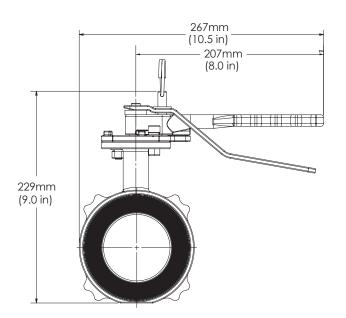
OPEN POSITION



CLOSED POSITION

PART NO.	DESCRIPTION
GQ51000	3" Clamped Style Butterfly Valve
GQ70030	Flange gaskets - 2 required when fitted between Footvalve and 3" Spigot Flange.

SPECIFICATIONS	
Weight:	3.63 kg (8 lbs)
Working Pressure:	6.8 BAR (99 PSI)



ITEM	PART #	DESCRIPTION			
1	GQ50030	Lower Shaft O-Ring	-		
2	GQ60202	Outlet Shaft Viton® O-Ring	EQUIPMENT, USA		
3	GQ50070	Seat Tef-O-Sil O-Ring		GK30100	3" Blanking Cap (BSP)
4	GQ50090	Bushing		GK30000	3" Blanking Cap (NPT)
5	GQ50160	8mm Lock Washer			
6	GQ50170	M8 Flat Washer			
7	GQ50185	M8 Flat Head Socket Cap Screw	_		
8	GQ50187	M8 Socket Head Cap Screw			
9	GQ50190	M8 Nut	O Top' 6	GQ70040	3" Spigot Flange (BSP)
10	GQ50200	Lever Spring		GN30360	
11	GQ97898	M10 Flat Washer			3" Spigot Flange (NPT)
12	GQ50230	Pull Ring	0	GQ75250	3" Spigot Flange (Camlock)
13	GQ50501	Seal	The second secon		
14	GQ51010	Clamp Body			
15	GQ51020	Shaft G2			
16	GQ51040	Disc G2			
17	GQ51047	Disc Pivot Pin G2			
18	GQ51048	Pivot Pin Bushing G2			
19	GQ51080	Seat Ring G2	STEEL ST	DV72460	Dust Cap
20	GQ51092	Handle Lever G2	dir.		
21	GQ51094	Handle G2			
22	GQ51101	Handle Lock Plate G2	•		
23	GQ60080	24mm Flat Washer	-		(17)
24	GQ60310	M6 Split Lock Washer	- (1	9 (14)	
25	GQ50210	Lock Pin	_ (5) (9)		Dan
26	GQ101014	M6 Socket Head Cap Screw	- 6		
		7 22 4 2 IS 1 6 S S S S S S S S S S S S S S S S S S S	26 24 23	25 10 21	16





- Flanged sealing surfaces are machined to conform with ASME B16.5
- 316 stainless steel investment cast body
- PTFE O-Rings (Tef-O-Sil) Seals are interchangeable with other major brands
- Conforms to EN 14433

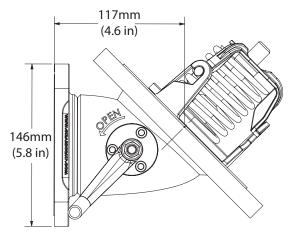


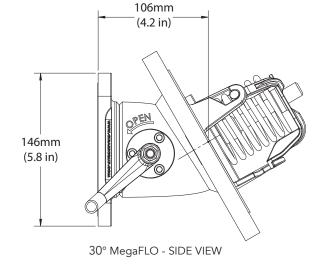
PART NO.	DESCRIPTION
GQ60620	3" 45° MegaFLO Footvalve with Tef-O-Sil (PTFE) Seals 4 bolt outlet flange 8 bolt inlet flange
GQ60420	3" 30° MegaFLO Footvalve with Tef-O-Sil (PTFE) Seals 4 bolt outlet flange 4 bolt inlet flange
GQ60627	45° MegaFLO Footvalve with Hastelloy® insert

PERFORMANCE SPECIFICATIONS		
to 392° F)		
to		

PRODUCT DIMENSIONS

Weight: 7.21 kg (16 lbs)





45° MegaFLO - SIDE VIEW

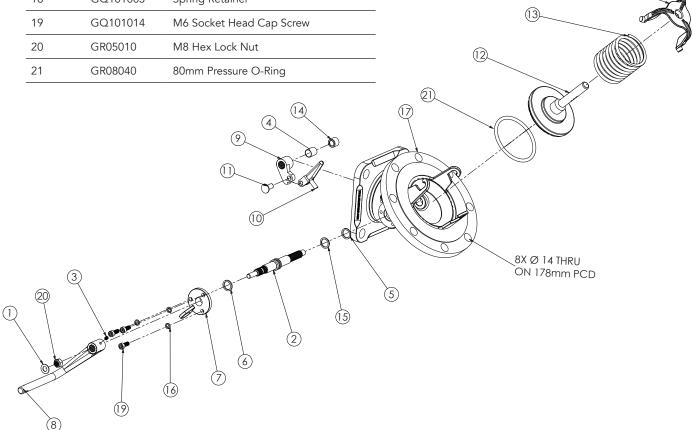
ITEM	PART #	DESCRIPTION
1	GQ50170	M8 Flat Washer
2	GQ60020	Bottom Outlet Shaft
3	GQ60021	M5 Set Screw
4	GQ60030	Spacer
5	GQ60040	Bushing O-Ring Solid PTFE
6	GQ60050	Thrust Collar
7	GQ60060	Plate
8	GQ60070	Handle
9	GQ60110	Cam
10	GQ60120	Connecting Piece
11	GQ60130	Rivet
12	GQ60167	Disk
13	GQ60175	Spring
14	GQ60190	Bushing
15	GQ60202	Shaft Viton® Extreme O-Ring
16	GQ60310	M6 Split Lock Washer
17	GQ60623	45° Body
18	GQ101003	Spring Retainer
19	GQ101014	M6 Socket Head Cap Screw
20	GR05010	M8 Hex Lock Nut
21	GR08040	80mm Pressure O-Ring
		9



QS46000 3" A Adaptor



GM42110 PTFE- Inlet Connection Gasket





Footvalve, Butterfly Valve, Spigot Flange, Cap & Chain Assembly



FEATURES

- All contact parts are 316 stainless steel with **PTFE** seals
- Butterfly Valve has left hand operation with TIR and a facility for a padlock
- Eccentric Spigot Flange allows optimal flow rates while limiting trapped liquids
- 3" BSP Cap has straight threads that reduce galling when frequently removing and replacing **Blanking Cap**
- All gaskets, seals and O-Rings are standard sizes, made from PTFE materials, and interchangeable with other major brands
- Optional 316 stainless steel or Hastelloy® replaceable seat available upon request



PART NO.	DESCRIPTION	
GQ72000	3" 45° Valve BSP	
GQ70007	3" 30° Valve BSP	

PERFORMANCE SPECIFICATIONS			
Design Pressure:	4 BAR (58 PSI)		
Temperature Range:	-20°C to 200°C (-4°F to 392°F)		

FUSIBLE LINK OPTIONS

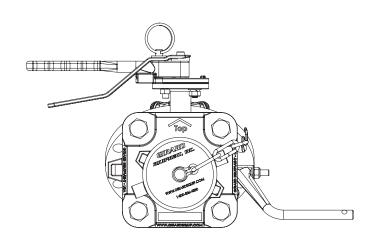
G-Link

Thermally reactive auto shutoff device. See page 43 for more details.

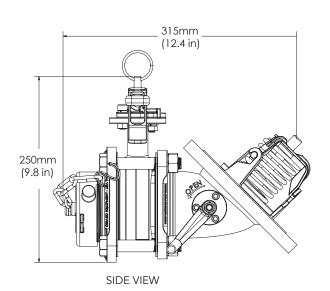
PRODUCT DIMENSIONS

Weight:

15 kg (33 lbs)



DISCHARGE VIEW





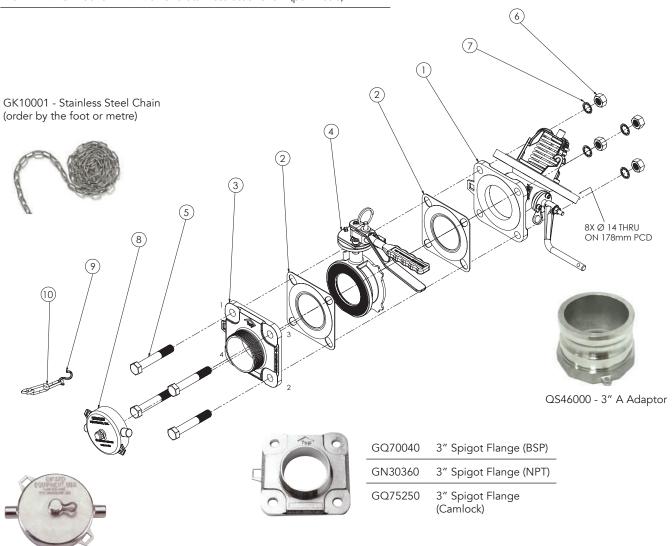
ITEM	PART #	DESCRIPTION	
1	GQ60620	45° Outlet Assembly G3 with Cast Hooks	
2	GQ70030	Square Butterfly Inlet Gasket	
3	GQ70040	Outlet Flange 3" BSP	
4	GQ50000	3" Clamped Butterfly Valve	
5	GQ97968	M16 Hex Head Cap Screw	
6	GQ97966	M16 Hex Nut	
7	GQ97963	M16 Internal Lock Washer	
8	GK30100	3" Blanking Cap BSP Thread	
9	GK10001	1/8" 316 Stainless Steel "S" Hook	
10	GK98010	1/8" 316 Stainless Steel Chain (per metre)	



GM42110 Inlet Connection Gasket



GQ98060 8 Stud, Washer Set - Stainless Steel



GK30100 - 3" Blanking Cap (BSP)





FEATURES

- Flanged sealing surfaces are machined to conform with ASME B16.5
- 316 stainless steel investment cast body
- PTFE O-Rings (Tef-O-Sil) seals are interchangeable with other major brands
- Conforms to EN 14433

PART #

GQ81317

GQ51000

GQ70040

GQ97968

GQ97966

GQ97965

GK30100

GQ97964

DESCRIPTION

45° Full Flow Assembly

Outlet Flange 3" BSP

M16 Split Lock Washer

M16 Hex Nut

M16 Flat Washer

M16 Hex Head Cap Screw

Butterfly Valve Clamped Assembly G3

Stainless Steel Cap with BSP Thread

ITEM

1

2

3

4

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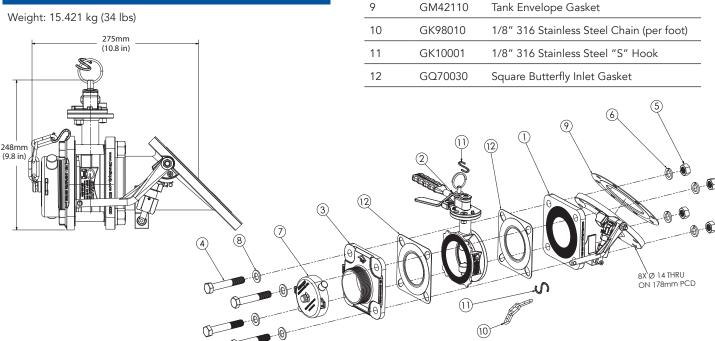


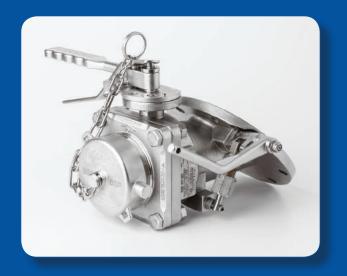
PART NO.	DESCRIPTION
GQ81000	45° PureFLO Valve
GQ81010	45° PureFLO Valve ETFE Coated
GQ81015	45° PureFLO Valve Hestelloy®

PERFORMANCE SPECIFICATIONS

Design Pressure:	4 BAR (58 PSI)
Temperature Range:	-20°C to 200°C (-4°F to 392° F)

PRODUCT DIMENSIONS





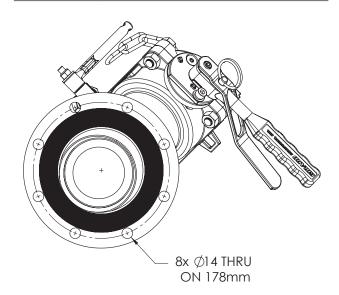
FEATURES

- A unique "spring/cam" cylinder is guaranteed for life (GFL™) – if you break it, we will send you a new one free of charge
- Unrestricted 3" flow path with "zero retain" discharge arrangement
- Built-in Butterfly Valve with a cleaning position that exposes both sides of valve disc
- Seals and O-Rings are made from PTFE and perfluoroelastomer sealing material



PART #	DESCRIPTION
GQ80300	3" TankFLO Valve with BSP Male Connection

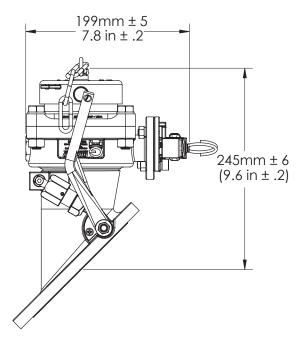
PART #	ADDITIONAL OPTIONS
GQ80303	3" TankFLO Valve with 3" camlock male adapter and cap
GQ80304	3" TankFLO Valve with 3" camlock male adapter and cap, Teflon® coated
GQ80305	3" TankFLO Valve with BSP male adapter and cap, Teflon® coated
GQ80306	3" TankFLO Valve with BSP male adapter, ETFE coated, Hastelloy butterfly shaft, and Hastelloy flapper handle shaft



PERFORMANCE SPECIFICATIONS Design Pressure: 4 BAR (58 PSI) Temperature Range: -55°C to 200°C (-67°F to 392°F)

PRODUCT DIMENSIONS

Weight: 13 kg (29 lbs)

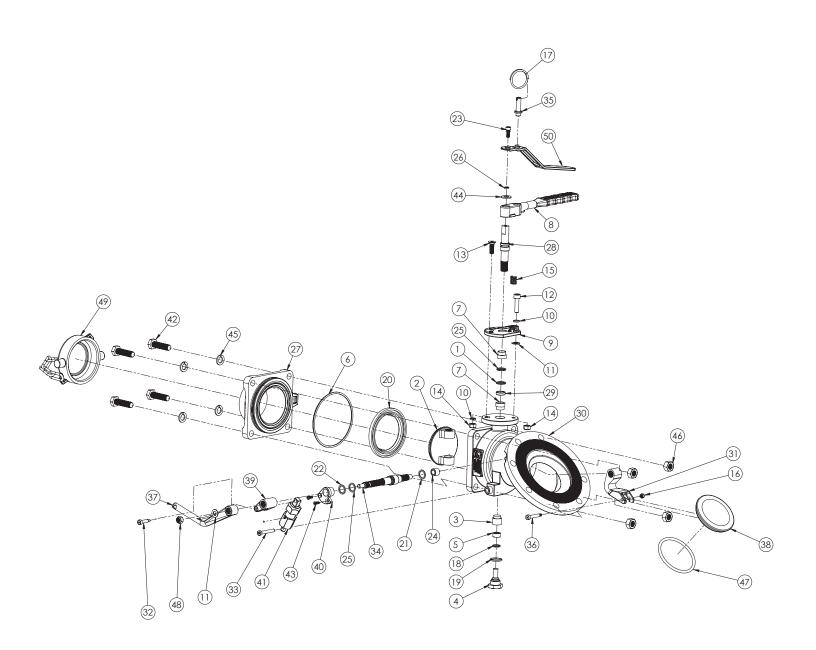




ITEM	PART #	DESCRIPTION
1	GQ50030	Lower Shaft O-Ring
2	GQ50040	Disc
3	GQ50050	Butterfly Bottom Bushing
4	GQ50060	Support Shaft
5	GQ50061	Support Shaft Collar
6	GQ50070	Seat O-Ring Tef-O-Sil
7	GQ50090	Butterfly Bushing
8	GQ51094	Butterfly Handle G2
9	GQ50101	Handle Lock Plate
10	GQ50160	M8 Split Lock Washer
11	GQ50170	M8 Flat Washer
12	GQ50180	M8 Socket Head Cap Screw
13	GQ50185	M8 Flat Head Socket Cap Screw
14	GQ50190	M8 Hex Nut
15	GQ50200	Lever Spring
16	GQ80332	M5 Lock Nut with Nylon Insert
17	GQ50230	Pull Ring
18	GQ50250	Shaft O-Ring Tef-O-Sil
19	GQ50260	Support Stem O-Ring
20	GQ50501	Butterfly Seal
21	GQ60040	Bushing O-Ring Solid PTFE
22	GQ60050	BOV Thrust Collar
23	GQ101014	M6 Socket Head Cap Screw
24	GQ60190	BOV Bushing
25	GQ60202	Outlet Shaft Viton Extreme O-Ring

TEM PART # DESCRIPTION 26 GQ60310 M6 Split Lock Washer 27 GQ80240 BOV Connector BSP 28 GQ80260 Butterfly Shaft 29 GQ80280 Shaft Collar 30 GQ80315 Main Body 31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97990 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm	ITEN A	DART //	DESCRIPTION	
27 GQ80240 BOV Connector BSP 28 GQ80260 Butterfly Shaft 29 GQ80280 Shaft Collar 30 GQ80315 Main Body 31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut <tr< th=""><th>ITEM</th><th>PART #</th><th>DESCRIPTION</th></tr<>	ITEM	PART #	DESCRIPTION	
28 GQ80260 Butterfly Shaft 29 GQ80280 Shaft Collar 30 GQ80315 Main Body 31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97990 M12 Split Lock Washer 46 GQ979950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut	<u> 26</u>	GQ60310	M6 Split Lock Washer	
29 GQ80280 Shaft Collar 30 GQ80315 Main Body 31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	27	GQ80240	BOV Connector BSP	
30 GQ80315 Main Body 31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	28	GQ80260	Butterfly Shaft	
31 GQ80319 Center Link 32 GQ80321 M5 Shoulder Bolt 33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	29	GQ80280	Shaft Collar	
32 GQ80321 M5 Shoulder Bolt 33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	30	GQ80315	Main Body	
33 GQ80323 M6 Socket Head Cap Screw 34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	31	GQ80319	Center Link	
34 GQ80325 Flapper Handle Shaft 35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	32	GQ80321	M5 Shoulder Bolt	
35 GQ50210 Lock Pin 36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	33	GQ80323	M6 Socket Head Cap Screw	
36 GQ80331 M5 Shoulder Bolt 37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	34	GQ80325	Flapper Handle Shaft	
37 GQ80335 Handle 38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	35	GQ50210	Lock Pin	
38 GQ80340 Stopper 39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	36	GQ80331	M5 Shoulder Bolt	
39 GQ80355 Pressure Link 40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	37	GQ80335	Handle	
40 GQ80388 Shaft Retainer 41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	38	GQ80340	Stopper	
41 GQ80400 Spring Assembly 42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	39	GQ80355	Pressure Link	
42 GQ80450 M12 Hex Head Cap Screw 43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	40	GQ80388	Shaft Retainer	
43 GQ97775 M4 Flat Head Screw 44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	41	GQ80400	Spring Assembly	
44 GQ97898 M10 304 Stainless Flat Washer 45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	42	GQ80450	M12 Hex Head Cap Screw	
45 GQ97940 M12 Split Lock Washer 46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	43	GQ97775	M4 Flat Head Screw	
46 GQ97950 M12 Hex Nut 47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	44	GQ97898	M10 304 Stainless Flat Washer	
47 GR08040 Pressure O-Ring 80mm 48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	45	GQ97940	M12 Split Lock Washer	
48 GR05010 M8 Hex Lock Nut 49 GK30200 3" BSP Straight Cap with Chain	46	GQ97950	M12 Hex Nut	
49 GK30200 3" BSP Straight Cap with Chain	47	GR08040	Pressure O-Ring 80mm	
	48	GR05010	M8 Hex Lock Nut	
50 GQ51092 Butterfly Handle Lever G2	49	GK30200	3" BSP Straight Cap with Chain	
	50	GQ51092	Butterfly Handle Lever G2	





TankFLO Bottom Outlet Assembly

- Available in 30° and 45° configurations
- Unique "spring/cam" cylinder is guaranteed for life
- Unrestricted 3" flow path reduces discharge time
- Integral Footvalve/Butterfly Valve eliminates intermediate gaskets
- Built-in Butterfly Valve with a cleaning position that exposes both sides of valve disc
- Seals and O-Rings made from PTFE and high performance sealing materials compatible with a wide range of industrial chemicals
- Replaceable seat design pending
- Available in 3-piece layout
- Several lever configurations available







Specialists for the Tank Transportation Industry Since 1952



FEATURES

- Hydraulically actuated poppet opens up and away from discharge area to allow an unrestricted 3" flow path
- Features standard cam and groove outlet with threaded options available
- Built-in Butterfly Valve with a cleaning position that exposes both sides of the valve disc
- Seals and O-Rings made from PTFE and perfluoroelastomer sealing material



PART NO.	DESCRIPTION

GQ80500

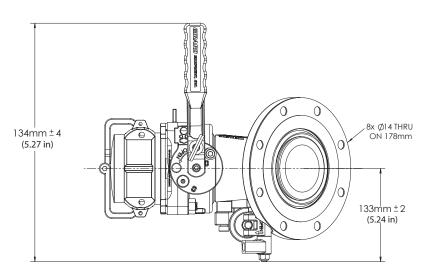
3" Hydraulically Actuated TankFLO Valve with cam and groove outlet as described above

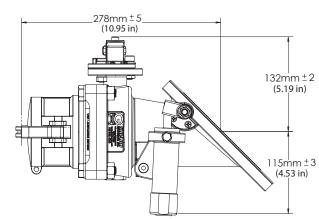
PERFORMANCE SPECIFICATIONS

Design Pressure:	4 BAR (58 PSI)
Temperature Range:	-40°C to 200°C (-40°F to 392°F)

PRODUCT DIMENSIONS

Weight: 14.5 kg (32 lbs)



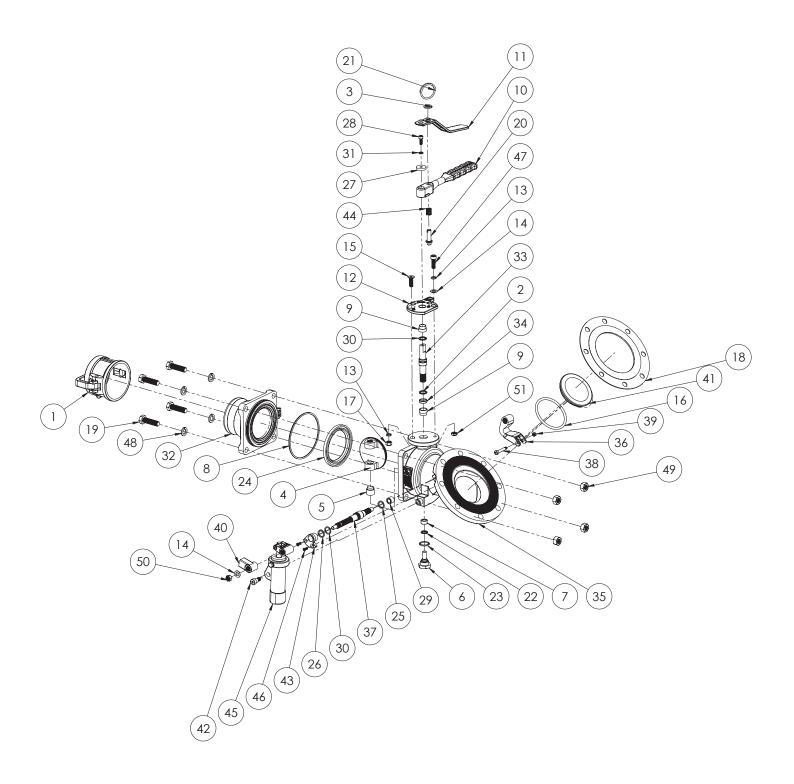




ITEM	PART #	DESCRIPTION	
1	DV72460	3" Stainless Steel Dust Cap w/Locking Ears	
2	GQ50030	Lower Shaft O-Ring	
3	GQ97898	M10 304 Stainless Steel Flat Washer	
4	GQ50040	Disc	
5	GQ50050	Butterfly Bottom Bushing	
6	GQ50060	Support Shaft	
7	GQ50061	Support Shaft Collar	
8	GQ50070	Seat Tef-O-Sil O-Ring -245	
9	GQ50090	Butterfly Bushing	
10	GQ51094	Butterfly Handle G2	
11	GQ50092	Handle Lever	
12	GQ50101	Handle Lock Plate	
13	GQ50160	M8 Split Lock Washer	
14	GQ50170	M8 Flat Washer	
15	GQ50185	M8 Flat Head Socket Cap Screw	
16	GR08040	IM Pressure O-Ring 80mm	
17	GQ50190	M8 Hex Nut	
18	GM42110	45° Footvalve / Tank Envelope Gasket	
19	GQ80450	M12 Hex Head Cap Screw	
20	GQ50210	Lock Pin	
21	GQ50230	Pull Ring	
22	GQ50250	Shaft O-Ring Tef-O-Sil	
23	GQ50260	Support Stem O-Ring	
24	GQ50501	Butterfly Seal	
25	GQ60040	Bushing O-Ring Solid PTFE	

ITEM	PART #	DESCRIPTION
26	GQ60050	BOV Thrust Collar
27	GQ60080	24mm ID Flat Washer
28	GQ101014	M6 Socket Head Cap Screw
29	GQ60190	BOV Bushing
30	GQ60202	Outlet Shaft Viton® Extreme O-Ring
31	GQ60310	M6 Split Lock Washer
32	GQ75240	Bottom Outlet Connector
33	GQ80260	Butterfly Shaft
34	GQ80280	Shaft Collar
35	GQ80315	Main Body
36	GQ80319	Center Link
37	GQ80325	Flapper Handle Shaft
38	GQ80331	M5 Shoulder Bolt
39	GQ80332	M5 Lock Nut with Nylon Insert
40	GQ80338	Handle G2
41	GQ80340	Stopper
42	GQ80380	M8 Shoulder Bolt
43	GQ80388	Shaft Retainer
44	GQ50200	Lever Spring
45	GQ80602	Hydraulic Assembly G3
46	GQ97775	M4 Flat Head Screw
47	GQ50187	M8 Socket Head Cap Screw
48	GQ97940	M12 Split Lock Washer
49	GQ97950	M12 Hex Nut
50	GR05010	M8 Hex Lock Nut
51	GR05000	M8 Hex Jam Nut
-		







BSP CAPS AND ADAPTERS

	DESCRIPTION	PART #
Α	1½" BSP female thread 316 stainless steel cap	GK10100
В	1½" BSP female thread x 1½" NPT male threaded 316 stainless steel adapter	GL10161
С	2" BSP female thread 316 stainless steel cap	GK20105
D	2" BSP female thread x ¾" NPT female threaded 316 stainless steel adapter	GK20120
E	3" BSP female thread 316 stainless steel cap	GL30170
F	3" BSP female thread x 2" NPT male threaded 316 stainless steel adapter	GL30170
G	3" BSP female thread x 3" NPT male threaded 316 stainless steel adapter	GL30180
	1½" BSP female thread x ¾" NPT female threaded 316 stainless steel adapter (not shown)	GL10100



Caps and Adapters seal on ring type gaskets (gaskets available in

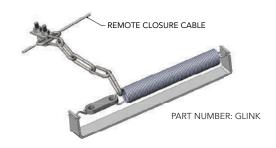
VSP ISO DNA™ PITA® Gaskets



DESCRIPTION	PART NUMBER	OUTSIDE DIMENSION	INSIDE DIMENSION	THICKNESS	BOLT CIRCLE
PRV Mount Gasket	VS08275	3¾"	2 ¹⁵ /16"	1/8"	N/A
PRV 6 Hole Flange Gasket	VS08305	5"	31⁄4"	1/8"	4 1/8"
Bottom Discharge Gasket - 4 Hole /8 Hole Dual Pattern	VS08514	81/4"	4¾"	1/8"	7"
Butterfly Valve Gasket - 4 Hole/6 Hole Dual Pattern	VS08391	7 ⁵ /8"	3½"	1/8"	6"
3" ANSI 150#/DN80	VS08383	7 ⁵ /8"	3½"	1/8"	6"

G-LINK

Thermally Reactive Automatic Shut-Off Device



- This device is linked to the remote closure cable. In the event of a fire, this device will activate and will automatically close an open footvalve.
- The G-Link attaches to the tank container frame and will work with the Girard MegaFLO Valve and most other footvalves on the market.
- Complies with U.S. DOT CFR49-178.275(E)(iv)



Successful companies are driven to deliver quality – from the way they operate, to the customer service standards they establish, and the products they deliver. The ISO 9001 certification is a globally recognized symbol of an organization's ongoing commitment to excellence, sustainability and reliability.

Girard Equipment, Inc. is proud to announce we have achieved ISO 9001 certification.

Producing quality work is a key priority for us at Girard Equipment – it's even something of an obsession. The ISO Certification shows just how dedicated we are and how far we will go to ensure the best quality of work for all of our clients and we are proud of what we have achieved.

Additionally, we are members of the following memberships and programs all dedicated to quality and safety.



Bureau Veritas is recognized and accredited by major national and international organizations. Created in 1828, Bureau Veritas is a global leader in Testing, Inspection and Certification (TIC), delivering high quality services to help meet the growing challenges of quality, safety, environmental protection and social responsibility.



The Association of American Railroad Certification was developed to ensure safety, and cost effectiveness of manufactured materials, products, and services. The certification requires a documented and demonstrated quality system that includes policies, procedures, inspection and test plans, work instructions, and quality records.



The 3-A Sanitary Standards program exists to protect consumable products from contamination and ensure that all product contact surfaces are cleaned and sanitized.



TTMA exists to instill public confidence by strengthening trusting relationships between manufacturers of truck trailers, cargo tank, inter-modal containers and their suppliers.



The NTTC exists to advance the standard for safe and sustainable transportation.



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