

Wherever gas is used, we are there

LPG Valves & Equipment

2024-2025 EDITION



SOLUTIONS

LPG SOLUTIONS





COMPRESSED GASES SOLUTIONS





HEALTHCARE SOLUTIONS





NATURAL GAS SOLUTIONS





ALTERNATIVE FUEL SYSTEMS





GAS METERING SOLUTIONS





INDUSTRIAL PROCESS MANAGEMENT













The Cavagna Group began operation in 1949 in Northern Italy and continues to grow today. Since its origin, the Group has become a world leader in the forging and machining of brass and stainless steel.

For over seventy years the Group has supplied safe products of superior quality and value. Technological advancement and sophisticated working procedures have allowed us to rapidly create new products and solutions for the gas control industry.

The Cavagna Group produces a wide range of products meeting international standards including:

- · LPG Valves, Equipment and Regulators
- Engineering and Services dedicated to the LPG industry
- · ASME, Fork Lift and Motor Fuel Tank Valves
- · Natural Gas regulators for domestic, commercial and industrial use
- Gas meters
- · Compressed Gases Cylinder Valves
- · Specialty Gases Cylinder Valves
- Refrigerant Gases Cylinder Valves
- Regulation Equipment for Industrial Gases
- · Regulation Equipment for Medical Gases
- · Comprehensive Range of Welding, Cutting Equipment
- · CNG H2 AUTOGAS cylinder valves and filling valves
- · CNG AUTOGAS systems

The Group's design engineers and laboratory technicians closely cooperate with worldwide regulatory institutions, both in the writing of international performance standards and in the creation of new products.

The Cavagna Group of companies has invested heavily in personnel, individual training, and robotic technology to meet the quality standards required by our customers and the 150 countries we serve.

Our philosophy is to provide all of our customers with quality products, continuous innovation and superior service in a competitive environment.



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Transport Tanker / Bobtail Equipment Internal Valves Actuators Remote Release Float Gauges Excess Flow Valves Back Pressure Valves Hose End Connectors Multipurpose Valves Double Check Filler Valves Internal Relief Valves Globe and Angle Valves Accessories Pressure Relief Valves Wafer	pg.52 pg.53 pg.59 pg.60 pg.62 pg.63 pg.66 pg.70 pg.70 pg.70 pg.71 pg.72 pg.73 pg.75 pg.76





Handwheel Valves



8002901109

Open-close handwheel valve. Customizable upon request.



Open-close handwheel

valve with excess flow

limiter.

8004903082

Open-close handwheel valve. Customizable upon request.





8002901227

PRONTO TAP Open-close valve with POL outlet. With test Port



8062901209

Open-close handwheel valve. Customizable upon request.





8004903135

Open-close handwheel valve. This valve also incorporates a fixed liquid level gauge.



8064903218

Open-close handwheel valve with diffuser for composite cylinder.



Open-close handwheel valve with sediment tube. Customizable upon request.



Part number	Container connection*	Outlet connection*
8002901109	17E	W 21.8 × 1/14" LH
8004903082	25E	G1/2 LH
8062901059	25.5 x 2 CIGPL / NF88-765	W 20 x 1/14" LH
8002901209	KG 19.3 x 1/14" Taper 6 to cone STAS 2667-89	W 21.8 × 1/14" LH
8003902051	23.2 x 2 GPL Cone 10%	21.7 × 1.814
8002901146	17E	W 21.8 × 1/14" LH
8064903098	17E	W 21.8 × 1/14" LH
8002901145	25E	.885"-14 NGO-LH-INT CGA 510
8002901227	3/4" - 14 NPT	.885-14 NGO-LH CGA 510
8004903135	3/4" - 14 NPT	.885-14 NGO-LH CGA 510
8064903218	M26x1.5-6e	W21.8x1/14" - LH



Handwheel Valves with PRD



8067906019

Open-close handwheel valve with pressure relief device.



DOT cylinder valve with a fixed liquid level gauge



8006905027

Open-close handwheel valve with pressure relief device.



Open-close valve with pressure relief valve and plastic diffuser for composite lpg cylinders. Parallel threads inlet connection. (option of different outlets)





8298908017

Cylinder valve OPD with secondary overfill protection device.



Open-close handwheel valve with pressure relief device and ACME outlet.



Part number	Container connection*	Container connection* Outlet connection*	
8067906019	17E	W 21.8 x 1/14" LH DIN 477 N°2	35 bar
8067906018	25E	W 21,8 x 1/14" LH DIN 477 N°1	35 bar
8067906060	M26 x 1.5-6e	W 21.8 x 1/14" LH DIN 477 N°2	35 bar
8006905027	25T	G 5/8 LH N° 105	26 bar
8298908017	3/4" - 14 NGT	1.312" -5 ACME 2G RH-EXT	375 PSI (26 bar)
8006905016	3/4" - 14 NGT	.885″-14 NGO-LH-INT CGA 510	375 PSI (26 bar)
8005904003	M26,2x2	1-1/4" 5 ACME-2G	26 bar



Click On Valves

6682900011

LPG Click On valve. Customizable upon request.



LPG Click On valve with internal sphere excess flow device. Customizable upon request.



↓ Bottom

6682900323

LPG Click On valve with pressure relief device and excess flow. Customizable upon request.

6682900249

LPG Click On valve with internal sphere excess flow device. Customizable upon request.





6682900263

LPG Click On valve with internal sphere excess flow device.
Customizable upon request.

6682900220

LPG Click On valve with Pressure Relief Device and fusible plug. Customizable upon request.



Part number	Container connection*	Outlet connection*	Relief Valve set pressure
6682900011	3/4" - 14 NGT	ø 20	/
6682900022	ø 23.2 x 2 GPL Con. 10%	ø 20	/
6682900323	3/4" - 14 NGT	ø 20	26 bar
6682900263	M26 x 1.5-6e	ø 20	26 bar
6682900249	ø 23.2 x 2 GPL Taper 10%	ø 20	26 bar
6682900220	25E	ø 22	21 bar
6602900313	ø 19.3 x 1.814 SI Taper 6°	ø 27	26 bar
6682900070	ø 25.5x2 CIGPL	ø 22	/



Flat Top Valves





6682900052

LPG Click On valve. Customizable upon request. Weather sealed.

6682900253

LPG Flat top valve with pressure relief device. Customizable upon request. Weather sealed.









6682900320

LPG Flat top valve with pressure relief device. . Customizable upon request. Weather sealed.

6682900328

LPG Flat top valve with pressure relief device. Customizable upon request. Weather sealed.









6682900224

LPG Flat top valve with dust retainer. Customizable upon request. Weather sealed.

6682900327

LPG Flat top valve with pressure relief device and dust retainer. Customizable upon request. Weather sealed.



Part number	Container connection*	Outlet connection*	Relief Valve set pressure
6682900253	ø 26.3 ± 0.075 x 2 Cone 10% CIGPL 88/765	ø 16	26 bar
6682900052	25E	ø 19	/
6682900320	25E	ø 21	/
6682900328	M26x1.5-6e	ø 22	25 bar
6682900224	3/4" - 14 NGT	ø 22	/
6682900327	ø 26.2±0.1x2 Con. 10%	ø 22	25 bar



LIQUID PHASE VALVES

Jumbo Valves



6682900269

Flat Top "Jumbo" valve with safety relief.
Various inlets.
Various pressure settings available.



6682900308

"Jumbo" valve with safety relief. Various inlets. Various pressure settings available.



6602901355

Flat Top "Jumbo" valve with safety relief. Various inlets. Various pressure settings available.

*inlet and outlet connection according to country standards

Part number	Container connection*	Outlet connection*	Relief Valve set pressure
6682900269	25E	ø 35	30 bar
6602901355	25E	ø 35	26 bar
6682900308	25E	ø 35	26 bar

Forklift Carburation Valves Vertical Application





Part number	Container connection*	Outlet connection*	Relief Valve set pressure
8064903217	- 17E - 25E		/
8064903024		W21.8 × 1/14" LH	/
8004903221			26 bar
8004903184		ø 22	35 bar



LIQUID PHASE VALVES

Forklift Carburation Valves Horizontal Application



6602901275

LPG Forklift Carburation Quick Connection Valve with pressure relief device, sinterized filter and mechanical level indicator. Fusible plug version available.

8004903110

LPG Forklift Carburation Quick Connection Valve with filter.

8064903217

LPG handwheel valve with filter. Customizable upon request.



Part number	Container connection*	Outlet connection*	Relief Valve set pressure
8008908105		1.1/4" F. A.O.M.F.	
8008908246	25E	1-1/4" 5 ACME	26 bar
6602901275			
8008908175	17E	ø 22	
8004903192	25E		,
8004903110	ø 22.1 ± 0.075 x 2 Cone 10%	G.65	
8004903208	17E	ø 22	



LEVEL INDICATOR

Valves with Pressure Level Indicator



8003902164

The level gauge shows the amount of gas reserve in the cylinder, with parameters based on customer's request and the cylinder configuration. With excess flow limiter.

8003902180

The level gauge shows the amount of gas reserve in the cylinder, with parameters based on customer's request and the cylinder configuration. With excess flow limiter.



8008908197

The level gauge shows the amount of gas reserve in the cylinder (temperature sensitive level indicator).



8003902181

The level gauge shows the amount of gas reserve in the cylinder, with parameters based on customer's request and the cylinder configuration. With excess flow limiter.

8062901223

The level gauge shows the amount of gas reserve in the cylinder, with parameters based on customer's request and the cylinder configuration



Part number	Container connection*	Outlet connection*
8003902164	ø 23.2 x 2 GPL Taper 10%	ø 21.7 x 1.814 NFE 29-650 GPL LH
8003902180	ø 23.2 x 2 GPL Taper 10%	ø 21.7 x 1.814 NFE 29-650 GPL LH
8003902181	ø 23.2 x 2 GPL Taper 10%	ø 21.7 x 1.814 NFE 29-650 GPL LH
8062901223	ø 23.2 x 2 GPL Cone 10%	W20 x 1/14" LH
8008908197	3/4" - 14 NGT	1.312-5 ACME - 2G RH-EXT



LEVEL INDICATOR

Valves with Mechanical Level Indicator



6602901275

LPG Forklift Carburation Quick Connection Valve with pressure relief device, sinterized filter and mechanical level indicator. Fusible plug version available.



6602900316

LPG 27 mm Quick Connection Valve with mechanical level indicator.



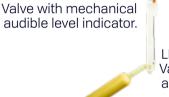
8008908220

LPG Handwheel Valve with mechanical level indicator.



3009500048

Assembled dial



6682900246

LPG Quick Connection



LPG Quick Connection Valve with mechanical audible level indicator.





Assembled dial for Jumbo valves

Part number	Container connection*	Outlet connection*	Relief Valve set pressure
6602900316	25E	ø 27	26 bar
6682900235	ø 22.1 ± 0.075 x 2 Cone 10%	ø 20	26 bar
8008908220	17E	W21.8 × 1.14" LH	25 bar
6602901275	25E	ø 22	26 bar
8008908203	25E	.885-14 NGO LH INT	
8008908204	25E	.885-14 NGO LH INT	
8008908206	25E	.885-14 NGO LH INT	
8008908210	17E	.885-14 NGO LH INT	
8008908211	25E	.885-14 NGO LH INT	
8008908220	17E	W21.8 x 1/14" LH	25 bar
8008908223	17E	W21.8x1/14" LH	25 bar
6682900246	25E	G.56	26 bar
6682900254	25E	G.56	26 bar
6682900255	25E	G.56	26 bar



CAMPING VALVES



64B1900002

Camping valve.



Camping valve.



64B6900002

Camping valve with pressure relief device and dust retainer.



64B6900011

Camping valve with pressure relief device.



64B6900013

Camping valve with pressure relief device.



64B5900001

Self-closing Camping



64B5900002

Self-closing Camping

Part number	Container connection*	Outlet connection*	Relief Valve set pressure
64B1900002	1/2" - 14 NGT	W20x1.814 - LH	
64B2900007	17E	W20x1/14" LH	375 PSI
64B6900002	1/2" - 14 NGT	3/8" BSPF	2580 Kpa
64B6900011	3/4" - 14 NGT	3/8" - 19 BSPF - LH - EXT	175 PSI
64B6900012	18T	3/8" - 19 BSPF - LH - EXT	375 PSI
64B6900013	18T	3/8" - 19 BSPF - LH - EXT	375 PSI
64B5900001	M22 x 1.25 - 6g	M16 x 1.5 - 6H	/
64B5900002	M22 x 1.25 - 6g	M16 x 1.5 - 6H	/



DUAL PHASE VALVES

for Liquid & Gas Phases







6602901023

Connector for the outlet of Dual Valve.

Part number	Container connection*	Liquid Outlet connection*	Vapour Outlet connection*	Relief Valve set pressure
6704901036	3/4"-14 NGT	.903 -14 NGO LH EXT CGA 555	.885-14 NGO LH INT CGA 510	26 bar
6704901028	25.5 x 2 CIGPL / NF88 - 765	1-1/4" - 5 ACME - 2G	W21.8x1/14" LH	26 bar
6704901037	3/4"-14 NGT	0.625" - 18 UNF	G5/8" LH	26 bar



Reference Image



FILLING HEADS

for LPG Valves 16, 19 and 35mm (Jumbo and Kosanova valves) Manually Operated

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.

Features

- 1. Balanced jig for easy suspension between filling operations.
- 2. Easy to connect and disconnect. Filling is initiated by operating the manual handle.
- 3. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

G3/8 or W21.8 x 1/14 LH

Outlet connection:

According to country standards.

Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product: 1 - 15 bar

Filling time approx. 5 sec./kg LPG at 7 bar differential pressure.

Function and Maintenance:

The Filling Head is easy to operate.

The head outlet is attached to the valve inlet manually. While pressing the manual handle the filling heads makes a leak tight connection to the valve then opens the valve spindle and the gas starts to flow.

When the cylinder is full the filling is stopped via the scale system. By moving the handle in its opposite direction the filling head disconnects from the valve.

Part number	Inlet Connection*	Outlet Connection*
6882900001	G3/8	
6882900002	CZ/0 or W/21 0 v 1/14 L U	ø 35 mm
6882900003	G3/8 or W 21,8 x 1/14 LH	
6882900004	G3/8 Ø 19 mm G3/8 or W 21,8 x 1/14 LH	ø 16 mm
6882900005		ø 19 mm
6882900006		
6882900007		a 16 mm
6882900008		ا ۱۱۱۱۱ ما ه



for LPG Valves 16, 19 and 35mm (Jumbo and Kosanova valves) Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.

Features

- 1. Balanced jig for easy suspension between filling operations.
- 2. Easy to connect and disconnect. Filling is initiated by operating of the pneumatic air supply.
- 3. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

for LPG G3/8

for Pneumatic air G1/4 according to country standards

Outlet connection:

According to country standards.

Supply pressures:

Designed to operate within the normal supply pressures.

Pneumatic supply: 4 - 6 bar. Liquid filling product: 1 - 15 bar

Filling time approx. 5 sec./kg LPG at 7 bar differential pressure.

Function and Maintenance:

The Filling Head is easy to operate.

The head outlet is attached to the valve inlet manually. Once the pneumatic pressure is applied to the head it forces the internal components of the head to move towards the valve top thereby establishing a leak tight connection and once this is established the further movement of the components forces the valve spindle to open and simultaneously the gas starts to flow. When the cylinder is full the filling is stopped by removing the pneumatic pressure. The internal springs of the head allows the valve to close and moves the components of the head backwards to stop the flow of gas and to disconnect the head from the valve. The head is removed manually.

Part number	Inlet Connection*	Outlet Connection*
6882900020		ø 35 mm
6882900021		Ø 33 IIIII
6882900023		ø 19 mm
6882900024	LPG G3/8	Ø 19 11 III 1
6882900027	PNEUMATIC AIR G1/4	
6882900022		ø 16 mm
6882900028		
6882900140		ø 35 mm





Reference Image



for LPG Valves 16mm Manually Operated

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

- 1. Easy to connect and disconnect. Filling is initiated by applying the filling pressure.
- 2. Slim design makes it easy to handle and it fits easily inside any shroud.
- 3. Is operated without pneumatic air supply.

Inlet connection:

G1/4 or W21,8 x 1/14 according to country standards

Outlet connection:

Ø16 mm according to country standards

Supply pressures:

Designed to operate within the normal supply pressures. Liquid filling product: 1 - 15 bar.

Filling time approx. 5 sec./kg LPG at 7 bar differential pressure.

Function and Maintenance:

The Filling Head is easy to operate.

The head outlet is attached firmly to the valve inlet manually. By applying the LPG filling pressure to the filling head, the head is locked leak tight to the valve and the filling is initiated. When the cylinder is full the filling is stopped by firmly removing the filling head from the valve.

Part number	Inlet Connection*	Outlet Connection*
6882900025	W 21,8 x 1/14 LH	ø 16 mm
6882900026	G1/4	ø 16 mm
6882900135	W 21,8 x 1/14 RH	ø 16 mm



for LPG Valves 20, 21, 22, 25.6, 27, 35mm Compact Manually Operated

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.

Features

- 1. Balanced jig for easy suspension between filling operations.
- 2. Easy to connect and disconnect. Filling is initiated by operating the manual handle.
- 3. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

G3/8 or W21,8 x 1/14 LH according to country standards

Outlet connection:

According to country standards.

Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product: 1 - 15 bar

Filling time approx. 2.5 sec./kg LPG at 7 bar differential pressure.

Reference Image

Function and Maintenance:

The Filling Head is easy to operate.

The head outlet is attached to the valve inlet manually. While pressing the manual handle the filling heads makes a leak tight connection to the valve then opens the valve spindle and the gas starts to flow. When the cylinder is full the filling is stopped via the scale system. By moving the handle in its opposite direction the filling head disconnects from the valve.

Suitable for:

All compact valves outlets. Specify compact valve type when ordering.

Part number	Inlet Connection*	Outlet Connection*
6882900009	ISO 228/1 - G3/8	
6882900010	ISO 228/1 - G3/8 or W 21,8 x 1/14 LH	ø 20 mm
6882900011	150 228/1 - G3/8 01 W 21,8 X 1/14 LH	
6882900012	ISO 228/1 - G3/8	ø 27 mm
6882900013	150 220/1 - 03/0	~ ^^
6882900014	ISO 228/1 - G3/8 or W 21,8 x 1/14 LH	ø 22 mm
6882900015	ISO 228/1 - G3/8	
6882900016	W 21,8 × 1/14 LH	ø 21 mm
6882900017	DIN 259-1/2" NPT	
6882900018	ISO 228/1 - G3/8	ø 25.6 mm
6882900124	130 220/1 - 63/8	ø 20 mm
6882900139	ISO 228/1 - G3/8 or W 21,8 x 1/14 LH	ø 35 mm



for Standard Handwheel Valves Male

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

- 1. Balanced jig for easy suspension between filling operations.
- 2. Easy to connect and disconnect.
- 3. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG: 3/8" GAS

Outlet connection:

According to country standards

Supply pressures:

The Filling Head is designed to operate within the normal supply pressures.

Liquid filling product:1-15 bar.

Filling time as per the present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the standard Handwheel valve once the filling head outlet is aligned with the valve using the open/close handle.

After conneting, the flow of gas is initiated by switching the handle from the closed to the open position. When the filling operation should end the handle on the filling head top is switched back to the closed position and the filling head is disconnected from the valve.

Suitable for:

A wide range of standard LPG Handwheel valve male thread with and without SRV.

Part number	Inlet Connection*	Outlet Connection*
6882900157	G3/8	Standard Handwheel Valve Male thread outlet with and without SRV
6882900161	G3/8	Standard Handwheel Valve Male thread outlet with and without SRV (special gasket connection)



for LPG Valves 20, 21, 22, 24.8, 25.6, 27mm Compact Semi-automatically Operated

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.

Features

- 1. Balanced jig for easy suspension between filling operations.
- 2. Easy to connect and disconnect.
- 3. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

for LPG G3/8 for Pneumatic air G1/4

Outlet connection:

According to country standards

Supply pressures:

Designed to operate within the normal supply pressures.

Pneumatic supply: 4 - 6 bar. Liquid filling product: 1 - 15 bar

Filling time approx. 2.5 sec./kg LPG at 7 bar differential pressure.

Reference Image

Function and Maintenance:

The Filling Head is easy to operate.

The head outlet is attached to the valve inlet manually. Once the pneumatic pressure is applied to the head it forces the internal components of the head to move towards the valve top thereby establishing a leak tight connection and once this is established the further movement of the components forces the valve spindle to open and simultaneously the gas starts to flow. When the cylinder is full the filling is stopped by removing the pneumatic pressure. The internal springs of the head allows the valve to close and moves the components of the head backwards to stop the flow of gas and to disconnect the head from the valve. The head is removed manually.

Suitable for:

All compact ø valve outlets.

Part number	Inlet Connection*	Outlet Connection*
6882900029		ø 27 mm
6882900030		ø 20 mm
6882900031		ø 22 mm
6882900032		ø 21 mm
6882900033	LPG G3/8 - Pneumatic air G1/4	ø 21 mm
6882900034		ø 25.6 mm
6882900116		ø 24.8 mm
6882900137		ø 22 mm
6882900138		ø 21 mm



for Camping Valves Manually Operated

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

- 1. Slim design makes it easy to handle and it fits easily inside any shroud.
- 2. Manual ON/OFF handle at the top is used for open/close of the gas flow and for attaching/ detaching the valve outlet thread.
- 3. The LPG inlet is placed at a sufficient distance from the valve connection allowing the inlet to be above most cylinder shrouds.

Inlet connection:

LPG: G1/4

Outlet connection:

Connects to camping ball valve with female threaded outlet M16 x 1,5 mm- or 3/8 BSP RH. Valves without and without PRV.

Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product:1 - 15 bar.

Filling time as per the present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The threaded filling gun outlet is connected to the valve outlet is connected to the valve outlet by rotating the filling head body clockwise using the open/close handle to apply the rotation. After connecting and lightening the thread the flow of gas is initiated by switching the handle 180° from the closed to the open position. The internal filling head spindle will then move towards the valve sphere and open the valve. When the filling operation should end the handle on the filling head top is switched 180° back to the closed position and the filling head is disconnected by rotating the body anti-clockwise until it releases itself from the valve thread.

Suitable for:

Omeca valve 6405902028

Part number	Inlet Connection*	Outlet Connection*
6882900053		M16 x 1,5
6882900113		C,I X OHVI
6882900118	G1/4	
6882900120		3/8 19 BSP RH
6882900159		



for Handwheel Valves Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

- 1. Insignificant loss of product (1 cm³) when the gas flow is cut off and the filling head is released from the cylinder valve.
- 2. Balanced iig for easy suspension between filling operations.
- 3. Easy to manually connect and disconnect. Filling is initiated simultaneously with the connection to the valve.
- 4. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to standard outlet male thread valves without SRV. Specify valve type when ordering.

Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar Filling time as per the present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

A wide range of standard LPG Handwheel valves without SRV.

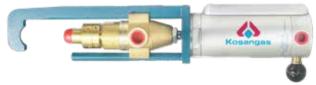
Part number	Inlet Connection*	Outlet Connection*
6882900042	LPG G3/8 PNEUMATIC AIR G1/4	Standard Handwheel male outlet without SRV Type 129A
6882900049	LPG G3/8 PNEUMATIC AIR G1/4	Standard Handwheel male outlet without SRV Type 129A
6882900136	LPG G3/8 PNEUMATIC AIR G1/4	Standard Handwheel male outlet without SRV Type 129A



for Handwheel Valves with POL Outlet Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

Reference Image

- 1. Insignificant loss of product (1 cm³) when the gas flow is cut off and the filling head is released from the cylinder valve.
- 2. Balanced jig for easy suspension between filling operations.
- 3. Easy to manually connect and disconnect. Filling is initiated simultaneously with the connection to the valve.
- 4. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to POL type valves with or without Pressure Relief Valves. Specify when ordering.

Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar Filling time as per the present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

All different Handwheel POL type of valves. Specify valve type and outlet when ordering.

Part number	Inlet Connection*	Outlet Connection*
6882900044 6882900133 (left hand version)		Female POL thread valves
6882900054	PNEUMATIC AIR G1/4	with and without SRV Type 129A
6882900048		



for Bayonet and Clip-on Valves Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

- 1. Insignificant loss of product (1 cm³) when the gas flow is cut off and the filling head is released from the cylinder valve.
- 2. Balanced jig for easy suspension between filling operations.
- 3. Easy to manually connect and disconnect. Filling is initiated simultaneously with the connection to the valve.
- 4. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to bayonet valves G61 acc. to EN 12864. Valves with and without PRV.

Supply pressures:

. The Filling Head is designed to operate within the normal supply pressures.

Pneumatic supply: 6 - 10 bar.

Filling time as per present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

Omeca valves 6602900136, 6602900145.

Part number	Inlet Connection*	Outlet Connection*
6882900046	LPG G3/8 PNEUMATIC AIR G1/4	Automatic bayonet valve with and without SRV Type 129A
6882900109		Clip-on cylinder valve



for Coupling 6602901024 Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



FeaturesReference Image

- 1. Insignificant loss of product (1 cm³) when the gas flow is cut off and the filling head is released from the cylinder valve.
- 2. Balanced jig for easy suspension between filling operations.
- 3. Easy to manually connect and disconnect. Filling is initiated simultaneously with the connection to the valve.
- 4. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to Omeca Coupling 6602901024 (ACME Thread).

Supply pressures:

Designed to operate within the normal supply pressures.

Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar.

Filling time as per present valve specification to which the coupling is connected.

Packing:

The Filling Heads are individually packed in cardboard boxes with instructions.

Function and Maintenance:

The Filling Head is easy to operate.

The connector at the end of the clamping brace is pushed into the undercut of the bayonet. Once the Filing Head outlet is aligned with the cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seals initiating the LPG flow.

After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. The connector is then removed from the valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

*inlet and outlet connection according to country standards

Suitable for:

Valve 6662901024.

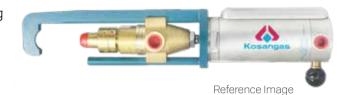
Part number	Inlet Connection*	Outlet Connection*
6882900047	LPG G3/8 PNEUMATIC AIR G1/4	Omeca Coupling 6602901024 Type 129A



for Handwheel Valves with OPD Semi-automatic

MATERIALS AND STANDARDS

LPG outlets without access to pressurized air well as plants where pressurization or vacuum purging of cylinders is required.



Features

Safe operation, easily connected and manually operated.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to 1.312-5 ACME-2G, RH, EXT.

Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar. Filling time as per present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

OPD valves with POL female outlet. (reference model 6704900780)

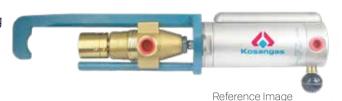
Part number	Inlet Connection*	Outlet Connection*
6882900045		
6882900050	LPG G3/8 PNEUMATIC AIR G1/4	OPD - female POL thread valve with check- lock with and without SRV Type 129A
6882900052		,



for Handwheel Valves without SRV Semi-automatic

MATERIALS AND STANDARDS

LPG outlets without access to pressurized air well as plants where pressurization or vacuum purging of cylinders is required.



Safe operation, easily connected and manually operated.

Inlet connection:

Features

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to standard outlet male thread valves without SRV.

Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar. Filling time as per present valve specification.

Function and Maintenance:

The filling adapter is manually connected to a standard Handwheel valve having a small ACME male outlet. The front end of the filling adapter slides easy over the male acme thread and creates a firm connection. Next, the adapter handle, and thereby the internal spindle, is moved forward to seal the spindle leak tight to the valve outlet. Simultaneously, the internal spindle opens its spring loaded seat and then the LPG flows into the cylinder. After the filling, the operations are reversed and the internal spindle automatically closes the flow of LPG before it is disconnected from the valve.

Suitable for:

A wide range of standard LPG hand wheel (SAE FLARE) valves without SRV.

Part number	Inlet Connection*	Outlet Connection*		
6882900051	LPG G3/8 PNEUMATIC AIR G1/4	Standard Handwheel (SAE FLARE) male outlet without SRV Type 129A		



for Forklift Valves Semi-automatic

MATERIALS AND STANDARDS

LPG outlets without access to pressurized air well as plants where pressurization or vacuum purging of cylinders is required.



FeaturesReference Image

Safe operation, easily connected and manually operated.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to ACME - type Fork lift truck valves with SRV.

Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1 - 15 bar. Filling time as per present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

Fork lift truck valves with ACME female outlet.

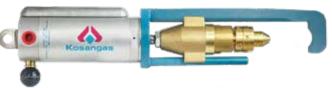
Part number	Inlet Connection*	Outlet Connection*			
6882900045	LPG G3/8 PNEUMATIC AIR G1/4	Fork lift truck - female thread valve with check-lock with SRV			



for Forklift Valves Semi-automatic

MATERIALS AND STANDARDS

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.



Features

Reference Image

- 1. Insignificant loss of product (1 cm3) when the gas flow is cut off and the filling head is released from the cylinder valve.
- 2. Balanced jig for easy suspension between filling operations.
- 3. Easy to manually connect and disconnect. Filling is initiated simultaneously with the connection to the valve.
- 4. Slim design makes it easy to handle and it fits easily inside any shroud.

Inlet connection:

LPG G3/8 - Pneumatic air G1/4

Outlet connection:

Connects to standard outlet male thread valves without SRV. Specify exact valve type when ordering.

Supply pressures:

Designed to operate within the normal supply pressures.

Pneumatic supply:

6 - 10 bar. Liquid filling product: 1 - 15 bar Filling time as per the present valve specification.

Function and Maintenance:

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve.

Once the Filling Head outlet is aligned with the Cylinder valve outlet, the ball knob is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling head outlet to attach the cylinder valve outlet thereby obtaining a leak tight connection and simultaneously opening the gas seal initiating the LPG flow. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released thereby stopping the flow of gas and the outlet disconnects from the cylinder valve. All rubber seals inside the gas section as well as the complete pneumatic cylinder can be exchanged.

Suitable for:

A wide range of standard LPG handwheel valves with antifilling device.

Part number	Inlet Connection*	Outlet Connection*		
6882900168	LPG G3/8 PNEUMATIC AIR G1/4	Standard LPG valve with antifilling Type 129A		



Valve Model	Semi-Automatic Filling Heads	Manual Filling Heads
Kosanova 16 mm 176A, 130K	6882900022 6882900027	6882900004 6882900007 6882900008
Kosanova 16 mm 176A, 179D	6882900022 6882900027 6882900028	6882900025 6882900026 6882900135 (Dx)
Kosanova 19 mm 130L	6882900023 6882900024	6882900005 6882900006
Jumbo, Kosan 35mm type 130B	6882900020 6882900021	6882900001 6882900002 6882900003
Compact 20 mm (Quick-on)	6882900030	6882900010 6882900011 6882900124 6882900009
Compact 21 mm (Quick-on)	6882900032 6882900033 6882900138	6882900015 6882900016 6882900017
Compact 22 mm (Quick-on)	6882900031 6882900137	6882900013 6882900014
Compact 24,8 mm (Quick-on)	6882900116	/
Compact 25,6 mm (Quick-on)	6882900034	6882900018
Compact 27 mm (Snap-Tight)	6882900029	6882900012
Compact 35 mm (Snap-On) (6602901256)	6882900140	6882900139
Camping valve (M16x1,5)	/	6882900053 6882900113 6882900159
Camping valve (3/8* - 19BSP)	/	6882900120 6882900118
Standard Handwheel Valve Male Thread outlet	6882900042 6882900049	/
Standard Handwheel Valve POL outlet (example: 8004903135 8006905016 8008908198)	6882900044 6882900133 6882900054 6882900048	6882900129



Valve Model	Semi-Automatic Filling Heads	Manual Filling Heads
Omeca Duo valve (example 6704900780)	6882900045	/
Bajonet valves (examples 6602900136 6602900145)	6882900046	/
Omeca coupling (example 6602901024)	6882900047	/
Fork lift truck ACME (example 8008908105)	6882900103	/
OPD valves Type 1 ACME American valves	6882900050 6882900052	6882900055
3/8" SAE Flare outlet (example 8003902062)	6882900051	/
Filler Valve 1-3/4" x 6 ACME (examples 6602901122 6602901043)	/	6882900057 6882900234
Standard LPG valve with anti-filling (example 8064903003)	6882900168	/
Standard Handwheel Valve Male thread outlet (example 8003902051)	Not applicable	6882900157 6882900161
Clip on cylinder valve (example 6602901235)	6882900109	Not applicable





PRESSURE RELIEF VALVES

External Pressure Relief Valves



EU 19 7000900014

Pressure relief valve with conical thread between valve and lower check valve.



ST 19 7100900005



EU 29 7000900016



ST 29 7100900015



EU 24 7000900008



ST 24 7100900010



EU 30 7001900004

Safety relief valve with cylindric thread to be used in connection with the lower check valve. Tightness assured by bonded seal.



EU 20 7001900026



EU 25 7001900205



ST 30 / ST 32 7101900001



ST 20 7101900016



ST 25 7101900000

Part number	Bottom Male connection	Thread type		Configuration suitable for	PRV - Start to discharge	PRV Overpressure 10%	PRV Orifice
	connection	Taper	Parallel	this capacity (L)	setting (bar)	Capacity Nm³/min.	(mm)
7000900014 (EU 19) - PRV 7100900005 (ST 19) - CLD	3/4" NPT 1-1/4" NPT	×		1000	1000	46	19
7001900026 (EU 20) - PRV 7101900016 (ST 20) - CLD	3/4" NPSM 1-1/4" NPT	×	×		Basic Setting	43	19
7000900016 (EU 29) - PRV 7100900015 (ST 29) - CLD	1-1/4" NPT 2" NPT	X	×	3000/5000		118	29,5
7001900008 (EU 24) - PRV 7101900010 (ST 24) - CLD	1" NPT 1-1/4" NPT	×		1750	256 PSI 17,65 bar	81	23,5
7001900205 (EU25) - PRV 7101900000 (ST 25) - CLD	1" NPSM 1-1/4" NPT or 1" NPT	X	X		1750		76
7001900004 (EU30) - PRV 7101900004 (ST 30) - CLD	1-1/4" NPSM 1-1/2" NPT	X	×	3000/5000		121	29,5



PRESSURE RELIEF VALVES

External Pressure Relief Valves

VS 60 7000900080

Safety relief valve with high flow capacity.

VS 456 16 bar **VS 457** 17 bar

7001900015 7001900031

Pressure relief valve with a lower check valve.

0401102587 Gasket

ST 45 7101900030 **VS 367** 17 bar **VS 368** 18 bar

7001900020 7001900008

Pressure relief valve with a lower check valve available with different inlet threads.

> **ST 36** 7101900026





6602901140

Pressure relief valve for small containers and on-line pipe installations.



Part number	Bottom Male	Thread type		Configuration suitable for	PRV - Start to discharge	PRV Overpressure 110%	PRV Orifice
	connection	Taper	Parallel	this capacity (L)	setting (bar)	Capacity Nm³/min.	(mm)
7000900016 (EU 29) - PRV	1-1/4" NPT	×		7000/5000	basic 17,65**	118	29,50
7100900015 (ST 29) - CLD	2" NPT	×		3000/5000	Dasic 17,00		
6602901280 - PRV	1/4"-18 NPT	×		-	17,24	8,1 (at 120%O.)	7,4
7001900020/0008 (VS 367/368) - PRV	M 36 x 2		X	- 1000	17 and 18**	79,8 and 84,7	24,50
7101900026 (ST 36) - CLD	1-1/4" NPSM	×					
7001900015/0031 (VS 456/457) - PRV	M 45 x 2		X	1750-3200	16 and 17**	100,6 and 110	29,50
7101900030 (ST 45) - CLD	2" NPT	×					
7001900229 (VS 45)	M 45 x 2		X		17		
7101900025	2" - 11.5 NPT	×					
6602901139	1/4"-18 NPT	×			17,24		
6602901140	1/4"-18 NPT	×			25,85 (375PSI)		
6602901280	1/4"-18 NPT	×			17,24	8,1 (at 120%)	
6602901299	1/2" NPT	×			17,24	8,1 (at 120%)	

OVERALL NOTE: All our configurations PRV+CLD are suitable for a temperature range [C°] - 40 ÷ 65.

^{*}PRV = Pressure Relief Valve and CLD = Check-lock Device

**please specify your requested setting pressure when ordering – various setting points available.

***please enquiry our sales department for further local approvals – several national approvals available besides CE-approval.



SAFETY VALVES

PV series

The safety valve PV has separate functions of discharge and calibration.

The calibration function is fulfilled by a replaceable cartridge.

The valve is installed directly in the tank and allows the following benefits:

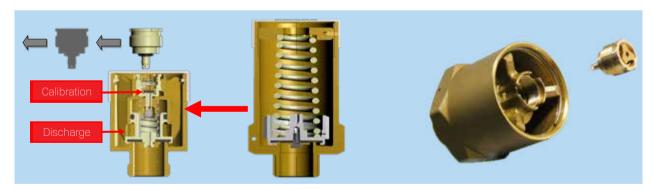
ECONOMICAL: Simplifies operations related to the biennial operative validation foreseen by D.M. 329/04 and reduces drastically the cost.

PRATICAL: It is interchangeable with EU series valve and therefore can be mounted on the corresponding check-lock series valve.

SAFE: Increases in time the guaranteed stability of parameter settings.

ECO COMPATIBLE: More compact than standard products on the market.

Available for all dimensions of stationary tanks and different threads. Approved to European standard EN 14129, UL 132 and Code ASME VIII.



PV Safety valve with separate functions : calibration function and discharge

Traditional External Security Valve

Extreme cost reduction of the safety valves re - inspection



SAFETY VALVES

PV series











PV 30







Part number	Inlet	Outlet	
7101900016 - ST 20	11/4"-11,5 NPT	3/4"-14 NPSM	
7101900000 - ST 25	11/4"-11,5 NPT	1"-11.5 NPSM	
7101900004 - ST 30	1½"-11,5 NPT	11/4"-11,5 NPSM	
7101900011 - ST 32	2"-11,5 NPT	11/4"-11,5 NPSM	

Part number	Inlet Connection PRV Orifice		PRV - Start to discharge setting	Flow Capacity (m ³ /min)	
		(mm)	(bar)	110% PN	120% PN
7001900206 - PV 20	3/4" NPSM	19	Default Configuration	56,4	61,2
7001900207 - PV 25	1" - 11.5 NPSM	24,5	256 PSI - 17,65 bar Customizable upon request	76,2	82,8
7001900208 - PV 30	1-1/4" - 11.5 NPSM	29,5		111,9	121,6



















Replacement Kit **6803900004**

Part number	Inlet Connection PRV Orifice (mm)		PRV - Start to discharge setting	Flow Capacity (m ³ /min)	
		(mm)	(bar)	110% PN	120% PN
7000900204 - PV 19	11/4"-11,5 NPT	19	Default Configuration 256 PSI - 17,65 bar Customizable upon request	59,4	64,9
7000900205 - PV 24	11/4"-11,5 NPT	24,5		90,1	97,9
7000900210 - PV 29	11/4"-11,5 NPT	29,5		132,0	143,5
7000900207 - PV 31	2"-11,5 NPT	29,5		132,0	143,5

The products shown represent only some configurations and solutions of the wider range available.





VRN 20 6602901043



VRN 20 45° 6602901233



VRN 20L 6602901063

- · Double Back Check Construction All Omeca filler valves are of the double back check construction where there are: (1) a soft seated up back check, and (2) a metal-to-metal lower back check seat.
- · Efficient Flow Characteristics The efficient flow channel design of the valves gives low flow resistance, prolonging pump and hose life, and high filling capacity.
- · Two Piece Body Design
- · Smaller filling upper chamber to avoid waste of liquid lpg during every filling operation
- · VRN 20L 66.1063 is designed to make underground tank installations more accessible to fillers.
- · VRN 20 45° is designed to make the filling process more user friendly.

	Tank Filler		Lpg liquid capacity at various differential pressure (GPM)			
Part number	connection	connection	10 PSI	25PSI	50 PSI	75 PSI
6602901063 (VRN 20L)	1-1/4" - NPT	1-3/4" - 6 ACME	54	100	148	190
6602901043 (VRN 20)	1-1/4" - NPT	1-3/4" - 6 ACME	54	100	148	190
6602901233 (VRN 20 45°)	1-1/4" - 11.5 NPT	1-3/4" - 6 ACME 2G	54	100	148	190



Unloading adapter for Container Evacuation



Application

Designed to provide an efficient means of evacuating an LP-Gas container for relocation or repair.

The Unloading adapter can be used to withdraw liquid provided in the container and withdraw the remaining Vapor phase.

It threads directly onto 1-1/4" ACME male hose connection of Cavagna Filler Valve series VRN.

Materials

Brass: UNI EN 12164

Handwheel: Aluminium UNI EN 1706

Rubber seals: UNI EN 549

Working Temperature: -20C°: +60C° (-4°F: 140°F)

Part Number	Style	Style Filler Valve Connection Hos	
6802900211	In-Line	1-3/4" ACME	1-1/4" ACME

FILLER VALVES

with Manual Ball Shut-off Safety Features



VRN 93 6602900221 VRN 88 6704900681



- · Both these valves are double check filler valves where there are a soft seated upper back check and a (2) metal to metal lower back check seat
- · Emergency ball shut-off valve incorporated
- These two versions can be used either for underground (VRN 88) or above ground LPG tanks (VRN 93) thanks to an oriented easy to connect design to the bobtail delivery truck
- · All our filler valves have a filling capacity ≥ 8 m³ water ∆p= 4 bar

Part Number	Tank connection	Filler connection
6602900221 (VRN 93)	1-1/4" - NPT	1-3/4" - 6 ACME
6704900681 (VRN 88)	1-1/4" - NPT	1-3/4" - 6 ACME



with Overfilling Prevention Safety Device (VRNSC series)



6602901101

Filler valve suitable for underground tank. The extended body allows an easier refilling operation.



6602901106

Filler valve with high flow capacity suitable for above ground containers. Specify tank size when ordering.



6602901107 6602901136

Double Filling Valve with Automatic Stop and Manual Cut off Device.



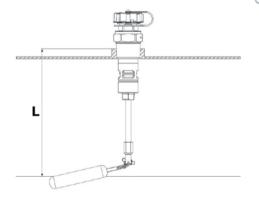
6602901145

Double Filling Valve with Automatic Stop and Manual Cut off Device.



These filler valves are designed for horizontal and vertical LPG containers.

All the valves are equipped with an overfilling prevention device. Always specify type of tank (horizontal or vertical) diameter of the tank and location of the filler valve in the flange of the tank. All our filler valves have a filling capacity $\geq 8 \text{ m}^3 \text{ water } \Delta p = 4 \text{ bar.}$



Part number	Tank connection	Filler connection	Specify tank dimension when ordering	
6602901101				
6602901106				
6602901145	1-1/4" NPT	1-3/4" -6 ACME		
6602901136			,	
6602901107			L	
6602901146				
6602901279				
6602901314				

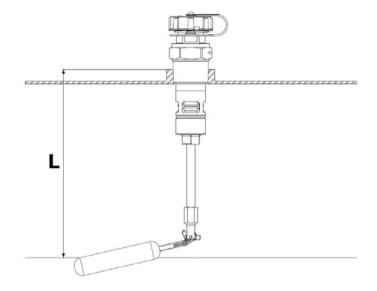


with Overfilling Prevention Safety Device



6602901387

Filler valve with OPD. Specify tank size when ordering.



Application

These filler valves are designed for horizontal and vertical LPG containers.

All the valves are equipped with an overfilling prevention device. Always specify type of tank (horizontal or vertical) diameter of the tank and location of the filler valve in the flange of the tank. All our filler valves have a filling capacity $\geq 8 \text{ m}^3 \text{ water } \Delta p = 4 \text{ bar.}$

Part number	Tank connection	Filler connection	Specify tank dimension when ordering
6602901385			
6602901386			
6602901387	1-1/4" NPT	1-3/4" -6 ACME	L
6602901388			
6602901389			



LIQUID WITHDRAWAL VALVES



VL 13 6902900008

Liquid withdrawal valve





VL 25 6902900005

Liquid withdrawal valve to be used with our RL 25 Liquid Withdrawal Valve.



LF 25 C

6901900040

Liquid Reclaming



RRL 16 A-P 6704900797 / 0793

Liquid withdrawal valve complete with protection cap.





68.0233 6802900233

Connector

Part number	Container connection	Outlet connection
6901900040 (LF 25 C)	1-1/4 - 11.5 NPT	3/4 - 14 NPT
6902900008 (VL 13)	3/4" – 14 NPT	3/4" - 14 NPT (plugged)
6902900005 (VL 25)	1-1/4"- 14 NPT	M 25 x 1.5 (plugged)
7200900006 (RL15)	3/4" – 14 NPT	M 30 x 1.5
7200900025 (RL 25)	M 25 x 1.5	M 30 x 1.5
6704900793 (RRL 16)	3/4" – 14 NPT (with*/without* tube threading 3/4" 28UN- 2B for dipping)	3/4" – 14 NPT (with plug cap)
6704900797 (RRL 16)	3/4" – 14 NPT	3/4" – 14 NPT (with plug cap)
6802900233	3/4" - 6 ACME	3/4" - 6 ACME



LIQUID WITHDRAWAL VALVES



6802900231

Liquid Reclaming Connector



6704901073

Liquid Reclaming valve with incorporated excess flow device.



6802900232

Liquid Reclaming Connector



7200900110

Liquid Reclaming valve with incorporated excess flow device

Part number	Container connection	Outlet connection	
6704901073	1-1/4" - 11.5 NPT	1" 11.5 NPT	
6802900231	M 25 x 1.5-6	1-3/4" - 6 ACME	
6802900232	3/4" - 14 NPT	1-3/4" - 6 ACME	
6802900233	1-3/4" - 6 ACME	1-3/4" - 6 ACME	
7200900110	3/4" - 14 NPT	1-5/8" - 12 UN-2A	
7200900111	1-1/4" - 11 NPT	1-5/8" - 12 UN-2A	





MUITI-SERVICE VAIVES



GSE 35 6704900776

Aboveground and Underground versions available

Multi-Service Valve equipped with a pressure gauge in glycerine bath, 0÷25 bar scale, and a fixed level gauge to ensure 80% of tank filling. It allows optional installation of an outlet device with excess flow device.

Excess Flow device

Part number	Container Connection	Outlet Connection	Excess flow device	
1609500039	880" 14 NGO LH-EXT	W20x1/14"-Sin	50 Kg/h	
1609500052	880" 14 NGO LH-EXT	W20x1/14"-Sin	95 Kg/h	



GS 41

Aboveground and Underground versions available

Multi-Service Valve with vertical outlet and fixed liquid level tube which ensures 80% max. filling of the tank.

It incorporates an excess flow device valve, which closes when the flow reaches a rate of 42÷54 Kg/h lpg (a first stage lpg regulator with 40 Kg/h capacity and 2 bar setting point can be attached).



GS 50 6704900775

Aboveground and Underground versions available

Multi-Service Valve equipped with a pressure gauge in glycerine bath, 0+25 bar scale, and a fixed level gauge to ensure 80% of tank filling. It incorporates an excess flow device valve, which closes when the flow reaches a rate of 42 ÷ 54 Kg/h lpg (a first stage lpg regulator with 40 Kg/h capacity and 2 bar setting point can be attached).

Part number	Container Connection	Outlet Connection	Excess flow device	Closing Flow (Lpg)	Fixed level gauges with dip tube	Master gauge insp. flange		
GSE 35 above gr. GSE 35 undergr.	3/4" – 14 NPT	885" – 14 NGO LH-INT	Installed onto outlet connector				Available	Yes
GS 41 above gr.	3/4" – 14 NPT	UNI ISO 228/1-G 3/4-B	Inlet Built-in	Between 42-54 kg/h Ipg ⁽¹⁾	on all types with tubes in different	N/a		
GS 50 above gr. GS 50 undergr.	3/4" – 14 NPT	W20x 1/14"LH	Inlet Built-in for both	,	lengths**	Yes		

item 1609500039/0052. Two models depending on the capacity required – please specify when ordering
please specify length of dip tube, tank capacity and diameter when ordering
Data valid when upstream pressure 2 bar and first stage 40 kg/h regulator connected – excess flow device valve performance.

Pressure relief device designed to discharge liquid in case of overpressure - The device starts to discharge liquid at 14 bar with a capacity of 1500 lt/h water.



MULTI-SERVICE VALVES



GS 80 8008908217 (Underground) 8008908092 (Aboveground)

Service valve equipped with a pressure gauge in glycerine bath, 0-25 bar scale, and fixed level gauge to ensure 80% of tank filling.



GS 89 6704900774

Multi-Service Valve with vertical outlet and fixed liquid level tube which ensures 80% max. filling of the tank. It incorporates an excess flow device valve, which closes when the flow reaches a rate of 42÷54 Kg/h lpg (a first stage lpg regulator with 40 Kg/h capacity and 2 bar setting point can be attached).



GS 90 6704900809 (Underground) GS 90 L 6704900820 (Underground with fixed level gauge) GS 90 H 6704901013 (Aboveground with fixed level gauge)

Multi-Service Valve. It incorporates an excess flow device valve, which closes when the flow reaches a rate of 42÷54 Kg/h lpg (a first stage lpg regulator with 40 Kg/h capacity and 2 bar setting point can be attached). It is a special underground and above ground fitting equipped with a pressure relief device that enables liquid discharge at 14 bar.



6704901060

Multi-service valve suitable for tanks where a vapor service valve is required. This valve incorporates in the same body a service valve, a vapor withdrawal valve and a fixed level gauge.

Part number	Container Connection	Outlet Connection
8008908217 (GS 80 under gr.) 8008908092 (GS 80 above gr.)	3/4" - 14 NGT	0.885" – 14 NGO LH-INT
6704900773 (GS 89 above gr.) 6704900774	1-1/4" – 11.5 NPT	UNI ISO 228/1-G 3/4-B
6704900809 (GS 90 undergr.)	1-1/4" – 11-1/2 NPT	UNI ISO 228/1-G 3/4-B
6704901013 (GS 90 above gr.)	3/4"-14 NPT	M20 x 1.5 -6g
6704901060	3/4" M NPT	0.885" - 14 NGO LH-INT



MULTI-SERVICE VALVES

Combo valves





The SP valve is a combo multi-valve designed for 450kg LPG cylinder, with high capacity liquid fill rate: 140Liters/min. The components may be replaced without emptying the cylinder. Built in excess flow device fixed liquid level gauge.

Part Number	Inlet Connection	Filling Connection	Offtake valve male	Dip Tube	Withdrawal Tube	Eduction Tube	Vapor Connection
6704901071	1"-1/2x11.5 NPT	1-3/4-6 ACME-G	3/4"-14 NPT	10-32 UNF-2A	M16x1 - 6g	M17x1 - 6g	n/a

6704901072

6704901072 valve is a combo multi-valve designed for LPG Tank, with high capacity liquid fill rate: 100Liters/min with OPD.





Part Number	Tank Type	Tank Diameter	OPD Part Number	Dip Tube	Withdrawal Tube
	019	610 mm	1609500384	1201101811	1201101810
6704901072	133 & 258	1000 mm	1609500385	1201101773	1201101771
	405	1200 mm	1609500376	1201101774	1201101772

Part Number	Inlet Connection	Filling Connection	Offtake valve male	Dip Tube	Withdrawal Tube	Vapor Connection
6704900826	1"-1/2x11.5 NPT	1-3/4-6 ACME-2G	M36x2 - 6g	10-32 UNF-2A	M16x1 - 6g	885" – 14 NGO LH-INT

Tubes available for variable vessel sizes.



MULTI-SERVICE VALVES

Underground Multi-Service Valves





Multi-Service Valve with PV Safety valve

6704901070

Multi-Service Valve



6704901034

Multi-Service Valve with Overfilling prevention device

These filler valves are designed for horizontal and vertical LPG containers.

The valves can optionally be equipped with an overfilling prevention device.

Always specify type of tank (horizontal or vertical) diameter of the tank and location of the filler valve in the flange of the tank.

· All our filler valves have a filling capacity $\geq 8 \text{ m}^3 \text{ water } \Delta p = 4 \text{ bar.}$

Part number	Tank connection	Filler connection	Specify tank dimension when ordering
6704901034	21/2" - 8 NPT	1-3/4" ACME	*
6704901035	21/2" - 8 NPT	1-3/4" ACME	*
6704901070	21/2" - 8 NPT	1-3/4" - 6 ACME	*
6704901062	21/2" - 8 NPT	3/4" - 14 NPT	*



FLOAT GAUGES

The product was redesigned to provide comprehensive up-dating as well as a 100% operating efficiency.

Our LPG float gauge can also provide full performance even under the following critical conditions:

- when humidity for any reason is found within the LPG tank.
- when the transmission components are subjected to very low temperatures.

The indicator is complete with plastic cover, or gasket and stainless steel screws.

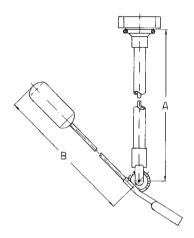
All gauges can be manufactured in brass or in zamak.

Available also with metal cover.

Customized float gauges can be supplied on demand.

LPG Float Gauges with 4 Screws

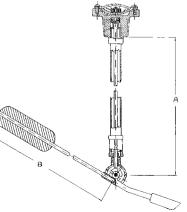
	LPG TANK LEVEL GAUGES				
Cod.	Tank model	Ø	Lt.		
2070/I A	horizontal	800	990/1000		
2071/I A	horizontal	1000	1750/1800		
2072/I A	horizontal	1200	3000/5000		
2073/I A	horizontal	1250	-		
2075/I A	vertical	800	500		
2076/I A	spherical	-	990		
2077/MTI-E TVA	vertical	1000	1000		
2078/MTI-E TVA	vertical	1200	1500/1650		
2078-2INT/I TVA	vertical	1200	2250/2300		



LPG Float Gauges with Thread



	LPG FLOAT GAUGES WITH THREAD 1"						
Cod.	Cod					Dimensions	
cou.	ø Inches	ø mm.	Туре	Gallons	Litres	Α	В
2069.U.1"	24"	609,60	horizontal	120	454,25	338	285
2070.U.1"	30"	762,00	horizontal	250 / 320	946,35 / 1.211,328	412	360
2171.U.1"	37"	939,80	horizontal	500	1.892,70	510	438
2072.U.1"	41"	1.041,40	horizontal	1000	3.785,40	553	477
2073.U.1"	48"	1.219,20	horizontal			612	535
2075.U.1"	30″	762	vertical			640	430





FLOAT GAUGES

LPG FLOAT GAUGES WITH THREAD 1" 1/4							
Tank						Dimensions	
Cod.	ø Inches	ø mm.	Туре	Gallons	Litres	Α	В
2069.U.1"1/4	24"	609,60	horizontal	120	454,25	338	285
2070.U.1"1/4	30"	762,00	horizontal	250/320	946,35 / 1.211,328	412	360
2171.U.1"1/4	37"	939,80	horizontal	500	1.892,70	510	438
2072.U.1"1/4	41"	1.041,40	horizontal	1000	3.785,40	553	477
2073.U.1"1/4	48"	1.219,20	horizontal			612	535
2075.U.1"1/4	30"	762	vertical			640	430

Part number	Tank Model	Ø	Lt.
20S0.U-19	Horizontal	760 mm	950 lt
20S0.U-20	Horizontal	940 mm	1890 lt
20S0.U-21	Horizontal	1020 mm	3780/5300 lt
20S0.U-22	Horizontal	1220 mm	7570 lt
2074-18	Horizontal	1900 mm	>5000 lt

2074-18	Horizontal	1900 mm	>5000 lt
2074-19	Horizontal	2350 mm	>5000 lt
2074-46	Horizontal	1600 mm	-

Indicator	
2091/A	Lt. 500 Dial without glycerine for horizontal tanks
2091/V-A	Dial without glycerine for vertical tanks
2091/S-A	Dial without glycerine only for spherical tanks
2091/INT 2	Dial without glycerine only for vertical tanks lt. 2250



High Volume Tanks & Autogas Tanks

Small Bulk Tanks





FLOAT GAUGES Side Mounting

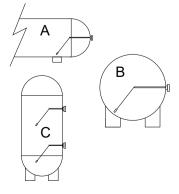


These filler valves are designed for horizontal and vertical LPG tanks. The valves are equipped with O-ring.

The valve is composed by stainless steel screws and plastic cover. Dial without gliceryn.

* The final code is defined before the order according to the tank dimensions and to the level gauge position of the tank.

Part number	Kind of Tank	Mounting of the Tank
2080-00X(*)	Horizontal	End (A)
	HUHZUHLAI	Shell (B)
2081-00X(*)	Vertical	Shell (C)



The products shown represent only some configurations and solutions of the wider range available.



SAFFTY VALVES

Storage Facilities



PV 60 7000900218 CE 7000900233 · 🖫 🛚

The new PV 60 safety valve is designed for large tanks. This valve introduces an important new feature, namely that of a replacement cartridge, which means that you no longer have to replace the

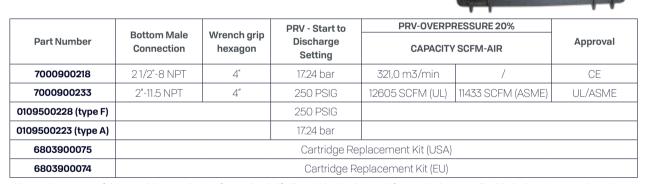
entire safety valve. The PV 60 valve has both economic and

operational advantages.



6803900075 6803900074 (E

Cartridge Replacement Kit



^{*}The replacement of the cartridge can be performed only if allowed by the law and/or regulations applicable in the country where the product is sold.



INTERNAL VALVES

Flanged 4"

Cavagna flanged valves, equipped with a built-in excess flow valve to prevent uncontrolled product release, are perfect for mounting a pump or other similar piping connections. Mounting bolts weakened section, provided, allow the pump or piping to "shear" in the event of an accident, thereby leaving the valve intact.

*For more information see page 58







INTERNAL VALVES

Threaded

These valves, designed as primary shut-offs to control product discharge in LP-Gas service, are predominantly used in the liquid and vapour openings of bobtail and other transport vehicles. All valves satisfy the requirements of NFPA 58 and can also be used in stationary storage tank applications. All Cavagna internal valves have a robust, one piece body design and an incorporated excess flow function. Each valve has a weak section that allows the pump or piping to "shear" in the event of an accident, thereby leaving the valve mechanism intact. Cavagna threaded valves are compact and can be operated either manually or remotely via cable or pneumatic control. Valves contain spring-loaded, PTFE packing providing excellent leakage protection and the standard disc material provided is Nitrile.









100g Deceleration Test passed

Part Number			Inlet	Outlet Connection	Closing Flow GPM Propane		LPG Vapour Capacity		Closing Flow
		Material	Connection				(SCFH/Propane)		GPM Ammonia
One Way	Two ways				Half Coupling	Full Coupling	25 PSIG	100 PSIG	NH3 + LPG
6902900101		steel	1-1/4" M NPT	1-1/4" F NPT	30		5,800	9.100	27
6902900102		steel	1-1/4" M NPT	1-1/4" F NPT	50	35	7.650	12.900	45
6902900103		steel	1-1/4" M NPT	1-1/4" F NPT	80	65	10.950	18.800	72
6902900104	6902900130	steel	2" M NPT	2" F NPT	100	60	21.550	36.800	90
6902900105	6902900131	steel	2" M NPT	2" F NPT	150	90	33.600	57.200	135
6902900106	6902900132	steel	2" M NPT	2" F NPT	250	130			225
6902900198		steel	2" M NPT	2" F NPT	260				234
6902900107	6902900112	steel	3" M NPT	3" F NPT	150	100	28.600	48.700	135
6902900108	6902900113	steel	3" M NPT	3" F NPT	200	125	43.500	73.900	180
6902900109	6902900114	steel	3" M NPT	3" F NPT	250	165	51.500	87.600	225
6902900110	6902900115	steel	3" M NPT	3" F NPT	400	235	80.100	139.000	360
6902900111	6902900116	steel	3" M NPT	3" F NPT	500	325			450

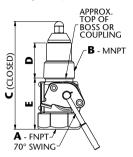




INTERNAL VALVES

Threaded

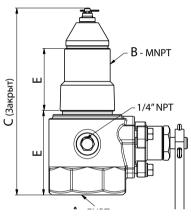
1-1/4" ONE WAY



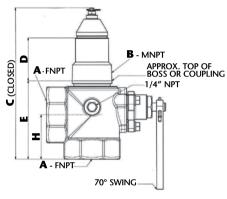
Threaded Valves specification:

Pressure Rating: 400 PSI (27.58 bar) WOG Temperature: Up to 150°F (66°C) Body: Hot forged steel Packing: PTFE Seat disk: Synthetic rubber Stub, Shaft & Stem: stainless steel

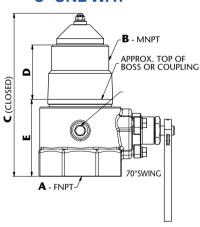
2" ONE WAY



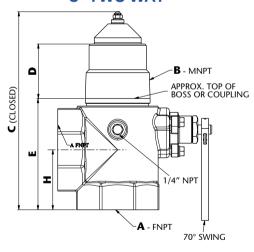
2" TWO WAY



3" ONE WAY



3" TWO WAY



	DIMENSIONS					
Α	В	С	D	E	Н	
1-1/4" NPT	1-1/4" NPT	5,90" (150 mm)	1,86" (47 mm)	2,88" (73 mm)		
2" NPT	2" NPT	8,26" (210 mm)	2,40" (61 mm)	4,05" (103 mm)	2,7" (68mm)	
3" NPT	3" NPT	8,85" (225 mm) ONE WAY 10,82" (275 mm) TWO WAY	2,56" (65 mm) ONE WAY AND TWO WAY	4,54" (115,3 mm) ONE WAY 6,50" (165,3 mm) TWO WAY	3,26" (83 mm)	







INTERNAL VALVES Flanged 3" and 4"



Cavagna flanged valves, equipped with a built-in excess flow valve to prevent uncontrolled product release, are perfect for mounting a pump or other similar piping connections. Mounting bolts weakened section, provided, allow the pump or piping to "shear" in the event of an accident, thereby leaving the valve intact. Cavagna flanged valves have a protection filter to avoid pump contamination from dirt and particles, easily removable when the valve is installed on the filling piping line. Cavagna flanged valves contain PTFE packing providing excellent leakage protection and the standard disc material provided is Nitrile, they can be operated manually or remotely via cable or pneumatic control.

100g Deceleration Test passed

Part N	Number				Closing Flow	LPG Vapor Capacity (SCFH/Propane)		Closing Flow GPM
Single	Double	Material	Inlet Connection	Connection	GPM Propane	25 PSIG Inlet	100 PSIG Inlet	Ammonia NH ₃ + LPG
6902900117	6902900122				150	05100	40.700	135
6902900166		Ctool	150 200 3" 300lb. ANSI RF Modified (4 7/8" dia bore) 3" 300lb. ANSI RF 400	150	25.100	42.700		
6902900118	6902900123			3" 300lb.	200	36.900	62.800	180
690900167								
6902900119	6902900124				250	42.200	71.800	225
6902900168		Steel		250	42.200	/ 1.000		
6902900120	6902900125	-		400	59.400 10	100,900	360	
6902900169					400	39.400	100.900	
6902900121	6902900126				500		_	450
6902900170			50	300		-		

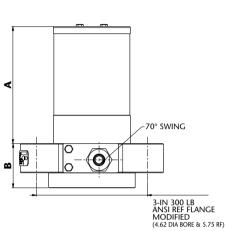
Part Number	Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane
6902900141		el 4" 300lb. ANSI RF Modified (47/8" dia bore)		Z10
6902900181				340
6902900142				9440 440 600
6902900182				440
6902900143	Ctool		4" 7001h ANOLDE	000
6902900183	Steel		4" 300lb. ANSI RF	600
6902900144				340 440 600
6902900184				
6902900145				1,000
6902900185				1,000





INTERNAL VALVES

3" Single and Double Flanged



0 3-IN 300 LB ANSI REF FLANGE MODIFIED (4.62 DIA BORE & 5.75 RF) Φ 70° SWING

Flanged Valves specification:

Pressure Rating: 400 PSIG (27.58 bar)

Temperature: Up to 150°F (66°C)

Body: cast steel WCB

Packing: PTFE

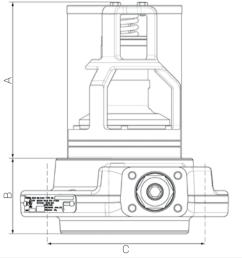
Seat disk: Synthetic rubber Stub, Shaft & Stem: stainless steel Gaskets: Non asbestos spiral wound

graphite

Part Number		Dimensions					
Partiv	umber	Α	В	С	D		
Single	Double	Single	Double	Single	Double		
6902900117	6902900122						
6902900118	6902900123						
6902900119	6902900124	6.75" (171 mm)	2.56" (65 mm)	5.33" (133 mm)	5.62" (143 mm)		
6902900120	6902900125	1					
6902900121	6902900126	1					

INTERNAL VALVES

4" Single Flanged



Flanged Valves specification:

Pressure Rating: 400 PSIG (27.58 bar) WOG

Temperature: Up to 150°F (66°C)

Body: cast steel WCB Packing: PTFE

Seat disk: Synthetic rubber

Stub, Shaft & Stem: stainless steel

Gaskets: Non asbestos spiral wound graphite

Dimensions					
A B C					
Single	Single	Single			
7.55" (192 mm)	3.66" (93 mm)	7.88" (200mm)			





INTERNAL VALVES

Threaded & Flanged Accessories



3" Single Flanged Valve

1 UPPER GASKET

Part Number	Description
6803900020	3/4" - 10 UNC studs kit (8 pcs)
6803900019	3/4" - 10 UNC nuts kit (16 pcs)
0401105575	Upper spiral gasket (1 pcs)
0401105576	Lower spiral gasket (1 pcs)
6803900021	M20x2.5 studs kit (8 pcs)
6803900022	M20x2.5 nuts
0000300022	IVIZUXZIJ HUIS





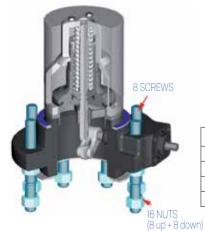
3" Double Flanged Valve

1 UPPER GASKET

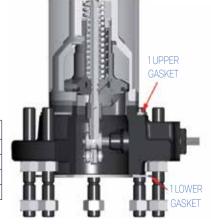


Part Number	Description
6803900018	3/4" - 10 UNC studs kit (16 pcs)
6803900019	3/4" - 10 UNC nuts kit (16 pcs)
0401105575	Upper spiral gasket (1 pcs)
0401105576	Lower spiral gasket (1 pcs)

4" Single Flanged Valve



Description
3/4" - 10 UNC studs kit (8 pcs)
3/4" - 10 UNC nuts kit (16 pcs)
Upper spiral gasket (1 pcs)
Lower spiral gasket (1 pcs)







3/4"-10 UNC studs kit (8 pcs)

INTERNAL VALVES

Threaded & Flanged Accessories

Spiral Gaskets





Studs & Nuts

6803900023



Part Number	Description		
0401105575	Upper Spiral Gasket 3" Flanged Valve (Single and Double)	Part Number	Description
0401100070		6803900018	3/4"-10 UNC studs kit (16 pcs)
0401105576	Lower Spiral Gasket 3" Flanged Valve (Single and Double)	6803900019	3/4"-10 UNC nuts kit (16 pcs)
0401105595	Upper Spiral Gasket 4" Single Flanged Valve	6803900020	3/4"-10 UNC studs kit (8 pcs)
0401105596	Lower Spiral Gasket 4" Single Flanged Valve	6803900021	M20x2,5 studs kit (8 pcs)
		6803900022	M20x2,5 nuts kit (16 pcs)

Main Spindle Assembled Kit



Part Number	Description		
6803900024	Dedicated for Internal Valve 1-1/4" - 1 pcs		
6803900025	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs		
6803900026 Dedicated for Internal Valve 3" (1 way and ways) - 1 pcs			
6803900027	Dedicated for 3" Single Flanged Valve - 1 pcs		
6803900028 Dedicated for 3" Double Flanged Valve - 1			

FFKM perfluoroelastomer soft sealings kit



Part Number	Description
6803900036	FFKM Kit for 2" Threaded Valve
6803900037	FFKM Kit for 3" Threaded Valve
6803900038	FFKM Kit for all 3" Flanged Valve
6803900039	FFKM kit for 4" Single Flanged Valve

Assembled Opening System Kit



Part Number	Description
6803900032	Dedicated for Internal Valve 1-1/4" - 1 pcs
6803900033	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
6803900034	Dedicated for Internal Valve 3" (1 way and 2 ways) - 1 pcs
6803900035	Dedicated for 4" Single Flanged Valve - 1 pcs

Complete soft sealings kit (all the O-Rings and gaskets)

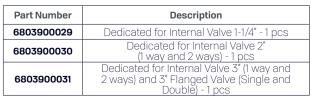
Part Number	Description
6803900040	Dedicated for Internal Valve 1-1/4" - 1 pcs
6803900041	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
6803900042	Dedicated for Internal Valve 3" (1 way and 2 ways) - 1 pcs
6803900043	Dedicated for 3" Single Flanged Valve - 1 pcs
6803900044	Dedicated for 3" Double Flanged Valve - 1 pcs
6803900045	Dedicated for 4" Single Flanged Valve - 1 pcs

Excess Flow Spring



Part Number	Description							
6803900046	Dedicated for 30 GPM - Internal Valve 1-1/4"							
6803900047	Dedicated for 50 GPM - Internal Valve 1-1/4"							
6803900048	Dedicated for 80 GPM - Internal Valve 1-1/4"							
6803900049	Dedicated for 100 GPM - Internal Valve 2"							
6803900050	Dedicated for 150 GPM - Internal Valve 2"							
6803900051	Dedicated for 250 GPM - Internal Valve 2"							
6803900052	Dedicated for 150 GPM - Internal Valve 3" and 3" Flanged (Single and Double)							
6803900053	Dedicated for 200 GPM - Internal Valve 3" and 3" Flanged (Single and Double)							
6803900054	Dedicated for 250 GPM - Internal Valve 3" and 3" Flanged (Single and Double)							
6803900055	Dedicated for 400 GPM - Internal Valve 3" and 3" Flanged (Single and Double)							
6803900056	Dedicated for 500 GPM - Internal Valve 3" and 3" Flanged (Single and Double)							
6803900057	Dedicated for 340 GPM - 4" Single Flanged Valve							
6803900058	Dedicated for 440 GPM - 4" Single Flanged Valve							
6803900059	Dedicated for 600 GPM - 4" Single Flanged Valve							
6803900060	Dedicated for 800 GPM - 4" Single Flanged Valve							
6803900061	Dedicated for 1000 GPM - 4" Single Flanged Valve							

Assembled Cone Kit



The products shown represent only some configurations and solutions of the wider range available.



ACTUATORS

Rotary Cams







Application

- The actuator is preassembled and ready to install.
- Compared to current devices which require adjustments the installment is quick and easy (3 screws and 1 split pin).
- The actuator can be fitted to the valve in four separate positions allowing optimization of space on the vehicle.
- Direct drive design does not apply side load to internal valve stem packing for maximum valve life.
- The actuator uses an internal cam mechanism, which guarantees higher performance optimizing the opening torque.
- Torque moment: The return torque moment relies only on the spring and is independent from the supply pressure.
- Immediate and automatic closing in absence of air (no need

for additional rapid discharge accessories).

- OPEN/CLOSE indicator.
- Compact design and lightweight.
- Aluminum body, components in stainless steel and aluminum.
- Valve anchoring bracket made in stainless steel.
- The actuator is self-lubricating with PTFE carbon-graphite seals.
- The actuator guarantees complete opening of the valve and is equipped with limit switch.
- Operating media: compressed filtered air, not necessarily lubricated.
- 500.000 opening cycles guaranteed.

Working condition

Temperature: from 0°C to +80°C; from -20°C to +80°C with dry air only. (Special versions: hight temperature: -20°C +150°C; low temperature: -50°C +60°)

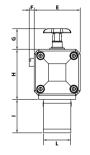
Air supply: 5,6 bar; maximum 8,4 bar.

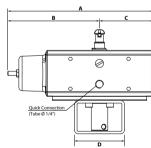
Operating media: compressed filtered air, not necessarily lubricated.

In case of lubricated air, either non detergent oil or NBR compatible oil, must be used.

Actuator 1-1/4"

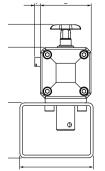


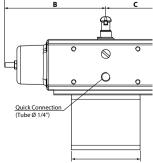




Actuator 2" and 3"







The products shown represent only some configurations and solutions of the wider range available.

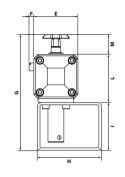


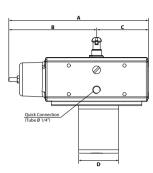
ACTUATORS

Rotary Cams

Actuator 3" SINGLE FLANGED

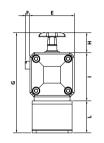


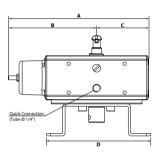




Actuator 3" DOUBLE FLANGED

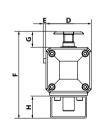


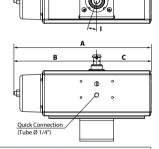




Actuator 4"
SINGLE FLANGED







Rotary Cams Actuators Dimensions (Inches)													
		Α	В	С	D	E	F	G	Н	I	L	М	Tube Connection Ø
3000900000	0-205 Actuator 1-1/4"	6-29/32	4-11/32	2-9/16	2-23/64	2-3/16	15/64	63/64	2-3/8	1-37/64	1-19/64	-	1/4"
3000900001	0-206 Actuator 2" and 3"	6-29/32	4-11/32	2-9/16	2-61/64	2-3/16	15/64	63/64	2-3/8	2-23/64	3-5/32	-	1/4"
3000900002	O-207 SF Actuator 3" Single Flanged	6-29/32	4-11/32	2-9/16	1-31/32	2-3/16	15/64	5-23/32	3-5/32	2-23/64	2-3/8	63/64	1/4"
3000900003	O-207 Actuator 3" Double Flanged	6-29/32	4-11/32	2-9/16	5-1/8	2-3/16	15/64	4-15/16	63/64	2-3/8	1-37/64	-	1/4"
3000900004	0-208 SF Actuator 4" Single Flanged	12-1/64	7-1/4	4-49/64	3-61/64	15/64	7-17/32	1-3/8	1-31/32	17,5°	-	-	1/4"
3000900014	0-205 Actuator 1-1/4" tube Ø6 mm	6-29/32	4-11/32	2-9/16	2-23/64	2-3/16	15/64	63/64	2-3/8	1-37/64	1-19/64	-	6 mm
3000900015	0-206 Actuator 2" and 3" tube Ø6 mm	6-29/32	4-11/32	2-9/16	2-61/64	2-3/16	15/64	63/64	2-3/8	2-23/64	3-5/32	-	6 mm
3000900016	0-207 SF Actuator 3" Single Flanged tube Ø6 mm	6-29/32	4-11/32	2-9/16	1-31/32	2-3/16	15/64	5-23/32	3-5/32	2-23/64	2-3/8	63/64	6 mm
3000900017	0-207 Actuator 3" Double Flanged tube Ø6 mm	6-29/32	4-11/32	2-9/16	5-1/8	2-3/16	15/64	4-15/16	63/64	2-3/8	1-37/64	-	6 mm
3000900018	0-208 SF Actuator 4" Single Flanged tube Ø6 mm	12-1/64	7-1/4	4-49/64	3-61/64	15/64	7-17/32	1-3/8	1-31/32	17,5°	-	-	6 mm
3000900019	0-205 Actuator 1-1/4" tube Ø8 mm	6-29/32	4-11/32	2-9/16	2-23/64	2-3/16	15/64	2-3/8	2-3/8	1-37/64	1-19/64	-	8 mm
3000900020	0-206 Actuator 2" and 3" tube Ø8 mm	6-29/32	4-11/32	2-9/16	2-61/64	2-3/16	15/64	2-3/8	2-3/8	2-23/64	3-5/32	-	8 mm
3000900021	0-207 SF Actuator 3" Single Flanged tube Ø8 mm	6-29/32	4-11/32	2-9/16	1-31/32	2-3/16	15/64	3-5/32	3-5/32	2-23/64	2-3/8	63/64	8 mm
3000900022	O-207 Actuator 3" Double Flanged tube Ø8 mm	6-29/32	4-11/32	2-9/16	5-1/8	2-3/16	15/64	63/64	63/64	2-3/8	1-37/64	-	8 mm
3000900023	0-208 SF Actuator 4" Single Flanged tube Ø8 mm	12-1/64	7-1/4	4-49/64	3-61/64	15/64	7-17/32	1-31/32	1-31/32	17,5°	-	-	8 mm

The products shown represent only some configurations and solutions of the wider range available.

High Performance actuator available upon request



REMOTE RELEASE

Latch/Remote Release Mechanisms

All Cavagna brand Internal Valves can be fitted with a manual Latch/remote release mechanism*. When the Internal valve's operating lever is manually moved to the open position, the lever can be latched in the open position. The lever can be release from a remote location by pulling on the cable attached to a pull ring, thus closing the internal valve. A built-in fusible element in the latch release melt if exposed to fire allowing the operating lever to return to the closed position. (for the temperature 212°F/100°C).







1309500143



1309500144



1309500147



Part Number	Description
1309500142	Fuse latch threaded Internal valve 2" and 3"
1309500143	Fuse latch threaded Internal valve 1-1/4"
1309500144	Dual Latch/ remote release for Internal valve 1-1/4"
1309500147	Manual lever and release on for 4" with fusible elements

*exept for Single and Double 3" Flanged Internal Valve



FLOAT GAUGES



Measure liquid levels within horizontal DOT and Stationary ASME Tanks with fluid capacities above 2,300 gallons. Suitable for use in bobtail, transport, railcar and bulk storage applications.

Features:

- All stainless steel construction for use with LPG & NH3 applications
- Welded tube to coupling design for maximum strength and durability
- Integral spring loaded shock absorber for arduous over-the-road application
- Exclusive easy to read "glow in the dark" dial face perfect for low light situations Dial face 100% sealed and argon filled to prevent moisture build-up & fogging Factory set and precision tuned for superb accuracy Dial face and mounting hardware universal with other industry standard gauges Mounts to all standard 8 bolt tank flange adapters



Tank Size (internal diameter)	(Tank's side or	erical Heads end installation)	Ellipsoidal Heads (Tank's side or end installation) Model Number		
	Ø4	Ø8	Ø4	Ø8	
Ø 60" - 1525 mm	3001102765	3001102768	3001102818	3001102834	
Ø 64" - 1625 mm	3001102766	3001102769	3001102819	3001102835	
Ø 66" - 1675 mm	3001102740	3001102770	3001102820	3001102836	
Ø 72" - 1830 mm	3001102741	3001102771	3001102821	3001102837	
Ø 79" - 2000 mm	3001102748	3001102774	3001102822	3001102838	
Ø 80" - 2030 mm	3001102749	3001102775	3001102823	3001102839	
Ø 81 ½" - 2070 mm	3001102742	3001102772	3001102824	3001102840	
Ø 84" - 2135 mm	3001102750	3001102776	3001102825	3001102841	
Ø 88" - 2235 mm	3001102751	3001102777	3001102826	3001102842	
Ø 88 ½" - 2250 mm	3001102744	3001102773	3001102827	3001102843	
Ø 90" - 2285 mm	3001102752	3001102778	3001102828	3001102844	
Ø 92 ½" - 2350 mm	3001102720	3001102779	3001102829	3001102845	
Ø 96" - 2450 mm	3001102721	3001102780	3001102830	3001102846	
Ø 98" - 2500 mm	3001102723	3001102781	3001102831	3001102847	
Ø 108" - 2755 mm	3001102788	3001102790	3001102832	3001102848	
Ø 130" - 3315 mm	3001102789	3001102791	3001102833	3001102849	





EXCESS FLOW VALVES for Liquid or Vapor withdrawal

Valves are designed to be mounted on the bottom of costumer storage tanks for liquid service.

They may also be mounted on the top for vapour service.

Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Approximate Closing Flows Liquid (GPM Propane)
6901900036	Steel	1-1/4"	1-1/4"	1-7/8"	55
6901900037	Steel	1-1/4"	1-1/4"	1-7/8"	70



EXCESS FLOW VALVES

Flanged



Features:

- Galvanized Steel Body
- PN 40 Flanges
- Stainless steel SpringStainless steel Stem

Other flanges rating on request.

Part Number	DN Ø			
VEF 2	DN 20			
VEF 4	DN 25			
VEF 32	DN 32			
VEF 34/1.0	DN 40			
VEF 38/1.0	DN 50			
VEF 42	DN 65			
VEF 46	DN 80			

BACK CHECK VALVES

Flanged



Features:

- Galvanized Steel Body
- PN 40 Flanges
- Stainless steel Spring
- Stainless steel Stem

Part Number	DN Ø
VNR 2	DN 20
VNR 3	DN 25
VNR 15	DN 32
VNR 17	DN 40
VNR 18/1.0	DN 50
VNR 19	DN 65
VNR 20	DN 80





EXCESS FLOW VALVES

for Liquid or Vapor

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Valves are designed for Liquid or Vapor fill / withdrawal and for vapor equalization in containers or line applications.

They are intended to close when the liquid or vapor passing trough the hose or the piping system exceeds the prescribed flow rate.

Valves are available in different sizes and body configurations.

Once the flow exceeds the valve's setting, the valve closes and will remain closed until the system equalizes.

Once the pressure on both sides of the poppet is equal, a built in equalizing passage automatically opens the valve.



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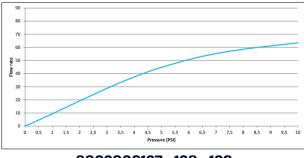
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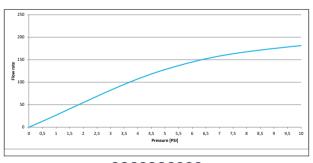
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			_			Approx	imate Closin	g Flows	
Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Liquid (GPM Propane)	25 PSIG Inlet	100 PSIG Inlet	Approval
6902900127	Steel					30	5750	9800	® (€ π
6902900128	Steel	1-1/4"	1-1/4"	2"	~3"	40	7500	13330	(€ ®
6902900129	Steel					50	8800	15970	
6902900201	Brass	3/4"	3/4"	13/8"	~2"	18	3700	6900	® (€ π
6902900202	Steel	2"	2"	2 7/8"	~4"	110	22100	37600	

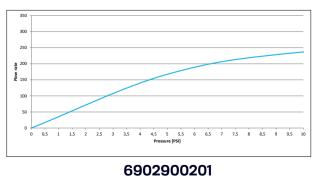
Performance:



6902900127 - 128 - 129



6902900202







EXCESS FLOW VALVES

for Pressure Gauges

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Designed for container use in pressure gauge installations to minimize excess gas discharge in the event the pressure gauge is sheared. A suitable shut-off valve should be installed between this valve and the pressure gauge to allow convenient gauge replacement.

	Part Number		Inlet	Outlet	Wrench		Appro	ximate Closing Flo	ws	
		Material	Connection	Connection	Hex Flats		Length	Liquid	25	100
				Oomiection			(GPM Propane)	PSIG Inlet	PSIG Inlet	
	6902900199	Brass	3/4"	1/4"	1-1/16"	1,63"	103 SCFH Air (UL)	60	110	



EXCESS FLOW VALVES

for Flange Mounting in Container Service

Designed for mounting in flanged tank connections with



Designed for mounting in flanged tank connections with internal threads in the bottom of a container.

They may be used in filling, withdrawal or vapor equalizing application. They provide high flow capacity with low pressure drop to minimize pump inlet line cavitation. If a riser pipe to the vapor space is used with these excess flow valves, the minimum inside diameter of the riser pipe must be at least two times the valve thread size in order not to restrict flow to the side inlet ports. Flange mounted excess flow valves are readily accessible for servicing and completely enclosed and protected in event of fire. Because there is no direct connection between external piping and the valve, stresses imposed on piping will not affect the excess flow valve. Valves are compatible with both liquid and vapor.

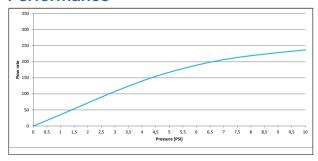


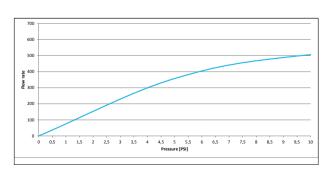
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6902900204

6902900203

Performance





Part Number						Арр	roximate Closing F	lows
	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Liquid (GPM Propane)	25 PSIG Inlet	100 PSIG Inlet
6902900203	Steel	2"	2"	/	~6,5"	150	30500	52000
6902900204	Steel	3"	3"	/	~7"	250	51100	88700



EXCESS FLOW VALVES

Wafer

The VEF-W25 is a new excess flow valve useful to reduce costs and space of the installation.

Features:

- Design temperature: -40/+60 °C
- Connection: UNI PN40
- Max pressure: 25 bar
- Body material: A350 LF2
- Surface treatment: galvanized
- Stainless steel sping
- Stainless stell stem
- Closure of gas phase at: 180kg/h if
- •1,72 bar; 300 kg/h if 6,9 bar





Part Number	Description	DN	
VEF-W25	Excess flow valve DN25 PN 40	25	



BACK PRESSURE VALVES for Container or Line Applications

π C €







Valves are intended to prevent liquid discharge when the desired flow is directed into the vessel thereby allowing the flow in only one direction. When coupled with the appropriate single check filler valve, the combination forms a double check filler valve suitable for use in filling of bulk storage tanks.

Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats Length		Propane Liquid Capacity at different ∆ Pressure			Approval		
						5 PSIG	10 PSIG	25 PSIG			
7100900051	Steel	3/4" F NPT	3/4" M NPT	13/8"	1-15/16" (49,2 mm)	10,75	15,7	24,5	® (€ π		
7100900050	Steel	1-1/4" F NPT	1-1/4" M NPT	2"	2-1/2" (63,5 mm)	27,5	39,2	61,75	(I)		
7100900049	Steel	2" F NPT	2" M NPT	3"	3-3/8" (83,5 mm)	121,5	171,5	270,5	® (€ π		
7100900113	Steel	3" F NPT	3" M NPT	4"	4-1/2" (114 mm)	290	410	650	®		



HOSE END CONNECTORS

for Manually Operated Tank Filler valves



The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers.

The rubber materials used are developed and manufactured according to the requirements of EN 549.

Easy and safe to connect and disconnect. Filling is initiated by operating the manual handle Slim design makes it easy to handle and it fits easily inside any shroud Safety lock for disconnection The safe valve connection assures that the LPG can only flow when the filling head is leak tight connected to a filler valve Automatic vent valve incorporated

Part Number	Inlet connection	Outlet connection	Supply pressures		
6882900057	3/4" NPT	1-3/4" x 6 ACME - 2g connects to Cavagna filler valves like 6602901043, 6602901122	The Filling Head is designed to operate within the normal LPG supply pressures. Liquid filling product: 1-15 bar.		





HOSE END CONNECTORS

Quick Acting Dispensing Valves

The Dispensing valves are designed to be used at the end of a filling hose for bobtail, nurse tank or dispensing system.

Features:

- All stainless steel internal component
- Self-locking toggle handle prevents accidental operation
- Durable ductile iron valve body with automotive grade powder coat finish
- Toggle handle assembly rotate 360°
- Stainless steel factory installed vent valve
- •400 WOG

Part Number	Inlet connection	Outlet connection
6802900250	3/4" NPT	3/4" NPT
6802900235	1" (NPT)	1" (NPT)





HOSE END CONNECTORS

Valves

This Hose End Valve full-on flow with the added protection of a quick closing, self-locking handle to prevent accidental opening of the valve during transport. The valve body is made of stainless steel GX5CrNiMo19-11-2 according to EN 10213-4.



Features:

- High durable sealing system of the manouvre group
- Stainless steel and aluminum component construction
- Molded and riveted on valve main seal
- Filling hose vents less than .50cc for minimal loss of product at disconnect
- Toggle handle assembly rotate 360°
- Self-locking toggle handle prevents accidental valve opening
- Stainless steel 1-3/4" female Acme, threaded into the handle
- •400 WOG

Part number	Part number Inlet connection		Handle Style	Handle Material
6802900234	1" (NPT)	1 7 / 4" A O M I I	Standard	Anodized
6802900251	T (NPT)	1 3/4" ACME	Curved	Alluminium





Adaptor



The Hose End Adaptor is designed to be used with 1"-11.5 (NPT) inlet connection.

Part number	Inlet connection	Outlet connection		
1009500305	1"-11.5 (NTP)	13/4" ACME		





HOSE END CONNECTORS

Swivel

The hose end swivel connector allows the hose end valve to rotate 360° creating an easier connection to the tank filler valve while under pressure. It also promotes hose life by preventing twisting and kinking during reeling and unreeling from hose reel.

Features:

- All stainless steel construction for maximum durability and corrosion resistance
- Large bearing surface for increased strength and durability
- 360° rotation under maximum working pressure of 400 psig
- Our UL listed seal pack design allows for extremely long life with no maintenance required
- Straight through bore for unobstructed flow characteristics



Part Number	Tank Connection	Filler Connection		
1009500291	1″	1"		

HOSE END CONNECTORS

Elbow Adapter

The Hose End Elbow Adapter is designed to be used with 1"-11.5 (NPT) inlet connection.

To secure hose end valves when not in use. For Bobtail and Dispensers.

Part number	Inlet connection	Outlet connection		
1601105698	1"-11.5 NPT	1"-11.5 NPT		

Part Number	Inlet connection	Outlet connection		
1009500329	1-3/4" ACMF	3/8"		
1009500330	1-3/4 ACIVIE	1/4" NPT		

Hose Nozzle Keeper

HOSE END CONNECTORS

Fill Check Adapters





These adapters are intended to be attached to the LPG delivery truck hose outlets. They feature minimal flow restriction which allows for fast delivery while providing an integral check valve to prevent further product loss if the tank fill valve fails to close. In the event the tank fill valve should fail, leave the fill adapter connected to the fill valve and disconnect the filler hose end valve. Then place the filler valve cap onto the fill adapter. The tank fill valve should be repaired immediately.

10.0.950.0281 10

10.0.950.0280 Features:

- Integral breakaway feature in the event of truck roll away leaving check intact on tank
- $\bullet \ 1009500280 \ shortest \ overall \ height in the \ industry \ allowing \ adapters \ to \ fit \ inside \ tank \ hood \\$
- 1009500281 has a floating internal seat design which allows check to swivel freely when installed on hose end valve

Part Number	Filler Valve F. Acme Connection	Hose End M. Acme Connection	Handle Material	Swivels
1009500280				No
1009500281	1-3/4"	1-3/4"	Brass	\/
1009500328 ¹				Yes

¹High Flow Version



MULTIPURPOSE VALVES

for NH₃ and LPG Containers



Features:

Designed for use as a manual valve or vapor equalizing valve on anhydrous ammonia applicator and nurse tanks. This valve incorporates an integral excess flow device. When product is required, the valve must completely open and backseated to allow the excess flow device to work properly.

Positive-acting excess flow valve opens for maximum flow at minimum pressure drop when filling -- regardless of the type of coupling in which the valve is installed. Excess flow seat is fully contained in the tank coupling for maximum protection in the event of external damage to the valve. Resilient seat disc assembly is fully contained on three sides for bubble-tight shut-off and long service life. "C"-ring spring-loaded stem seal design requires no repacking or field adjustment. Specially machined break-away groove beneath ACME threads will shear-off with excessive pull on the hose and leave the valve body intact. Plugged 1/4"-18 NPT boss accommodates vent valve or hydrostatic relief valve.

Part number	Container connection	Filling connection	Closin	Approx. excess flow Closing flows Closing flows Closing flows Con		Closing flows	
6704901053	1-1/4-11.5 NPT	13/4-6 ACME-2G	49 LPG	44 NH ₃	15350 LPG	24000 NH ₃	n/a
6704901073 1-1/4-11.5 NPT		1" 11.5 NPT	55 LPG	49,5 NH ₃	n/a	n/a	1" - 11.5 NPT



DOUBLE CHECK FILLER VALVES

for Delivery Truck Tanks and Large Storage Containers



Features:

Designed to provide fast filling of bobtails, transports and large bulk storage tanks.

- Double back check provides added system protection.
- Upper filler valve assembly can be easily replaced without evacuating the container.
- Both checks are spring actuated for quick, precise closure when flow into the valve stops or reverses.

Part number	numbor	ACME Hose	Container	Wrench	Effective	Propane Liq	uid Capacity	at Various Diff	ferential Press	sures (GPM)
	number	connection co	connection	Hex Flats I	Lenght	5 PSIG	10 PSIG	25 PSIG	50 PSIG	75 PSIG
66029	901336	3/4"	3″	4"	6 1/2"	150	210	330	470	575





INTERNAL RELIEF VALVES

Full Internal

Application:

Designed for use in mobile LPG & NH3 containers as a primary pressure relief valve for bobtail and transport trailer installations. All working components are internal to the container connection preventing damage to the valve should a roll-over incident occur.

Features:

- Durable stainless steel body construction.
- All stainless steel internal components for maximum corrosion resistance
- Available with Nitrile valve seals.
- Large seating surface for superior seal performance & reliability.
- · 3.1 and 3.2 certificates area available.

								-				
Part Number	STD /	Container	Installation	UL		CE/ π (at 17,24	Service		Seat	Wrench		
Partinumber	PSIG	Connection	Hex			bar)	LPG	NH ₃	Material	(optional)		
6602901402	250	2" NPT	1-17/32"	not applicable	not applicable	114,7 m³/min	Yes			3101100033		
6602901300	265	ZNPI	1-17/32	4164 SCFM air	1965 dm³/s	not applicable	No			3101100033		
6602901403	250			not applicable	not applicable	338,3 m³/min	Yes	Yes				
6602901301	265	3" NPT	2-9/16"	12705 SCFM air	5996 dm ³ /s	not applicable	No		Nitrile	3101100034		
6602901407	362			not applicable	not applicable	451 m³/min		NIO				
6602901405	(25bar)	(25bar)	2" NPT	1-17/32"	not applicable	not applicable	168 m³/min	V/00	No		3101100033	
6602901295	050	250		ZINPI	1-17/32	4049 SCFM air	1911 dm³/s	114,7 m³/min	Yes	Yes		3101100033
6602901296	250	3" NPT	2-9/16"	11948 SCFM air	5639 dm ³ /s	338,3 m³/min		res		3101100034		

INTERNAL RELIEF VALVES

Flanged Full Internal

Application:

Designed for use in mobile LPG & NH3 containers as a primary pressure relief valve for bobtail and transport trailer installations. All working components are internal to the container connection preventing damage to the valve should a roll-over incident occur. Our unique design incorporates a standard 3" - 300LB. raised face flange connection to assure a 100% leak free connection for rugged over the road applications. This eliminates problems associated with NPT threaded connections and/or tank coupling wear providing maximum tank and relief valve service life.

Features:

- Durable single piece stainless steel body construction.
- All stainless steel internal components for maximum corrosion resistance.
- Available with Nitrile.
- Large seating surface for superior seal performance & reliability.
- Available with 250 & 265 PSI set pressures.

Part Number	STD / PSIG	Container Connection	Installation	Service		Seat
			Hex	LPG	NH ₃	Material
6602901325	250	7" 700 LD Flanca	2-1/2"	Yes	Yes	Nitrile
6602901326	265	3″ 300 LB Flange				



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GLOBE AND ANGLE VALVES

1-1/4"





6802900252

6802900253

The New globe valves are designed for bobtail, transport and bulk plant applications.

Features:

- Stem Seal designed for improved resistance to leakage due to dirt or temperature extremes.
- Cast Steel body with oiled magnanese phosphating coating
- Rated for 400 WOG
- Operating temperature -40° to +131° Fahrenheit
- •1/4" side ports on inlet and outlet
- Stainless steel shaft & bearing system
- Optional Revolving grip

Part Number	Inlet connection	Outlet connection	Type of connection		
6802900252	1-1/4" NPT	1/4" NPT	Globe		
6802900253		1/4 NP1	Angle		
6802900239	3" NPT	3" NPT	Globe		



6802900239

2"

Features:

Patent pending closing and opening system:

- during closing reduce the liquid hammer
- during opening reduce the starting opening torque

Part Number	Inlet connection	Outlet connection	Type of Connection		
6802900238	2" NPT	2" NPT	Globe		
6802900260	2" NPT	2" NPT	Angle		



6802900238



ACCESSORIES

ACME Connectors











1009500257

1009500316

1009500315

1009500253

1009500256

1009500259

1009500247

Part No.	INLET (M.ACME)	OUTLET (M.NPT)	Description
1009500248		3/4"	
1009500249	1-3/4"	1"	
1009500246		1-1/4"	
1009500322	2-1/4"	1-1/4"	
1009500264		2"	no Screen
1009500323	3-1/4"		with Screen
1009500263		3"	
Part No.	INLET (F.ACME)	OUTLET (F.NPT)	Description
Part No. 1009500317			Description No Screen
	(F.ACME)	(F.NPT)	· ·
1009500317	(F.ACME) 3-1/4" INLET	(F.NPT) 2" OUTLET	No Screen
1009500317 Part No.	(F.ACME) 3-1/4" INLET	(F.NPT) 2" OUTLET (M.NPT)	No Screen
1009500317 Part No. 1009500253	(F.ACME) 3-1/4" INLET (F.ACME)	(F.NPT) 2" OUTLET (M.NPT) 1/2"	No Screen

3-1/4"

Part No.	M. Acme	F.NPT	M.NPT
1009500255	1-1/4"	1/4"	1/2"
1009500256	1-1/4"	3/8"	3/4"
1009500259	2-1/4"	1"	1-1/2"
1009500260	2-1/4"	1-1/4"	2"
1009500261	2-1/4"	1-1/2"	2"
	-166		

Differents configurations available

Part No.	INLET (M.ACME)	OUTLET (M.ACME)
1009500247	1-3/4"	1-3/4"
Part No.	INLET (F.ACME)	OUTLET (M.ACME)
1009500321	1-3/4"	1-3/4"
1009500320	3-1/4"	1-5/4
1009500319	5-1/4	2-1/4"

ACCESSORIES

No Screen

with Screen

ACME Caps



Part No.	F. Acme (cap)				
1009500250	1-3/4" F. Acme Cap Plug				
1009500324	3-1/4" F. Acme Cap Plug				
1009500254	1-3/4" F. Acme Cap Plug with Knob and chair				
1009500258	2-1/4" F. Acme Cap Plug with Knob and chain				
1009500262	3-1/4" F. Acme Cap Plug with Knob and chain				
3009500073	Chain and hooks				
1009500277	1-3/4" F. Acme Cap Plug with Knob and metallic cable				
1009500278	2-1/4" F. Acme Cap Plug with Knob and metallic cable				
1009500279	3-1/4" F. Acme Cap Plug with Knob and metallic cable				
1009500318	31/4" F ACME cap, plug with Knob, me tallic cable, flange for electronic senso				
3001102857	metallic cable				



ACCESSORIES

ACME Adapters



Part Number	Description
1009500325	1-5/16" M ACME x CGA 510
1009500326	1-5/16" F ACME x 1/4" NPT



GAUGES Fixed Liquid Level Gauges



6602901072

Special DT length available. An optional instruction plate may be ordered for use with these valves. These valves incorporate a No. 54 or 72 drill size orifice as noted. Captive screw.



6602901161

Remote outgauge. Captive screw.



2001101157

Fixed liquid level gauge, available in drill #54 or #72 (complying with the strictest California Rule 1177).
Several sizes of DT available, and optional stop filling warning disc 20.1157.

Part	Container	Outlet	DT	Bleed
Number	Connection	Connection	Length	Orifice
6602901376		-	10"	54 Ø
6602901072		-	12"	72 Ø
6602901368		-	5.4"	54 Ø
6602901116		-	5.4	72 Ø
6602901369		-	0.0"	54 Ø
6602901117		-	6.6"	72 Ø
6602901370	1/4" > 4 > 157	-	3.8"	54 Ø
6602901118		-	3.8	72 Ø
6602901371		-	4.1"	54 Ø
6602901119	1/4" M NPT	-		72 Ø
6602901372		-	5.6"	54 Ø
6602901120		-	5.0	72 Ø
6602901373		-	6.9"	54 Ø
6602901121		-	0.9	72 Ø
6602901374		-	Without	54 Ø
6602901204		-	vvitriout	72 Ø
6602901375		-	E 0"	54 Ø
6602901125		-	5.2"	72 Ø
6602901377	1/4" NPTF	1/4" SAE	\\/ithout	54 Ø
6602901161	1/4 NPTF	Flare	Without	72 Ø





PRESSURE RELIEF VALVES

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External



6602901139

Pressure relief valve for small containers and on-line pipe installations. **Setting point:** 17,24 bar.



6602901280

Pressure relief valve for small containers and on-line pipe installations. **Setting point:** 17,24 bar.



6602901299

Pressure relief valve for small containers and on-line pipe installations. **Setting point:** 17,24 bar.

Designed for small containers and online pipe installation, to protect piping and shutoff valves from over pressure situations where LPG has the potential to be trapped. These relief valves provide pressure relief at or in excess of the stated pressure setting, protecting against line or plumbing system failures.

Part Number	Bottom Male Connection	Wrench grip hexagon (mm)	Thread type Taper	Configuration suitable for this tank capacity:	PRV - Start to Discharge Setting (bar)	Discharge CAPACITY Nm³/min.		PRV Orifice (mm)
6602901139	1/4-18 NPT	22	×	-	17,24 (250 PSIG)	18,41 (at 120%0.P. SCFM-AIR)	UL	19,00
6602901280	1/4-18 NPT	22	X	-	17,24 (250 PSIG)	8.1 m3/min - %120	CE/π	-
6602901299	1/2-14 NPT	22	×	-	17,24 (250 PSIG)	8.1 m3/min - %120	CE	-



PRESSURE RELIEF VALVES

Hydrostatic





Designed to protect piping and shutoff valves from over pressure situations where liquid LP-Gas or has the potential to be trapped. These relief valves provide pressure relief at or in excess of the stated pressure setting, protecting against line or plumbing system failures.

Features:

- Compact design to fit any application
- Non-adjustable, tamper resistant design
- Specially designed internal components to increase flow at discharge

Part Number	Bottom Male	Wrench grip	Thread type	PRV - Start to Discharge	Approval	PRV Orifice	
Part Number	Connection	hexagon (mm)	taper	Setting (PSIG)	Арріочаі	(mm)	
6602901311	1/4-18 NPT	14	X	440	UL	3,2	

VS3818VPED4	Pressure Relief Valve 18 bar ø 3/8"			
VS3803VPED4	Pressure Relief Valve 3 bar ø 3/8"			
VS1418VPED4	Pressure Relief Valve 18 bar ø 1/4"			
VS1218VPED4	Pressure Relief Valve 18 bar ø 1/2"			
VS1203VPED4	Pressure Relief Valve 3 bar ø 1/2"			



WAFER VALVES

Carbon Steel



STANDARD FEATURES:

- No protuding floating ball
- Soft-seat seal (TFM 1600)
- Standard for connecting flanges: EN 14432, EN 1092-1 ed. 2008; ANSI; B16.5
- Operating temperature: from -10°C to +200°C (see temperature pressure diagram)
- Operating pressure: PN16-40; ANSI 150-300
- Intercepted fluid: air, water, gas, petroleum and petrochemical products.
- Antistatic device
- Stem seal: TFM 1600 V-pack
- Additional seal on stem with FKM O-ring
- Anti Blow-out stem
- Actuator connection as per standard ISO 5211
- Closing angle >7°
- Superfi cial treatment: blueing

SPECIAL FEATURES ON REQUEST:

- LF2 carbon steel for low temperature execution (-40 C°)
- For other flange types please contact our sales department
- Heating jacket
- Sealing in: PTFE reinforced with glass (RPTFE), PTFE reinforced with carbon-graphite (CTFE). For other types of materials please contact our sales department
- Cavity filler seat in PTFE
- Mono-directional version with pressure-compensating hole in the ball
- Stainless steel lever
- For special versions in materials different from the standard (body, ball, stem), please contact our sales department.
- Stainless steel Stem nuts and springs
- Superfi cial treatment: white zinc coating ,epoxy coating
- For other coating please contact our sales department

CERTIFICATIONS:

- In compliance with European Directive 97/23 EC PED
- In compliance with ATEX 94/9/CE Directive (on request)
- Fugitive Emission UNI EN ISO 15848 (2006)
- TA-LUFT VDI 2440 (2000)
- FIRE SAFE DESIGN: certification on process

ENGINEERING STANDARDS EMPLOYED:

- Body thickness in compliance with: ASME B16.34, ASME VIII div.1, EN 12516.
- Materials and rating in compliance with ASME B16.34 for
- ANSI valves and EN 12516 for PN valves



WAFER VALVES

Stainless Steel



STANDARD FEATURES:

- No protuding floating ball
- Soft-seat seal (TFM 1600)
- Standard for connecting flanges: EN 14432, EN 1092-1 ed. 2008; ANSI B16.5
- Operating temperature: from -40°C to +200°C (see temperature pressure diagram)
- Operating pressure: PN16-40 ANSI 150-300
- Intercepted fluid: air, water, gas, petroleum and petrochemical products, aggressive fluids
- Antistatic device
- Stem seal: TFM 1600 V-pack
- Additional seal on stem with FKM O-ring
- Anti Blow-out stem
- Actuator connection as per standard ISO 5211
- Closing angle >7°

SPECIAL FEATURES ON REQUEST:

- For other flange types please contact our sales department
- Heating jacket
- Sealing in: PTFE reinforced with glass (RPTFE), PTFE reinforced with carbon-graphite (CTFE). For other types of materials please contact our sales department
- PTFE cavity filler seat
- Mono-directional version with pressure-compensating hole in the ball
- Stainless steel lever
- Stainless steel Stem nuts and springs
- For special versions in materials different from the standard (body, ball, stem), please contact our sales department.

CERTIFICATIONS:

- In compliance with European Directive 97/23 EC PED
- In compliance with ATEX 94/9/CE Directive (on request)
- Fugitive Emission UNI EN ISO 15848 (2006)
- TA-LUFT VDI 2440 (2000)
- FIRE SAFE DESIGN: certification on process

ENGINEERING STANDARDS EMPLOYED:

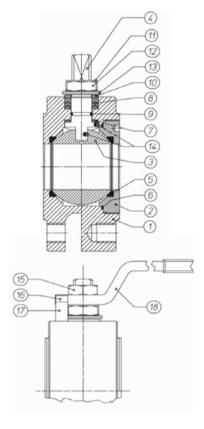
- Body thickness in compliance with: ASME B16.34, ASME VIII div.1, EN 12516.
- Materials and rating in compliance with ASME B16.34 for
- ANSI valves and EN 12516 for PN valves



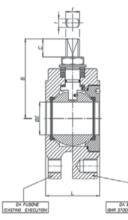
WAFER VALVES

Construction Details

_						
			Body	Body		
B./I./	MATERIAL TABLE		Stainless Steel V480 / V481	Carbon Steel V580 / V581		
IVIA		up to DN	ASTM A182 F316 / A479 TP.316	V360 / V361		
1	Body	40	(x)			
			(1.4401 / x5CrNiMo17-12-2)			
		over DN 40	ASTM A351 CF8M			
			(1.4408 / Gx5CrNiMo19-12-2)	ASTM A105 (*)		
2	Ring nut	up to DN 50	ASTM A182 F316 / A479 TP.316	A311VI A103 ()		
			(1.4401 / x5CrNiMo17-12-2)			
		over DN 50	ASTM A351 CF8M			
			(1.4408 / Gx5CrNiMo19-12-2)			
3	Ball		ASTM A351 CF8M	ASTM A351 CF8(**)		
			(1.4408 / Gx5CrNiMo19-12-2)	(1.4308 / Gx5CrNiMo19-10)		
4	Stem		ASTM A182 F316 / A479 TP.316	AŠTM A182 F6A / A479 TP.410 (***)		
			(1.4401 / x5CrNiMo17-12-2)	(1.4006` / X12Cr13)		
5	Seats		TFM	1600		
6	Ring nut g		TFM	1600		
7	Bottom se	ealing	TFM	1600		
8	Chevron r	ings	TFM	1600		
9	Stem o'rin	g		(M		
10	Gland nut	ring	ASTM A182 F304 / A479 TP.304			
			(1.4301 / X5XrNi18-10)	Carbon Steel ZINCATO- galvanized (x)		
11	Nut holde	r	AISI	304		
12	Stem nut	(x)	UNI 3740-1 6S ZINO	CATO-galvanized (x)		
13	Spring wa	sher (xx)	50CrV4 ZINCATO) - galvanized (xx)		
14	Antistatic	device	ASTM A182 F31	6 / A479 TP.316		
15	Lock nut		UNI 3740-1 6S ZINCATO-galvanized			
16	Holder sci	ew	A2 UNI EN ISO 3506-1			
17	Holder		Carbon Steel ZIN	CATO-galvanized		
18	Lever		Fe 37 ZINCAT	O galvanized		



AVAILABLE ON REQUEST:(*) A350LF2 (**) A351 CF8M (***)316 S.S. (x) 304 s.s. (xx) 301 s.s.

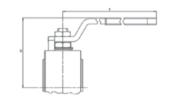


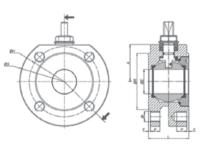
SIZE	ØE	L	В	С	ATT.ISO	ØM	ØN	F/T
DN15	13	36	52	10	F03	36	M5	10/6
DN20	19	39	55	10	F03	36	M5	10/6
DN25	25	43	68	15	F04	42	M5	12/8
DN32	32	51 o 54	73	15	F04	42	M5	12/8
DN40	38	63	93	21	F05	50	M6	16/10
DN50	51	83	102	21	F05	50	M6	16/10
DN65	64	107	130,5	28	F07	70	M8	22/14
DN80	76	120	137,5	28	F07	70	M8	22/14
DN100	95	152	166	35	F10	102	M10	30/18

ALL VALVES HAVE NO PROTUDING BALL EXCEPT DN32 (FACE TO FACE 51 mm)



	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Н	70	73	86	91	108	117	142	149	191
Υ	140	140	150	150	275	275	350	350	450







WAFER Construction Details

ı	Body	Body	SIZE	PN	Α	ØG	ØR	F	ØН	N°FORI	ØI	Р	KG.	L
	Stainless steel	Carbon steel						_						
ļ	L/V480B0604	L/V580A0604	DN15	PN16-40	32	90	45	1	65	4	M12	14	1,4	36
	L/V480BC604	L/V580AC604	DN15	ANSI 150	32	90	45	1	60,5	4	1/2″UNC	14	1,4	36
	L/V481BC604	L/V581C0604	DN15	ANSI 300	34	90	45	1	66,7	4	1/2″UNC	14	1,4	36
	L/V480B0605	L/V580A0605	DN20	PN16-40	35	100	58	2	75	4	M12	14	1,8	39
	L/V480BC605	L/V580AC605	DN20	ANSI 150	35	100	52	1,6	69,8	4	1/2″UNC	14	1,8	39
ļ	L/V481BC605	L/V581AC605	DN20	ANSI 300	39	110	52	1,6	82,5	4	5/8"UNC	14	2,1	39
	L/V480B0606	L/V580A0606	DN25	PN16-40	42	110	68	2	85	4	M12	16	2,5	4.
Į	L/V480BC606	L/V580AC606	DN25	ANSI 150	42	110	60	1,6	79,4	4	1/2"UNC	16	2,5	4.
	L/V481BC606	L/V581AC606	DN25	ANSI 300	45	120	60	1,6	88,9	4	5/8"UNC	16	2,9	4.
	L/V480B0607	L/V580A0607	DN32	PN16-40	47	130	78	2	100	4	M16	20	4,0	5
	L/V480B0607S	L/V580A0607S	DN32	PN16-40	47	130	78	2	100	4	M16	20	4,3	5
	L/V480BC607	L/V580AC607	DN32	ANSI 150	47	118	72	1,6	88,9	4	1/2″UNC	20	3,8	5
	L/V481BC607	L/V581AC607	DN32	ANSI 300	47	130	72	1,6	98,4	4	5/8"UNC	20	4,3	5
Ī	L/V480B0608	L/V580A0608	DN40	PN16-40	58	140	88	3	110	4	M16	20	5,9	6
	L/V480BC608	L/V580AC608	DN40	ANSI 150	58	127	82	1,6	98,4	4	1/2"UNC	20	5,1	6
Ī	L/V481BC608	L/V581AC608	DN40	ANSI 300	58	150	82	1,6	114,3	4	3/4"UNC	25	7,0	6
	L/V480B0609	L/V580A0609	DN50	PN16-40	67	150	102	3	125	4	M16	20	8,9	8
-	L/V480BC609	L/V580AC609	DN50	ANSI 150	67	150	102	1,6	120,6	4	5/8"UNC	20	9,1	8
	L/V481BC609	L/V581AC609	DN50	ANSI 300	67	160	102	1,6	127,0	8	5/8"UNC	20	10,4	8
	L/V480B0610	L/V580A0610	DN65	PN16	83	178	122	3	145	4	M16	20	16,2	10
ľ	L/V481B0610	L/V581A0610	DN65	PN25-40	83	178	122	3	145	8	M16	20	16,1	10
İ	L/V480BC610	L/V580AC610	DN65	ANSI 150	83	178	122	1,6	139,7	4	5/8"UNC	20	16,4	10
Ì	L/V481BC610	L/V581AC610	DN65	ANSI 300	89	190	122	1,6	149,2	8	3/4"UNC	25	18,6	10
İ	L/V480B0611	L/V580A0611	DN80	PN16-40	90	190	138	3	160	8	M16	20	20,0	12
İ	L/V480BC611	L/V580AC611	DN80	ANSI 150	90	190	135	1,6	152,5	4	5/8"UNC	20	20,4	12
İ	L/V481BC611	L/V581AC611	DN80	ANSI 300	96	205	138	1,6	168,3	8	3/4"UNC	25	24,0	12
Ì	L/V480B0612	L/V580A0612	DN100	PN16	101	220	160	3	180	8	M16	20	34,0	15
	L/V481B0612	L/V581A0612	DN100	PN25-40	105	235	162	3	190	8	M20	25	39,1	15
ľ	L/V480BC612	L/V580AC612	DN100	ANSI 150	101	220	160	1,6	190,5	8	5/8"UNC	20	34,0	15
ľ	L/V481BC612	L/V581AC612	DN100	ANSI 300	115	250	160	1,6	200,0	8	3/4"UNC	25	46,4	15
	L/V480E0609		DN50	PN16	67	165	102	3	125	4	M16	15	6,3	8
ŀ	L/V480EC609		DN50	ANSI 150	67	150	102	1,6	120,6	4	5/8″UNC	17,4	5,9	8
ŀ	L/V481E0610		DN65	PN16	83	185	122	3	145	4	M16	15	9,9	10
ŀ	L/V480EC610		DN65	ANSI 150	83	178	122	1,6	139,7	4	5/8″UNC	20,6	10,6	10
ŀ	L/V480E0611		DN80	PN16	90	200	138	3	160	8	M16	17	12,6	12
ŀ	L/V480EC611		DN80	ANSI 150	90	190	135	1,6	152,5	4	5/8″UNC	22,2	13,1	12
+	L/V480E0612		DN100	PN16	101	220	160	3	180	8	M16	17	20,0	15
	L/V480EC612		DN100	ANSI 150	101	228	160	1,6	190,5	8	5/8″UNC	22,2	21,5	15



Wherever gas is used, we are there



Quality Management System to ISO 9001 standard

Quality: our prerogative!

Registration to ISO 9001 standards is for us not only a certificate. Our policy is to achieve the outmost customer satisfaction, through the effectiveness of our Quality Management Systems and through continuous improvement to suit the dymamic Customers' expectations. Cavagna Group's Environment Management System is certified in compliance with the international standard ISO 14001.

Personnel involvement, training and motivation are few of the elements that we rely on to achieve quality from each person and from each process.

Quality: our "must"





WARRANTY AND LIABILITY CONDITIONS (Not Valid for USA and Canada)

1 - Compliance of the brand new products

The original seller of the brand new product (hereinafter referred to as Product) hereby warrants that the Product corresponds in quantity, quality, and type as specified in the sales contract (or, if missing, in the order's confirmation) for the Product and that the Product is without defects that could render it unfit for the use to which it is intended. The original seller of the Product is identified on the invoice for the Product and is referred to herein as the "Warrantor."

2 - Extent of the guarantee

The warranty is limited only to defects in a) the design of the Product, b) the materials in the Product or c) the construction of the Product, which can be attributed to the Warrantor. The warranty does not apply in the case where the buyer is unable to prove correct storage and maintenance of the brand new products, or in the case the buyer has modified the Product without the prior written agreement of the Warrantor.

Furthermore, the Warrantor is not liable for defects in the brand new product due to the normal wear and deterioration of those parts of the Product, which by their nature, are subject to rapid and continuous wear and tear (e.g.: lining, etc.). In general, in no case shall the Warrantor be liable for defects in compliance that arise after the transfer of risk or possession of the Product to the buyer has taken place.

The warranty is valid only when the brand new products are installed, used and maintained in conformity with the warnings and instructions provided by the Warrantor in the instruction manual or other Product literature and in conformity with the applicable laws, standards or regulations existing in the location where the brand new products are used or, in the absence of any applicable laws, standards or regulations, in conformity with the best practices in the applicable industry or trade.

3 - Claims

The buyer is required to check the compliance of the brand new Products and confirm the absence of flaws. The buyer should report any flaws or defects in brand new Products, in the following ways and time. Failure to properly and timely report a defect will void the warranty:

- a) Claims for shortage or damages that could have been apparent from an examination of the exterior of the Product's packaging contents must be reported as soon as the brand new Products arrive at their place of destination or, in any event, no more than 5 days after that time.
- b) Claims relevant to quantity, colour, quality flaws or defects or non-compliance that the buyer should have been able to identify as soon as it took possession of the Product, must be made shortly after the time when the brand new Product arrives at its place of destination or, in any event, no more than 15 days after that time:
- c) Hidden flaws, defects or non-compliance (that is, those not identifiable according to the inspection imposed by law and by the preceding subparagraphs) must be reported within 30 days after the discovery or in any event, no more than 5 years from the delivery date.

Claims must be sent by registered letter, addressed to the head office of the Warrantor and must describe in detail the alleged defect, flawor non-compliance. In order to preserve this warranty, the buyer must not attempt any disassembly repairs or modifications on the brand new product without the Warrantor's prior written agreement.

The buyer forfeits and waives its rights under this warranty if the buyer does not consent to every reasonable request of the Warrantor, or if after the Warrantor has requested the return of the defective brand new products at buyer's own expenses, the buyer fails to return the Product within 5 working days from the request.

In the event that the warranty claim is ultimately determined, in the sole discretion of Warrantor, to be unfounded, the buyer will reimburse the Warrantor all expenses incurred by Warrantor in evaluating the warranty claim (travel, expert valuations, transport expenses etc.).

4 - Remedies

Following a report by the buyer duly made in accordance with the previous point 3, the Warrantor, within a reasonable period depending on the type of claim, may, at Warrantor's sole reasonable discretion:

a) Supply EXW toSupply EXW to the buyer products of the same kind and quantity as those that have been proved to be defective or not in compliance with the contract; in such a case the Warrantor can require the return of the defective product, which becomes property of the Warrantor. In case of additional costs related to the replacement of a product proved to be defective or not in compliance, Warrantor and buyer shall jointly and previously agree how to apportion the costs.

b) Communicate in writing the cancellation of the contract, and offering a refund

of the amount paid for the replaced product.

No other cost (such as disassembling and/or reassembling of the products, transportation from/to the premises of buyer's customers, etc.) shall be charged to or paid by the Warrantor, unless previously expressly agreed in writing by the Warrantor.

5 - Limit of seller's liability

The Warranty provided herein supersedes all legal warranty for defects and compliance, and excludes any other possible liability of the Warrantor, however originating, from the brand new products supplied by Warrantor. In particular, the buyer cannot put forward another claim for compensation in respect of any further damages, request any reduction of the contract price or cancellation of the contract. Once the period of the Warranty has expired no claim can be made against the Warrantor.

In no event shall Warrantor be liable to buyer for any direct, incidental, indirect, consequential or exemplary damages, including without limitation any claim for damages based on lost revenues or profits, however caused.

No exceptions to or modification of this Warranty will be permitted unless expressly and specifically defined and accepted by the parties in writing.

6 - Technical regulations

Asfarasthebrand new product characteristics and specifications are concerned, the Warrantor complies with the legislation and the technical regulations prevailing in Italy and the European Directives, unless otherwise specified in the contractual documentation (i.e. contract, order's confirmation, invoice, installation/fitting or use and maintenance manual); The buyer assumes the risk of any difference between the European Directives plus the Italian regulations and those of the country of destination, regarding the use or installation of the Products, and indemnifies the Warrantor for any such differences it. The Warrantor guarantees the performance of brand new products manufactured by Warrantor only and exclusively in relation to uses, destinations, applications, tolerances, capacities, etc. that have been expressly indicated by Warrantor and that are incorporated in the contractual documentation (i.e. contract, order's confirmation, invoice, installation/fitting or use and maintenance manual).

The buyer is not authorised to dispose of the brand new Products supplied to him by the Warrantor in a way which does not conform to the indications described in the previous sub-paragraph and in the instructions given by Warrantor.

Where the buyer intends the said products to be resold, it shall be buyer's responsibility:

a) to inform the purchasers of the Product from buyer of the correct specifications and uses of the Product;

 b) to grant any further periods or extended terms of any warranty provided by buyer only to buyer's purchasers that exceed the warranty granted to buyer by Warrantor according to paragraph 3.

c) the buyer shall not grant or extend any warranty on behalf of Warrantor to any third party.

7 - Personal injuries and property damages

Warrantor shall indemnify buyer from and against any and all claims, demands, losses, liabilities alleged by third parties relating to personal injuries and property damages suffered as a result of a defective product. In such event, Warrantor will exclusively be responsible within the limits (of deductible), terms and conditions of the product liability insurance policy held by it (a copy of the related insurance declaration is available upon request).

In case of potential damages to third parties that may arise from a defective brand new product, the buyer and Warrantor shall work together in good faith to determine the nature and extent of the appropriate measures to be taken, including recall operations. It is understood that the costs and expenses associated with the recall or other measures shall be paid by Warrantor within the limits, the terms and the conditions set forth in Warrantor's liability insurance policy, with the exclusion of the costs connected to the locating and retrieving the Products in the market, which will be paid by the Buyer.



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