

FLEXIBLE HOSES



FLEXIBLE HOSES

FOR THE 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 unit, or for connecting, to one each other, different high pressure devices. 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...

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

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

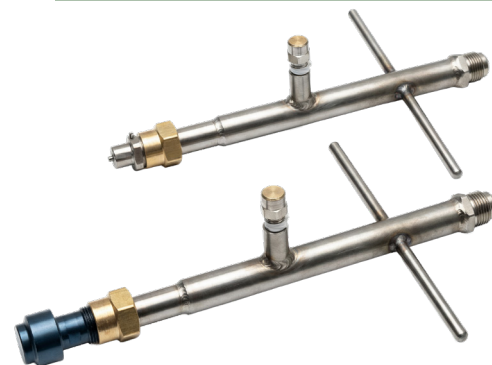
FLEXIBLE HOSES

- 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

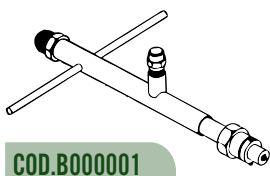
APPLICATIONS:

Filling of containers for oxygen therapy

LIQUID OXYGEN FILLING DEVICES

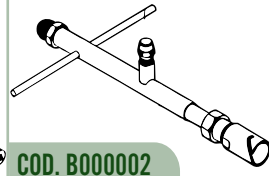


C.S.I. male filling device



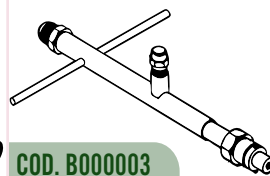
COD.B000001

C.S.I. female filling device



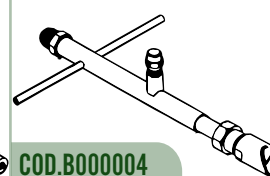
COD.B000002

PENOX male filling device



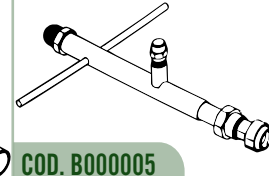
COD.B000003

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









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PURE GASES

COMPRESSION FITTINGS

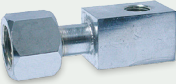
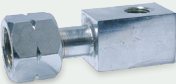
Double ferrules pipe fittings.

CODE	DESCRIPTION	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PICTURE
RCB00001	<i>Straight male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 1/8"</i>	
RCB00002	<i>Straight male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 6mm</i>	
RCB00003	<i>Straight male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 8mm</i>	
RCB00004	<i>Straight male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 10mm</i>	
RCB00005	<i>Union tee</i>	<i>Brass</i>	<i>Tube - external Ø 6mm</i>	<i>Tube - external Ø 6mm</i>	
RCB00015	<i>Union tee</i>	<i>Brass</i>	<i>Tube - external Ø 8mm</i>	<i>Tube - external Ø 8mm</i>	
RCB00031	<i>Elbow male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 6mm</i>	
RCB00034	<i>Elbow male connector</i>	<i>Brass</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 8mm</i>	
RCX00001	<i>Straight male connector</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 1/8"</i>	
RCX00002	<i>Online fitting</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 6mm</i>	

CODE	DESCRIPTION	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PICTURE
RCX00003	<i>Straight male connector</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 8mm</i>	
RCX00004	<i>Straight male connector</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 10mm</i>	
RCX00005	<i>Union tee</i>	<i>Stainless steel (AISI 316)</i>	<i>Tube Ø est 6mm</i>	<i>Tube - external Ø 6mm</i>	
RCX00031	<i>Elbow male connector</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 6mm</i>	
RCX00034	<i>Elbow male connector</i>	<i>Stainless steel (AISI 316)</i>	<i>1/4" NPTM</i>	<i>Tube - external Ø 8mm</i>	
RCX00069	<i>Union tee</i>	<i>Stainless steel (AISI 316)</i>	<i>Tube Ø est 8mm</i>	<i>Tube - external Ø 8mm</i>	



INSTRUMENT HOLDERS

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

CODE	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
LBC01000	<i>OT-Cr</i>	<i>2-UNI 11144</i>	<i>G 1/4" F</i>	<i>370 bar</i>	
LBC07000	<i>OT-Cr</i>	<i>1H-UNI 11144</i>	<i>G 1/4" F</i>	<i>370 bar</i>	

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 - N2 - CO2 - 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	OUTLET 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 signal.
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) turn on. Power supply: 230 ca - 50Hz.

CODE	DESCRIPTION	DIMENSIONS (LxPxH)	PICTURE
SSE23002	Signaling unit with 2 input channels	200x80x155	
SSE23004	Signaling unit with 4 input channels	200x80x155	


STAINLESS STEEL TUBES

CODE	DESCRIPTION	MATERIAL	PN	PICTURE
SNP00018	<i>Electro-coupling tubing in roll Ø 2 sp.0,5mm</i>	<i>AISI 304</i>	<i>500 bar</i>	
ATB00123	<i>Seamless tubing in roll Ø 6 th.1mm</i>	<i>AISI 316</i>	<i>300 bar</i>	

NEEDLE VALVES



CODE	DESCRIPTION	GAS	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PN	PICTURE
SVASP07	<i>Needle shut-off valve</i>	<i>All gases toxic and corrosive</i>	<i>OT-Cr</i>	<i>1/4" NPTF</i>	<i>1/4" NPTF</i>	<i>200 bar</i>	
SVASP08	<i>Needle shut-off valve</i>	<i>All</i>	<i>AISI 316</i>	<i>1/4" NPTF</i>	<i>1/4" NPTF</i>	<i>300 bar</i>	
SVASP09	<i>Needle shut-off valve</i>	<i>All gases toxic and corrosive</i>	<i>OT-Cr</i>	<i>1/4" NPTF</i>	<i>1/4" NPTF</i>	<i>200 bar</i>	

CAPILLARY CONNECTION

CODE	DESCRIPTION	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PICTURE
LRC00001	<i>Online fitting</i>	<i>OT-Cr</i>	<i>1/4" NPTF</i>	<i>Tube - external Ø 2mm</i>	



NIPPLES COMPLETE WITH HOSE CONNECTOR

Nickel-plated nipple with nut and hose connector. For pressure regulators series 904 or gas appliance when mounting a flame arrester is required on outlet.

CODE	DESCRIPTION	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PICTURE
LPG01000	Online fitting	OT-Cr	1/4" NPTM	3/8" Right with hose connector for 8mm hose	
LPG07000	Online fitting	OT-Cr	1/4" NPTM	3/8" Left with hose connector for 8mm hose	



HOSE CONNECTOR

Nickel-plated hose connector for general purposes.

CODE	DESCRIPTION	MATERIAL	INLET CONNECTION	OUTLET CONNECTION	PICTURE
LPG00004	Online fitting	OT-Cr	1/4" NPTM	Hose I.D. 4mm	
LPG00006	Online fitting	OT-Cr	1/4" NPTM	Hose I.D. 6mm	


NEEDLE DISPENSERS

Needle valve to be mounted directly on disposable small gas bottles. Made of brass, max. press. 25 bar.

CODE	DESCRIPTION	GAS	INLET CONNECTION	OUTLET CONNECTION	PICTURE
LRB00004	End of regulation tap	Inert gases	7/16"	Hose I.D. 4mm	
LRB00468	End of regulation tap	Inert gases	7/16"	Hose I.D. 4/6/8mm	
LRB00008	End of regulation tap	Inert gases	7/16"	Hose I.D. 8mm	

LEAKS DETECTOR

Spray for detecting gas leaks on junctions or welded parts. Suitable for any gas. Hose for spraying in less accessible areas as well.

CODE	DESCRIPTION	PICTURE
SGC00001	400 g liquid leak detector	

SEALS

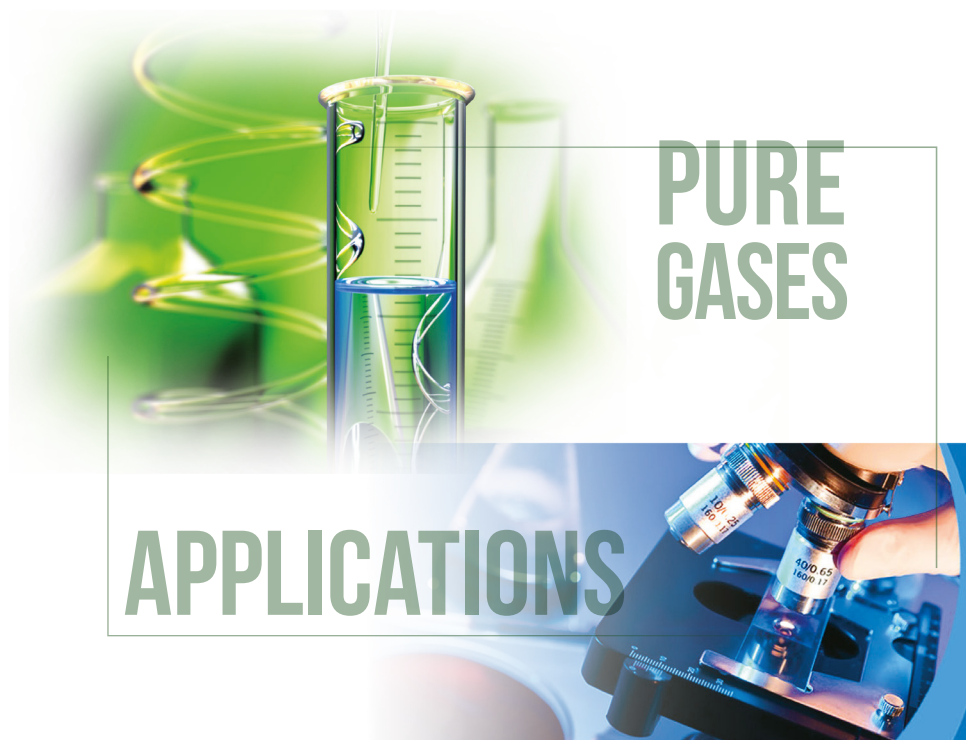
CODE	DESCRIPTION	GAS	MATERIAL	PICTURE
SGU00001	Gasket for cylinder connection	Acetylene	Leather	
SGU00002	Gasket for cylinder connection	Oxygen	PTFE	
SGU00004	O-ring	C2H2	Viton	
SGU00005	Gasket for cylinder connection	Hydrogen	Nylon	
SGU00025	Gasket for cylinder connection	CO2 - Mix CO2	Silicone	
SGU00031	Gasket for cylinder connection	Nitrous oxide	PTFE	
SGU00060	O-ring	Medical CO2	Silicone	
SGU00124	O-ring	Nitrous oxide	Silicone	
SGU00127	Gasket for cylinder connection	Air	Nylon	

CODE	DESCRIPTION	MATERIAL	DIMENSIONS (LXPXH)	PICTURE
<i>SRSL1000</i>	<i>Rack 1 bottle</i>	<i>Aluminium</i>	<i>295x250x275 mm</i>	
<i>SRSL2000</i>	<i>Rack 2 bottles</i>	<i>Aluminium</i>	<i>560x250x275 mm</i>	
<i>SRSL3000</i>	<i>Rack 3 bottles</i>	<i>Aluminium</i>	<i>825x250x275 mm</i>	
<i>SRSL4000</i>	<i>Rack 4 bottles</i>	<i>Aluminium</i>	<i>1090x250x275 mm</i>	
<i>SRSL5000</i>	<i>Rack 5 bottles</i>	<i>Aluminium</i>	<i>1355x250x275 mm</i>	

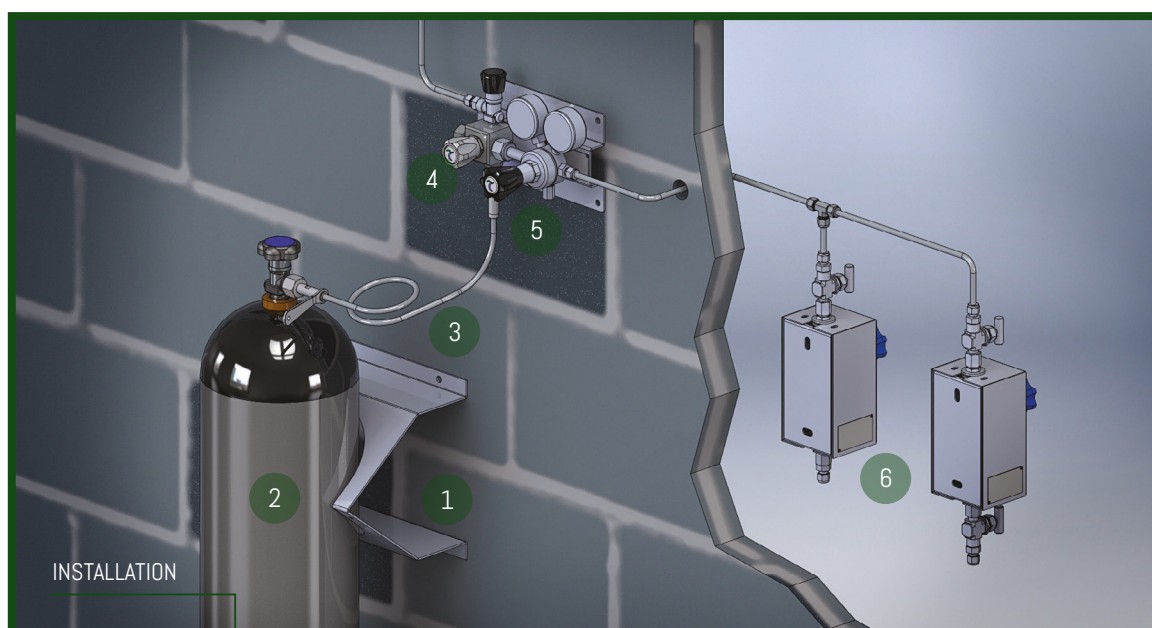


Rack Bottles

INSTALLATION EXAMPLES

PURE
GASES

APPLICATIONS



INSTALLATION

- 1 Bottle Rack;
- 2 Bottles;
- 3 Flexible Hose (pagg. 138-139);
- 4 Manifold for distribution:
LRC (pagg. 80-81);
- 5 High pressure regulator:
LHPI 100 (pagg. 82-83),
LHPI 600 (pagg. 86-87),
H 904 (pagg. 90-91),
LHPI 120 (pagg. 92-93),

- 6 High pressure decompression unit:
LHPI 100 (pagg. 82-83),
LHPI 200P (pagg. 106-107),
LHPI 300P (pagg. 108-109),
LHPI 800P (pagg. 110-111);
- 6 Wall mounted point of use:
LRP (pagg. 134-135),
LHPI 100 (pagg. 82-83),
LHPI 101TP (pagg. 124-125),