



**Cavagna group**

Wherever gas is used, we are there



## **LPG Bobtail and Storage Accessories**



LPG SOLUTIONS

COMPRESSED GASES SOLUTIONS

NATURAL GAS SOLUTIONS

ALTERNATIVE FUEL SYSTEMS

GAS METERING SOLUTIONS

INDUSTRIAL PROCESS MANAGEMENT





**CAVAGNA group**

Wherever gas is used, we are there



Omega Manufacturing Unit in Italy

## CAVAGNA group turkey & near east

Cavagna Group Teknik Ekipman San. Ve Tic. Ltd. Şti is one of Cavagna Group companies which was established in 2008. Cavagna Group Teknik Ekipman San. Ve Tic. Ltd. Şti represents Cavagna Group in Turkey and Near East countries.

Cavagna Group was established in 1949 and now contains 18 factory, 22 sales office. With +1000 employees and is the leading valves and regulators manufacturer.

### Product Line:

- LPG Cylinder Regulators
- Natural Gas Regulators
- Filling Valves, Safety Relief Valves, Regulators and Accessories for Cylinder, Tank and Bobtail
- Automotive LPG & CNG Systems
- Industrial and Medical Gas Valves
- Gas Detectors and Control Systems

Cavagna Group Teknik Ekipman San. ve Tic. Ltd. Şti, Cavagna Group şirketlerinden biri olup 2008 yılında Türkiye'de faaliyetine başlamıştır. Türkiye ve çevre ülkelerde Cavagna Group'u temsil eder; satış ve dağıtımını yapar.

Cavagna Group 1949 yılında kurulmuş olup şuanda; 18 üretim tesisi, 22 ofisi ve 1000 personeliyle dünyada önde gelen vana ve regülatör üreticisidir.

### Genel olarak ürün guruplarımız şunlardır:

- LPG Tüp dedantörleri ve Sınai Regülatörleri
- Doğalgaz Regülatörleri
- Tüp, Tank ve Tankerler için dolum, emniyet, likit vanaları ve diğer ekipmanlar
- Araç Dönüşüm Sistemleri (Alternatif yakıt)
- Sınai ve Tıbbi Gaz vanaları
- Gaz Kaçak Dedektörleri ve Kontrol Sistemleri



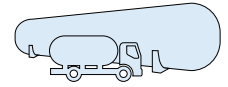
**CAVAGNA group**

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# LPG Bobtail and Storage Accessories

<b>Internal Valves</b>	<b>PG. 6</b>
<b>Actuators</b>	<b>PG. 14</b>
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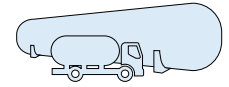




## Threaded Internal Valves

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.





# Threaded Internal Valves



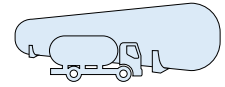
**100g Deceleration  
Test passed**

Part Number		Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane		LPG Vapour Capacity (SCFH/Propane)		Closing Flow GPM Ammonia NH <sub>3</sub> + LPG
					Half Coupling	Full Coupling	25 PSIG	100 PSIG	
One Way	Two ways								
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
6902900195	-----	steel	1-1/2" M NPT	1-1/2" F NPT	30	-----	5.800	9.100	27
6902900196	-----	steel	1-1/2" M NPT	1-1/2" F NPT	50	35	7.650	12.900	45
6902900197	-----	steel	1-1/2" M NPT	1-1/2" 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
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



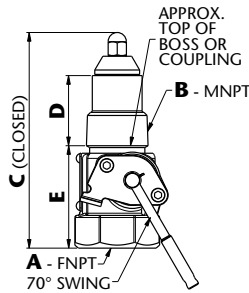
**100g Deceleration  
Test passed**

Part Number		Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane		LPG Vapour Capacity (SCFH/Propane)	
					Half Coupling	Full Coupling	25 PSIG	100 PSIG
One Way	Two ways							
6902900150	-----	steel	1-1/4" M NPT	1-1/4" F NPT	30	-----	5.800	9.100
6902900151	-----	steel	1-1/4" M NPT	1-1/4" F NPT	50	35	7.650	12.900
6902900152	-----	steel	1-1/4" M NPT	1-1/4" F NPT	80	65	10.950	18.800
6902900147	-----	steel	1-1/2" M NPT	1-1/2" F NPT	30	-----	5.800	9.100
6902900148	-----	steel	1-1/2" M NPT	1-1/2" F NPT	50	35	7.650	12.900
6902900149	-----	steel	1-1/2" M NPT	1-1/2" F NPT	80	65	10.950	18.800
6902900153	6902900176	steel	2" M NPT	2" F NPT	100	60	21.550	36.800
6902900154	6902900177	steel	2" M NPT	2" F NPT	150	90	33.600	57.200
6902900155	6902900178	steel	2" M NPT	2" F NPT	250	130	-----	-----
6902900156	6902900161	steel	3" M NPT	3" F NPT	150	100	28.600	48.700
6902900157	6902900162	steel	3" M NPT	3" F NPT	200	125	43.500	73.900
6902900158	6902900163	steel	3" M NPT	3" F NPT	250	165	51.500	87.600
6902900159	6902900164	steel	3" M NPT	3" F NPT	400	235	80.100	139.000
6902900160	6902900165	steel	3" M NPT	3" F NPT	500	325	-----	-----

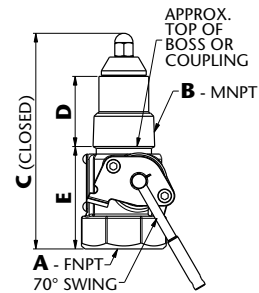


# Threaded Internal Valves

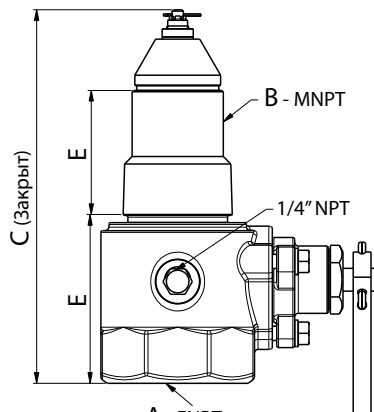
**1-1/2" ONE WAY**



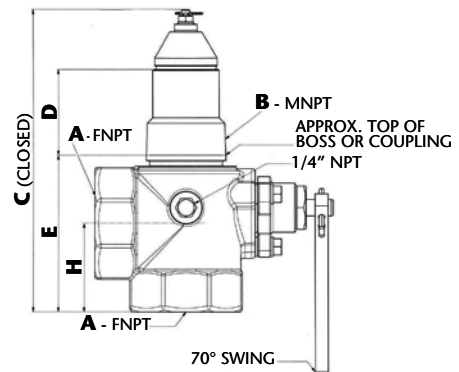
**1-1/4" ONE WAY**



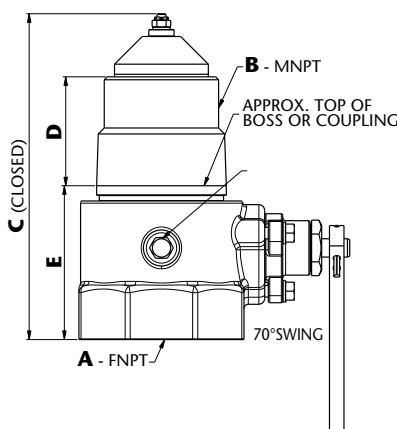
**2" ONE WAY**



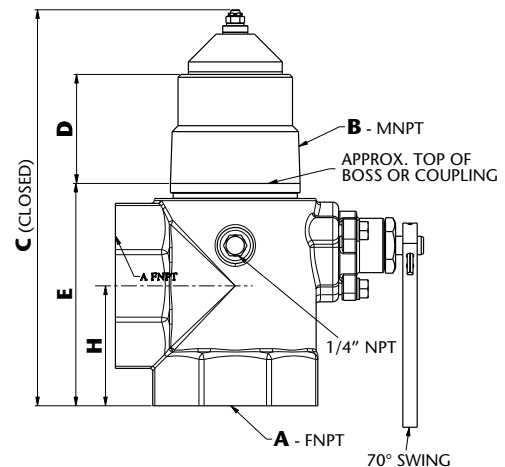
**2" TWO WAY**



**3" ONE WAY**



**3" TWO WAY**

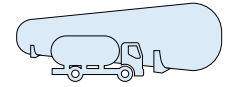


**Threaded Valves specification:**

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

DIMENSIONS					
A	B	C	D	E	H
<b>1-1/4" NPT</b>	1-1/4" NPT	5,90" (150 mm)	1,86" (47 mm)	2,88" (73 mm)	-----
<b>1-1/2" NPT</b>	1-1/2" NPT	5,90" (150 mm)	1,86" (47 mm)	2,88" (73 mm)	-----
<b>2" NPT</b>	2" NPT	8,26" (210 mm)	2,40" (61 mm)	4,05" (103 mm)	-----
<b>3" NPT</b>	3" NPT	8,85" (225 mm) ONE WAY	2,56" (65 mm) ONE WAY AND TWO WAY	4,54" (115,3 mm) ONE WAY	3,26" (83 mm)
		10,82" (275 mm) TWO WAY		6,50" (165,3 mm) TWO WAY	





# Flanged Internal Valve 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.



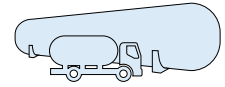
**100g Deceleration Test passed**

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	
6902900117	6902900122	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	150	25.100	42.700	135
6902900118	6902900123	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	200	36.900	62.800	180
6902900119	6902900124	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	250	42.200	71.800	225
6902900120	6902900125	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	400	59.400	100.900	360
6902900121	6902900126	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	500	-----	-----	450



**100g Deceleration Test passed**

Part Number		Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane	LPG Vapor Capacity (SCFH/Propane)	
Single	Double					25 PSIG Inlet	100 PSIG Inlet
6902900166	6902900171	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	150	25.100	42.700
6902900167	6902900172	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	200	36.900	62.800
6902900168	6902900173	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	250	42.200	71.800
6902900169	6902900174	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	400	59.400	100.900
6902900170	6902900175	steel	3"300lb ANSI RF Modified (4 7/8" dia bore)	3" 300 lb. ANSI RF	500	-----	-----



## Flanged Internal Valve 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.



**LPG - NH<sub>3</sub>**

**100g Deceleration  
Test passed**

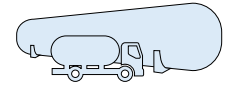
Part Number	Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane
<b>6902900141</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	340
<b>6902900142</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	440
<b>6902900143</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	600
<b>6902900144</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	800
<b>6902900145</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	1.000



**LPG**

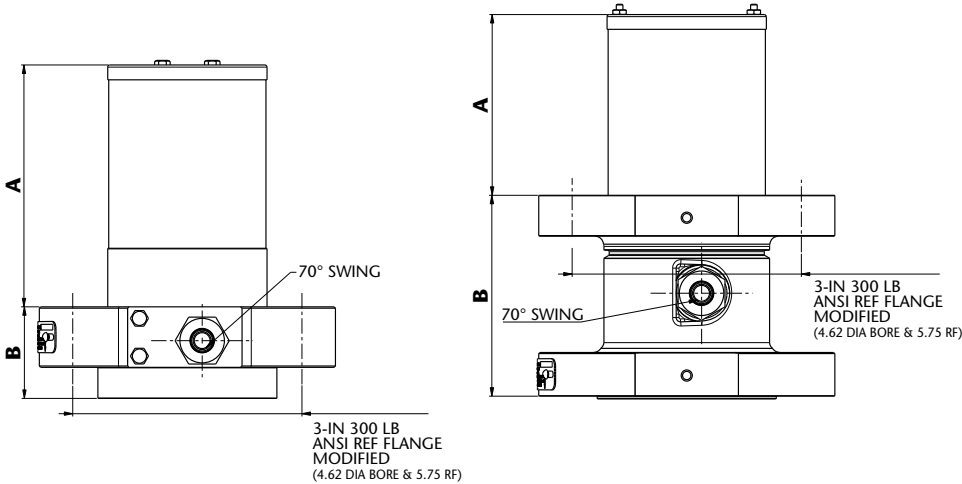
**100g Deceleration  
Test passed**

Part Number	Material	Inlet Connection	Outlet Connection	Closing Flow GPM Propane
<b>6902900181</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	340
<b>6902900182</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	440
<b>6902900183</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	600
<b>6902900184</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	800
<b>6902900185</b>	steel	4"300lb ANSI RF Modified (4 7/8" dia bore)	4" 300 lb. ANSI RF	1.000



# Flanged Internal Valve

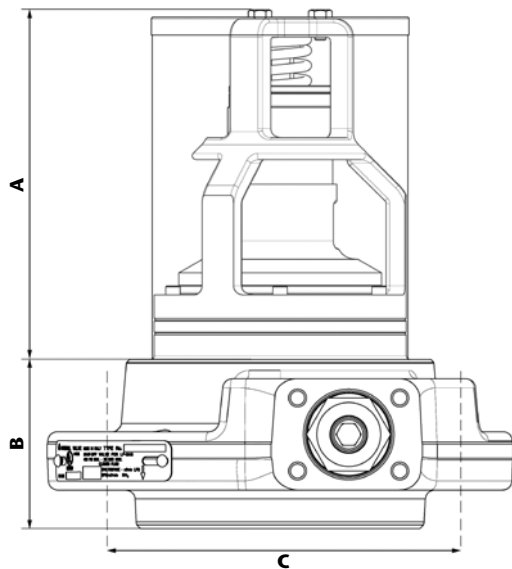
## 3" Single/Double Flanged Internal Valve



**Flanged 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  
 Gaskets: Non asbestos spiral wound graphite

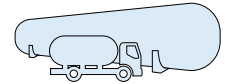
Part Number		DIMENSIONS		DIMENSIONS	
		A	B	A	B
Single	Double	Single	Single	Double	Double
6902900117	6902900122	6,75" (171 mm)	2,56" (65 mm)	5,33" (133 mm)	5,62" (143 mm)
6902900118	6902900123				
6902900119	6902900124				
6902900120	6902900125				
6902900121	6902900126				

## 4" Single Flanged Internal Valve

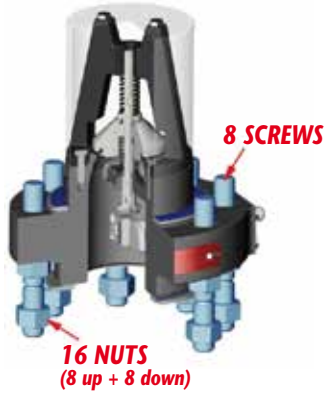


**Flanged Valves specification:**  
 Pressure Rating: 400 PSI (27.58 bar) WOG  
 Temperature: Up to 150°F (66°C)  
 Body: hot forged steel  
 Packing: PTFE  
 Seat disk: Synthetic rubber  
 Stub, Shaft & Stem: stainless steel  
 Gaskets: Non asbestos spiral wound graphite

DIMENSIONS		
A	B	C
Single	Single	Single
7,55" (192 mm)	3,66" (93 mm)	7,88" (200 mm)

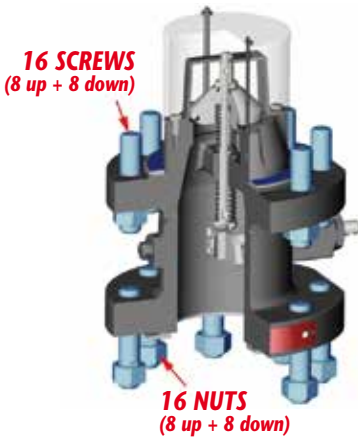
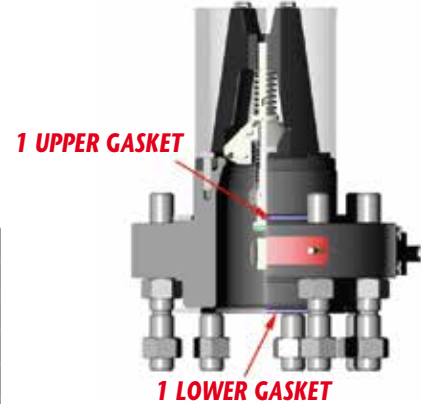


## Threaded and Flanged Internal Valve Accessories



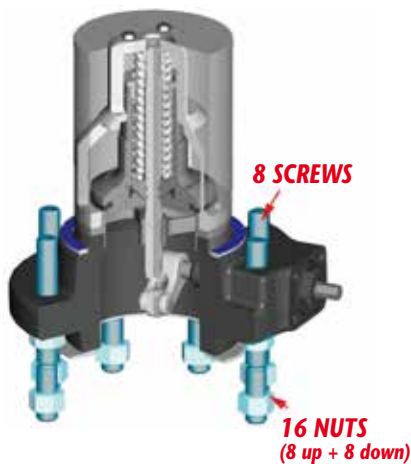
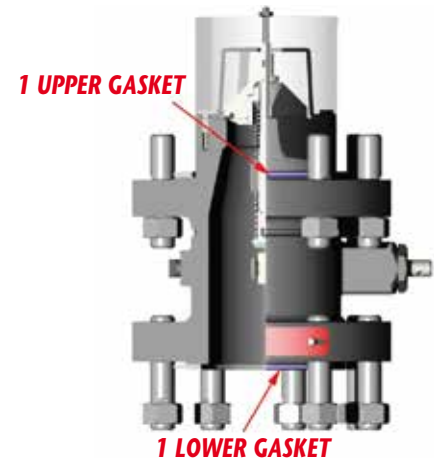
### 3" Single Flanged Valve

Product Code	Description
<b>680390020</b>	3/4"-10 UNC studs kit (8 pcs)
<b>680390019</b>	3/4"-10 UNC nuts kit (16 pcs)
<b>0401105575</b>	Upper spiral gasket (1 pcs)
<b>0401105576</b>	Lower spiral gasket (1 pcs)
<b>680390021</b>	M20x2,5 studs kit (8 pcs)
<b>680390022</b>	M20x2,5 nuts kit (16 pcs)



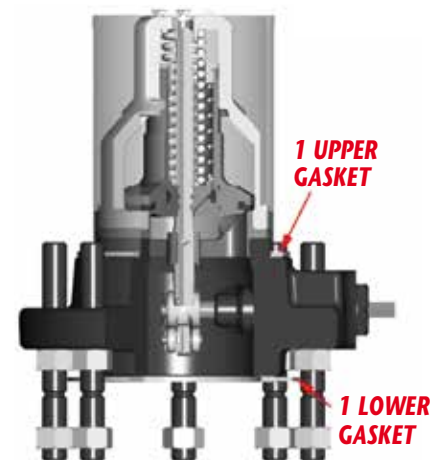
### 3" Double Flanged Valve

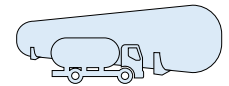
Product Code	Description
<b>680390018</b>	3/4"-10 UNC studs kit (16 pcs)
<b>680390019</b>	3/4"-10 UNC nuts kit (16 pcs)
<b>0401105575</b>	Upper spiral gasket (1 pcs)
<b>0401105576</b>	Lower spiral gasket (1 pcs)



### 4" Single Flanged Valve

Product Code	Description
<b>680390023 (UL Marked)</b>	3/4"-10 UNC studs kit (8 pcs)
<b>680390019 (UL Marked)</b>	3/4"-10 UNC nuts kit (16 pcs)
<b>0401105595 (UL Marked)</b>	Upper spiral gasket (1 pcs)
<b>0401105596</b>	Lower spiral gasket (1 pcs)
<b>0401105692 (π Marked)</b>	Upper spiral gasket (1 pcs)
<b>680390072 (π Marked)</b>	M20x2,5 long studs kit (1 pcs)





# Threaded and Flanged Internal Valve Accessories

## Spiral Gaskets



Product Code	Description
0401105575	Upper Spiral Gasket 3" Flanged Valve (Single and Double)
0401105576	Lower Spiral Gasket 3" Flanged Valve (Single and Double)
0401105595	Upper Spiral Gasket 4" Single Flanged Valve
0401105596	Lower Spiral Gasket 4" Single Flanged Valve

## Studs and Nuts



Product Code	Description
6803900018	3/4"-10 UNC studs kit (16 pcs)
6803900019	3/4"-10 UNC nuts kit (16 pcs)
6803900020	3/4"-10 UNC studs kit (8 pcs)
6803900021	M20x2,5 studs kit (8 pcs)
6803900022	M20x2,5 nuts kit (16 pcs)
6803900023	3/4"-10 UNC studs kit (8 pcs)
6803900072	M20x2,5 long studs kit (8 pcs)

## Main Spindle Assembled Kit



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

## Assembled Cone Kit



Product Code	Description
6803900029	Dedicated for Internal Valve 1-1/4" and 1-1/2" - 1 pcs
6803900030	Dedicated for Internal Valve 2" (1 way and 2 ways) - 1 pcs
6803900031	Dedicated for Internal Valve 3" (1 way and 2 ways) and 3" Flanged Valve (Single and Double) - 1 pcs

## Assembled Opening System Kit



Product Code	Description
6803900032	Dedicated for Internal Valve 1-1/4" and 1-1/2" - 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

## FFKM soft sealings kit



Product Code	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

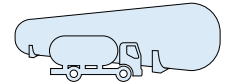
## Complete soft sealings kit (all the O-Rings and gaskets)

Product Code	Description
6803900040	Dedicated for Internal Valve 1-1/4" and 1-1/2" - 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 and Double Flanged valve - 1 pcs
6803900045	Dedicated for 4" Single Flanged Valve - 1 pcs

## Excess Flow Spring



Product Code	Description
6803900046	Dedicated for 30 GPM - Internal Valve 1-1/4" and 1-1/2"
6803900047	Dedicated for 50 GPM - Internal Valve 1-1/4" and 1-1/3"
6803900048	Dedicated for 80 GPM - Internal Valve 1-1/4" and 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



## Rotary Cams Actuators



### Features:

- 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

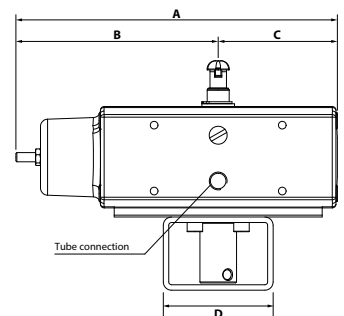
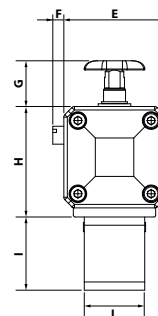
**Temperature:** from 0°C to +80°C; from -20°C to +80°C with dry air only. (Special versions: high temperature: -20°C +150°C; low temperature: -50°C +60°)

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

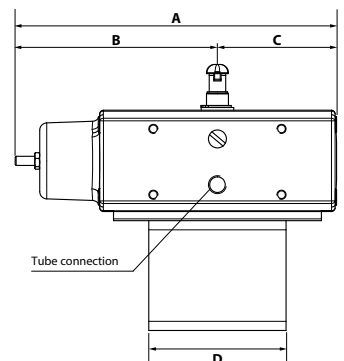
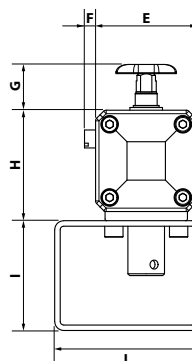
**Operating media:** compressed filtered air, not necessarily lubricated.

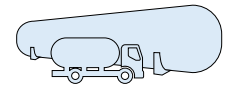
In case of lubricated air, either non detergent oil or NBR compatible oil, must be used.

### Actuator 1-1/4" and 1-1/2"



### Actuator 2" and 3"

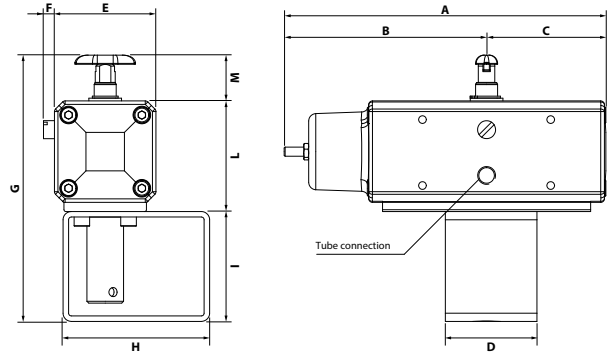




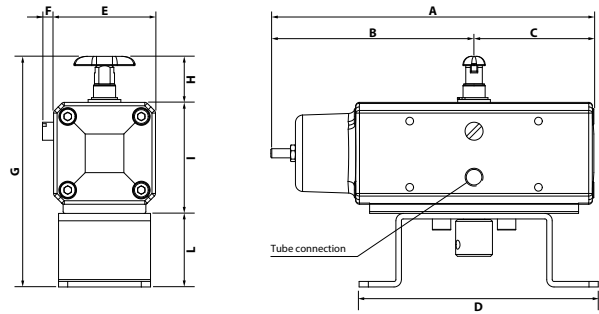
# Rotary Cams Actuators

Actuators

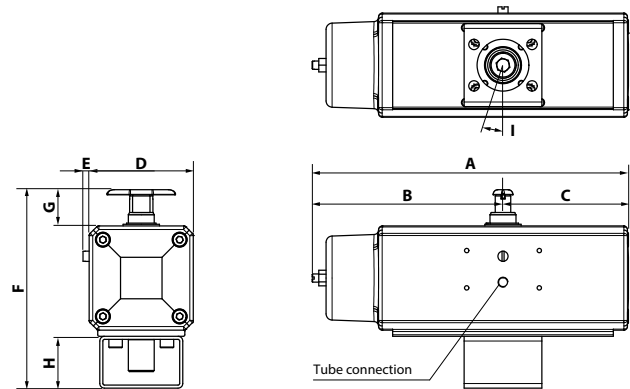
## Actuator 3" SINGLE FLANGED



## Actuator 3" DOUBLE FLANGED

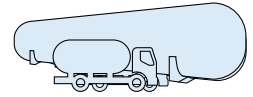


## Actuator 4" SINGLE FLANGED



Rotary Cams Actuators Dimensions (mm)		A	B	C	D	E	F	G	H	I	L	M	Ø tube connection
3000900000	O-205 Actuator 1-1/4" and 1-1/2"	175,6	110,5	65,1	60	55,4	6	25	60,4	40	33	-	1/4"
3000900001	O-206 Actuator 2" and 3"	175,6	110,5	65,1	75	55,4	6	25	60,4	60	80	-	1/4"
3000900002	O-207 SF Actuator 3" Single Flanged	175,6	110,5	65,1	50	55,4	6	145,4	80	60	60,4	25	1/4"
3000900003	O-207 Actuator 3" Double Flanged	175,6	110,5	65,1	130	55,4	6	125,4	25	60,4	40	-	1/4"
3000900004	O-208 SF Actuator 4" Single Flanged	305	184,1	120,9	100,4	6	191,4	35	50	17,5°	-	-	1/4"
3000900014	O-205 Actuator 1-1/4" and 1-1/2" tube Ø6 mm	175,6	110,5	65,1	60	55,4	6	25	60,4	40	33	-	6 mm
3000900015	O-206 Actuator 2" and 3" tube Ø6 mm	175,6	110,5	65,1	75	55,4	6	25	60,4	60	80	-	6 mm
3000900016	O-207 SF Actuator 3" Single Flanged tube Ø6 mm	175,6	110,5	65,1	50	55,4	6	145,4	80	60	60,4	25	6 mm
3000900017	O-207 Actuator 3" Double Flanged tube Ø6 mm	175,6	110,5	65,1	130	55,4	6	125,4	25	60,4	40	-	6 mm
3000900018	O-208 SF Actuator 4" Single Flanged tube Ø6 mm	305	184,1	120,9	100,4	6	191,4	35	50	17,5°	-	-	6 mm
3000900019	O-205 Actuator 1-1/4" and 1-1/2" tube Ø8 mm	175,6	110,5	65,1	60	55,4	6	60,4	60,4	40	33	-	8 mm
3000900020	O-206 Actuator 2" and 3" tube Ø8 mm	175,6	110,5	65,1	75	55,4	6	60,4	60,4	60	80	-	8 mm
3000900021	O-207 SF Actuator 3" Single Flanged tube Ø8 mm	175,6	110,5	65,1	50	55,4	6	80	80	60	60,4	25	8 mm
3000900022	O-207 Actuator 3" Double Flanged tube Ø8 mm	175,6	110,5	65,1	130	55,4	6	25	25	60,4	40	-	8 mm
3000900023	O-208 SF Actuator 4" Single Flanged tube Ø8 mm	305	184,1	120,9	100,4	6	191,4	50	50	17,5°	-	-	8 mm

High Performance actuator available upon request



## 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)



**Cod. 1309500142**



**Cod. 1309500143**



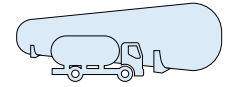
**Cod. 1309500144**



**Cod. 1309500147**

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





## Float Gauges



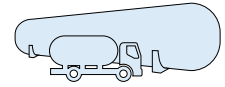
### Application:

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 & NH<sub>3</sub> 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)	Part Number (Ø4" - standard dial)	Part Number (Ø8" - big dial)
Ø 60" - 1525 mm	3001102765	3001102768
Ø 64" - 1625 mm	3001102766	3001102769
Ø 66" - 1675 mm	3001102740	3001102770
Ø 72" - 1830 mm	3001102741	3001102771
Ø 81 1/2" - 2070 mm	3001102742	3001102772
Ø 88 1/2" - 2250 mm	3001102744	3001102773
Ø 79" - 2000 mm	3001102748	3001102774
Ø 80" - 2030 mm	3001102749	3001102775
Ø 84" - 2135 mm	3001102750	3001102776
Ø 88" - 2235 mm	3001102751	3001102777
Ø 90" - 2285 mm	3001102752	3001102778
Ø 92 1/2" - 2350 mm	3001102720	3001102779
Ø 96" - 2450 mm	3001102721	3001102780
Ø 98" - 2500 mm	3001102723	3001102781
Ø 108" - 2755 mm	3001102788	3001102790
Ø 130" - 3315 mm	3001102789	3001102791



# Rotary Gauge System



Rotary Gauge



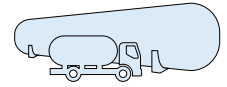
Cavagna Group rotary gauges can be used on stationary or mobile tanks to visually indicate the amount of LP-Gas in the container. They are also used in filling the tank to the proper liquid level. On mobile applications and some large stationary storage tanks, hangers are recommended to support the horizontal length of the dip tube.

The gauge is operated by opening the small bleed orifice when the tube is in the vapor space of the tank. Moving the pointer on the dial causes the end of the tube to move until it contacts liquid in the container. At that point, discharge from the bleed orifice turns from vapor to liquid and the rotary gauges dial gives the volume percentage of liquid in the tank.

Gauges fit 1" coupling container connections. All gauges have stem and dip tubes with an extra large inside diameter. This assures that the correct liquid level can be obtained quickly.

LPG dial for all tank sizes	LPG dial for tank over 1200 US gallons*	NH <sub>3</sub> /Ammonia dial for all tank sizes	For Container Inside Diameter			
						
			Ellipsoidal Heads		Hemispherical Heads	
			Side Mounted	End Mounted	Side Mounted	End Mounted
6802900227	6802900247	6802900242	30" - 45"	30" - 75"	30" - 45"	30" - 45"
6802900228	6802900248	6802900243	46" - 61"	76" - 108"	46" - 61"	46" - 61"
6802900229	6802900224	6802900244	62" - 79"	109" - 147"	62" - 79"	62" - 79"
6802900230	6802900225	6802900245	80" - 99"	-	80" - 99"	80" - 99"
6802900241	6802900226	6802900246	100" - 147"	-	100" - 147"	100" - 147"

\*Dial permits higher filling level, per NFPA 58



## 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. 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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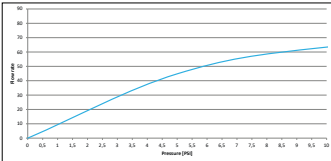
6902900201



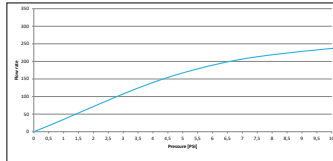
6902900202

Part Number	Material	Inlet	Outlet	Wrench Hex Flats	Length	Approximate Closing Flows			Approval
						Liquid (GPM Propane)	25 PSIG Inlet	100 PSIG Inlet	
6902900127	Steel	1 1/4"	1-1/4"	2"	~3"	30	5750	9800	UL CE Pi
6902900128	Steel	1 1/4"	1-1/4"	2"	~3"	40	7500	13330	CE UL
6902900129	Steel	1 1/4"	1-1/4"	2"	~3"	50	8800	15970	UL CE Pi
6902900201	Steel	3/4"	3/4"	1 3/8"	~2"	18	3700	6900	UL CE Pi
6902900202	Steel	2"	2"	3"	~4"	110	22100	37600	UL CE Pi

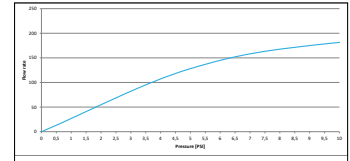
### Performance



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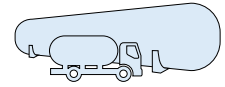


## Excess Flow Valves for Liquid or Vapor withdrawal

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)
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 Valve for Pressure Gauges



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.

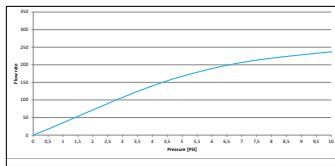
Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Approximate Closing Flows		
						Liquid (GPM Propane)	25 PSIG Inlet	100 PSIG Inlet
6902900199	Brass	3/4"	1/4"	1 1/16"	1,63"	103 SCTU Air (UL)	60	110



## Excess Flow Valves for Flange Mounting in Container Service

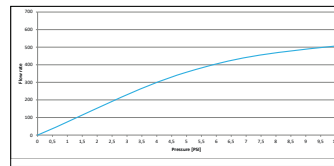


**69.0203**



**Performance**

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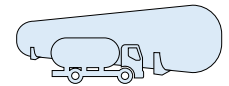


**Performance**



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.

Part Number	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Approximate Closing Flows		
						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



## 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
<b>7100900051</b>	Steel	3/4" F NPT	3/4" M NPT	1 3/8"	~2"	10,75	15,7	24,5
<b>7100900050</b>	Steel	1-1/4" F NPT	1-1/4" M NPT	2"	~2,6"	27,5	39,2	61,75
<b>7100900049</b>	Steel	2" F NPT	2" M NPT	3"	~3,3"	121,5	171,5	270,5
<b>7100900111</b>	Brass	1-1/4" F NPT	1-1/4" M NPT	2"	~2,6"	27,5	39,2	61,75

## LPG Filling Head for Manually Operated Tank Filler Valves



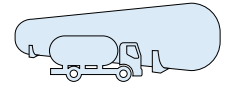
The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549.

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
<b>6882900057</b>	3/4" NPT	1-3/4" x 6 ACME - 2g connects to Cavagna filler valves like 66.0.290.1043, 6602901122	The Filling Head is designed to operate within the normal LPG supply pressures. Liquid filling product: 1-15 bar.



## 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
6802900235	1" (NTP)	1" (NTP)

## Hose End 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
- 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
- 400 WOG

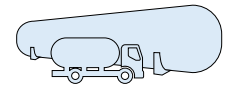
Part number	Inlet connection	Outlet connection	Handle Style	Handle Material
6802900234	1" (NTP)	1 3/4" ACME	Standard	Anodized Aluminium

## Hose End Adaptor



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

Part number	Inlet connection	Outlet connection
1009500305	1"-11.5 (NTP)	1 3/4" ACME



## Hose end Swivel Connectors

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.

**Hose End Swivel Connector 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
- See low emission hose end valves for factory installed E-ZTurn



**Part Number 1009500291**

Part number	Tank connection	Filler connection
1009500291	1"	1"

## Hose End Fill Check Adapters

These adapters are intended to be attached to the LP-Gas 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.

**Hose End Fill Adapter Features**

- Integral breakaway feature in the event of truck roll away leaving check intact on tank
- 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

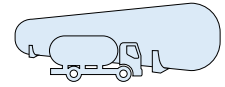


**1009500280**



**1009500281**

Part No.	Filler Valve F. Acme Connection	Hose End M. Acme Connection	Handle Style	Handle Material	Swivels	Factory Installed Vent Valve	Extended Version	Additional Keys
1009500280	1-3/4"	1-3/4"	Standard	Brass	No	No	No	-
1009500281	1-3/4"	1-3/4"	Standard	Brass	Yes*	No	No	-



## Multipurpose Valve for NH3 and LPG containers



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
6704901053	1 1/4-11.5 NPT	1 3/4-6 ACME-2G				

## Double Check Filler Valve for Delivery Truck Tanks and Large Storage Containers

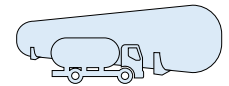


Designed to provide fast filling of bobtails, transports and large bulk storage tanks.

- 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 Length	Propane Liquid Capacity at Various Differential Pressures (GPM)				
					5 PSIG	10 PSIG	25 PSIG	50 PSIG	75 PSIG
6602901336	3/4"	3"	4"	6 1/2"	150	210	330	470	470





## Flanged Full Internal Relief Valves



### Application:

Designed for use in mobile LPG & NH<sub>3</sub> 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>	
<b>6602901325</b>	250	3" 300 LB Flange	2-1/2"	Yes	Yes	Nitrile
<b>6602901326</b>	265	3" 300 LB Flange	2-1/2"	Yes	Yes	Nitrile



Internal Valves



## Full Internal Relief Valves

### Application:

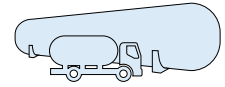
Designed for use in mobile LPG & NH<sub>3</sub> containers as a primary pressure relief valve for bobtail and transport trailer installations. All working components are internal to the container connection preventing damage to the valve should a roll-over incident occur.

### 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.
- Available with 250 & 265 PSI set pressures.
- 3.1 and 3.2 certificates area available.



Part Number	STD / PSIG	Container Connection	Installation Hex	UL		CE/π (at 17,24 bar)	Service		Seat Material	Wrench (optional)
							LPG	NH <sub>3</sub>		
<b>6602901402</b>	250	2" MNPT	1-17/32"	not applicable	not applicable	114,7 m <sup>3</sup> /min	Yes	Yes	Nitrile	<b>3101100033</b>
<b>6602901300</b>	265	2" MNPT	1-17/32"	4164 SCFM air	1965 dm <sup>3</sup> /s	not applicable	Yes	Yes	Nitrile	
<b>6602901403</b>	250	3" MNPT	2-9/16"	not applicable	not applicable	338,3 m <sup>3</sup> /min	Yes	Yes	Nitrile	<b>3101100034</b>
<b>6602901301</b>	265	3" MNPT	2-9/16"	12705 SCFM air	5996 dm <sup>3</sup> /s	not applicable	Yes	Yes	Nitrile	



## ACME Adapters



1009500248



1009500247

Part No.	INLET	OUTLET (M.NPT)
<b>1009500246</b>	1-3/4" M. Acme	1-1/4"
<b>1009500248</b>	1-3/4" M. Acme	3/4"
<b>1009500249</b>	1-3/4" M. Acme	1"
<b>1009500263</b>	3-1/4" M. Acme	3"
<b>1009500264</b>	3-1/4" M. Acme	2"
<b>1009500247</b>	1-3/4" M. Acme	1-3/4" M. Acme

## Filler and Vapor



1009500257



1009500253

Part No.	INLET	OUTLET (M.NPT)
<b>1009500251</b>	1-3/4" F. Acme	3/4" M.NPT
<b>1009500252</b>	1-3/4" F. Acme	1" M.NPT
<b>1009500253</b>	1-3/4" F. Acme	1/2" M.NPT
<b>1009500257</b>	2-1/4" F. Acme	1-1/4"

## ACME Cap



1009500254

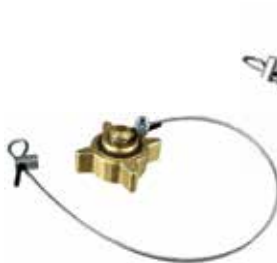


1009500258



1009500262

Part No.	F. Acme (cap)
<b>1009500254</b>	1-3/4" F. Acme Cap Plug with Knob
<b>1009500258</b>	2-1/4" F. Acme Cap Plug with Knob
<b>1009500262</b>	3-1/4" F. Acme Cap Plug with Knob



1009500277



1009500278



1009500279

Part No.	F. Acme (cap)
<b>1009500277</b>	1-3/4" F. Acme Cap Plug with Knob and metallic cable
<b>1009500278</b>	2-1/4" F. Acme Cap Plug with Knob and metallic cable
<b>1009500279</b>	3-1/4" F. Acme Cap Plug with Knob and metallic cable

## ACME Adapters

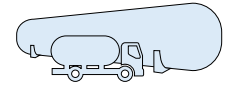


1009500256



1009500259

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



**π**

**External Pressure Relief Valves**



**66.1139**  
66.0.290.1139  
Pressure relief valve for small containers and on-line pipe installations.  
**Setting point:** 17,24 bar.



**66.1280**  
66.0.290.1280  
Pressure relief valve for small containers and on-line pipe installations.  
**Setting point:** 17,24 bar.



**66.1299**  
66.0.290.1299  
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	Configuration suitable for this tank capacity:	PRV - Start to Discharge Setting (bar)	PRV-OVERPRESSURE 10%	Approval	PRV Orifice (mm)
			Taper			CAPACITY Nm <sup>3</sup> /min. (If not specified otherwise)		
66.0.290.1139	1/4-18 NPT	22	x	-	17,24 (250 PSIG)	18,41 (at 120%O.P. SCFM-AIR)	UL / ASME	19,00
66.0.290.1280	1/4-18 NPT	22	x	-	17,24 (250 PSIG)	8.1 m3/min - %120	CE / π	-
66.0.290.1299	1/2-14 NPT	22	x	-	17,24 (250 PSIG)	8.1 m3/min - %120	CE	-



**Hydrostatic Pressure Relief Valves**

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.



Part Number	Bottom Male Connection	Wrench grip hexagon (mm)	Thread type	PRV - Start to Discharge Setting (PSIG)	Approval	PRV Orifice (mm)
66.1311	1/4-18 NPT	14	X	440	UL	19,00

**Hydrostatic Relief Valve Features**

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



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"



**Fixed Liquid Level Gauges**



**66.1072**  
66.0.290.1072

Special DT length can be ordered apart. An optional instruction plate may be ordered for use with these valves. All these valves incorporate a No. 54 drill size orifice.



**66.1161**  
66.0.290.1161

Remote outgauge

Part Number	Container Connection	Outlet Connection	DT Length
66.1072	1/4" M.NPT	-	12"
66.1116	1/4" M.NPT	-	5.4"
66.1117	1/4" M.NPT	-	6.6"
66.1118	1/4" M.NPT	-	3.8"
66.1119	1/4" M.NPT	-	4.1"
66.1120	1/4" M.NPT	-	5.6"
66.1121	1/4" M.NPT	-	6.9"
66.1204	1/4" M.NPT	-	Without
66.1125	1/4" M.NPT	-	5.2"
66.1161	1/4" NPTF	1/4" SAE Flare	Without



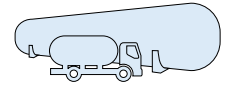
**CAVAGNA group**

Wherever gas is used, we are there

# LPG Storage Tank Accessories

<b>Liquid Withdrawal Valves</b>	<b>PG. 30</b>
<b>External Pressure Relief Valves</b>	<b>PG. 32</b>
<b>Filler Valves</b>	<b>PG. 34</b>
<b>Shear Valve</b>	<b>PG. 35</b>
<b>Level Gauges</b>	<b>PG. 36</b>





## Liquid Withdrawal & Transfer Valves



**VL 13**  
69.0008  
Liquid withdrawal valve

**RL 15**  
72.0007

Liquid Transfer Valve to be used with our VL 13 and VLT 18. It incorporates an excess flow limiter.



**VL 25**  
69.0005  
Liquid withdrawal valve to be used with our RL 25 Liquid Withdrawal Valve.

**RL 25**  
72.0006

Liquid Transfer Valve to be used with our VL 25. It incorporates an excess flow device limiter.



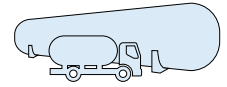
**LF 25C**  
69.0040  
Liquid withdrawal Excess flow device Valve.  
Performance: excess flow device closes  $25.5 \div 3 \text{ m}^3/\text{h}$  (water); residual flow  $\leq 0.020 \text{ m}^3/\text{h}$  (water) with  $\Delta P +1 \text{ bar}$

**RRL 16 A-P**  
67.0797 / 0793

Liquid withdrawal valve complete with protection cap.



Part number	Container connection	Outlet connection	Wrenching Grip (mm)
69.0008 (VL 13)	3/4" – 14 NPT	3/4" – 14 NPT (plugged)	35 (hex.)
69.0005 (VL 25)	1 1/4" – 11.5 NPT	M 25 x 1.5 (plugged)	46 (hex.)
72.0006 (RL 15)	3/4" – 14 NPT	M 30 x 1.5	28 (square)
72.0007 (RL 25)	M 25 x 1.5	M 30 x 1.5	32 (square)
67.0793 (RRL 16)	3/4" – 14 NPT (with*/without* tube threading 3/4" 28UN-2B for dipping)	3/4" – 14 NPT (with plug cap)	34 (square)
69.0040 (VLF 25C)	1 1/4" – 14 NPT	3/4" – 14 NPT	46 (hex.)



## Liquid Withdrawal Valves with Excess Flow

These valves are designed for liquid withdrawal from stationary containers.



**69.0010**  
69.0.190.0010

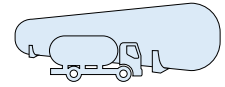
This new liquid withdrawal valve is designed for liquid evacuation prior to moving the tank. This valve can also be used on permanent installations equipped with an excess flow limiter. Designed according to the latest UL standard.  
Pre-applied sealant



**69.0109**  
69.0.190.0109

This new liquid withdrawal valve is designed for liquid evacuation prior to moving the tank. This valve can also be used on permanent installations equipped with an excess flow limiter. Designed according to the latest UL standard.  
Pre-applied sealant

Part Number	Container Connection	Outlet Connection	U.L. Closing Flow (Propane)	Wrench Hex Flat
69.0010	3/4" M NPT	1-5/8" UN	20 GPM	1-3/4"
66.1109	1-5/8" UN	3/4" NPT	n/a	n/a
69.0109	1-1/4" NPT	1-5/8" UN	36 GPM	1-3/4"



## External Pressure Relief Valves



**EU 25**  
70.0205

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



**ST 25**  
71.0000



**PV 25**  
70.0.190.0205



**EU 30**  
70.0004

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



**ST 32**  
71.0011



**PV 30**  
70.0.190.0208



**EU 25**  
70.0029

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

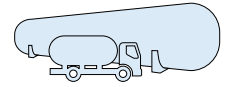


**M 45**  
71.0025

Designed for installation in stationary ASME applications such as bulk plant, skid tanks, underground and above ground containers, as the primary pressure relief valve.

Part number	Bottom Male connection	Thread type		Configuration suitable for this capacity 10 PSI	PRV - Start to discharge setting (bar)	PRV Overpressure 10%	PRV Orifice (mm)
		Taper	Parallel			Capacity Nm <sup>3</sup> /min.	
<b>70.0205 (EU25) - PRV</b> <b>71.0000 (ST 25) - CLD</b>	1" NPSM 1 1/4" NPT or 1" NPT	x	x	1750 lt	Basic Setting 256 PSI 17,65 bar	76	23,5
<b>70.0004 (EU30) - PRV</b> <b>71.0011 (ST 32) - CLD</b>	1 1/4" NPSM 2" NPT	x	x	3000/5000 lt		121	29,5
<b>70.0029 (EU25)</b> <b>71.0025 (M45)</b>	1-11.5 NPSM 2"-11.5 NPT	x	x		15,17 bar	71,6	



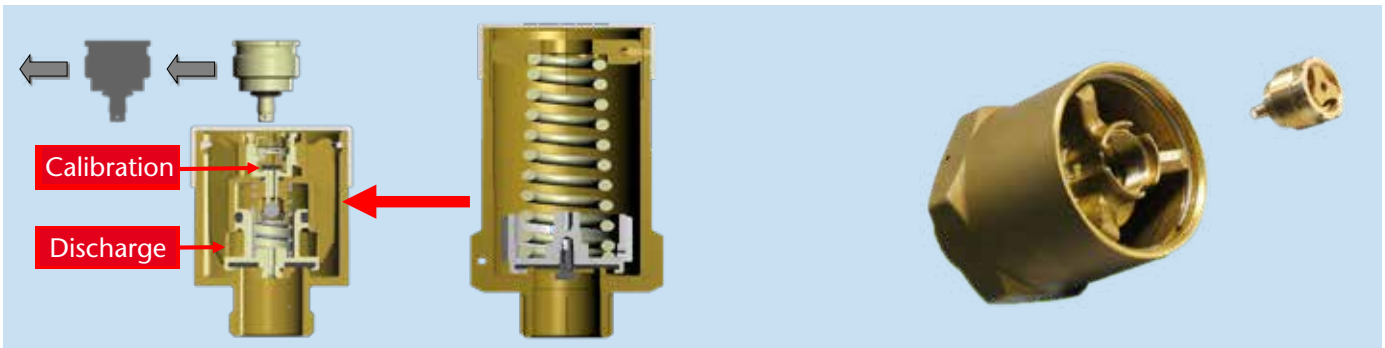


# PV Series

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.

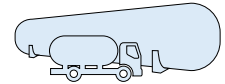
Available for all dimensions of stationary tanks and different threads.  
 Approved to European standard EN 14129 , UL 132 and ASME v8 .



PV Safety valve with separate functions : calibration Traditional External Security Valve function and discharge

Extreme cost reduction of the safety valves re - inspection

Part number	Inlet Connection	PRV Orifice (mm)	PRV - Start to discharge setting (bar)	Flow Capacity (m <sup>3</sup> /min)	
				110% PN	120% PN
PV 25	1¼"-11,5 NPT NPSM	24,5		90,1	97,9
PV 30	2"-11,5 NPT	29,5		132,0	143,5



## Filler Valves



**VRN 20**  
66.1043



**VRN 20 45°**  
66.1233



**VRN 20L**  
66.1063

- 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.

Part number	Tank connection	Filler connection	Lpg liquid capacity at various differential pressure (GPM)			
			10 PSI	25PSI	50 PSI	75 PSI
66.1063 (VRN 20L)	1 1/4" - NPT	1 3/4" - 6 ACME	54	100	148	190
66.1043 (VRN 20)	1 1/4" - NPT	1 3/4" - 6 ACME	54	100	148	190
66.1233 (VRN 20 45°)	1 1/4" - 11.5 NPT	1 3/4" - 6 ACME 2G	54	100	148	190

## Filler Valves with Manual Ball Shut-off Features



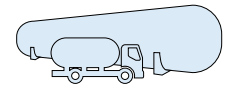
**VRN 93**  
66.0221



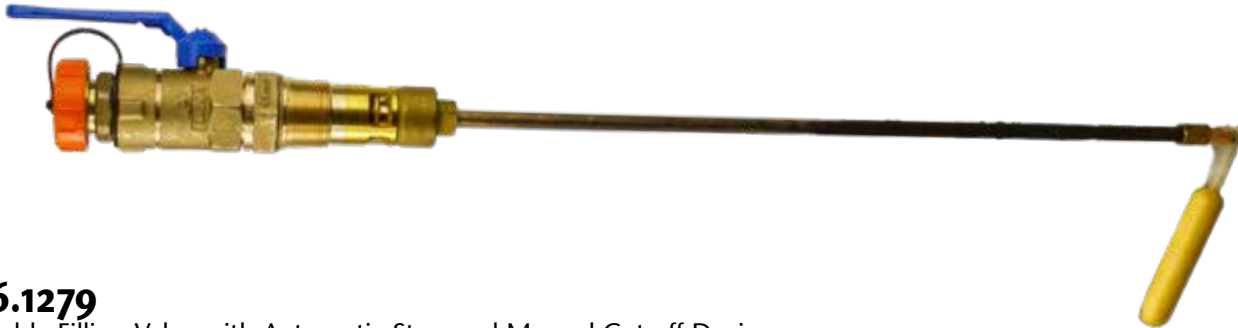
**VRN 88**  
67.0681

- 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  $\geq 8 \text{ m}^3$  water  $\Delta p = 4 \text{ bar}$

Part Number	Tank connection	Filler connection
66.0221 (VRN 93)	1 1/4 - NPT	1 3/4 - 6 ACME
67.0681 (VRN 88)	1 1/4 - NPT	1 3/4 - 6 ACME



## Filler Valves with Overfilling Prevention Device and Manual Shut Off Valve



### 66.1279

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

#### APPLICATION

These filler valves are designed for horizontal LPG containers. All the valves are equipped with an overfilling prevention device and manual shut off valve.

Part number	Tank connection	Filler connection	Product Name
6602901145	1 ¼" – 11.5 NPT	1 ¾" -6 ACME-2G	VRNSC 1600F
6602901146	1 ¼" – 11.5 NPT	1 ¾" -6 ACME-2G	VRNSC 2400F
6602901279	1 ¼" – 11.5 NPT	1 ¾" -6 ACME-2G	VRNSC 1600
6602901314	1 ¼" – 11.5 NPT	1 ¾" -6 ACME-2G	VRNSC 1600

## Shear Valve



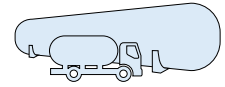
### 68.0202

Shear Valve

#### APPLICATION

Shear valves are assembled under the autogas dispensers. It is a kind of safety valve to cut-off the gas line in case of crash or inçline of dispenser. Shear valve has a weak section in its center that allows to shear in case of accidents thereby leaving the both parts in close position.

Part number	Connections	Lenght	Shear Point	Flow Rate
68.0202	3/4" - 14 NPT	138 mm	90 Nm	6.000 lt/h @10 bar 7.500 lt/h @15 bar



## Multiple Heads Valve



**67.1062**  
67.0.490.1062



**16.0369**  
16.0.950.0369

This multi-service valve is designed for use in a single opening ASME container with a riser of 2-1/2" M NPT. A separate opening is required for a liquid withdrawal valve.

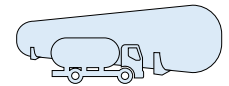
### Features

The solid brass multi-service valve incorporates:

- double back check filler valve
- vapor equalizing valve with excess flow
- pressure relief valve with protective cap
- service valve with Cavagna quality handwheel system
- plugged 1/4" F.NPT gauge boss
- fixed liquid level gauge with 36" DT
- "Junior" size float gauge flange opening. Specify float gauge when ordering
- internal threads accommodate 2-1/2" M NPT riser pipe connection and a 3/4" F.NPT connection for the filling valve opening
- double O-ring service valve: individual replacement system

### Ordering Information

Part Number	Tank Connection	Vapor Service Connection	Filler Connection	Fixed Liquid Level Gauge	DT Length	Propane liquid capacity at various differential pressure (GPM)				Pressure Relief Valve Flow Capacity (SCFM) Air		
						10 PSIG	25 PSIG	50 PSIG	75 PSIG	PRV Setting	UL	ASME
<b>67.0.490.1062</b>	2-1/2" 8 NPT	POL (CGA 510)	1-3/4" ACME	captive	36"	58	98	146	186	250	1918	1808
<b>1201101721</b>	Tube for Multiple heads valve											
<b>1609500369</b>	Assembled OPD											



# Level Gauges

## Small Bulk Tanks



Part number	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
2078-2INT/I TVA	Vertical Underground with Painted Head	1200	2250/2300

Part number	Tank Model	Ø	Lt.
2070 MI A	Horizontal	800	990/1000
2071 MI A	Horizontal	1000	1750/1800
2072 MI A	Horizontal	1200	3000/5000
2073 MI A	Horizontal	1250	-
2075 MI A	Vertical	800	500

Part number	Tank Model	Ø	Lt.
2070 MTI-E TVA	Horizontal	800	990/1000
2071 MTI-E TVA	Horizontal	1000	1750/1800
2072 MTI-E TVA	Horizontal	1200	3000/5000
2073 MTI-E TVA	Horizontal	1250	-
2075 MTI-E TVA	Vertical	800	500
2077 MTI-E TVA	Vertical	1000	1000
2078 MTI-E TVA	Vertical	1200	1500/1650

Part number	Tank Model	Ø	Lt.
20SO.U-19	Horizontal	760 mm	950 lt
20SO.U-20	Horizontal	940 mm	1890 lt
20SO.U-21	Horizontal	1020 mm	3780/5300 lt
20SO.U-22	Horizontal	1220 mm	7570 lt

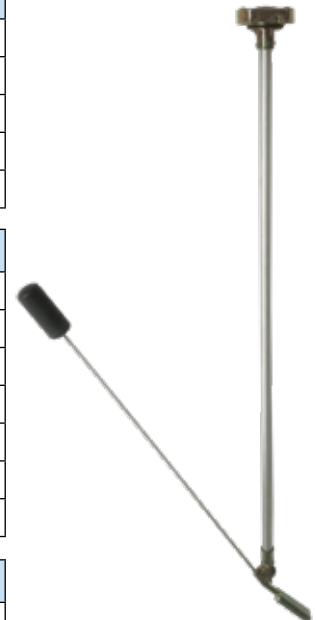
Part number	Tank Model	Ø	Lt.
2074-18	Horizontal	1900 mm	>5000 lt
2074-19	Horizontal	2350 mm	>5000 lt
2074-46	Horizontal	1600 mm	-

## High Volume Tanks & Autogas Tanks

## Small Bulk Tanks



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









**CAVAGNA GROUP**

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 dynamic 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 the design of, materials in or construction of the Product that 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 product is 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 arrives 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, flaw or 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 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 become 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**

As far as the brand 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, or invoice); The buyer assumes the risk of any difference between the European Directives plus the Italian regulations and those of the country of destination, use or installation of the Products, and indemnifies the Warrantor for any such differences it.

The Warrantor guarantees the performance of brand new products of 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). 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
- 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, terms and conditions of the product liability insurance policy held by it (a copy of the current policy 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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