2022

MAXYLAB FOR PURE GASES

SINGLE-STAGE PRESSURE REDUCERS

ORIGINAL OXYTURBO MADE IN ITALY

oxyturbo®

Gas in Action

40
1982/2022

WE HAVE BEEN PUTTING OUR VALUES INTO EVERY PRODUCT FOR 40 YEARS...

SECTORAL SPECIALIZATION AS A DISTINCTIVE CHOICE

Since its origins, Oxyturbo has decided to deal in a specialized way with technological solutions in the field of pressure reducers and for the use of industrial gases in cylinders. A distinctive choice, which has allowed us to gain unparalleled experience on the international market. Oxyturbo is recognized as the company that offers the widest range of products, with solutions targeted to the needs of individual fields of use and users.

QUALITY TRACED AND CERTIFIED FOR THE SAFETY OF EACH CUSTOMER

Markets are often dominated by uncertainty about the real quality of the offer and exasperated competitiveness is transformed for the customer from an advantage into a risk. In this situation Oxyturbo immediately decided to favor certain and certified quality. It is no coincidence that the ISO 9001 certification was acquired 25 years ago. A certainty flanked by a brand that emphasizes the authenticity of what is "signed by Oxyturbo" and by a traceability system that assigns a specific "manufacturing memory" to each product.

A GREAT EXPERIENCE AT THE SERVICE OF TECHNOLOGICAL INNOVATION

During 40 years of company history, Oxyturbo has been the architect of significant technological innovations. It has made important steps forward in the sector in which it operates, both in terms of functional efficiency of the proposals, and in terms of safety, reliability, durability and also environmental sustainability. Particular attention is also paid to ensure that innovations are never at the expense of practicality of use.

COLLABORATIVE SKILLS TO BE A PARTNER AS WELL AS A SUPPLIER

Among the growth factors that have promoted Oxyturbo's business over the years, a decisive component has been the ability to be a proactive and available interlocutor beyond the supply of products. A competent and available partner, capable of listening to the customer's needs, interpreting them and therefore giving answers that participate in the success of development projects. A versatility that arises from being a company still led with passion by the entrepreneurial family that was its founder.

INTEGRATED LOGISTICS TO ENSURE COMPLIANCE WITH DELIVERIES

Oxyturbo is able to guarantee a wide and continuous availability of its products, in their original packaging, to give timely responses to increasingly dynamic markets in terms of orders and supply needs. The value of this organizational capacity of Oxyturbo logistics has become even more evident in contemporary markets, dominated by increasing difficulties in finding raw materials. The 4.0 structure of Oxyturbo logistics is able to keep the expected dynamics active, both in terms of quantity, types and delivery times.

THE WIDEST AND MOST UPDATED RANGE ON THE MARKET

The synergy between the Research & Development department and the various production units within the company, structures a range of offers which place Oxyturbo as the main reference in its sector at an international level. The ability to translate projects into solutions, as well as the possibility of maintaining high production flows under a quality regime, comes from a technological equipment that configures Oxyturbo as a 4.0 company. Oxyturbo has a "smart manufacturing" vocation, regarding both the robotic work islands and the digital controls of each single piece and in the various reference parameters: materials, assemblies, finishes.

ORIGINAL OXYTURBO · MADE IN ITALY ·

DIRECT LINE WITH OXYTURBO

Consultation and dialogue are fundamental components for Oxyturbo. It's this customer-oriented focus that really differentiates Oxyturbo. The company has developed an efficient telephone and on-line support service, managed by experienced staff, able to offer valuable technical and technical-commercial responses to quickly address specific needs, or provide useful information to employ the most appropriate specialists for the problem at hand.

GENERAL CONDITIONS OF SALE

TRANSPORT
Though shipped carriage paid, goods are always at the customer's own risk. Any claims for damages due either to transport or non-compliance with the order must be made in writing and within 5 days of receipt.

DELIVERIES
The terms confirmed by our sales office are indicative and any delays shall not originate any claims for damages or cancellation of the order. At its sole discretion, the seller may postpone the delivery of part of the order without prior notice to the buyer.

WARRANTY
The warranty is 24 months from delivery on all our products except for our pressure reducers, whose warranty is for 36 months. The warranty covers any manufacturing defects other than those resulting from normal wear, misuse or incorrect use.

RETURNS AND REPAIRS
To provide better service to our customers, any returns outside the warranty period will also be taken into consideration, subject to agreement with our sales department which, having ascertained the nature of the defect, will proceed with preventively approving the ex-factory return. Upon proof of receipt, the cost for the repair will be communicated and will be returned at the customer's expense.

RETURNS DUE TO ORDERING ERRORS
In the event that the customer wishes to return goods that were ordered erroneously, they must apply to our sales office within 5 days of receipt of the goods.

EACH OF OUR PRODUCTS IS SUPPLIED WITH EAN CODE
to facilitate their retail.

PRESSURE REDUCERS
FOR PURE GASES

With the constant evolution of industrial technologies, the need to ensure compliance with the mandatory quality levels for each product and the obligation to check possible polluting emissions are factors that determine the development of increasingly sophisticated and reliable analytical methods based on the use of pure gases.

The purity of a gas is an indication of the quantity of other gases it contains and is normally expressed using a two-digit number. High purity indicates a low content of other gases. Higher purity gases are considered to be of better quality and are usually more expensive.

- The most used pure gases are: **oxygen, nitrogen, carbon dioxide, pure or very pure air, instrument air, helium, argon, hydrogen/methane and nitrous oxide.**

- Pure gases have diverse uses based on the specific properties of the gases and are used **in research and chemical analysis laboratories, for apparatus calibration, in chromatography equipment, in universities, but also in the aerospace, food and metallurgical industries**.

- Oxyturbo offers a series of **single-stage pressure reducers for pure gas cylinders** manufactured in compliance with the most recent international standards in combination with a **series of compression and outlet connections** to choose from according to the different needs of the end user.

Pure gases have multiple uses in industry. Oxyturbo among its wide range of pressure reducers has introduced the Maxylab, which allows the use and control of the following gases:

CO_2

Carbon dioxide has many well-known applications in the food and beverage industry, from carbonating beverages and wine storage, to changing the atmosphere for packaged foods. It is also an effective greenhouse growing agent, extinguishing and chromatographic gas. It is also used in the control of pH levels in water.

ARGON

Argon is an inert, colorless, odorless, non-reactive gas. Since argon is an atmospheric gas (0.93% vol.), It is generally obtained by separating the air. In addition to being used in the welding industry, it is used as a carrier gas for biomedical purposes such as in chromatography.

OXYGEN

The main industrial application of oxygen is combustion. Many materials that do not normally burn in the air will burn in oxygen, so mixing oxygen with air greatly improves combustion efficiency. High purity oxygen is used in laboratories, in process control operations and in metal analysis instruments.

NITROGEN

Nitrogen is used for coating in food processing and for food packaging in modified atmosphere (MAP). It is also useful as a carrier and balance gas in laboratory analysis.

NITROUS OXIDE

Nitrous oxide has significant medical uses, it is also approved for use as an aerosol spray propellant for whipped cream and cooking spray and as an inert gas used to replace oxygen in order to inhibit bacterial growth when filling potato chips packages and similar snacks.

HELIUM

Helium is a colorless, odorless, non-toxic, non-corrosive and non-combustible gas.
With the lowest boiling point of any gas (4.2 Kelvin or -269 ° Celsius), liquid helium is the coldest gas on Earth. This makes it ideal as a cryogenic agent for a number of cutting-edge medical and physical applications. The non-flammable and low-density properties of helium make it suitable for inflating balloons for parties and special events.

HYDROGEN/NATURAL GAS

Hydrogen is the lightest of all gases. Hydrogen is used in various applications: in the food industry to hydrogenate liquid oils, in the chemical industry, in metal processing, in the pharmaceutical industry, to produce sorbitol used in cosmetics, adhesives and vitamins A and C, in electronics industry, to create specially controlled atmospheres in the production of semiconductor circuits and in the petroleum industry, to enhance the performance of petroleum products.

SINGLE-STAGE PRESSURE REDUCERS FOR THE USE OF PURE GASES IN LABORATORIES

The pressure reducers of the pure gas range are designed, built and marked in compliance with the **EN ISO 2503** standard which provides a series of features that make Oxyturbo products safe and professional.

TECHNICAL SPECIFICATIONS

- The AISI 316L stainless steel inlet filter is inspectable and removable and prevents the influx of impurities into the reducer.
- The shutter is made of PCTFE which is more robust than Teflon, is very stable over a wide range of temperatures and has a high impermeability to water. This latter property makes it particularly suitable for applications where there is an increased need for protection against humidity, such as in the medical and pharmaceutical fields.
- The pressure is regulated by a stainless steel piston diaphragm which prevents any gas contamination.
- The safety valve, if properly connected to a drainage pipe, allows the transfer of any overpressure outside the work environment.

SINGLE TEST

Each reducer is individually tested at the maximum inlet and outlet pressures during assembly to ensure maximum reliability.

MANDATORY MARKINGS

Oxyturbo creates the laser markings both on the reducer bodies and on the safety valves.
For the reducers the EN ISO 2503 standard provides the following mandatory markings:

- Name or trademark of the manufacturer and/or distributor
- Reference standard:
- Gas for which the reducer is intended
- Production batch
- Nominal inlet pressure - **P1**-
- Operating pressure - **P2** - or reducer class - **K** -
- Dispensing - **Q1**-

The safety valve reports:

- Production batch
- Working temperature range
- Vent pressure
- Flow direction.

REQUIREMENT FOR THE PRESSURE ADJUSTMENT DEVICE

Our reducers are equipped with a critical device to guarantee maximum safety during use of the reducer at the maximum pressures applied.

INTEGRATED CAPSULE

All the reducers are equipped with an INTEGRATED CAPSULE fitted with a filter which allows easier maintenance and greater reliability.

PRESSURE GAUGES

The single-stage reducers are equipped with two ø 63 mm pressure gauges built in compliance with the ISO 5171 standard with double bar/psi scale, chrome-plated metal case, nickel-plated shank and explosion-proof device which ensure that both the cylinder pressure and the operating pressure always under control.

AESTHETIC TREATMENT

The reducer body and cover are machined from a brass rod and then undergo a chrome plating treatment.

POSSIBILITY OF WALL BRACKETING

To allow the reducer to be fixed to the wall there are 2 **M4 threaded holes** at the rear with 40 mm centre distance. Oxyturbo supplies a steel bracket (cod.194820) on request.

EN ISO 2503

MAXYLAB

The ideal pressure reducers for analysis laboratories, the food sector and the chemical industry.

Oxyturbo proposes single-stage pressure reducers with an ergonomic and functional design to be used in the output of pure gas cylinders to reduce the pressure by **300 bar up to the line or usage**. Moreover, as required by the reference standard, these reducers have a **body and a cover in chrome-plated brass and an internal stainless steel membrane** that allows precise pressure control and avoids any internal contamination.

WARRANTY 3 YEARS

TECHNICAL SPECIFICATIONS

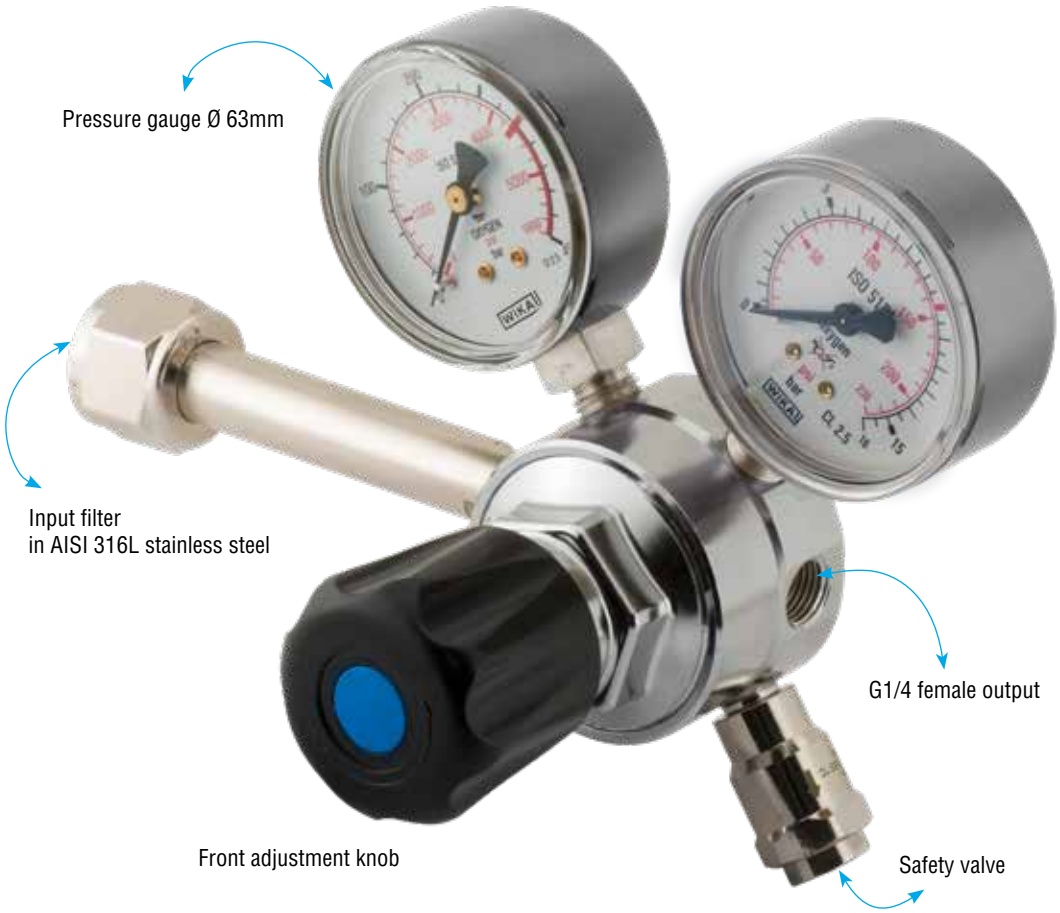
- Manufactured and laser-marked according to EN ISO 2503
- Body and cover in chrome-plated brass
- Laser-marked conveyable external overpressure safety valve (G1/4F)
- PCTFE shutter
- Ø 63mm gauges with double scale in bar/psi, chrome-plated metal case nickel-plated shank and explosion-proof device
- Stainless steel membrane
- AISI 316L stainless steel inlet filter
- Various inlet connections depending on the gas used per the following table
- G1/4 female outlet

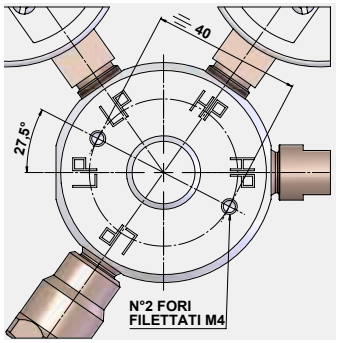
USE

Ideal for laboratories and for all applications with pure non-toxic and non-corrosive gases.

GAS USED:

CO_2
ARGON
OXYGEN
NITROGEN
NITROUS OXIDE
COMPRESSED AIR
HYDROGEN/NATURAL GAS
HELIUM





At the rear there are 2 M4 threaded holes with 40 mm centre distance for wall mounting.

An extensive series of reducers equipped with Ø 63mm pressure gauges with double scale in bar/psi, chrome-plated metal case, nickel-plated shank and explosion-proof device, available with:
- 4 and 10 bar outlet pressure
- high pressure gauge 0-400 bar/psi - R.L. 300 bar
- low pressure gauge 0-6 bar/psi - R.L. 4 bar or 0-16 bar/psi - R.L. 10 bar.

Weight of pressure reducer: **1.5** Kg - No.Pcs.: **6** - Packaging: (l x w x h) **52.5x24.5x38** cm - Packaging weight: **10** Kg

CHOOSE YOUR PRESSURE REDUCER MAXYLAB

1 Kind of gas (☑): ☐ CO_2 ☐ NITROGEN ☐ OXYGEN ☐ ARGON ☐ NITROUS OXIDE ☐ COMPRESSED AIR ☐ HYDROGEN/NATURAL GAS ☐ HELIUM

2 Inlet Orientation (☑): ☐ ONLY LEFT

3 High pressure gauge (☑): ☐ ONLY 0-400 bar - R.L. 300 bar

4 Low pressure gauge (☑): ☐ R.L. 4 bar ☐ 0-16 bar R.L.10 bar

5 Inlet Connection: See page 12-13

OUTPUT FITTINGS

490380GP

The assembly kit for the pressure reducer outlet for pure gases is composed of three parts: nut, hose connector and fitting G1/4 - G3/8 right and left. The components are made of brass and are degreased for use with oxygen.

CODE	Description	Weight (kg)	No.Pcs.
490380GP	Complete outlet connection G3/8 rh	0,07	1
490330GP	Complete outlet connection G3/8 lh	0,07	1

COMPRESSION FITTINGS

The assembly kit for the pressure reducer outlet for pure gases is composed of three parts: nut, hose connector and fitting G1/4 - G3/8 right and left. The components are made of brass and are degreased for use with oxygen.

490106GP

490108GP

490110GP

490112GP

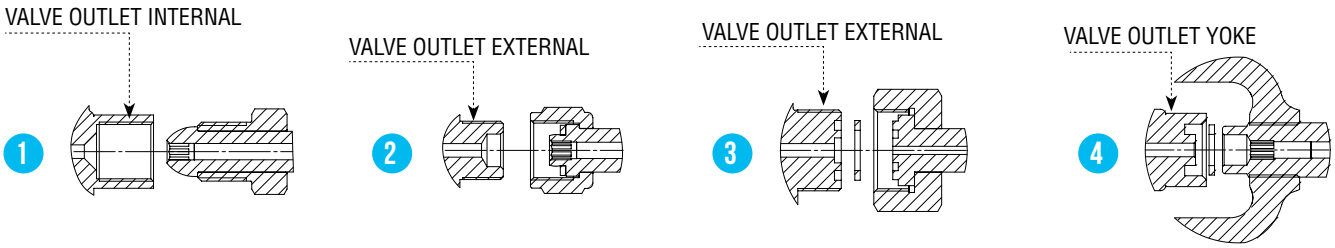
CODE	Description	Weight (kg)	No.Pcs.
490106GP	Straight male conical fitting R1/4 for pipe ø 6mm	0,02	1
490108GP	Straight male conical fitting R1/4 for pipe ø 8mm	0,03	1
490110GP	Straight male conical fitting R1/4 for pipe ø 10mm	0,05	1
490112GP	Straight male conical fitting R1/4 for pipe ø 12mm	0,06	1

MAXYLAB GAUGES

CODE	Description	Pressure	Ø MM	Connection*	Scale	Red sign
OXYGEN HIGH PRESSURE						
Q6030210CR	MAXYLAB	HIGH	63	G1/4-R	0-400	300
OXYGEN LOW PRESSURE						
Q6060202CR	MAXYLAB	LOW	63	G1/4-R	0-6	4
Q6160201CR	MAXYLAB	LOW	63	G1/4-R	0-16	10
OTHER HIGH PRESSION GASES						
Q6030200CR	MAXYLAB	HIGH	63	G1/4-R	0-400	300
OTHER LOW PRESSION GASES						
Q6060201CR	MAXYLAB	LOW	63	G1/4-R	0-6	4
Q6160202CR	MAXYLAB	LOW	63	G1/4-R	0-16	10

CYLINDER CONNECTIONS

GAS	CHIMICAL SYMBOL	OUTLET DIMENSIONS	STANDARD	OUTLET NUMBER
ITALY				
Acetylene	C_2H_2	Ø 20 X Ø 10mm	7S - UNI 11144	4
		G 5/8 LH	7F - UNI 11144	1
Argon	Ar	W24.5 X 1/14"	8 - UNI 11144	1
Butane	C_4H_{10}	W20 X 1/14" LH	1P - UNI 11144	2
Carbon dioxide	CO_2	W21.7 X 1/14"	2 - UNI 11144	2
Air		W30 X 1/14"	6 - UNI 11144	2
Helium	He	W24.5 X 1/14"	8 - UNI 11144	1
Hydrogen	H_2	W20 X 1/14" LH	1H - UNI 11144	2
Methane	CH4	W20 X 1/14" LH	1H - UNI 11144	2
Nitrogen	N_2	W 21.7 X 1/14"	5 - UNI 11144	1
Oxygen	O_2	W21.7 X 1/14"	2 - UNI 11144	2
Propane	C_3H_8	W20 X 1/14" LH	1P - UNI 11144	2
GERMANY, AUSTRIA, SWITZERLAND, CZECH REPUBLIC, SLOVAKIA, HUNGARY, POLAND				
Acetylene	C_2H_2	Ø 15.3 X Ø 7.5	DIN 477 No.3	4
Argon	Ar	W21.8 X 1/14"	DIN 477 No.6	2
Butane	C_4H_{10}	W21.8 X 1/14" LH	DIN 477 No.6	2
Carbon dioxide*	CO2	W21.8 X 1/14"	DIN 477 No.6	2
Air		G 5/8	DIN 477 No.13	1
Helium	He	W21.8 X 1/14"	DIN 477 No.6	2
Hydrogen	H_2	W21.8 X 1/14" LH	DIN 477 No.1	2
Methane	CH_4	W21.8 X 1/14" LH	DIN 477 No.1	2
Nitrogen	N_2	W24.32 X 1/4"	DIN 477 No.10	2
Oxygen*	O_2	G 3/4	DIN 477 No.9	2
Propane	C_3H_8	W21.8 X 1/14" LH	DIN 477 No.1	2
* Czech Rep. and Slovakia: CO_2 G 3/4" - Oxygen W21.8 x 1/14"				
UK				
Acetylene	C_2H_2	G 5/8 LH	BS 341 No.2	1
Argon	Ar	G 5/8	BS 341 No.3	1
Butane	C_4H_{10}	G 5/8 LH	BS 341 No.4	1
Carbon dioxide	CO2	0.860" X 14 TPI	BS 341 No.8	2
Air		G 5/8	BS 341 No.3	1
Helium	He	G 5/8	BS 341 No.3	1
Hydrogen	H_2	G 5/8 LH	BS 341 No.2	1
Methane	CH_4	G 5/8 LH	BS 341 No.2	1
Nitrogen	N_2	G 5/8	BS 341 No.3	1
Oxygen	O_2	G 5/8	BS 341 No.3	1
Propane	C_3H_8	G 5/8 LH	BS 341 No.4	1
FRANCE				
Acetylene	C_2H_2	Ø 21 X Ø 10mm	NF E 29-650/A	4
		W 22.91 X 1/14" LH	NF E 29-650/H	1
Argon	Ar	W 21.7 X 1/14"	NF E 29-650/C	2
Butane	C_4H_{10}	W 21.7 X 1/14" LH	NF E 29-650/E	2
Carbon dioxide	CO_2	W 21.7 X 1/14"	NF E 29-650/C	2
Helium	He	W 21.7 X 1/14"	NF E 29-650/C	2
Hydrogen	H_2	W 21.7 X 1/14" LH	NF E 29-650/E	2
Methane	CH_4	W 21.7 X 1/14" LH	NF E 29-650/E	2
Nitrogen	N_2	W 21.7 X 1/14"	NF E 29-650/C	2
Oxygen	O_2	W 22.91 X 1/14"	NF E 29-650/F	1
Propane	C_3H_8	W 21.7 X 1/14"LH	NF E 29-650/E	2



GAS	CHIMICAL SYMBOL	OUTLET DIMENSIONS	STANDARD	OUTLET NUMBER
HOLLAND, BELGIUM				
Acetylene	C_2H_2	Ø 20 X Ø 9mm	NEN 3268 YOKE	4
	C_2H_2	G 5/8 LH	NEN 3268 LI2	1
Argon	Ar	W 24.32 X 1/14"	NEN 3268 RU 3	2
Butane	C_4H_{10}	W21.8 X 1/14" LH	NEN 3268 LU 1	2
Carbon dioxide	CO_2	W21.8 X 1/14"	NEN 3268 RU 1	2
Air		W21.8 X 1/14"	NEN 3268 RU 6	2
Helium	He	W24.32 X 1/14"	NEN 3268 RU 3	2
Hydrogen	H_2	W21.8 X 1/14" LH	NEN 3268 LU 1	2
Methane	CH_4	W21.8 X 1/14" LH	NEN 3268 LU 1	2
Nitrogen	N_2	W24.32 X 1/14"	NEN 3268 RU 3	2
Oxygen	O_2	G 5/8	NEN 3268 RI 2	1
Propane	C_3H_8	W21.8 X 1/14" LH	NEN 3268 LU 1	2
SWEDEN, NORWAY, FINLAND				
Acetylene	C_2H_2	G3/4	SS 2238/C2	1
Argon	Ar	W24.32 X 1/14"	SS 2238/A	2
Butane	C_4H_{10}	CGA 510 LH	SS 2238/C1	1
	C_4H_{10}	W21.8 X 1/14" LH		2
Carbon dioxide	CO_2	W21.8 X 1/14"	SS 2238/A	2
Air		G 5/8	SS 2238/C2	1
Helium	He	W24.32 X 1/14"	SS 2238/A	2
Hydrogen	H_2	W21.8 X 1/14" LH	SS 2238/A	2
Methane	CH_4	W21.8 X 1/14" LH	SS 2238/A	2
Nitrogen	N_2	W24.32 X 1/14"	SS 2238/A	2
Oxygen	O_2	W21.8 X 1/14"	SS 2238/A	2
Propane	C_3H_8	CGA 510 LH	SS 2238/C1	1
	C_3H_8	W21.8 X 1/14" LH		2
SPAIN, PORTUGAL				
Acetylene	C_2H_2	YOKE	YOKE	4
	C_2H_2	Ø 22.91 X 1/14" LH	MIE AP7	1
Argon	Ar	W21.7 X 1/14"	MIE AP7	2
Butane	C_4H_{10}	W21.7 X 1/14" LH	MIE AP7	2
Carbon dioxide	CO_2	W21.7 X 1/14"	MIE AP7	2
Air		M 30 X 1.75	MIE AP7	3
Helium	He	W21.7 X 1/14"	MIE AP7	2
Hydrogen	H_2	W21.7 X 1/14" LH	MIE AP7	2
Methane	CH_4	W21.7 X 1/14" LH	MIE AP7	2
Nitrogen	N_2	W21.7 X 1/14"	MIE AP7	2
Oxygen	O_2	W22.91 X 1/14"	MIE AP7	1
Propane	C_3H_8	W 21.7 X 1/14" LH	MIE AP7	2
U.S.A.				
Acetylene	C_2H_2	CGA 510 LH	CGA V-1	1
Argon	Ar	CGA 580	CGA V-1	1
Butane	C_4H_{10}	CGA 510 LH	CGA V-1	1
Carbon dioxide	CO_2	CGA 320	CGA V-1	2
Air		CGA 346	CGA V-1	2
Helium	He	CGA 580	CGA V-1	1
Hydrogen	H_2	CGA 350	CGA V-1	2
Methane	CH_4	CGA 510 LH	CGA V-1	1
Nitrogen	N_2	CGA 580	CGA V-1	1
Oxygen	O_2	CGA 540	CGA V-1	2
Propane	C_3H_8	CGA 510 LH	CGA V-1	1

THERE IS AN ENTIRE COMPANY IN EVERY OXYTURBO PRODUCT

The three warehouses in Desenzano house 4 pressure reducer assembly lines and 2 welding product assembly lines within the 3000 square metres of operating area. It produces significant production capacity from each assembly line, with a very high annual potential. Capability that of course is further enhanced by the other products in the Oxyturbo and Welding Diffusion range, which are also tested, packaged and marketed from the headquarters in Desenzano.

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