

Wherever gas is used, we are there

# Valves, Regulators & Filling Heads for Refrigerant Gases

2022-2023 EDITION



# SOLUTIONS

#### LPG SOLUTIONS





#### **COMPRESSED GASES SOLUTIONS**





#### **HEALTHCARE SOLUTIONS**





#### NATURAL GAS SOLUTIONS





#### ALTERNATIVE FUEL SYSTEMS





#### **GAS METERING SOLUTIONS**





#### INDUSTRIAL PROCESS MANAGEMENT













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

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

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

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

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

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

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

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# SINGLE PHASE DIAPHRAGM VALVES

# for flammable Refrigerant Gas

#### **Features**

- · Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · Spring Loaded PRV or Bursting disk
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
- Removable
- Unremovable
- Breakable
- · Red or Blue plastic handwheel with green label
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Plastic sediment tube
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

Test pressure 55 bar / 800 psi Service temperatures -20°C up to + 65°C

Seat orifice size 8 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec external 4,3 10-3 mbarl/sec

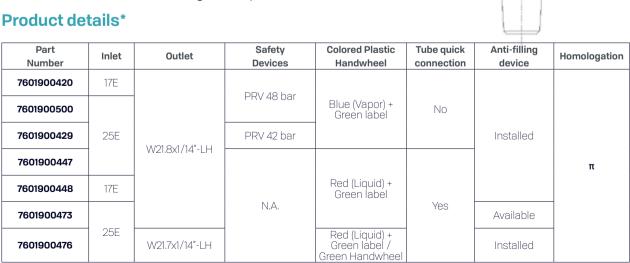
Material Body: brass

Handwheel: plastic Seat Pad: PA66

Diaphragm: stainless steel

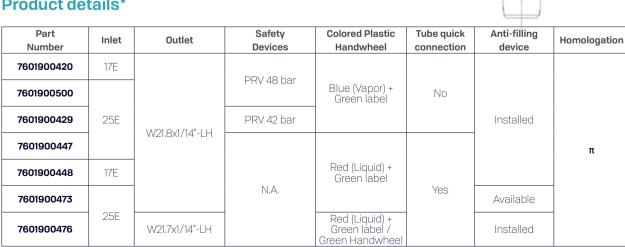
Withdrawal tube: PA

Inlet and outlet connections According to country standards



<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.







# SINGLE PHASE DIAPHRAGM VALVES

# for inert Refrigerant Gas

#### **Features**

- · Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · W Listed According UL 1769
- · Spring Loaded PRV or Bursting disk
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Red or Blue plastic handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Spring Loaded PRV cartridge
- · Dry sealant inlet thread
- · PTFE taped inlet thread

# **Specifications**

Test pressure 55 bar / 800 psi -20°C up to +65°C Service temperatures

Seat orifice size

Helium leak rate at Pmax internal 4,3 10-3 mbarl/sec

external 4.310-3 mbarl/sec

Body: brass Material

Handwheel: plastic Seat Pad: PA66

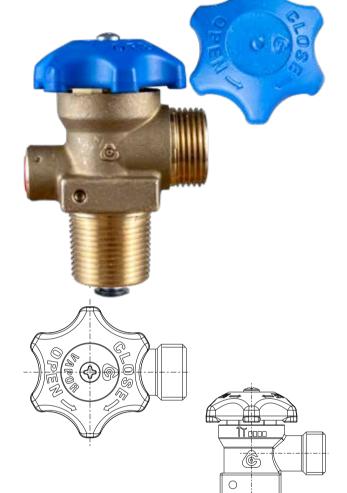
Diaphragm: stainless steel

Withdrawal tube: PA

Inlet and outlet connections According to country standards and all

requirements of:

CGAV9 / CGA s-11 / CGA V-1 / ISO 10297



Part Number	Inlet	Outlet 1	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900333		W21.8x1/14"	Bursting Disk 43 bar	Blue (Liquid)	Yes	Installed	
7601900430	25E	VA /O1 7: 4 /1 4"	PRV 42 bar	Blue (Vapor)	No		π
7601900450		W21.7x1/14"		Red (Liquid)		Not Applicable	
7601900481		W21.8X1/14" - LH	No	Red (Vapor)	Yes	Installed	
7601900454	3/4"-14 NGT	CGA 660	110	Blue (Vapor)	100	Not Applicable	(h)
7601900455	75/4 14 1101	COA 000		Red (Liquid)		Thot Applicable	•
7601900484	170	W21.8x1/14"					
7601900497	- 17E	W21.8X1/14" - LH	PRV 48 bar	Blue (Liquid)	No		_
7601900499	000	VA /O1 O. 4 /14"				Installed	π
7601900501	25E	W21.8x1/14"	No	Red (Liquid)	Yes	1	

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# DOUBLE PHASE DIAPHRAGM VALVES

# for flammable Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · Spring Loaded PRV
- · Single or Double outlet
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Red and Blue plastic handwheel with green label
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Spring Loaded PRV Cartridge
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

**Test pressure** 55 bar / 800 psi **Service temperatures** -20°C up to + 65°C

Seat orifice size 8 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

external 4,3 10-3 mbarl/sec

Material Body: brass

Handwheel: plastic Seat Pad: PA66

Diaphragm: stainless steel

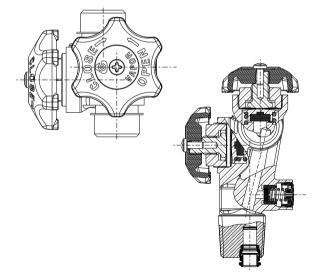
Withdrawal tube: PA

Inlet and outlet connections According to country standards









Part Number	Inlet	Outlet 1	Outlet 2	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900427		W21.8x1/14"-LH	No	PRV 42 bar	Blue (Vapor) + Green label / Red (Liquid) + Green label	Yes	Installed	
7601900428	25E		No	No				_
7601900440	20E		W21.8x1/14"-LH	No			Available	π
7601900464			W21.8x1/14"-LH	PRV 48 bar				

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# DOUBLE PHASE DIAPHRAGM VALVES

# for inert Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · D Listed According UL 1769
- · Spring Loaded PRV or Bursting disk
- · Single or Double outlet
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device:
  - Removable
  - Unremovable
  - Breakable
- · Red and Blue plastic handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Spring Loaded PRV Cartridge
- · Dry sealant inlet thread
- · PTFE taped inlet thread

#### **Specifications**

Test pressure 55 bar / 800 psi Service temperatures -20°C up to +65°C

Seat orifice size 8 mm

Helium leak rate at Pmax internal 4,3 10-3 mbarl/sec

external 4,310-3 mbarl/sec

Material Body: brass

Handwheel: plastic Seat Pad: PA66

Diaphragm: stainless steel

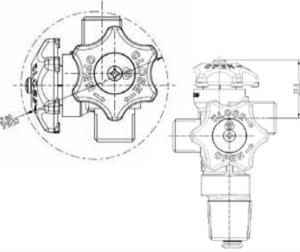
Withdrawal tube: PA

**Inlet and outlet connections** According to country standards









Product	uotun		Г	1			=	2
Part Number	Inlet	Outlet 1	Outlet 2	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologatio
7601900167	25E	W21.7x1/14"	No	PRV 42 bar			Available	
7601900169	3/4-14 NGT	1.030-14 NGO-RH- EXT (CGA 660)	1.030-14 NGO-RH- EXT (CGA660)	PRV 600 PSI			Not Applicable	
7601900354		W21.7x1/14"	W21.7x1/14"	PRV 42 bar				
7601900390		W21.8x1/14"	W21.8x1/14"	No			A !   -   -   -	π
7601900393	25E	OF /0"A	G5/8"A				Available	
7601900422		G5/8"A	No	PRV 42 bar	Blue (Vapor) / Red (Liquid)			
7601900187		W21.8x1/14"	W21.8x1/14"			Yes	Installed	
7601900453	3/4"-14 NGT 7 Oversize CGA V-1	CGA 660	CGA 660	PRV 600 PSI	rtea (Liquia)		Not Applicable	(h)
7601900240	3/4"-14 NGT							
7601900495	25E	W21.7x1/14"	W21.7x1/14"	DDV 40 hor			Available	_
7601900502	ZOE	VV∠1./ X1/ 14	No	PRV 48 bar			Installed	π

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# Y VALVES

# for flammable Refrigerant Gas

#### **Features**

- · Valve for gas recovery
- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Double O-Ring valve operating mechanism
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · 1 Listed according UL 1769
- · Spring Loaded PRV or Bursting Disk
- · Single or Double outlet
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Red and Blue plastic handwheel with green label
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

Test pressure55 bar / 800 psiService temperatures $-20^{\circ}\text{C} \text{ up to} + 65^{\circ}\text{C}$ 

Seat orifice size 4 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

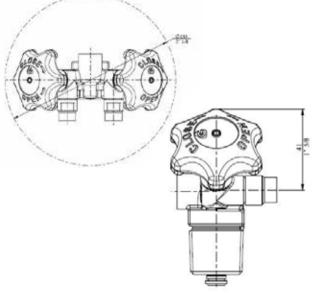
external 4,3 10-3 mbarl/sec

Material Body: brass

Handwheel: plastic Seat Pad: PA66 O-ring: CR Rubber Withdrawal tube: PA

Inlet and outlet connections According to country standards





Part Number	Inlet	Outlet 1	Outlet 2	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900445	3/4 - 14 NGT		1/2"-16 ACME-LH- CGA166	PRV 600 PSI	Blue (Liquid) / Red (Vapor) + Green label / Red (Liquid) + Green label			
7601900446	3/4 - 14 NGT	1/2"-16 ACME-LH- CGA166		PRV 375 PSI		Yes	Not Applicable	<b>®</b>
7601900449	25E			PRV 42 bar				π

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# Y VALVES

# for inert Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Double O-Ring valve operating mechanism
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · (9) Listed according UL 1769
- · Spring Loaded PRV or Bursting Disk
- · Single or Double outlet
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Red and Blue plastic handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

Test pressure 55 bar / 800 psi Service temperatures -20°C up to + 65°C

Seat orifice size 4 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

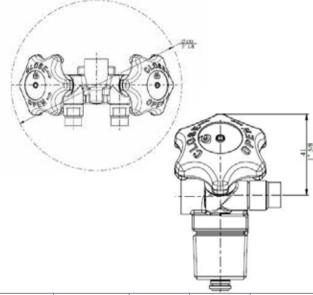
external 4,3 10-3 mbarl/sec

Material Body: brass

Handwheel: plastic Seat Pad: PA66 O-ring: CR Rubber Withdrawal tube: PA

**Inlet and outlet connections** According to country standards





							-	
Part Number	Inlet	Outlet 1	Outlet 2	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling	Homologation
7601900184	25E	1/4" SAE FLARE (CGA 165)	1/4" SAE FLARE	PRV 42 bar			Not	π
7601900214	3/4 - 14 NGT		(CGA 165)	PRV 600 PSI	Blue (Vapor) / Red (Liquid)		Applicable	π and 🕦
7601900220	25E	1.030"-14 NGO-RH- EXT (CGA 660)	No	PRV 42 bar			Available	
7601900362	25E	1/4" SAE FLARE (CGA 165)	1/4" SAE FLARE (CGA 165)	PRV 46 bar		Yes		π
7601900466	25E	W21.7x1.814	No	Bursting Disk 43 Bar				
7601900224	3/4"			PRV 600 PSI			Not Applicable	(h)
7601900257	3/4"-14 NGT	CGA 165	CGA 165	PRV 600 PSI	Blue (Liquid) / Red (Vapor)		Applicable	( QL)
7601900269	25E			PRV 600 PSI				π

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# O-RING VALVES

# for flammable Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Double O-Ring valve operating mechanism
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · (1) Listed according UL 1769
- · Spring Loaded PRV

# **Options**

- · Customer's logo on label
- · Cap nuts available
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Brass handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

Test pressure 55 bar / 800 psi Service temperatures -20°C up to + 65°C

Seat orifice size 7 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

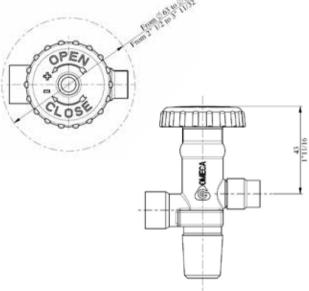
external 4,3 10-3 mbarl/sec

Material Body: brass

Handwheel: brass Seat Pad: PA66 O-ring: CR Rubber Withdrawal tube: PA

**Inlet and outlet connections** According to country standards





Part Number	Inlet	Outlet	Safety Devices	Tube quick connection	Anti-filling device	Homologation
7601900452	17E	1/2"-16 ACME-LH (CGA166)	PRV 42 bar	No	Not Applicable	π and 🕦
7601900310	25E	W21.8x1/14" DIN 477				
7601900328	170	VA/C1 O. 4 /1 4"	N.A.	Yes	lootelle d	_
7601900330	17E	W21.8x1/14"			Installed	π
7601900406	25E	1.030-14 NGO LH	PRV 42 bar	No		

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# O-RING VALVES

# for inert Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Double O-Ring valve operating mechanism
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · (1) Listed according UL 1769
- · Spring Loaded PRV

#### **Options**

- · Customer's logo on label
- · Cap nuts available
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Brass handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- PTFE taped inlet thread

# **Specifications**

Test pressure $55 \, \mathrm{bar} / 800 \, \mathrm{psi}$ Service temperatures $-20^{\circ}\mathrm{C} \, \mathrm{up} \, \mathrm{to} + 65^{\circ}\mathrm{C}$ 

Seat orifice size 7 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

external 4,310-3 mbarl/sec

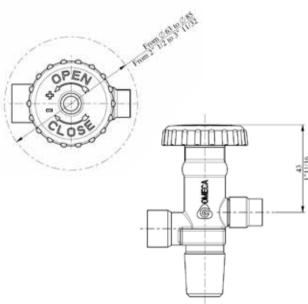
Material Body: brass

Handwheel: brass Seat Pad: PA66 O-ring: CR Rubber Withdrawal tube: PA

**Inlet and outlet connections** According to country standards







Part Number	Inlet	Outlet	Safety Devices	Tube quick connection	Anti-filling device	Homologation
7601900192	17F	7/16" (CGA 165)	PRV 42 bar	No	Not Applicable	
7601900330	1/ =	VA/O1 O. 4 /1 4"	NI A	Yes	Installed	
8008907007	055	W21.8x1/14"	N.A.			π
8008908153	25E	7/16" (CGA 165)	DD\/ 42 box	No	Not Applicable	
7661900315	17E	W21.8x1/14"-LH	PRV 42 bar			

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# VALVES

# for flammable Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · (9) Listed according UL 1769
- · Spring Loaded PRV Cartridge
- · Single outlet
- · Tube quick connection
- · Pneumatically activated Anti-Filling rubber seal

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Liquid withdrawal tubes quick connection
- · Red and Blue plastic handwheel with green label
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- · PTFE taped inlet thread

# **Specifications**

Test pressure55 bar / 800 psiService temperatures $-20^{\circ}\text{C} \text{ up to} + 65^{\circ}\text{C}$ 

Seat orifice size 8 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

external 4,3 10-3 mbarl/sec

Material Body: brass

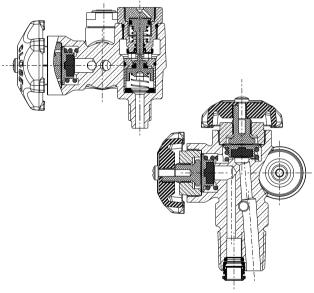
Handwheel: plastic Seat Pad: PA66

Diaphragm: stainless steel

Withdrawal tube: PA

**Inlet and outlet connections** According to country standards





Part Number	Inlet	Outlet	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling	Homologation
7601900479	3/4 - 14 NGT	1/2"-16 ACME-LH	PRV 600 PSI	Blue (Vapor) / Red (Liquid)	Yes	Installed	$\Psi_{and \ \pi}$
7601900498	1 9/4 - 14 NGT	(CGA166)	PRV 375 PSI			Not Applicable	(l)

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# VALVES

# for inert Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · ® Listed according UL 1769
- · Spring Loaded PRV Cartridge
- · Single outlet
- · Tube quick connection
- · Pneumatically activated Anti-Filling rubber seal

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Liquid withdrawal tubes quick connection
- · Red and Blue plastic handwheel
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- · PTFE taped inlet thread



Test pressure 55 bar / 800 psi Service temperatures -20°C up to + 65°C

Seat orifice size 8 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

external 4,3 10-3 mbarl/sec

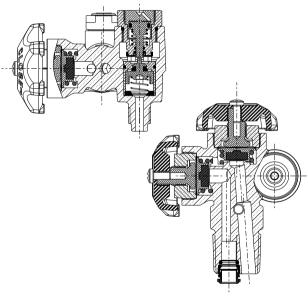
Material Body: brass

Handwheel: plastic Seat Pad: PA66

Diaphragm: stainless steel Withdrawal tube: PA

**Inlet and outlet connections** According to country standards





Part Number	Inlet	Outlet	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900469	3/. 14 NOT	CGA 165**	DDV 600 DCI	Dha Manay / Dad (Lightid)	\/aa	lootollod	(h)
7601900480	3/4 - 14 NGT	CGA 167	PRV 600 PSI	Blue (Vapor) / Red (Liquid)	Yes	Installed	$\bigoplus_{and} \pi$

<sup>\*\*</sup>for applications using HFO 12347F

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# Y VALVES

# for HFO R1234YF Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Double O-Ring valve operating mechanism
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · (1) Listed according UL 1769
- · Spring Loaded PRV or Bursting Disk
- · Single or double outlet
- · Tube quick connection

#### **Options**

- · Customer's logo on label
- · Liquid withdrawal tubes quick connection
- · Anti-Filling device (Rubber or Metal seal):
  - Removable
  - Unremovable
  - Breakable
- · Colored plastic handwheel: red, blue
- · Plastic inlet/outlet thread protection
- · PRV plastic red cap
- · Dry sealant inlet thread
- PTFE taped inlet thread

#### **Specifications**

Test pressure 55 bar / 800 psi Service temperatures -20°C up to + 65°C

Seat orifice size 4 mm

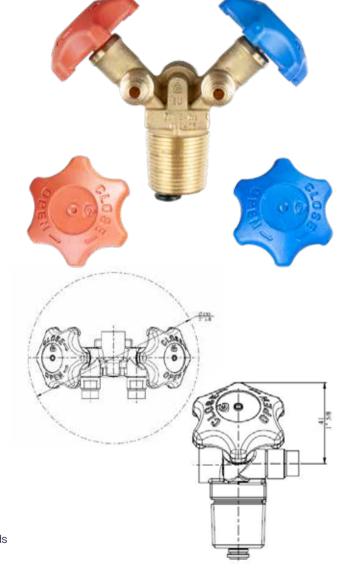
Helium leak rate at Pmax internal 4,310-3 mbarl/sec

external 4,310-3 mbarl/sec

Material Body: brass Handwheel: plastic

Seat Pad: PA66 Diaphragm: CR Rubber Withdrawal tube: PA

Inlet and outlet connections According to country standards



Part Number	Inlet	Outlet 1	Outlet 2	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900445	3/4"-14 NGT		1/0" 10 A ON AE LLI	PRV 600 PSI	Blue (Liquid) - Red (Vapor)	Yes	Not Applicable	(h)
7601900446			1/2 -10 ACIVIE-LH	PRV 375 PSI				(AL)

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# HIGH FLOW VALVES

# for Refrigerant Gas

#### **Features**

- Brass cylinder valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- π marking according TPED directive and EN ISO 10297
- · CE marking according to PED directive and EN 10297
- · Spring Loaded PRV
- · Single outlet
- · High flow capacity

#### **Options**

- · Customer's logo on label
- · Cap nuts
- · Anti-Filling device (Rubber seal)
- · Plastic inlet/outlet thread protection
- PRV plastic red cap
- · Dry sealant inlet thread
- · PTFE taped inlet thread
- · Residual Pressure



# **Specifications**

Test pressure $55 \, \mathrm{bar} / 800 \, \mathrm{psi}$ Service temperatures $-20^{\circ}\mathrm{C} \, \mathrm{up} \, \mathrm{to} + 65^{\circ}\mathrm{C}$ 

Seat orifice size 16 mm

Helium leak rate at Pmax internal 4,310-3 mbarl/sec

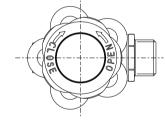
external 4,3 10-3 mbarl/sec

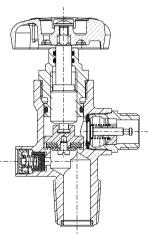
Material Body: brass

Handwheel: Aluminum

Seat Pad: PTFE O-ring: CR Rubber

**Inlet and outlet connections** According to country standards





Part Number	Inlet	Outlet	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
7601900137		W21.7 × 1/14"	PRV 600 PSI	Matallia Oray - Elva Oan	Yes	Installed	π
7601900099	25E	1.030-14 MGO-RH-EXT	N.A.	Metallic Grey + Blue Cap	Not Applicable	Not Applicable	(E
7601900451		W21.8 x1/14" LH	PRV 600 PSI	Metallic Grey + Green Cap		Installed	π

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# PRESSURE RELIEF VALVES

# for Refrigerant Gas

#### **Features**

- Brass pressure relief valve for refrigerant and cooling applications using halocarbons
- · Permanent gas tight seal
- · Spring Loaded PRV



# **Specifications**

 $\begin{array}{ll} \textbf{Test pressure} & 55 \ \text{bar} \ / \ 800 \ \text{psi} \\ \textbf{Service temperatures} & -20 \ ^{\circ}\text{C} \ \text{up to} + 65 \ ^{\circ}\text{C} \end{array}$ 

Seat orifice size 5 mm

Helium leak rate at Pmax internal 4,3 10-3 mbarl/sec external 4,3 10-3 mbarl/sec

Part Number	Inlet	Safety Devices
6602901276	M19x1	PRV 375 PSI

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.

Ø



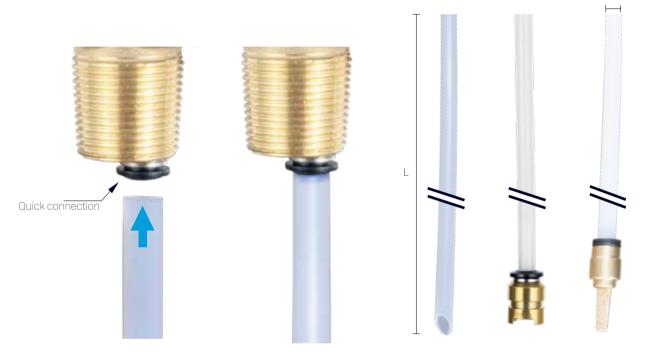
# LIQUID WITHDRAWAL TUBES

# **Quick Connection**

CavagnaGroup® offers a wide range of tubes and tools to complement its refrigerant gas cylinder valves line.

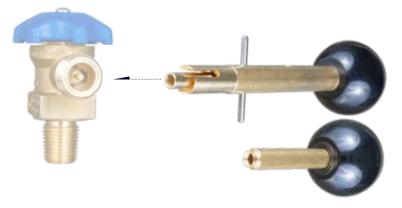
# **Specifications**

- · Tube with or without filter
- · Ø available: Ø6, Ø8 and Ø10
- · Length available: on request
- · Material available: PA



#### Available tools to install and to remove

- Anti-Filling Breakable Version
- Anti-Filling Removable Version
- Anti-Filling Unremovable Version



<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# Y VALVES

# for CO<sub>2</sub>

#### **Features**

- · Anti-filling device
- · Brass Cylinder valve for CO2 refrigerant application
- · Permanent gas tight seal
- · Bursting disk
- · Dual outlet
- · Residual pressure (3-5 bar)
- · Tube threaded connection

# **Options**

- · Customer's logo on label
- · Different bursting disk settings
- · Different threaded connections
- · Filling connectors: ACRA020300



# **Specifications**

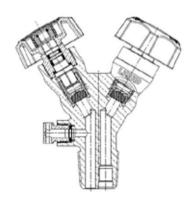
 $\begin{array}{ll} \textbf{Test pressure} & 250 \ \text{bar} \ / \ 3600 \ \text{psi} \\ \textbf{Service temperatures} & -40 \ ^{\circ}\text{C up to} + 65 \ ^{\circ}\text{C} \end{array}$ 

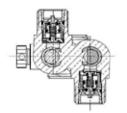
Seat orifice sizeØ 8 mmPin range2.5 mmResidual pressure range3-5 bar

Material Seat Pad: PA66 Antifriction ring: PA6

Antiextrusion ring: PA6 Toroidal rings: EPDM Spring: Stainless steel Residual piston: Brass

**Inlet and outlet connections** According to country standards





Part Number	Inlet	Outlet	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
VGF9RAC023		W21.7x1/14" W21.7x1/14"					
VGF9RAC016	25E	.860"-14 TPI .860"-14 TPI	RPV 250 bar	Blue (Vapor) / Red (Liquid)	no	Installed	π
VGF9RAC017		W21.7x1/14" W21.7x1/14"					

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



# VALVES for Ammonia (NH<sub>3</sub>)

#### **Features**

- · Steel of stainless steel body
- · π marked
- · Permanent gas tight seal
- · Single outlet

# **Options**

- · Customer's logo
- · Outlet cap
- · Anti-filling device (Metal seal)



# **Specifications**

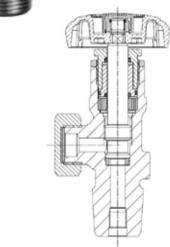
Test pressure33 bar / 480 psiService temperatures $-40^{\circ}$ C up to + 65°CSeat orifice sizeØ 8.2 mm

Material Seat pad: KEL-F

Antifriction ring: PTFE +20% F.G.

Toroidal rings: EPDM

**Inlet and outlet connections** According to country standards



Part Number	Inlet	Outlet	Safety Devices	Colored Plastic Handwheel	Tube quick connection	Anti-filling device	Homologation
VGD4IAM501		W21,8					
VGD4IAM517	25E	VV21.8				Not Applicable	
VGD4IAM001		W21.8x1/14"	N.A.	Metallic Grey + Blue Cap	no	Not Applicable	π
VGD4IAM005	3/4"-14 NGT	3/8"-18 NGT					
VGD4IAM018	25E	W30x1/14"				Available	

<sup>\*</sup> Here are some examples of codes which are purely indicative of refrigerant valves; contact our sales department for further details.



#### NITROGEN REGULATOR

# Series 5200 Single Stage used in the Refrigerant Flush Systems



The Nitrogen 5200-Series regulator is used in the Refrigerant Flush System and it is designed specifically to meet HVAC/R and automotive A/C systems requirements.

- · AS4267:1995 Compliance
- · Gauges ISO 5171 (rubber protection available)
- · Different position configuration available
- · Additional inlet filter on demand
- · Inlet&Outlet on customer's request
- · Safety Device available on demand
- · Panel mount thread available on demand



#### **Specifications**

Materials Brass Component: CW508L, CW603N, CW614N,

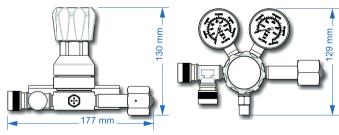
CW617N

Body & Intermediate body: Brass CW603N

Cover: Zamak3

Spring plate: Zinc Plated Steel Inside Spring: Monel KS00 Setting Spring: Steel Seat: PTFE TFM 1700

Diaphragm: Neoprene Rubber Incapsulated filter: Cupro Nickel



Gas	Inlet	Outlet	Content Pressure	Delivery Pressure	Operating Temperature
	Pressure	Pressure	Indicator	indicator	Range
Nitrogen Up to 300 bar	0-35 bar	0	0.5.1.5.5	-20°C to +65°C	
Nitrogen		0-60 bar	Gauge	Gauge	-20 6 10 +03 6



# Manually Operated with Anti-filling opener

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

# Features

- Limited gas leakage when the gas flow is cut off and the filling head is removed from the cylinder valve.
- Includes an anti-filling device opener that kicks in when the handle is switched to start the filling operation.
- Connected and disconnected manually, by rotating the threaded ring nut.
- Slim design for easy use to fit any shroud.
- Chrome plated surface for long life.

#### Inlet connection:

Refrigerant gas: W21,7 x 1/14" RH male, 625-18 UNF-2A-RH-EXT (3/8" SAE FLARE)

#### **Outlet connection:**

- Compatible with the following valve outlet threads:
  - W21,7 x 1/14" RH male
  - W21.8 x 1/14" RH/LH male
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product: 1-50 bar.

Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to use. The anti-fill opener spindle is connected to the anti-filling device of the cylinder valve; then the threaded end of the ring nut is connected to the valve outlet to make a tight connection. At this point, the lever needs to be operated to allow the gas to start filling the cylinder.

When the cylinder is filled, the filling process ends by operating the lever again, and the ring nut can be disconnected from the valve outlet. At this point, the anti-filling opener spindle can also be disconnected, and the filling head removed from the cylinder valve.

All rubber seals in contact with the gas can be replaced.

Part Number	Inlet Connection	Outlet Connection
6882900108	REFRIGERANT GAS W21,7 x 1/14" RH.	W21,7 x 1/14" RH.
6882900115	625-18 UNF-2A-RH-EXT 3/8" SAE FLARE	W21,7 x 1/14" RH.
6882900163	REFRIGERANT GAS W21,7 x 1/14" RH.	W21,8 X 1/14" LH.





# Manually Operated with Ant-filling opener

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

# Reference Image

#### **Features**

- Limited gas leakage when the gas flow is cut off and the filling head is removed from the cylinder valve.
- Includes an anti-filling device opener that kicks in when the handle is switched to start the filling operation.
- Connected and disconnected manually, by rotating the threaded ring nut.
- Slim design for easy use to fit any shroud.
- Chrome plated surface for long life.

#### Inlet connection:

Refrigerant gas: G 3/8".

#### **Outlet connection:**

- Compatible with the following valve outlet threads:
  - -1,030 x 14 NGO RH
  - CGA660
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product: 1-50 bar.

Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to use. The anti-fill opener spindle is connected to the anti-filling device of the cylinder valve; then the threaded end of the ring nut is connected to the valve outlet to make a tight connection. At this point, the lever needs to be operated to allow the gas to start filling the cylinder.

When the cylinder is filled, the filling process ends by operating the lever again, and the ring nut can be disconnected from the valve outlet. At this point, the anti-filling opener spindle can also be disconnected, and the filling head removed from the cylinder valve.

All rubber seals in contact with the gas can be replaced.

Part Number	Inlet Connection	Outlet Connection
6882900114	REFRIGERANT GAS G 3/8"	1,030 x 14 NGO RH, CGA660
6882900126 (Short version)	REFRIGERANT GAS G 3/8"	1,030 x 14 NGO RH, CGA660



# **Manually Operated**

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

#### **Features**

- Limited gas leakage when the gas flow is cut off and the filling head is removed from the cylinder valve.
- Includes an anti-filling device opener that kicks in when the handle is switched to start the filling operation.
- Connected and disconnected manually, by rotating the threaded ring nut.
- Slim design for easy use to fit any shroud.
- Chrome plated surface for long life.

#### Inlet connection:

Refrigerant gas: W21,7 x 1/14" RH.

#### **Outlet connection:**

- Compatible with the following valve outlet thread: W21,7 x 1/14" RH.
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures.

Liquid filling product: 1-50 bar

Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate. The threaded end of the ring nut is connected to the valve outlet to make a tight connection. At this point, the lever needs to be operated to allow the gas to start filling the cylinder.

When the cylinder is filled, by operating the lever again, the filling process ends, and the ring nut can be disconnected from the valve outlet.

All rubber seals in contact with the gas can be replaced.

Part Number	Inlet Connection	Outlet Connection	
6882900121	REFRIGERANT GAS W21,7 x 1/14" RH.	W21,7 x 1/14" RH.	





#### Semi-automatic

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.



- Insignificant gas leakage when the gas flow is interrupted, and the filling head is released from the cylinder valve.
- Includes an anti-filling device opener.
- Balanced jig for easy suspension between filling operations.
- Easy to manually connect and disconnect. Filling starts at the same time as connection to the valve.

Reference Image

Slim design for easy use to fit any shroud.

#### Inlet connection:

Refrigerant: 3/8" GAS Pneumatic air: 1/4" GAS.

#### Outlet connection:

- Compatible with the standard outlet male threads: G1, G2, G4, G5, G6, G8, G11, G12 according to EN 15202.
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1-50 bar. Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate.

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

Once the Filling Head outlet is aligned with the cylinder valve outlet, the ball nose is pushed to allow the compressed air to fill the pneumatic cylinder.

This forces the Filling Head outlet to attach the cylinder valve outlet, thereby obtaining a leak tight connection and simultaneously opening the gas seal, starting the FREON flow. After completing the filling operation, the handle on the side of the pneumatic cylinder is pushed and the air pressure is released, thus interrupting the gas flow, and disconnecting the outlet from the valve. All rubber seals inside the gas section and the entire pneumatic cylinder can be replaced.

Part Number	Inlet Connection	Outlet Connection
6882900043	REFRIGERANT GAS 3/8" AIR 1/4"	Standard Hand wheel male outlet with and without SRV Type 129A

Reference Image



# REFRIGERANT GASES FILLING HEAD FOR HANDWHEEL VALVES

#### Semi-automatic

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

#### **Features**

- Insignificant gas leakage when the gas flow is interrupted, and the filling head is released from the cylinder valve.
- Includes an anti-filling device opener.
- Balanced jig for easy suspension between filling operations.
- Easy to manually connect and disconnect. Filling starts at the same time as connection to the valve.
- Slim design for easy use to fit any shroud.

#### Inlet connection:

Refrigerant gas: 3/8" G Pneumatic air: 1/4" G.

#### Outlet connection:

- Compatible with the standard outlet male threads: G1, G2, G4, G5, G6, G8, G11, G12 according to EN15202.
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1-50 bar Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate.

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

Once the Filling Head outlet is aligned with the cylinder valve outlet, the ball nose is pushed to allow the compressed air to fill the pneumatic cylinder.

This forces the Filling head outlet to attach the cylinder valve outlet, thereby obtaining a leak tight connection. Then, simultaneously, the gas seal opens initiating the flow of refrigerant gas into the cylinder. After completing the filling operation, the handle on the side of the pneumatic cylinder is pushed and the air pressure is released, thus interrupting the gas flow, and disconnecting the outlet from the valve.

All rubber seals inside the gas section and the entire pneumatic cylinder can be replaced.

Part Number	Inlet Connection	Outlet Connection	
6882900105	REFRIGERANT GAS 3/8" PNEUMATIC AIR 1/4"	1/4" SAE Flare valve outlet with and without SRV	



# Semi-automatic with Anti-filling opener

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

#### **Features**

- Insignificant gas leakage when the gas flow is interrupted, and the filling head is released from the cylinder valve.
- Includes an anti-filling device opener.
- Balanced jig for easy suspension between filling operations.
- Easy to manually connect and disconnect. Filling starts at the same time as connection to the valve.

Reference Image

Slim design for easy use to fit any shroud.

#### Inlet connection:

Refrigerant: 3/8" GAS Pneumatic air: 1/4" GAS.

#### **Outlet connection:**

- Compatible with the standard outlet male threads: G1, G2, G4, G5, G6, G8, G11, G12 according to EN 15202.
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1-50 bar. Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate. The clamping brace is placed around the neck of the cylinder valve while the central maintenance anti-filling opener pin is connected to the end of the anti-filling device spindle. Once the Filling Head outlet is aligned with the cylinder valve outlet, the ball nose is pushed to allow the compressed air to fill the pneumatic cylinder. This forces the Filling Head outlet to attach the cylinder valve outlet, thereby obtaining a leak tight connection. Then the anti-filling device is opened and simultaneously the gas seal opens, initiating the flow of refrigerant gas into the cylinder. After completing the filling operation the handle on the side of the pneumatic cylinder is pushed and the air pressure is released, thus interrupting the gas flow, closing the anti-filling device and disconnecting the filling head outlet from the cylinder valve. All rubber seals inside the gas section and the entire pneumatic cylinder can be replaced.

Part Number	Inlet Connection	Outlet Connection
6882900065	REFRIGERANT GAS 3/8" PNEUMATIC AIR 1/4"	Standard Hand wheel male outlet with and without SRV
6882900127 (Stronger version)	REFRIGERANT GAS 3/8" PNEUMATIC AIR 1/4"	Standard Hand wheel male outlet with and without SRV
6882900134	REFRIGERANT GAS 3/8" PNEUMATIC AIR 1/4"	Standard Hand wheel male outlet with and without SRV



Reference Image



# REFRIGERANT GASES FILLING HEAD FOR HANDWHEEL VALVES

# Semi-automatic with Anti-filling opener

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.

#### **Features**

- Insignificant gas leakage when the gas flow is interrupted, and the filling head is released from the cylinder valve.
- Includes an anti-filling device opener.
- Balanced jig for easy suspension between filling operations.
- Easy to manually connect and disconnect. Filling starts at the same time as connection to the valve.
- Slim design for easy use to fit any shroud.

#### Inlet connection:

Refrigerant: 3/8" GAS Pneumatic air: 1/4" GAS.

#### Outlet connection:

- Compatible with the valve outlet male threads: 1,030"-14 NGO-RH-EXT, CGA660.
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1-20 bar Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate.

The clamping brace is placed around the neck of the cylinder valve while the central anti-filling opener pin is connected to the end of the anti-filling device spindle. Once the Filling Head outlet is aligned with the cylinder valve outlet, the ball nose is pushed to allow the compressed air to fill the pneumatic cylinder.

This forces the Filling Head outlet to attach the cylinder valve outlet, thereby obtaining a leak tight connection. Then, simultaneously, the gas seal opens, initiating the flow of refrigerant gas into the cylinder. After completing the filling operation, the handle on the side of the pneumatic cylinder is pushed and the air pressure is released, thus interrupting the gas flow, closing the anti-filling device and disconnecting the filling head outlet from the cylinder valve.

All rubber seals inside the gas section and the entire pneumatic cylinder can be replaced.

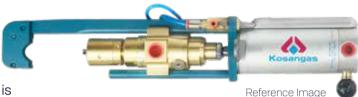
Part Number	Inlet Connection	Outlet Connection
6882900128	REFRIGERANT GAS 3/8" PNEUMATIC AIR 1/4"	1,030"-14 NGO-RH-EXT, CGA660 male outlet with and without SRV



# Semi-automatic with Anti-filling opener for filling line evacuation

#### Materials and standards

The Filling Head is made of corrosion-resistant materials such as stainless steel, brass, aluminium and special polymers. The rubber materials used are developed and manufactured according to the requirements of EN 549 and ISO 11114/2.



#### **Features**

- Insignificant gas leakage when the gas flow is interrupted, and the filling head is released from the cylinder valve.
- Includes an anti-filling device opener.
- Balanced jig for easy suspension between filling operations.
- Easy to manually connect and disconnect. Filling starts at the same time as connection to the valve.
- Slim design for easy use to fit any shroud.
- Equipped with a gas recovery system.

#### Inlet connection:

Refrigerant: 3/8" GAS Pneumatic air: 1/4" GAS.

#### **Outlet connection:**

- Compatible with the standard outlet male threads: G1, G2, G4, G5, G6, G8, G11, G12 acc. to EN15202
- Suitable for valves with or without PRV.

#### Supply pressures:

Designed to operate within the normal supply pressures. Pneumatic supply: 6 - 10 bar. Liquid filling product: 1-20 bar Filling time approx. 2 sec./Kg liquid at 7 bar differential pressure.

#### **Function and Maintenance:**

The Filling Head is easy to operate. The clamping brace is placed around the neck of the cylinder valve while the central maintenance anti-filling opener pin is connected to the end of the anti-filling device spindle. Once the Filling Head outlet is aligned with the cylinder valve outlet, the ball nose is pushed to allow the compressed air to fill the pneumatic cylinder.

This forces the Filling Head outlet to attach the cylinder valve outlet, thereby obtaining a leak tight connection. Then the anti-filling device is opened and simultaneously the gas seal opens, initiating the flow of refrigerant gas into the cylinder. After completing the filling operation, the handle on the side of the pneumatic cylinder is pushed and the air pressure is released, thus interrupting the gas flow, closing the anti-filling device and disconnecting the filling head outlet from the cylinder valve. All rubber seals inside the gas section and the entire pneumatic cylinder can be replaced.

Part Number	Part Number Inlet Connection	
6882900112	REFRIGERANT GAS 3/8" AIR 1/4"	Standard Handwheel male outlet with and without SRV



# FILLING HEAD VALVES FOR REFRIGERANT GASES

Valve Model		Semi-Automatic Filling Heads	Manual Filling Heads
	"W21,7 x 1/14" RH +/- anti-filling	/	6882900108 6882900115
	"W21,8 x 1/14"" LH +/- anti-filling	/	6882900163
	W21,7 x 1/14* RH +/- anti-filling (7601900193) W21,8 x 1/14* RH +/- anti-filling	6882900065	6882900121
*	W21,7 x 1/14" LH +/- anti-filling (7601900193) W21,8 x 1/14" LH +/- anti-filling (7601900420)	6882900065	/
	1,030 ×14 NGO RH, CGA660 +/- anti-filling	6882900128	6882900114 (short version) 6882900126 (short version)
F	Std. male outlets - anti-filling	6882900043	/
	Std. male outlets +/- anti-filling (7601900429)	6882900065 6882900112 6882900127	/
1	1/4" SAE Flare -anti-filling	6882900105	/
*	W21,8 x 1/14" RH +/- anti-filling (example 7601900333)	6882900134	/



# Our Global Product Brands























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Wherever gas is used, we are there

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