



**cavagna group**


Wherever gas is used, we are there

# **Truck and Plant Equipment**

2022-2023 EDITION 

# Solutions








LPG  
SOLUTIONS



COMPRESSED GASES  
SOLUTIONS



NATURAL GAS  
SOLUTIONS



ALTERNATIVE FUEL  
SYSTEMS



GAS METERING  
SOLUTIONS



INDUSTRIAL PROCESS  
MANAGEMENT



Founded and run as a family run business, the Cavagna Group has been in operation since 1949, carrying the mechanical excellence of the 'Made in Italy' essence and authenticity around all continents of the Globe.

Cavagna Group is a key industrial partner and enabler for the regulation, control, Industrial Process Management and metering being safely used in all types of gases, in every step of different supply chains, with a continued 'big picture' view of the Future of Energy. Embedded with the social conscience and responsibility to provide products of the utmost dependable quality whether it be for Energy gases, Renewable, Alternative Fuels, Hydrogen, Compressed or Medical gases.

Using the Group's 70 plus years of experience to drive meaningful innovations in the fields of IoT and digitisation towards a sustainable Energy Transition. Recognizing the importance of the gas molecule in our business practices and vision for the future of gas. Keeping consistency in the presence everywhere gas fuels life, together with a progressive vision on the future Energy Outlook, while staying devoted to our mission: **wherever gas is used, we are there.**

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

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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. In North America our products are recognized by AGA, ASME, CGA, IAS, and UL as conforming to ANSI, NFPA and other recognized standards.

The Cavagna Group 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. With the establishment of Cavagna North America in 1996 and our North American Distribution Center on the West Coast, we have further expanded our service network to meet the demands of the global marketplace. Our philosophy is to provide all of our customers with quality products, continuous innovation and superior service in a competitive environment.



**⚠ DANGER**

- Leaking gas can cause deadly fires or explosions
- Only trained people should work on gas systems
- Inspect gas systems regularly
- Replace adapters or valves as required
- Failure to follow these directions can result in bodily injury or death

**WARNING**

The Cavagna Group, Cavagna North America, and its affiliates give notice that all products contained in this catalog must only be used with LPG (liquefied petroleum gas). The products contained within this catalog must be installed in accordance with NFPA 54, NFPA 58, all D.O.T., federal, state, and local codes where applicable and only handled by trained experienced personnel. Periodic maintenance and inspection are necessary for all products contained within this catalog. If there are any questions or doubts concerning the use or handling of any products contained within this catalog, call:

**cavagna north america inc. 732-469-2100**



# BULK STORAGE & TRUCK EQUIPMENT

## **Bulk Storage and Truck Equipment**

Internal Valves

Actuators

Relief Valves

Hose End Connectors

Float Gauges

Double Check Filler Valve

**pg.5**

pg.10

pg.15

pg.19

pg.20

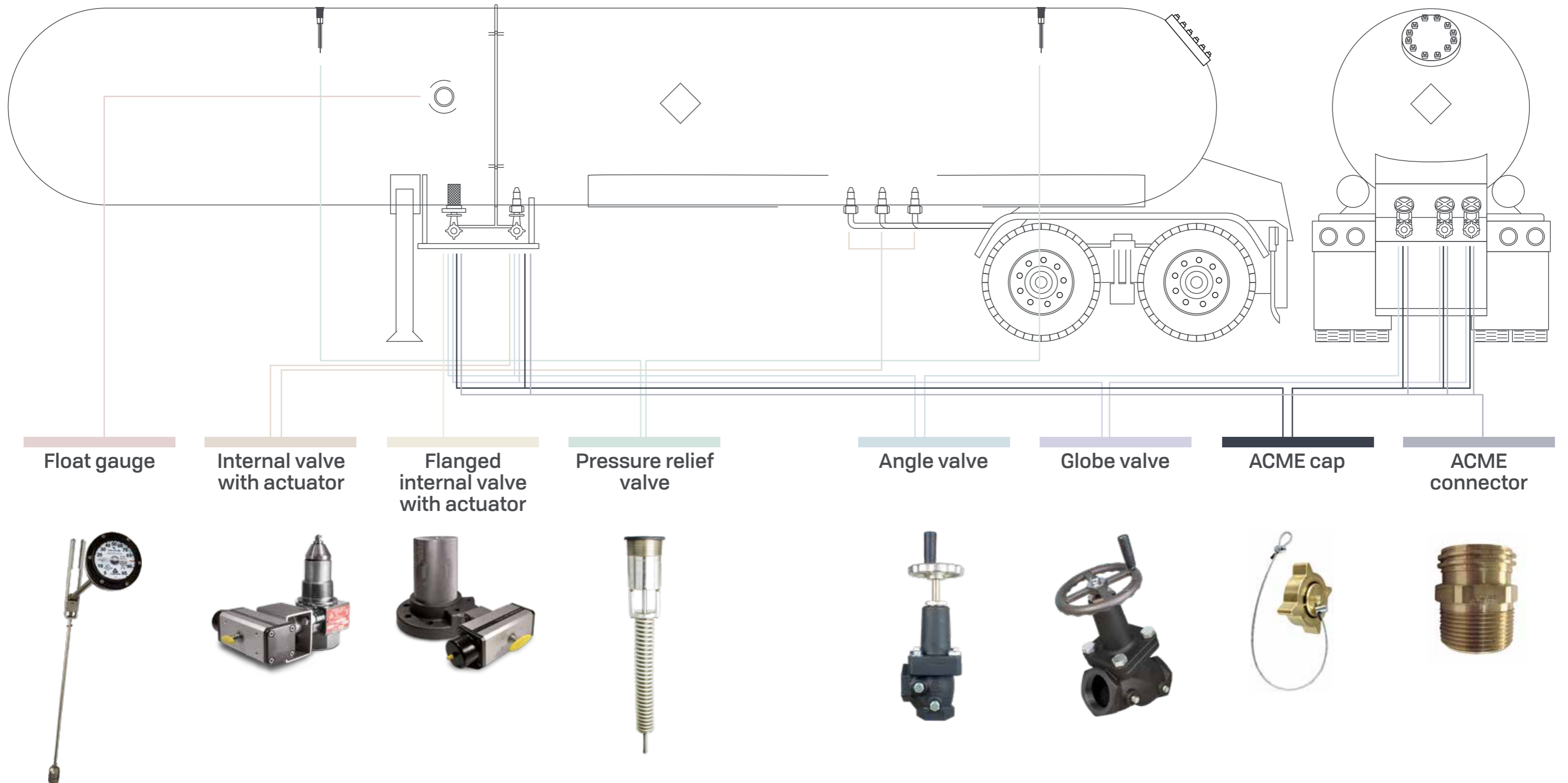
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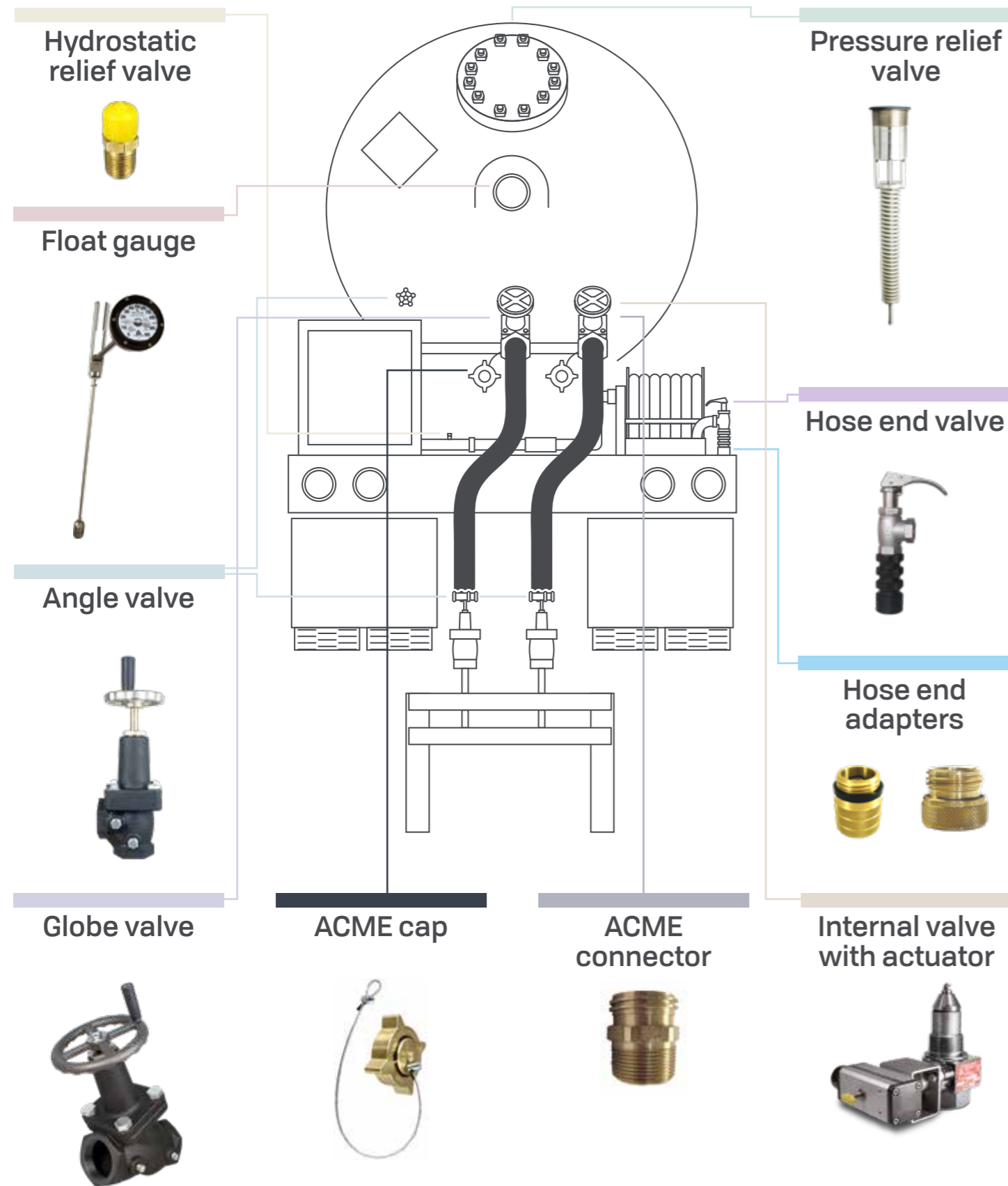


# CAVAGNA BULK TRANSPORT SOLUTIONS

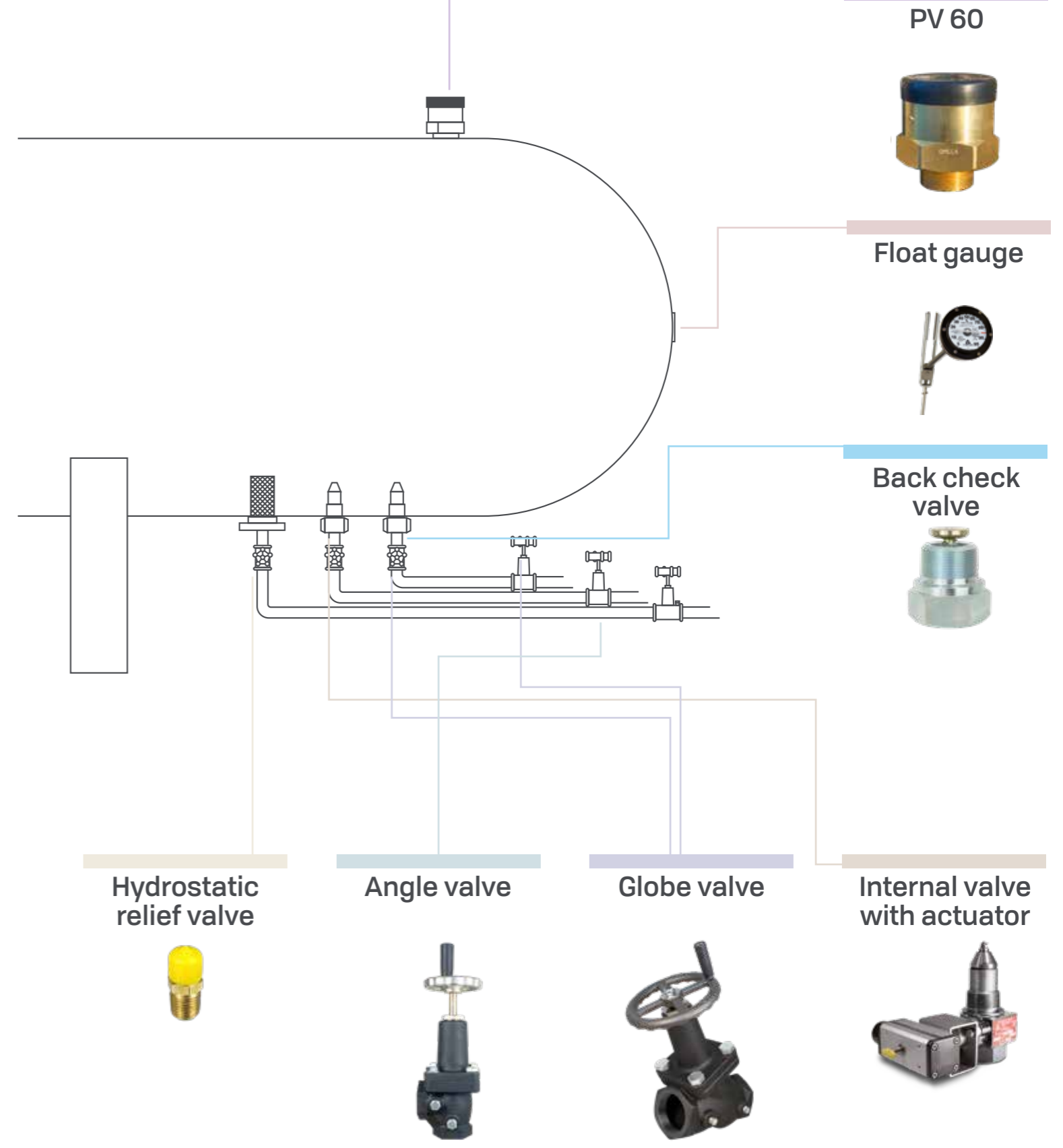




## CAVAGNA BOBTAIL DELIVERY SOLUTIONS



## CAVAGNA BULK STORAGE SOLUTIONS





## INTERNAL VALVES Threaded

These valves, designed as primary shut-offs to control product discharge in LPG service, are predominantly used in the liquid and vapor 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.

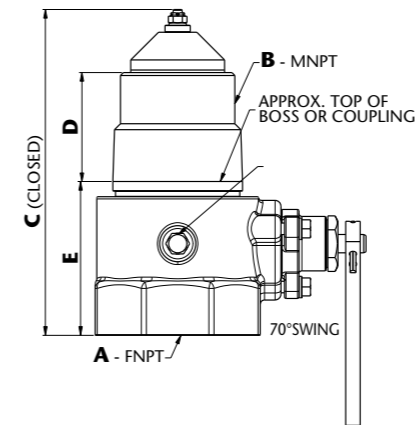


Part Number		Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane		LPG Vapor Capacity (SCFH/Propane)		Closing Flow GPM Ammonia NH <sub>3</sub> + LPG
One Way	Tee Body				Half Coupling	Full Coupling	25 PSIG	100 PSIG	
69.0.290.0101	-	Steel	1-1/4" M.NPT	1-1/4" F.NPT	30	-	5.800	9.100	27
69.0.290.0102	-				50	35	7.650	12.900	45
69.0.290.0103	-				80	65	10.950	18.800	72
69.0.290.0104	69.0.290.0130		2" M.NPT	2" F.NPT	100	60	21.550	36.800	90
69.0.290.0105	69.0.290.0131				150	90	33.600	57.200	135
69.0.290.0106	69.0.290.0132				250	130	-	-	225
69.0.290.0107	69.0.290.0112		3" M.NPT	3" F.NPT	150	100	28.600	48.700	135
69.0.290.0108	69.0.290.0113				200	125	43.500	73.900	180
69.0.290.0109	69.0.290.0114				250	165	51.500	87.600	225
69.0.290.0110	69.0.290.0115				400	235	80.100	139.000	360
69.0.290.0111	69.0.290.0116				500	325	-	-	450

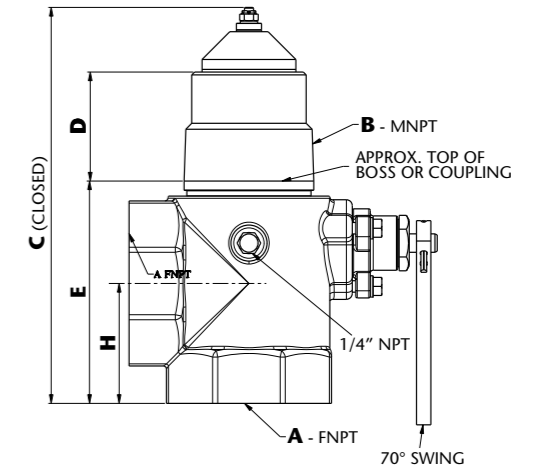


## INTERNAL VALVES Threaded

One Way



Two Way



### Features:

**Pressure Rating:** 400 PSIG (27.58 bar) WOG

**Temperature:** Up to 150°F (66°C)

**Body:** AISI420A steel

**Packing:** PTFE

**Seat disk:** Synthetic rubber

**Stub, Shaft & Stem:** stainless steel



Dimensions					
A	B	C	D	E	H
1-1/4" NPT	1-1/4" NPT	5.90" (150mm)	1.86" (47 mm)	2.88" (73 mm)	-
2" NPT	2" NPT	8.26" (210mm)	2.40" (61 mm)	4.05" (103 mm)	-
3" NPT	3" NPT	8.85" (225mm) ONE WAY	2.56" (65 mm) ONE WAY AND TWO WAY	4.54" (115.3 mm) ONE WAY	3.26" (83 mm)
		10.82" (275mm) TWO WAY		6.50" (165.3 mm) TWO WAY	



## INTERNAL VALVES Flanged 3"



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.

Part Number		Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane	LPG Vapor Capacity (SCFH/Propane)		Closing Flow GPM Ammonia NH <sub>3</sub> + LPG
Single	Double					25 PSIG Inlet	100 PSIG Inlet	
69.0.290.0117	69.0.290.0122	Steel	3" 300lb. ANSI RF Modified (4 7/8" dia bore)	3" 300lb. ANSI RF	150	25.100	42.700	135
69.0.290.0118	69.0.290.0123				200	36.900	62.800	180
69.0.290.0119	69.0.290.0124				250	42.200	71.800	225
69.0.290.0120	69.0.290.0125				400	59.400	100.900	360
69.0.290.0121	69.0.290.0126				500	-	-	450



## INTERNAL VALVES Flanged 4"

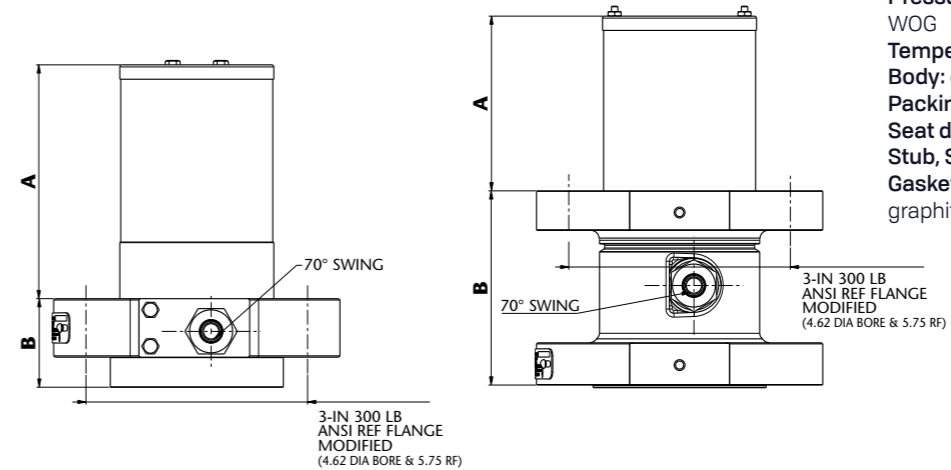


Cavagna flanged valves, equipped with a built-in excess flow valve to prevent uncontrolled product release, are perfect for mounting a pump or other similar piping connections. Mounting bolts weakened section, provided, allow the pump or piping to "shear" in the event of an accident, thereby leaving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

Part Number	Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane
69.0.290.0141	Steel	4" 300lb. ANSI RF Modified (4 7/8" dia bore)	4" 300lb. ANSI RF	340
69.0.290.0142				440
69.0.290.0143				600
69.0.290.0144				800
69.0.290.0145				1,000



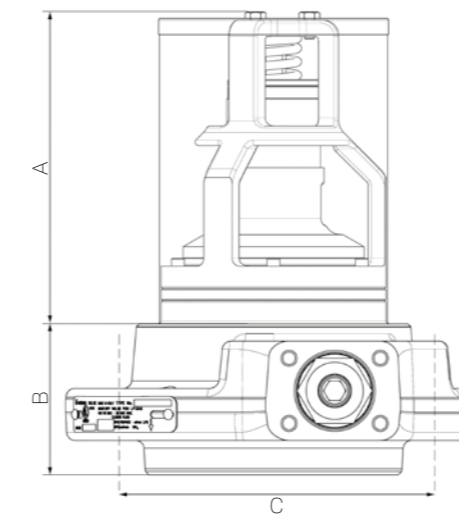
## INTERNAL VALVES 3" Single and Double Flanged



**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

Part Number		Dimensions			
Single	Double	A Single	B Double	C Single	D Double
69.0.290.0117	69.0.290.0122	6.75" (171 mm)	2.56" (65 mm)	5.33" (133 mm)	5.62" (143 mm)
69.0.290.0118	69.0.290.0123				
69.0.290.0119	69.0.290.0124				
69.0.290.0120	69.0.290.0125				
69.0.290.0121	69.0.290.0126				

## INTERNAL VALVES 4" Single Flanged

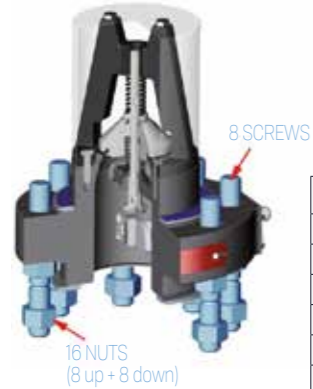


**Flanged Valves specification:**  
**Pressure Rating:** 400 PSIG (27.58 bar) WOG  
**Temperature:** Up to 150°F (66°C)  
**Body:** cast steel WCB  
**Packing:** PTFE  
**Seat disk:** Synthetic rubber  
**Stub, Shaft & Stem:** stainless steel  
**Gaskets:** Non asbestos spiral wound graphite

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

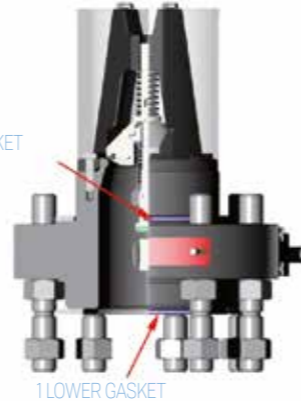
INTERNAL VALVES  
Threaded & Flanged Accessories

## 3" Single Flanged Valve



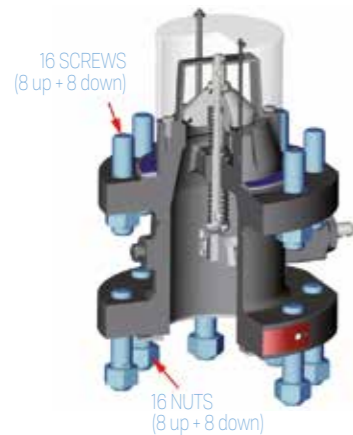
Part Number	Description
68.0.390.0020	3/4" - 10 UNC studs kit (8 pcs)
68.0.390.0019	3/4" - 10 UNC nuts kit (16 pcs)
04.0.110.5575	Upper spiral gasket (1 pcs)
04.0.110.5576	Lower spiral gasket (1 pcs)
68.0.390.0021	M20x2,5 studs kit (8 pcs)
68.0.390.0022	M20x2,5 nuts

1 UPPER GASKET



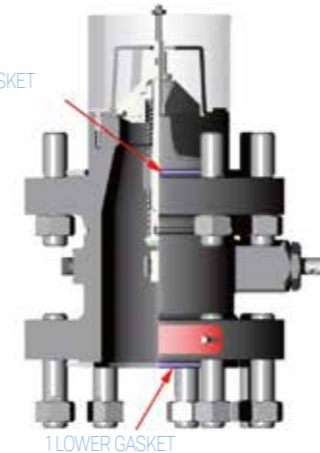
1 LOWER GASKET

## 3" Double Flanged Valve



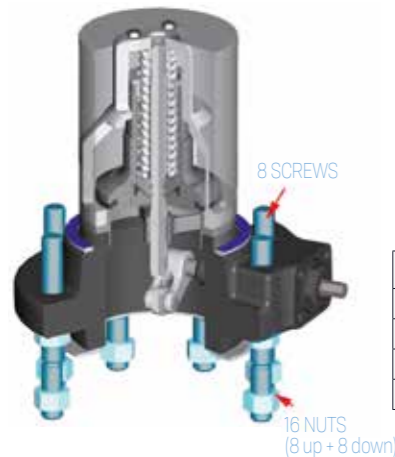
Part Number	Description
68.0.390.0018	3/4" - 10 UNC studs kit (16 pcs)
68.0.390.0019	3/4" - 10 UNC nuts kit (16 pcs)
04.0.110.5575	Upper spiral gasket (1 pcs)
04.0.110.5576	Lower spiral gasket (1 pcs)

1 UPPER GASKET

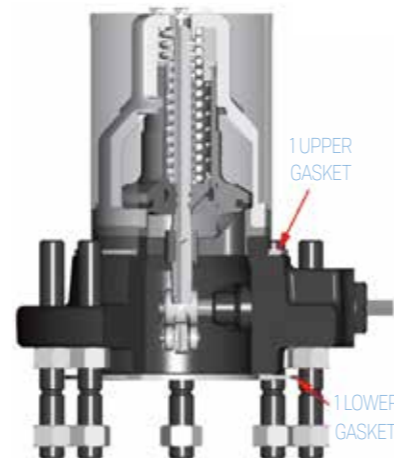


1 LOWER GASKET

## 4" Single Flanged Valve



Part Number	Description
68.0.390.0023	3/4" - 10 UNC studs kit (8 pcs)
68.0.390.0019	3/4" - 10 UNC nuts kit (16 pcs)
04.0.110.5595	Upper spiral gasket (1 pcs)
04.0.110.5596	Lower spiral gasket (1 pcs)

16 NUTS  
(8 up + 8 down)1 UPPER  
GASKET1 LOWER  
GASKETINTERNAL VALVES  
Threaded & Flanged Accessories

## Spiral Gaskets



Part Number	Description
68.0.390.0020	Upper Spiral Gasket 3" Flanged Valve (Single and Double)
68.0.390.0019	Lower Spiral Gasket 3" Flanged Valve (Single and Double)
04.0.110.5575	Upper Spiral Gasket 4" Single Flanged Valve
04.0.110.5576	Lower Spiral Gasket 4" Single Flanged Valve

## Main Spindle Assembled Kit



Part Number	Description
68.0.390.0024	Dedicated for Internal Valve 1-1/4" - 1 pcs
68.0.390.0025	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
68.0.390.0026	Dedicated for Internal Valve 3" (1 way and 2 ways) - 1 pcs
68.0.390.0027	Dedicated for 3" Single Flanged Valve - 1 pcs
68.0.390.0028	Dedicated for 3" Double Flanged Valve - 1 pcs

## Assembled Opening System Kit



Part Number	Description
68.0.390.0032	Dedicated for Internal Valve 1-1/4" - 1 pcs
68.0.390.0033	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
68.0.390.0034	Dedicated for Internal Valve 3" (1 way and 2 ways) - 1 pcs
68.0.390.0035	Dedicated for 4" Single Flanged Valve - 1 pcs

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

Part Number	Description
68.0.390.0040	Dedicated for Internal Valve 1-1/4" - 1 pcs
68.0.390.0041	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
68.0.390.0042	Dedicated for Internal Valve 3" (1 way and 2 ways) - 1 pcs
68.0.390.0043	Dedicated for 3" Single Flanged Valve - 1 pcs
68.0.390.0044	Dedicated for 3" Double Flanged Valve - 1 pcs
68.0.390.0045	Dedicated for 4" Single Flanged Valve - 1 pcs

## Assembled Cone Kit



Part Number	Description
68.0.390.0029	Dedicated for Internal Valve 1-1/4" - 1 pcs
68.0.390.0030	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
68.0.390.0031	Dedicated for Internal Valve 3" (1 way and 2 ways) and 3" Flanged Valve (Single and Double) - 1 pcs

## Studs &amp; Nuts



Part Number	Description
68.0.390.0018	3/4"-10 UNC studs kit (16 pcs)
68.0.390.0019	3/4"-10 UNC nuts kit (16 pcs)
68.0.390.0020	3/4"-10 UNC studs kit (8 pcs)
68.0.390.0021	M20x2,5 studs kit (8 pcs)
68.0.390.0022	M20x2,5 nuts kit (16 pcs)
68.0.390.0023	3/4"-10 UNC studs kit (8 pcs)

FFKM perfluoroelastomer  
soft sealings kit

Part Number	Description
68.0.390.0036	FFKM Kit for 2" Threaded Valve
68.0.390.0037	FFKM Kit for 3" Threaded Valve
68.0.390.0038	FFKM Kit for all 3" Flanged Valve
68.0.390.0039	FFKM kit for 4" Single Flanged Valve

## Excess Flow Spring



Part Number	Description
68.0.390.0046	Dedicated for 30 GPM - Internal Valve 1-1/4"
68.0.390.0047	Dedicated for 50 GPM - Internal Valve 1-1/4"
68.0.390.0048	Dedicated for 80 GPM - Internal Valve 1-1/4"
68.0.390.0049	Dedicated for 100 GPM - Internal Valve 2"
68.0.390.0050	Dedicated for 150 GPM - Internal Valve 2"
68.0.390.0051	Dedicated for 250 GPM - Internal Valve 2"
68.0.390.0052	Dedicated for 150 GPM - Internal Valve 3" and 3" Flanged (Single and Double)
68.0.390.0053	Dedicated for 200 GPM - Internal Valve 3" and 3" Flanged (Single and Double)
68.0.390.0054	Dedicated for 250 GPM - Internal Valve 3" and 3" Flanged (Single and Double)
68.0.390.0055	Dedicated for 400 GPM - Internal Valve 3" and 3" Flanged (Single and Double)
68.0.390.0056	Dedicated for 500 GPM - Internal Valve 3" and 3" Flanged (Single and Double)
68.0.390.0057	Dedicated for 340 GPM - 4" Single Flanged Valve
68.0.390.0058	Dedicated for 440 GPM - 4" Single Flanged Valve
68.0.390.0059	Dedicated for 600 GPM - 4" Single Flanged Valve
68.0.390.0060	Dedicated for 800 GPM - 4" Single Flanged Valve
68.0.390.0061	Dedicated for 1000 GPM - 4" Single Flanged Valve



## 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

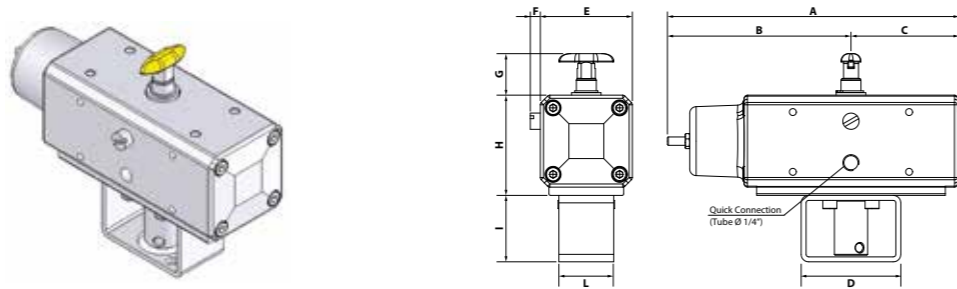
**Temperature:** from 0°C to +80°C; from -20°C to +80°C with dry air only. (Special versions: high temperature: -20°C +150°C; low temperature: -50°C +60°)

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

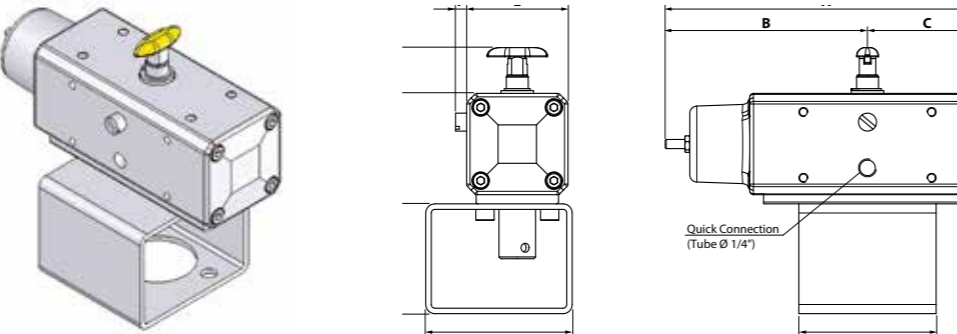
**Operating media:** compressed filtered air, not necessarily lubricated.

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

### Actuator 1-1/4"

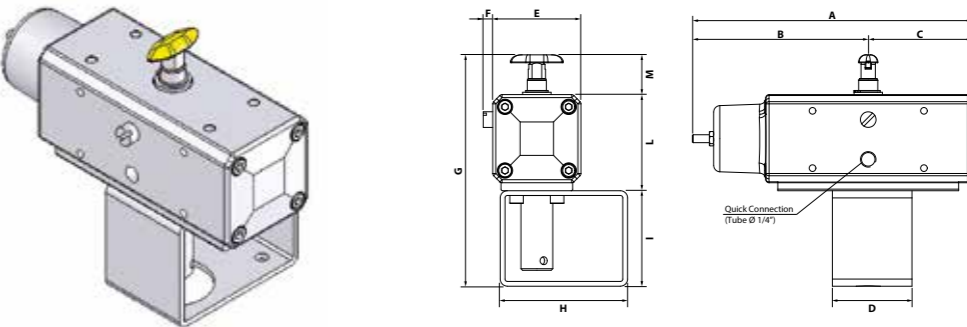


### Actuator 2" and 3"

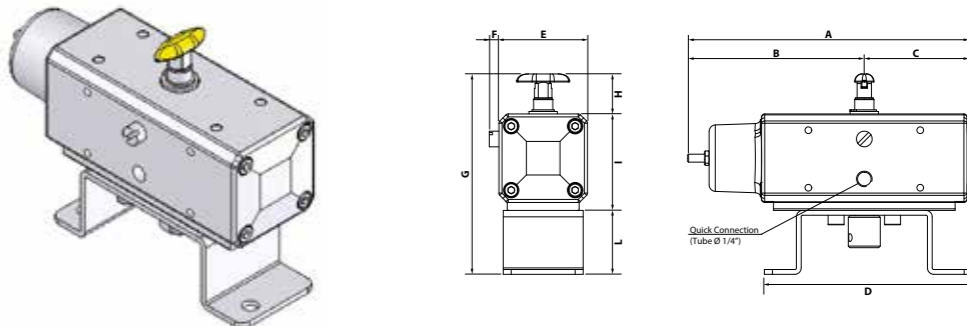


## ACTUATORS Rotary Cams

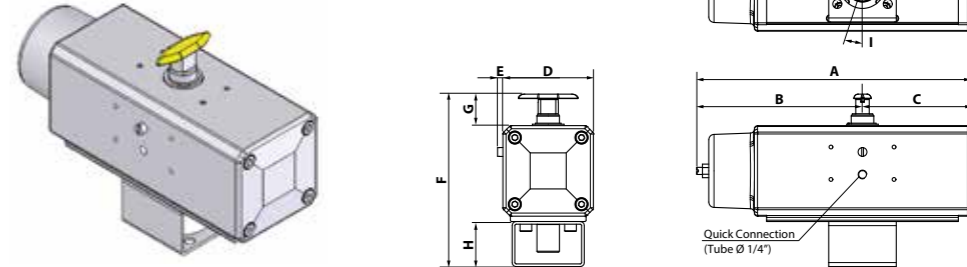
### Actuator 3" SINGLE FLANGED



### Actuator 3" DOUBLE FLANGED



### Actuator 4" SINGLE FLANGED



Rotary Cams Actuators Dimensions (Inches)													
		A	B	C	D	E	F	G	H	I	L	M	Tube Connection Ø
30.0.090.0000	O-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"
30.0.090.0001	O-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"
30.0.090.0002	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"
30.0.090.0003	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"
30.0.090.0004	O-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"
30.0.090.0014	O-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
30.0.090.0015	O-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
30.0.090.0016	O-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
30.0.090.0017	O-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
30.0.090.0018	O-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
30.0.090.0019	O-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
30.0.090.0020	O-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
30.0.090.0021	O-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
30.0.090.0022	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
30.0.090.0023	O-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



REMOTE RELEASE  
Latch/Remote Release Mechanisms

The Cavagna brand 1-1/4", 1-1/2", 2" and 3" Threaded 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 released 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 melts if exposed to fire allowing the operating lever to return to the closed position. (melting temperature 212°F/100°C)



13.0.950.0142



13.0.950.0143



13.0.950.0144



13.0.950.0147

Cod.	Description
13.0.950.0142	Fuse latch threaded Internal valve 2" and 3"
13.0.950.0143	Fuse latch threaded Internal valve 1-1/4"
13.0.950.0144	Dual Latch/ remote release for Internal valve 1-1/4"
13.0.950.0147	Manual lever and release on for 4"



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 HNBR valve seals.
- Large seating surface for superior seal performance & reliability.
- Available with 250 & 265 PSI set pressures.



Part Number	STD / PSIG	Container Connection	Installation Hex	Service		Seat Material	Wrench (optional)	Replacement Cap
				LPG	NH <sub>3</sub>			
66.0.290.1295	250	2" MNPT	1-1/2"	Yes	Yes	HNBR	3101100033	1001105232
66.0.290.1300	265							
66.0.290.1296	250	3" MNPT	2-1/2"	Yes	Yes	HNBR	3101100034	1001105233
66.0.290.1301	265							



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 Hex	Service		Seat Material
				LPG	NH <sub>3</sub>	
66.0.290.1325	250	3" 300 LB Flange	2-1/2"	Yes	Yes	Nitrile
66.0.290.1326	265					



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
- Straight through bore for unobstructed flow characteristics
- For LPG and NH3



Part Number	Inlet (FNTP)	Outlet (MNPT)
10.0.950.0291	1"	1"



HOSE END CONNECTORS  
Valves

Apart from the rotating handle made of aluminum, the other components are made of stainless steel AISI 303 or AISI 316L. The valve body is made of stainless steel GX5CrNiMo19-11-2

Features

- High durable sealing system of the manouvre group
- All stainless steel 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
- High Flow version

KIT Spare Parts	
01.0.950.0260	Degassing
13.0.950.0182	Shaft
02.0.950.0139	Lever
13.0.950.0183	Shaft
16.0.950.0371	Coupling
10.0.950.0305	Extended Coupling

Part number	Inlet connection	Outlet connection	Handle Style	Handle Material
68.0.290.0234	1" (NPT)	1 3/4" ACME	Standard	Anodized Aluminium



HOSE END CONNECTORS  
Fill Check Adapters



10.0.950.0281 10.0.950.0280

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.

Part Number	Filler Valve F. Acme Connection	Hose End M. Acme Connection	Handle Material	Swivels	Replacement Gaskets
10.0.950.0280	1-3/4"	1-3/4"	Brass	No	04.0.110.2565
10.0.950.0281				Yes	04.0.110.5685
10.0.950.0328 <sup>1</sup>					04.0.110.5685

<sup>1</sup>High Flow Version



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



Part Number	Inlet connection	Outlet connection
68.0.290.0250	3/4" NPT	3/4" NPT
68.0.290.0235	1" (NPT)	1" (NPT)

HOSE END CONNECTORS  
Hose Nozzle Keeper

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



Part Number	Inlet connection	Outlet connection
10.0.950.0329	1-3/4" ACME	3/8"
10.0.950.0330		1/4" NPT



GLOBE AND ANGLE VALVES



68.0.290.0252



68.0.290.0253

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
68.0.290.0252	1-1/4" NPT	1/4" NPT	Globe
68.0.290.0253			Angle
68.0.290.0239	3" NPT	3" NPT	Globe



68.0.290.0238



68.0.290.0239

Part Number	Inlet connection	Outlet connection	Type of Connection
68.0.290.0238	2" NPT	2" NPT	Globe
68.0.290.0260	2" NPT	2" NPT	Angle



FLOAT GAUGES

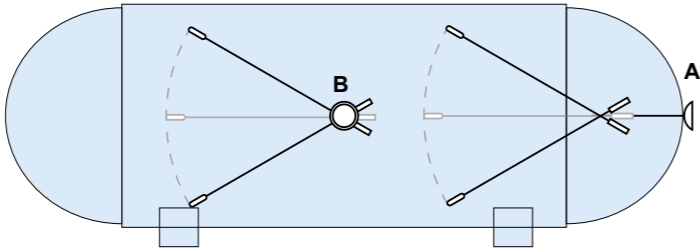



Application:

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	 Hemispherical Heads	
	Part Number	
	Ø4	Ø8
Ø 60" (3.000L)	30.0.110.2765	30.0.110.2768
Ø 64" (4.000L)	30.0.110.2766	30.0.110.2769
Ø 66" (5.800L)	30.0.110.2740	30.0.110.2770
Ø 72" (8.000L)	30.0.110.2741	30.0.110.2771
Ø 79"	30.0.110.2748	30.0.110.2774
Ø 80"	30.0.110.2749	30.0.110.2775
Ø 81 1/2" (12.900L / 13.000L)	30.0.110.2742	30.0.110.2772
Ø 84"	30.0.110.2750	30.0.110.2776
Ø 88"	30.0.110.2751	30.0.110.2777
Ø 88 1/2" (17.000L/18.000L/24.000L)	30.0.110.2744	30.0.110.2773
Ø 90"	30.0.110.2752	30.0.110.2778
Ø 2350 mm (Ø 92,5")	30.0.110.2720	30.0.110.2779
Ø 2440 mm (Ø 96")	30.0.110.2721	30.0.110.2780
Ø 98"	30.0.110.2723	30.0.110.2781
Ø 108"	30.0.110.2788	30.0.110.2790
Ø 130"	30.0.110.2789	30.0.110.2791



EXCESS FLOW VALVES  
for Liquid or Vapor



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 through the hose or the piping system exceeds the prescribed flow rate. Valves are available in different sizes and body configurations.

Functioning:

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.



69.0.290.0200    69.0.290.0199    69.0.290.0201    69.0.290.0202    69.0.290.0203    69.0.290.0204

Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Approximate Closing Flows		
						Liquid (GPM Propane)	25 PSIG Inlet	100 PSIG Inlet
69.0.290.0127	Steel	1-1/4"	1-1/4"	2"	1-5/16"	30	5750	9800
69.0.290.0128	Steel					40	7500	13330
69.0.290.0129	Steel					50	8800	15970
69.0.290.0199	Brass	3/4"	1/4"	1 1/16"		N/A	60	110
69.0.290.0200	Brass	1-1/4"	1-1/4"	2"	1 3/8"	30	5850	10000
69.0.290.0201	Brass	3/4"	3/4"	1 3/8"		20	3700	6900
69.0.290.0202	Steel	2"	2"	2 7/8"	17/8"	122	22100	37600
69.0.290.0203	Steel			/	3/4"	150	30500	52000
69.0.290.0204	Steel	3"	3"	/	1"	200	39400	68400



EXCESS FLOW VALVES  
for Liquid or Vapor withdrawal



Valves are designed to be mounted on the bottom of customer 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)
69.0.190.0036	Steel	1 1/4"	1-1/4"	1-7/8"	55
69.0.190.0037	Steel	1 1/4"	1-1/4"	1-7/8"	70





MULTIPRPOSE VALVES  
for NH<sub>3</sub> 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	Approx. excess flow Closing flows Liquid phase (GPM)		Approx. excess flow Closing flows Vapour phase (SCFH)	
			49 LPG	44 NH3	15350 LPG	24000 NH3
67.0.490.1053	1 1/4-11.5 NPT	1 3/4-6 ACME-2G				
67.0.490.1073	1 1/4-11.5 NPT					

BACK PRESSURE VALVES  
for Container or Line Applications



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 Δ Pressure		
						5 PSIG	10 PSIG	25 PSIG
71.0.090.0051	Steel	3/4" F NPT	3/4" M NPT	1 3/8"	1-15/16" (49,2 mm)	10,75	15,7	24,5
71.0.090.0050	Steel	1-1/4" F NPT	1-1/4" M NPT	2"	2-1/2" (63,5 mm)	27,5	39,2	61,75
71.0.090.0049	Steel	2" F NPT	2" M NPT	3"	3-3/8" (83,5 mm)	121,5	171,5	270,5
71.0.090.0111	Brass	1-1/4" F NPT	1-1/4" M NPT	2"	2-1/2" (63,5 mm)	27,5	39,2	61,75
71.0.090.0113	Steel	3" F NPT	3" M NPT	4"	4-1/2" (114 mm)	290	410	650



DOUBLE CHECK FILLER VALVES  
for Delivery Truck Tanks and Large Storage Containers

Available also separate



66.1336  
66.0.290.1336



66.1356  
66.0.290.1356



71.0113  
71.0.090.0113

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	ACME Hose connection	Container connection	Wrench Hex Flats	Effective Lenght	Propane Liquid Capacity at Various Differential Pressures (GPM)				
					5 PSIG	10 PSIG	25 PSIG	50 PSIG	75 PSIG
66.0.290.1336	3/4"	3"	4"	6 1/2"	150	210	330	470	575
66.0.290.1356	3 1/4"	3"	3 1/2"						
71.0.090.0113	3"	3"	4"	4-1/2"	290	410	650	918	

ACCESSORIES  
ACME Caps

10.0.950.0254



10.0.950.0258



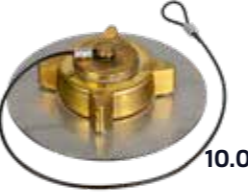
10.0.950.0262



10.0.950.0277



10.0.950.0278



10.0.950.0318



10.0.950.0279

Part No.	F. Acme (cap)
10.0.950.0250	1-3/4" F. Acme Cap Plug
10.0.950.0324	3-1/4" F. Acme Cap Plug
10.0.950.0254	1-3/4" F. Acme Cap Plug with Knob and chain
10.0.950.0258	2-1/4" F. Acme Cap Plug with Knob and chain
10.0.950.0262	3-1/4" F. Acme Cap Plug with Knob and chain
30.0.950.0073	Chain and hooks
10.0.950.0277	1-3/4" F. Acme Cap Plug with Knob and metallic cable
10.0.950.0278	2-1/4" F. Acme Cap Plug with Knob and metallic cable
10.0.950.0279	3-1/4" F. Acme Cap Plug with Knob and metallic cable
10.0.950.0318	3 1/4" F ACME cap, plug with Knob, metallic cable, flange for electronic sensor
30.0.110.2857	metallic cable



ACCESSORIES  
ACME Connectors



10.0.950.0257



10.0.950.0253



10.0.950.0256



10.0.950.0259



10.0.950.0247

Part No.	INLET (M.ACME)	OUTLET (M.NPT)	Description
10.0.950.0248	1-3/4"	3/4"	
10.0.950.0249		1"	
10.0.950.0246		1-1/4"	
10.0.950.0322	2-1/4"	1-1/4"	
10.0.950.0264	3-1/4"	2"	no Screen
10.0.950.0323		2"	with Screen
10.0.950.0263		3"	

Part No.	INLET (F.ACME)	OUTLET (F.NPT)	Description
10.0.950.0317	3-1/4"	2"	No Screen

Part No.	INLET (F.ACME)	OUTLET (M.NPT)	Description
10.0.950.0253	1-3/4"	1/2"	
10.0.950.0251		3/4"	
10.0.950.0252		1/1"	
10.0.950.0257	2-1/4"	1-1/4"	
10.0.950.0316	3-1/4"	2"	No Screen
10.0.950.0315		2"	with Screen

Part No.	M. Acme	F.NPT	M.NPT
10.0.950.0255	1-1/4"	1/4"	1/2"
10.0.950.0256	1-1/4"	3/8"	3/4"
10.0.950.0259	2-1/4"	1"	1-1/2"
10.0.950.0260	2-1/4"	1-1/4"	2"
10.0.950.0261	2-1/4"	1-1/2"	2"

Differents configurations available

Part No.	INLET (M.ACME)	OUTLET (M.ACME)
10.0.950.0247	1-3/4"	1-3/4"

Part No.	INLET (F.ACME)	OUTLET (M.ACME)
10.0.950.0321	1-3/4"	1-3/4"
10.0.950.0320	3-1/4"	
10.0.950.0319		2-1/4"

ACCESSORIES  
ACME Caps



10.0.950.0325



10.0.950.0326

Part Number	Description
10.0.950.0325	1 5/16" M ACME x CGA 510
10.0.950.0326	1 5/16" F ACME x 1/4" NPT



TANK EQUIPMENT  
External Pressure Relief Devices



70.0233 PV-60

70.0.090.0233

The new PV 60 safety valve is designed for 18.000 to 30.000 gallon 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.

US Patent  
# 7,077,157 B2



68.0.390.0075  
Cartridge  
Replacement Kit



01.0.950.0228  
Replaceable  
cartridge

Part Number	Bottom Male Connection	Wrench grip hexagon	Thread type	PRV - Start to Discharge Setting (PSIG)	PRV-OVERPRESSURE 20% Capacity SCFM-AIR	Approval	PRV Orifice
70.0.090.0233	2" 11.5 FNPT	4"	Taper	250	11433 - 12605	UL/ASME	1.7"
01.0.950.0228							
68.0.390.0075	Cartridge Replacement Kit						
10.0.110.5329	Cap for PV60						



TANK EQUIPMENT  
Internal Pressure Relief Valves



66.1311

Hydrostatic Pressure relief valve provides pressure relief at or in excess of the stated pressure setting, protecting against line or plumbing system failures.



66.1139

Pressure relief valve for small containers and on-line pipe installations.  
Setting point: 250 PSIG.



66.1140

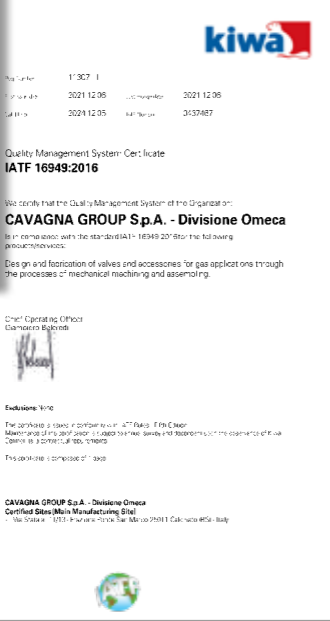
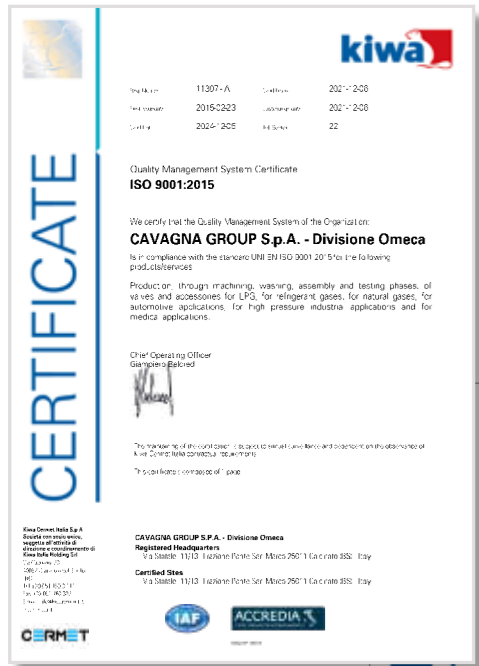
Pressure relief valve for small containers and on-line pipe installations.  
Setting point: 375 PSIG.

Part Number	Bottom Male Connection	Wrench grip hexagon	Thread type	PRV - Start to Discharge Setting (PSIG)	PRV-OVERPRESSURE 20% Capacity SCFM-AIR	Approval	PRV Orifice
66.0.290.1139	1/4"-18 NPT	14/16"	Taper	250	296-262	UL/ASME	7/8"
66.0.290.1140				375	486	UL CGA S1.1	
66.0.290.1311		9/16"		440	-	UL	9/16"



cavagna group

Wherever gas is used, we are there



## Quality Management System to ISO 9001:2015 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 dynamic Customers' expectations.

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"



## LIMITED WARRANTY FOR UNITED STATES AND CANADA

**WARRANTOR.** The Limited Warranty provided herein is given by only one of Cavagna Group S.p.A., Cavagna North America, Inc., Cemco Kosangas S.A., Cavagna Group UK, or Greengear Global, LTD, the entity that actually designed, manufactured and sold the Product (as defined herein) to which this Limited Warranty applies. The other entities are listed herein for convenience only, and are not sharing in any warranty obligations of the entity providing this Limited Warranty. The entity providing this Limited Warranty is referred to herein as "The Warrantor".

**COVERAGE.** Each new product purchased directly from The Warrantor (referred to herein as "The Product") will be free from defects in original material and workmanship for a period of:

- Twenty four (24 months / 2 Years) for high pressure and compressed natural gas products,
- Sixty (60 months / 5 years) for LPG brass valves and accessories**
- Twelve (12 months / 1 year) for Greengear appliances or
- One hundred and twenty (120 months / 10 Years) for Kosan plus domestic regulators.**
- All other regulators sixty (60 months / 5 Years)**

from the date of sale of The Product, as shown on the invoice for that particular Product, to the entity to which Warrantor first sold The Product (hereinafter referred to as "The Purchaser"). The Purchaser informs any third party purchasers of The Product of the specifications and the necessary warnings and instructions for the correct use of The Product and/ or any different or larger item or system in which The Product is installed. The sole and exclusive remedy of The Purchaser under this Limited Warranty for alleged defects in a Product shall be the repair or replacement, in Warrantor's sole discretion, of the defective Product, or a part or component of The Product.

**NOT COVERED.** This Limited Warranty does not apply to, and Warrantor shall have no liability or responsibility in respect of, damages or expenses relating to defects caused by or arising out of:

- the failure to properly store, use, install or maintain The Product as, for example, as specified in the warranty booklet, service booklet, drawings, manuals or other literature supplied by Warrantor, including but not limited to Warrantor's website or advertising brochures or in accordance with any applicable laws, regulators or standards;
- the failure of The Purchaser to inform any third party purchasers of The Product of the specifications and the necessary warnings and instructions for the correct use of The Product and/ or any different or larger item or system in which The Product is installed.
- improper installation of The Product as a component in a different or larger item or system;
- improper specification or application of The Product as a component in a different or larger item or system;
- Any Product purchased from any entity other than Warrantor;
- alteration, change, or modification of The Product, including its subcomponents, parts or assemblies;
- the cost to locate, remove, disassemble, reinstall or dispose of components of a different or larger item or system that require removal to access The Product;
- accidents, misuse, abuse, abnormal use, improper use, negligent use, wilful misconduct, lack of reasonable or proper maintenance, repairs improperly performed or replacement parts or accessories not conforming to Warrantor's specifications, use exceeding the recommended and permitted limits of The Product, and/or normal wear or deterioration occasioned by the use of The Product;
- cosmetic issues, such as scratches, dents, fading of colors or discoloration;
- any representation or implication relating to estimated performance characteristics of The Product, including but not limited to representations made in Warrantor's product literature, on Warrantor's website, marketing materials,

advertisements and technical specifications;

- any defect or non-conformity that has not been timely and promptly communicated in writing to Warrantor as provided herein, and in all cases, no more than thirty (30) days from the discovery thereof;
- any damage, cost or expense caused by Act of God; or
- loss of time, loss of use, loss of revenue, lost profits, loss of opportunity, inconvenience, costs related to procuring any substitute product, any incidental or consequential damages arising out of the non-use of the Product, or compensation for inconvenience or loss of use of a different or larger item or system while the Product is being repaired or otherwise not available, or other matters not specifically covered hereunder.

**PROCEDURE.** To obtain warranty service for The Product, under this Limited Warranty, The Purchaser's specific and detailed claim must be reported to WARRANTOR within thirty (30) days from the date The Purchaser had notice of or should have had knowledge of notice of the alleged defect to The Purchaser and within the applicable warranty period.

For all Warranty claims accepted by The Warrantor, the Warrantor shall, within a reasonable time:

- Repair The Product or any subcomponent thereof;
- Supply ex works to The Purchaser a replacement product of the same type, kind and/or quality as The Product; or
- Refund to The Purchaser the actual purchase price of The Product for which The Warranty claim was made, such refund being provided in the form of a credit towards a future order placed by The Purchaser within The Warrantor.

Warrantor must approve, in advance and in writing, all repairs or replacements covered under or performed pursuant to this Limited Warranty. Any warranty repairs or service must be performed exclusively by Warrantor or other authorized representative of Warrantor or by another servicing facility pre-approved in writing by Warrantor. The Purchaser is responsible for all expenses associated with locating The Product(s) in the market, transporting the product(s) and/or defective part(s) to and from the service location. Acceptance of any Limited Warranty claim is not an admission that any Product or any of its component parts are defective. The Warrantor will not accept any Warranty claims directly from any third party to whom/which Purchaser may have sold The Product. The Purchaser forfeits any rights it may have under this Limited Warranty if The Purchaser does not return The Product to Warrantor, at the Purchaser's expense, within five (5) days of The Warrantor's request, or otherwise follow the procedure described herein. In the event that Purchaser submits a warranty claim that, in the sole reasonable discretion of The Warrantor, is unfounded, The Purchaser shall reimburse The Warrantor all reasonable costs incurred by The Warrantor in evaluating The Warranty claim (i.e. travel, lodging, expert evaluations, etc.).

**LIMITATION OF DAMAGES.** Except as expressly provided by this Limited Warranty, WARRANTOR SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ASSOCIATED WITH THE USE OR NON-USE OF THE PRODUCT OR A CLAIM UNDER THIS AGREEMENT, WHETHER THE CLAIM IS BASED ON CONTRACT, TORT OR OTHERWISE. The foregoing statements of warranty are exclusive and in lieu of all other remedies or damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you. This Agreement shall be the sole and exclusive remedy available to The Purchaser or any third party with respect to This Product. In the event of any alleged breach of any warranty or any legal action brought by The Purchaser or any third party, based on breach of warranty alleged negligence or other tortious conduct by Warrantor, The Purchaser's or third party's sole and exclusive remedy will be the repair

or replacement of any defective Product as stated herein. In no event shall the liability of The Warrantor exceed the purchase price of The Product.

**DISCLAIMER.** ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL IMPLIED WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OF TRADE, BY STATUTE OR OTHERWISE, IS HEREBY STRICTLY LIMITED TO THE TERMS OF THIS WRITTEN WARRANTY. No dealer and no other agent, representative or employee of Warrantor is authorized to modify, extend or enlarge this Limited Warranty.

**TRANSFER OF THE PRODUCT OR LIMITED WARRANTY.** If Purchaser sells The Product, either individually or incorporated in a different or larger assembly to a third party, a warranty claim can only be filed with The Warrantor by The Purchaser. The Purchaser shall provide a separate and distinct warranty to any third party for the larger assembly.

**APPLICABLE LAW.** Any and all claims or disputes of whatever nature arising out of or otherwise relating to this Limited Warranty shall be governed by and construed in accordance with the laws of the State of New Jersey only, and the parties expressly acknowledge and irrevocably agree that the sole and exclusive venue for and jurisdiction over any such claim or dispute shall be the courts of Brescia, Italy to the exclusion of the jurisdiction of the courts of any other place, without giving effect to choice of law principles and without giving effect to the United Nations Convention regarding contracts for the International Sale of Goods (which the parties expressly exclude).

**OTHER RIGHTS.** Your acceptance of delivery of The Product constitutes your acceptance of the terms of this Limited Warranty. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If any term or provision of this Limited Warranty is invalid or unenforceable under any local, state, or federal law, statute, judicial decision, regulation, ordinance, executive order or other rule of law, such term shall be deemed reformed or deleted, but only to the extent necessary to comply with such statute, regulation, ordinance, order or rule and the remaining provisions of this Limited Warranty shall remain in full force and effect.

**ENTIRE AGREEMENT.** This document contains the entire Limited Warranty given by Warrantor in respect of The Product and there are no terms, promises, conditions or warranties regarding The Product other than those contained herein. Warrantor specifically does not authorize any person to extend the time, scope, terms or conditions of this Limited Warranty or to create or assume for Warrantor any other obligation or liability with respect to the Product or other products designed, manufactured or sold by Warrantor. All terms of this Limited Warranty are contractual and not mere recitals, and constitute material terms of this Limited Warranty.

**SERVICE LIFE:** The Service Life of The Product will vary depending on conditions of use, environment of use, application of The Product, and other factors outside of the control of The Warrantor. The Product must be replaced before the expiration of The Product's Service Life. See the applicable owners' manual or Warrantor's website for additional details on Service Life.



## Our LPG Global Product Brands



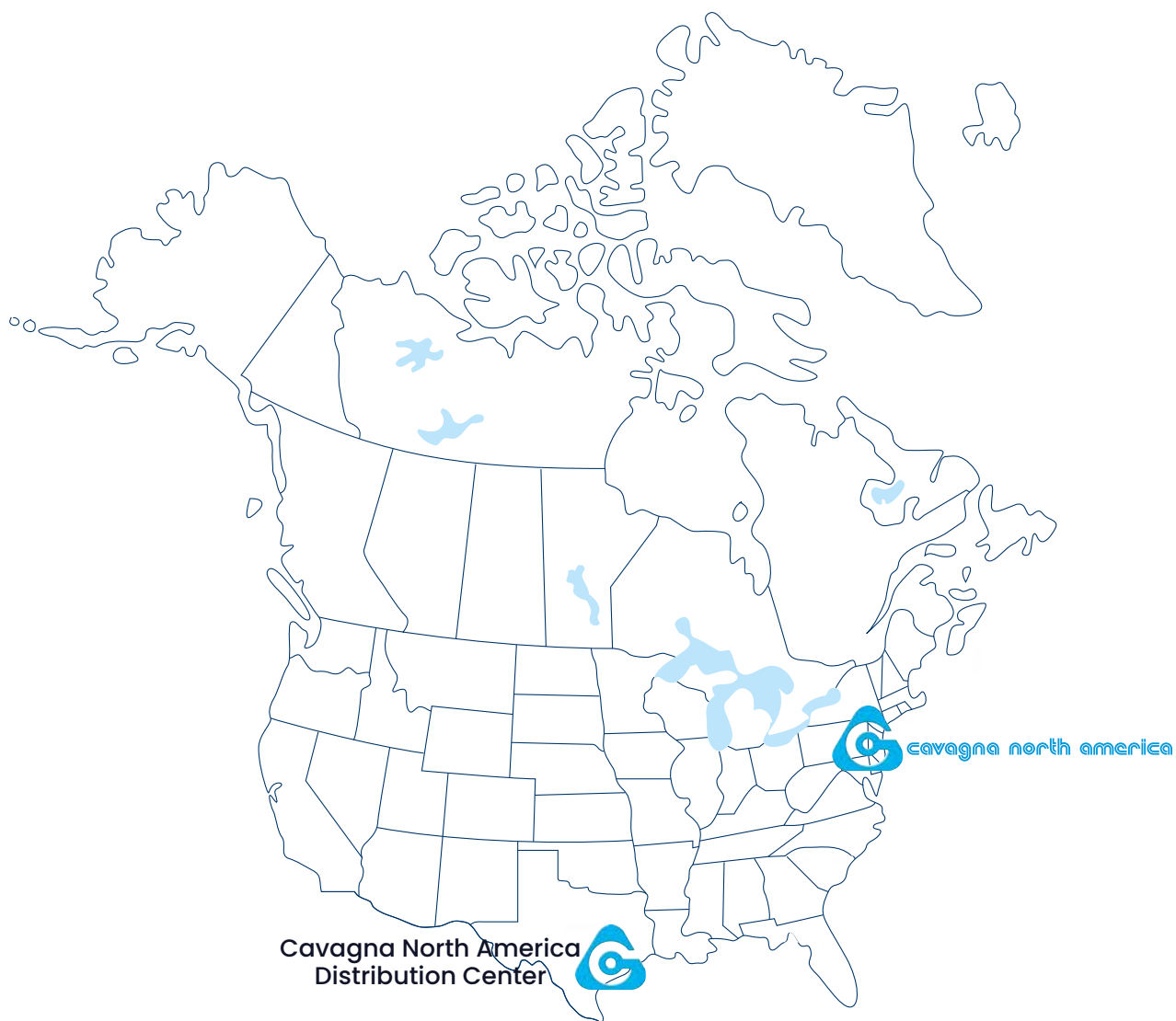
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## Manufacturing Facilities



WHEREVER GAS IS USED, WE ARE THERE



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