

FLEXIBLE HOSES



FLEXIBLE HOSES

FOR DISTRIBUTION OF COMPRESSED GASES



Hoses reinforced by a double trace of stainless steel 304 and Kevlar equipped with a metal cable for fastening and avoiding any danger in case of breaking.

MATERIALS:

- For general non corrosive gas (N₂, CO₂, Ar, CH₄ ...) Internal hose made of TPFE – external traces made of stainless steel 304 + Kevlar
- For gas helium (He) and hydrogen (H₂) Internal hose made of ETFE (low permeability) – external traces made of stainless steel 304 + Kevlar
- For gas oxygen (O₂) Internal hose made of corrugate stainless steel – external traces made of stainless steel 304 + Kevlar
- Connections: made of brass or chrome plated brass or stainless steel 316L, according to the specific request

OPTIONAL:

- Special length from 0.5 m to 10 m
- Special execution for gases acetylene (C₂H₂), propane (C₃H₈), LPG, ammonia (NH₃)

TECHNICAL DATA

Working pressure	max. 400 bar
Inlet/outlet connections	according to the specific application
Working temperature	-60° / + 180°C
Standard length	1m, 2 m, 3 m, 4 m

HOSES OF COPPER OR STAINLESS STEEL TUBE

HOSES

FOR DISTRIBUTION OF COMPRESSED GASES

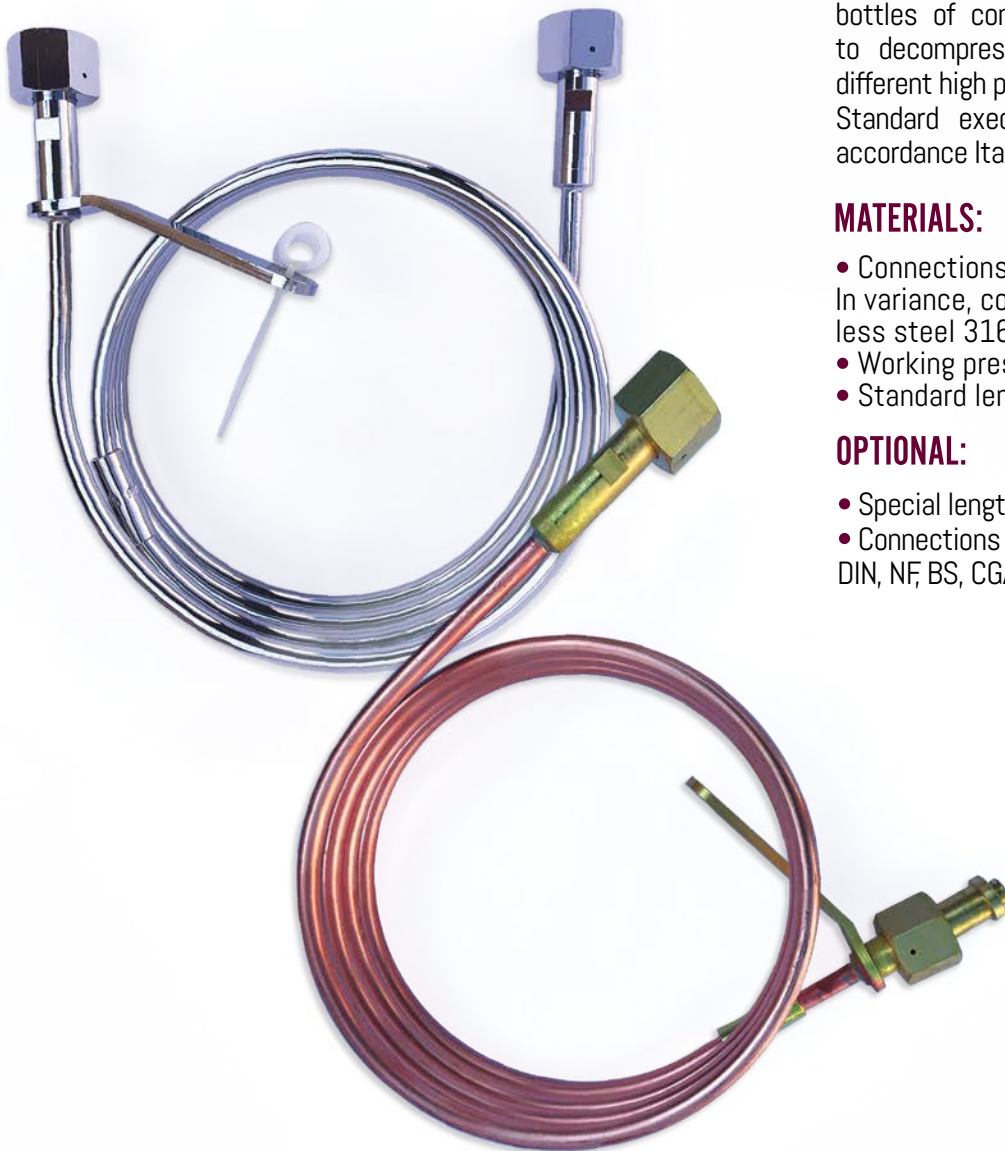
These hoses are designed for connecting bottles of compressed gas to manifolds or to decompression units, or for connecting different high pressure devices to one another. Standard execution provides connection in accordance Italian UNI norms

MATERIALS:

- Connections of brass and tube of copper
In variance, connections and tube of stainless steel 316L
- Working pressure max. 300 bar
- Standard length : 0.5 m, 1m, 2 m, 3m, 4m

OPTIONAL:

- Special length up to 10 m
- Connections in accordance to norms ISO, DIN, NF, BS, CGA...



FLEXIBLE HOSES AND CRYOGENIC GAS TRANSFER DEVICES

AISI 316 TI stainless steel tube, ISO 10380 compliant, corrugated and seamless, 10 mm internal diameter, externally covered with stainless steel braid and complete with anti-kinking springs at both ends. TIG welding in compliance with EN 287 standard. Brass nuts to prevent galling during tightening.

APPLICATIONS:

Transfer of cryogenic liquids from fixed or mobile tanks.

IMPORTANT: It is recommended to always perform transfer operations in compliance with safety regulations and using appropriate personal protective equipment.

ACCESORIES:

- COD.ASF00011: Phase separator for nitrogen
- COD.ASF00010: Anti-splash device for Dewar filling
- COD.SNP00006: Nipple 3/8 NPT M x 3/4 UNF M for connection of 180-litre nitrogen container to transfer hose
- COD.SNP00008 :Nipple 3/8 NPT M x 7/8 UNF M for connection of 180-litre oxygen container to transfer hose

FOR LIQUID OXYGEN AND NITROGEN



Code	Description	Fittings	Length [mm]	Code	Description	Fittings	Length [mm]
KFX01100	O ₂ flexible hose for liquid transfer	7/8" UNF F	1000	KFX02100	N ₂ flexible hose for liquid transfer	3/4" UNF F	1000
KFX01500			1500	KFX02150			1500
KFX01200			2000	KFX02200			2000
KFX01300			3000	KFX02300			3000
KFX01400			4000	KFX02400			4000

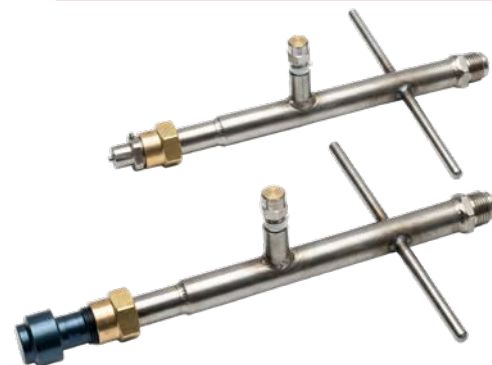
FLEXIBLE HOSES

- CNC machined components
- Stainless steel body and fittings
- 7/8" UNF M connection with conical seal
- G 1/4" NPT safety valve rated at 100 psi
- TIG welding in compliance with EN 287 standard
- Degreased components for oxygen service

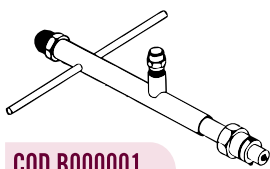
APPLICATIONS:

Filling of containers for oxygen therapy

LIQUID OXYGEN FILLING DEVICES

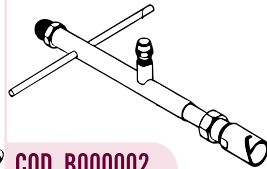


C.S.I. male filling device



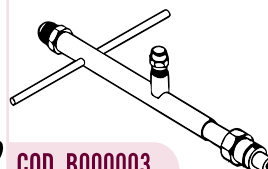
COD.B000001

C.S.I. female filling device



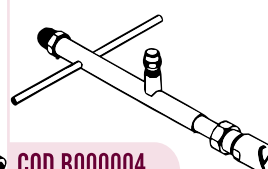
COD.B000002

PENOX male filling device



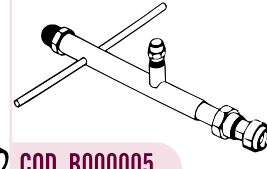
COD.B000003

PENOX female filling device



COD.B000004

PURITAN BENNETT male filling device



COD.B000005

CRYOGENIC FLEXIBLE METAL HOSE FOR ROAD TANKER



Annular corrugated hose mechanically formed at standard pitch, reinforced with one stainless steel braid. Provided with Protective spring on both sides Length 500 mm. Good flexibility, weather and pressure resistant, no permeability



SUITABLE FLUIDS:

LOX / LIN / LAX / LCO2 / LNG / LN20
TS -196 / +80 °C

MATERIALS:

Hose: AISI 316 stainless steel.
Braid: AISI 304 stainless steel.
Fittings: SS AISI 304

STANDARDS:

ISO EN 10380 / ISO EN 21012 / ISO 23208 / PED

SAFETY:

- Each hose has
- A safety cable between the fittings (along the entire hose)
- A terminal cable equipped with stainless steel high-strength carabiner

FITTINGS:

TIG welded end fittings.

TESTING:

Individually tested at 1.5 times WP

CLEANING AND PACKAGING:

Cleaning according to ISO 23208
Each hose is delivered with protective caps or in plastic bags, coiled and boxed.



DN	Working pressure bar	Internal Ø mm	External Ø mm	Bending radius mm
25	40	25	35	190
32	40	32	43	260
40	40	40	54	300
50	40	50	63	500
65	25	65	85	460
65	40	65	90	1100
80	20	80	100	660

AVAILABLE FITTINGS:

- BW butt-weld stub end schedule 10
- EIGA swivel LIN-LOX-LAR-LCO2
- Rectangular flange LIN-LOX-LAR
- MESSER swivel LIN-LOX-LAR-LCO2-LNG
- ENAGAS swivel LNG
- Flange DN 1092-1 PN 10-40
- NSI flange #150 / #300
- Flange #150 / #300BSPP female swivel


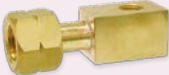
FLAME ARRESTORS

In-line flame-arrestor valves, to prevent the spread of fire in case of emergency.

CODE	DESCRIPTION	GAS	INLET CONNECTION	OUTLET CONNECTION	PN	FLOW	PICTURE
H188RGB	Flame arrestors	O2 - N2O	G3/8"F Dx	G3/8"M Dx	15 bar	30 Nm3/h	
H188LGB	Flame arrestors	C2H2 - GPL - H2 - CH4	G3/8"F Sx	G3/8"M Sx	10 bar	5 - 6 - 40 - 30 Nm3/h	
H1882RGB	Flame arrestors	O2 - N2O	G3/8"F Dx	G3/8"M Dx	15 bar	80 Nm3/h	
H1882TLGB	Flame arrestors	C2H2 - GPL - H2 - CH4	G3/8"F Sx	G3/8"M Sx	10 bar Nm3/h	10 - 12 - 70 - 50	
H188TTR8	Flame arrestors	O2 - N2O	Hose Ø 8mm	Hose Ø 8mm	10 bar	10 Nm3/h	
H188TTL8	Flame arrestors	C2H2 - GPL - H2 - CH4	Hose Ø 8mm	Hose Ø 8mm	4 bar	2 - 3 - 10 - 7 Nm3/h	
ARC00309	Adapter for flame arrestors	O2 - N2O	Solder pocket Ø 21,5	G3/8"M Dx	50 bar		
ARC00310	Adapter for flame arrestors	O2 - N2O	G3/8"M Dx	Solder pocket Ø 21,5	50 bar		
ARC00311	Adapter for flame arrestors	C2H2 - GPL - H2 - CH4	Solder pocket Ø 21,5	G3/8"M Sx	50 bar		
ARC00312	Adapter for flame arrestors	C2H2 - GPL - H2 - CH4	G3/8"M Sx	Solder pocket Ø 21,5	50 bar		



INSTRUMENT HOLDERS

To be mounted to the manifold outlet for installing high-pressure instrument (pressure switch, gauge....).

CODE	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
LBB01000	Brass	2-UNI 11144	G 1/4" F	370 bar	
LBB07000	Brass	1H-UNI 11144	G 1/4" F	370 bar	

PRESSURE SWITCHES

Working pressure 300 bar. Pressure range 5 -50 bar. Pre-set (decreasing pressure) at 15 bar. IP65
For non-classified area. To control alarm unit.

CODE	GAS	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
APS00027	Ar - He - CO2 - N2 - Aria	G 1/4" F	DIN connector	300 bar	
APS00028	O2	G 1/4" F	DIN connector	300 bar	


PRESSURE SWITCHES ATEX EEX D

Working pressure 300 bar. Pressure range 5 -50 bar. Pre-set (decreasing pressure) at 15 bar. IP65.
For classified area to control alarm unit (to be mounted in safe area)

CODE	GAS	INLET CONNECTION	OUTLE CONNECTION	PN	PICTURE
APS00023	H2 - CH4	1/4" NPTM	1/2" NPTM	600 bar	
APS00024	C2H2	1/4" NPTM	1/2" NPTM	25 bar	

ALARM UNITS

Unit for acoustic and luminous alarm signals. For monitoring max 4 pressure lines. Each line is to be connected to one pressure switch. In case of alarm, a red light - related to the specific line - flashes and a buzzer (80db) turns on. Power supply: 230 ca - 50Hz.

CODE	DESCRIPTION	DIMENSION (LxPxH)	PICTURE
SSE0423	Alarm with 4 input channels	200x80x155	


PRESSURE DETECTING SYSTEM

Devices for checking the effective pressure into gas cylinders, to be connected directly to the valve of the cylinder. Complete with venting-system.

CODE	DESCRIPTION	GAS	INLET CONNECTION	INPUT GAUGE SCALE	PICTURE
SCP01000	Device to detect cylinder pressure	O ₂	2-UNI 11144	0÷400	
SCP02000	Device to detect cylinder pressure	N ₂	5-UNI 11144	0÷400	
SCP03000	Device to detect cylinder pressure	Ar - He	8-UNI 11144	0÷400	
SCP05000	Device to detect cylinder pressure	Air	6-UNI 11144	0÷400	
SCP07000	Device to detect cylinder pressure	H ₂ - CH ₄	1H-UNI 11144	0÷400	

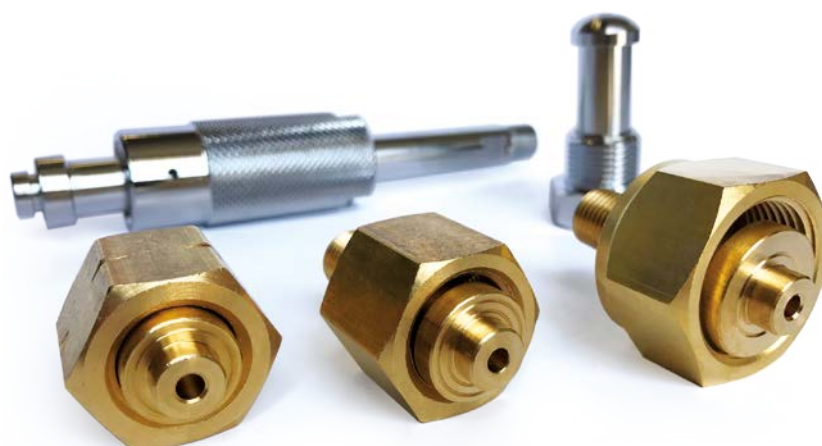
DRY ICE 550

Device for making 0.55 Kg dry ice pads. To be mounted directly on CO₂ bottle. Nylon body with Velcro fastening; plastic handle and brass components.

CODE	GAS	INLET CONNECTION	DIMENSIONS (LxPxH)	PICTURE
SPT00001	CO ₂ in liquid phase	2-UNI 11144	240xØ100x235 mm	
SPT00003	CO ₂ in liquid phase	ISO 5145	240xØ100x235 mm	








ADAPTERS FOR MANIFOLDS

CODE	DESCRIPTION	GAS	MATERIAL	OUTLET CONNECTION	OUTLET CONNECTION	PICTURE
<i>SDA01000</i>	<i>Nut</i>	<i>O2 e inerti</i>	<i>Brass</i>	<i>2-UNI 11144</i>		
<i>SCA01000</i>	<i>Stem</i>	<i>O2 - CO2</i>				
<i>SDA01010</i>	<i>Nut</i>	<i>O2 e inerti</i>	<i>Chrome plated brass</i>	<i>2-UNI 11144</i>		
<i>SCA01010</i>	<i>Stem</i>	<i>O2 - CO2</i>				
<i>SDA07000</i>	<i>Nut</i>	<i>H2 - CH4 - GPL</i>	<i>Brass</i>	<i>1H-UNI 11144</i>		
<i>SCA07000</i>	<i>Stem</i>					
<i>SDA07010</i>	<i>Nut</i>	<i>H2 - CH4 - GPL</i>	<i>Chrome plated brass</i>	<i>1H-UNI 11144</i>		
<i>SCA07010</i>	<i>Stem</i>					
<i>SDA04080</i>	<i>Terminal plug</i>	<i>C2H2</i>	<i>Brass</i>	<i>7F-UNI 11144</i>		
<i>SRM00004</i>	<i>Manifold connector</i>	<i>O2 e inerti</i>	<i>Brass</i>	<i>2-UNI 11144</i>	<i>2-UNI 11144</i>	
<i>SRM00006</i>	<i>Manifold connector</i>	<i>O2 e inerti</i>	<i>Chrome plated brass</i>	<i>2-UNI 11144</i>	<i>2-UNI 11144</i>	



VALVES FOR CYLINDRES

Valves made of brass (polished or chrome-plated), with an aluminum wheel. Inlet connection for cylinder (bottle) in accordance to DIN 477 W 28,8. Outlet connection according to the working gas, in compliance to Italian standard UNI (see table).






CODE	DESCRIPTION	GAS	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
SVB01000	Shut-off valve	O ₂	Brass	DIN 477 W 28,8 (25 E)	2-UNI 11144	200 bar	
SVB02000	Shut-off valve	N ₂	Brass	DIN 477 W 28,8	5-UNI 11144	200 bar	
SVB03000	Shut-off valve	Ar - He	Brass	DIN 477 W 28,8	8-UNI 11144	200 bar	
SVB05000	Shut-off valve	Air	Brass	DIN 477 W 28,8	6-UNI 11144	200 bar	
SVB06001	Shut-off valve	C ₂ H ₂	Brass	DIN 477 W 28,8	7S-UNI 11144	60 bar	
SVB06002	Shut-off valve	C ₂ H ₂	Brass	DIN 477 W 28,8	7F-UNI 11144	60 bar	
SVB07000	Shut-off valve	H ₂ - CH ₄	Brass	DIN 477 W 28,8	1H-UNI 11144	200 bar	
SVB01100	Shut-off valve	CO ₂	Brass	DIN 477 W 28,8 (25 E)	2-UNI 11144	200 bar	
SVB09000	Shut-off valve	NO ₂	Chrome plated brass	DIN 477 W 28,8	9-UNI 11144	200 bar	
SVC01000	Shut-off valve	O ₂	Chrome plated brass	DIN 477 W 28,8	2-UNI 11144	200 bar	
SVC01100	Shut-off valve	CO ₂	Chrome plated brass	DIN 477 W 28,8	2-UNI 11144	200 bar	

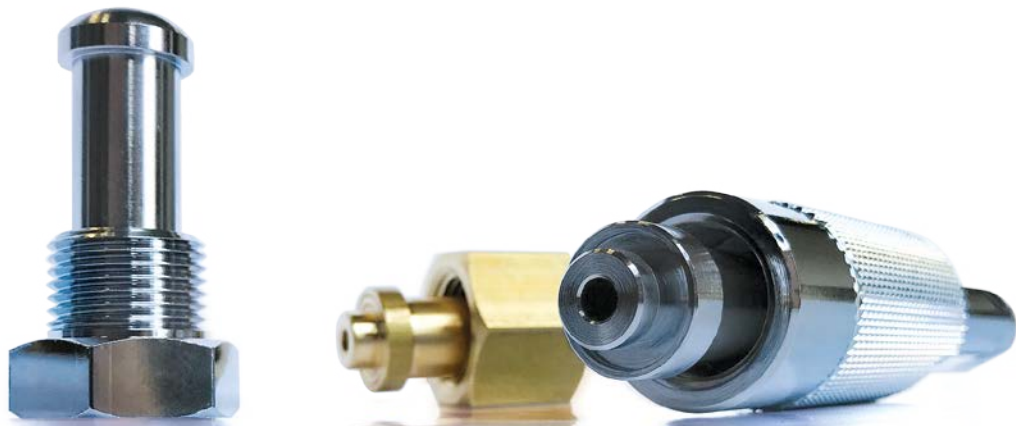
VALVES FOR CYLINDRES

CODE	DESCRIPTION	GAS	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
SVC05000	Shut-off valve	Air	Chrome plated brass	DIN 477 W 28,8	6-UNI 11144	200 bar	
SVC09000	Shut-off valve	N2O	Chrome plated brass	DIN 477 W 28,8	9-UNI 11144	200 bar	
SVC01001	Intercepting miniature valve	O2	Chrome plated brass	DIN 477 W 19,8	2-UNI 11144	200 bar	


TROLLEYS FOR CYLINDRES

CODE	DESCRIPTION	PICTURE
SCR01000	For two 5 - liter cylinders, complete with Ø 60 mm wheels	
SCR02100	For two 14 - liter cylinders, complete with tool box and Ø 200 mm wheels	
SCR03100	For two 40 / 50 - liter cylinders, complete with tool box and Ø 200 mm wheels	
SCR03200	For two 40 / 50 liters oxygen bottles and LPG tank, complete with tool box and Ø 200 mm wheels	
SCR03300	For 40 / 50 liter single cylinder, complete with front wheels Ø 200 mm and pivoting rear Ø 100 mm	


CODE	DESCRIPTION	MATERIAL	LENGTH	PICTURE
<i>SRS01000</i>	<i>1 Bottle rack</i>	<i>Epoxy painted steel</i>	<i>300 mm</i>	
<i>SRS02000</i>	<i>2 Bottles rack</i>	<i>Epoxy painted steel</i>	<i>600 mm</i>	
<i>SRS03000</i>	<i>3 Bottles rack</i>	<i>Epoxy painted steel</i>	<i>850 mm</i>	
<i>SRS04000</i>	<i>4 Bottles rack</i>	<i>Epoxy painted steel</i>	<i>1100 mm</i>	
<i>SRS05000</i>	<i>5 Bottles rack</i>	<i>Epoxy painted steel</i>	<i>1350 mm</i>	



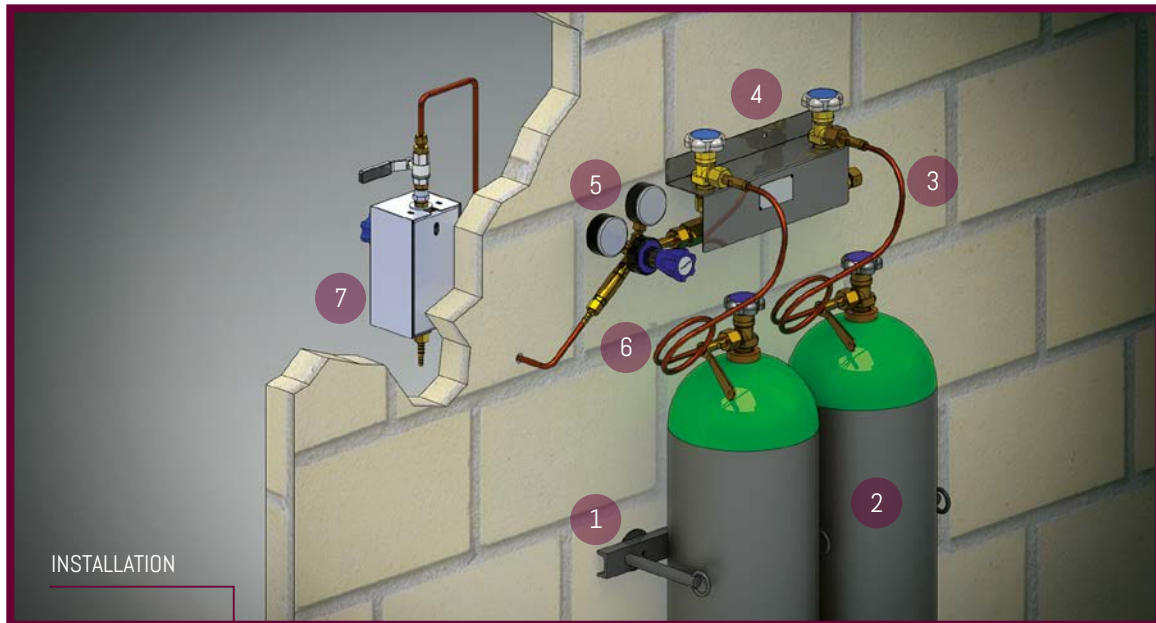
SEALS

CODE	DESCRIPTION	GAS	MATERIAL	PICTURE
SGU00001	Gasket for cylinder connection	C2H2	Leather	
SGU00002	Gasket for cylinder connection	O2 - CO2	PTFE	
SGU00004	Gasket for cylinder connection	O2 - N2 - H2 - Aria	Viton	
SGU00005	Gasket for cylinder connection	H2 - CH4	Nylon	
SGU00025	O-ring	CO2 - Mix CO2	Silicone	
SGU00031	Gasket for cylinder connection	N2O	PTFE	
SGU00060	O-ring	CO2	Silicone	
SGU00124	O-ring	N2O	Silicone	
SGU00127	Gasket for cylinder connection	Air - NH3	Nylon	

LIQUID FOR LEAKS DETECTING

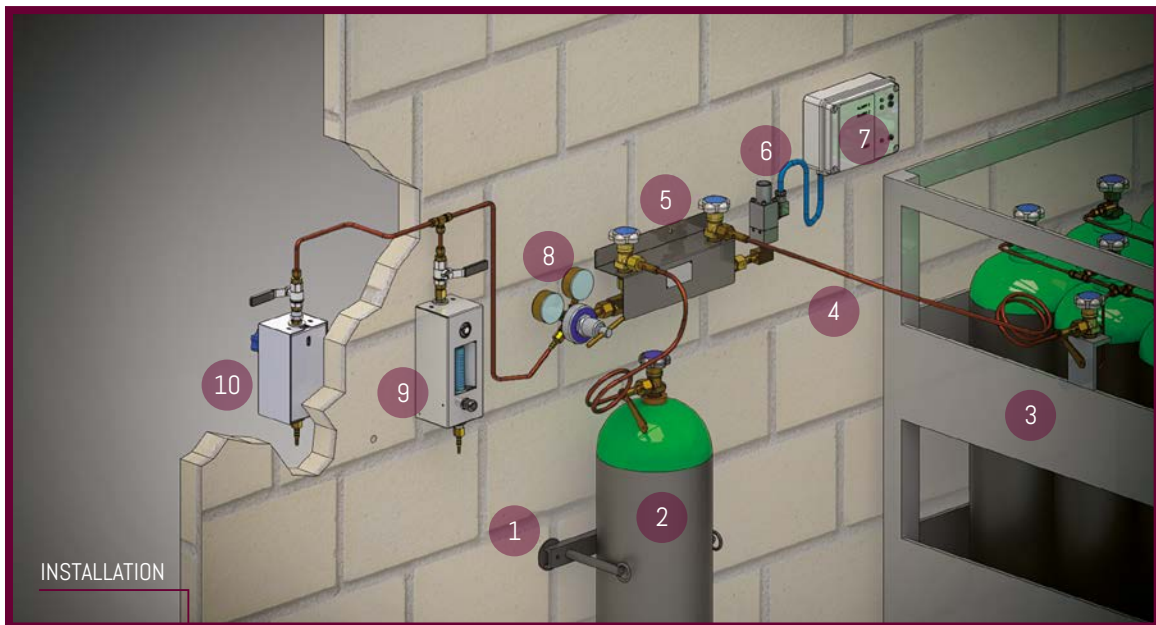
CODE	DESCRIPTION	PICTURE
SGC00001	400 g liquid leak detector	

INSTALLATION EXAMPLES



INSTALLATION

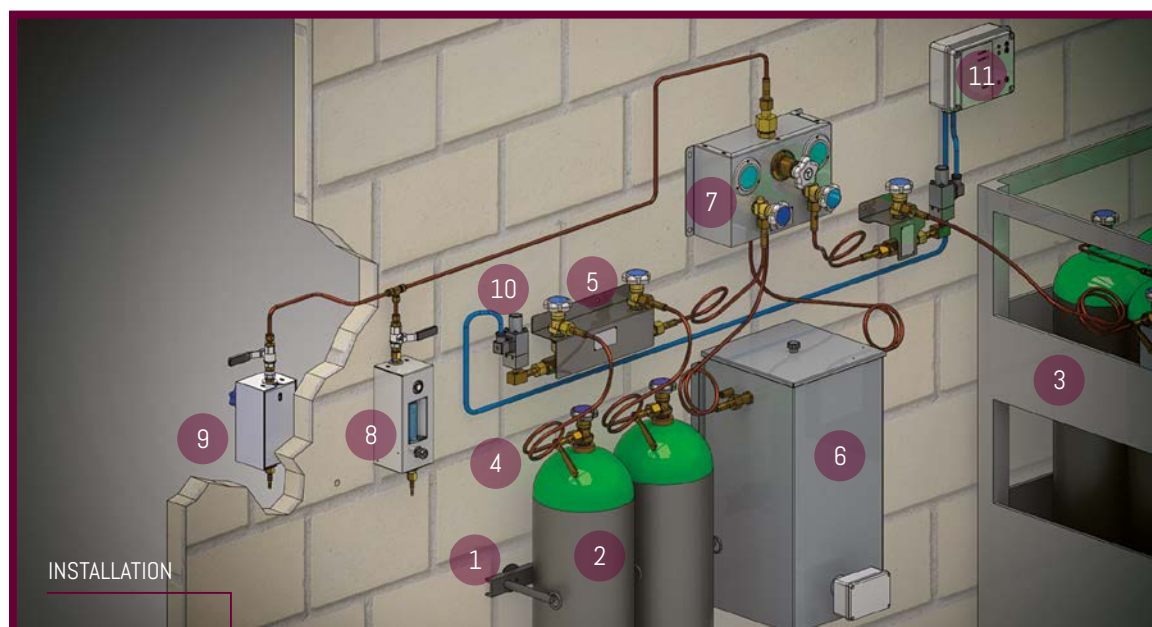
- 1 Bottles rack;
- 2 Bottles;
- 3 Flexible Hose (pagg. 66-67);
- 4 SRR (Pagg. 32-33);
- 5 Pressure regulator: SERIE 825 (pagg. 14-15), H 25 (pagg. 16-17), TCR 40 (pagg. 18-19);
- 6 Flame arrestors (pag. 68);
- 7 Point of use system: SRP 10-11-12-20 (pagg. 42-43), SRP 70-71-72-73 (pagg. 44-45), SRP 63 (pagg. 46-47);



INSTALLATION

- 1 Bottle rack;
- 2 Bottle;
- 3 Bottles;
- 4 Flexible Hose (pagg. 66-67);
- 5 SRR (Pagg. 32-33);
- 6 Pressure switches (pag. 69);
- 7 Alarm units (pag. 70);
- 8 Pressure regulator: SERIE 825 (pagg. 14-15), H 25 (pagg. 16-17), TCR 40 (pagg. 18-19);
- 9 Point of use system: SRP 40-41 (pagg. 48-49);
- 10 Point of use system: SRP 10-11-12-20 (pagg. 42-43), SRP 70-71-72-73 (pagg. 44-45), SRP 63 (pagg. 46-47);

INSTALLATION EXAMPLES



- | | | | |
|---|--|----|---|
| 1 | Bottles rack; | 8 | Point of use system:
SRP 40-41 (pagg. 48-49); |
| 2 | Bottles; | 9 | Point of use system:
SRP 10-11-12-20 (pagg. 42-43),
SRP 70-71-72-73 (pagg. 44-45),
SRP 63 (pagg. 46-47); |
| 3 | Bottles; | 10 | Pressure switches (pag. 69); |
| 4 | Flexible Hose (pagg. 66-67); | 11 | Alarm units (pag. 70); |
| 5 | SRR (Pagg. 32-33); | | |
| 6 | Hydrothermic preheater
SPR 1000 (pagg. 34-35); | | |
| 7 | Decompression unit: SQD (pagg. 26-27),
SQD 117-118-119-120 (pagg. 28-29),
SQS (pagg. 30-31); | | |