

# WELDING

PRODUCTS FOR GAS DISTRIBUTION CONTROL SYSTEMS, PRESSURE REDUCERS AND FLAME WELDING

## **AUTHORITY RECOGNISED BY THE MARKET**



#### The Oxyturbo identity is as a partner as well as an effective supplier

Oxyturbo is present in the market as a proactive, safe reference for a wide range of products and a vast span of application fields. In each of these, the company has asserted its identity as a customer partner, based on three key concepts: the search for innovative solutions, product quality assurance, and versatility of response to market demands. The company's established experience, gained with the manufacturing and marketing of hundreds of products, focuses on constant collaboration with its partners, both in Italy and on the worldwide stage. These same partners can attest to the authoritativeness of their "company system".

#### **RESEARCH AND DEVELOP INNOVATION**

#### Exceeding your own limits: the most exciting challenge

Since its inception, Oxyturbo has always aimed to diversify and broaden its offer, both by looking at internationally applied research developments and by developing a strong internal R&D commitment. Oxyturbo research efforts have consistently aimed at introducing increasingly high performing, durable, eco-friendly, innovative systems. The Oxyturbo research team is one of the most prominent facilities in the industry thanks to their functionality, ease of use and safety of the products it has developed.





### **"TAILOR MADE" SOLUTIONS**

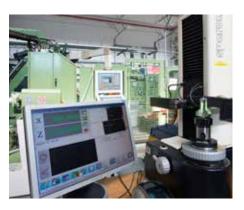
#### Facilitating technical and commercial decisions for customers

Understanding customer needs and making products that meet these requirements have always been the core values behind the relationship between Oxyturbo and the market. Customers find a trusted reference in Oxyturbo, a real "facilitator" of technical and commercial decisions, able to identify and create the solutions that are needed and to contribute to the creation of value. The company also knows how to give the most targeted answers to each specific need, supporting them with an integrated service organisation that plans and delivers an equally versatile supply of products.

## **PRODUCTION WITH "SMART MANUFACTURING" LOGIC**

#### Avant-garde facilities and 4.0 chain organisation

The Oxyturbo facilities which includes machines and robotic and digital systems have long been the main players in all their main manufacturing phases, even before the concept of Factory 4.0 was affirmed as a must in intelligent industry. Oxyturbo was one step ahead of those developments that today are strategic for modern manufacturing, ensuring production process efficiency, controlling the entire supply chain and safeguarding stringent qualitative parameters. It also ensures the accuracy of finishes and treatments of both metals and other elements and constructive details.



## **CERTIFIED, SELECTED QUALITY**

The certainty of original Oxyturbo reliability



The Oxyturbo quality system is certified to EN ISO 9001. A traceability system is also used to follow the life of each product with a specific "manufacturing memory". The company has also created a special "brand" of origin that guarantees authenticity as "original Oxyturbo". As part of this logic of customer respect, the company focuses on the safety and reliability of products with a very competitive cost range. Selected products from the world market are directly tested for consistency with the company commitment to quality.





#### ICT LOGISTICS SYSTEM

Digital platforms for combined speed, diversification and precision

Quickness, availability and flexibility are all key components of the Oxyturbo logistics organisation. A proven, modern system with the latest Information Communication Technology, allowing orders to be executed in a fast and accurate manner. This is also bolstered by a dynamic response to constant stock availability of products, which are also equipped with their packaging. The system is controlled with digital platforms and process sensors within the company's commitment to a concrete "environment 4.0".





## **PRODUCT INDEX**

## **GAS DISTRIBUTION CONTROL SYSTEMS**

| GAS POINT                                 | 8  |
|---|----|
| GAS POINTS WITH FLOW METERS AND FOR LASER | 10 |
| GAS POINT SMART                           | 11 |
| MANIFOLD SYSTEMS                          | 12 |
| CYLINDER RACKS                            | 14 |
| FLEXIBLE CONNECTIONS                      | 15 |

## **PRESSURE REDUCERS**

#### PRESSURE REDUCERS FOR RECHARGEABLE CYLINDERS

| MAXYMUM                        | 22           |
|--------------------------------|--------------|
| NEVOC SYSTEM                   | 24           |
| MAXY                           | 25           |
| MAXY POWER CONTROL             | 29           |
| MAXY SMART                     | 31           |
| MAGNUM SMART                   | 33           |
| MAGNUM SMART REAR SIDE         | 35           |
| MINI                           | 37           |
| PRESSURE REDUCERS FOR DISPOSAB | LE CYLINDERS |
| MIGNON                         | 41           |
| MICRO                          | 42           |
| FITTINGS AND ACCESSORIES       | 43           |

## **FLAME WELDING**

GAUGES

| WELDING MAXI             | 50 |
|--------------------------|----|
| WELDING MINI             | 54 |
| CUTTING TORCHES          | 57 |
| SAFETY                   | 59 |
| CYLINDER HOLDER TROLLEYS | 61 |
| GAS CONTROL              | 62 |

44

The data and images contained in this catalogue are purely indicative and may be subject to change without notice by Oxyturbo SpA. Photographs and descriptions of products do not have any contractual value.



## The many benefits of industrial gas distribution.

Numerous production processes use gas, which is provided at high pressure inside cylinders and cylinder packs for transport and storage. These cylinders are then used to power distribution networks which bring gas to the required pressure up to the point of use.

#### Benefits of gas centralisation:

#### SAFETY

- **7** Cylinders are stored outside workshops.
- Work and circulation areas are unobstructed.
- Safety devices positioned at different levels of the system eliminate any risk of serious accidents.
- Possibility of feeding powerful torches.

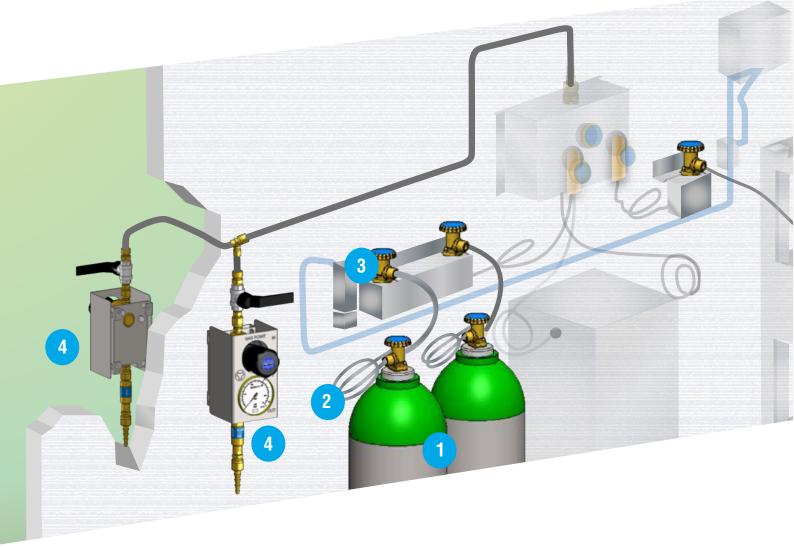
#### PRODUCTIVITY

Continuous, controlled and constant pressure supply allows uninterrupted production of workstations (semi-automatic control units).

#### SAVINGS

- ↗ Reduced cylinder storage.
- **7** Cylinder grouping significantly limits transport costs.

## ACCESSORIES FOR GAS DISTRIBUTION CONTROL SYSTEMS



## A new range of products for your work.

To be increasingly capable of meeting the demands of our welding customers, Oxyturbo has further expanded its range of products and is now able to offer several items required for work with gas distribution plants. Only the rigorous selection of equipment and materials guarantees total compatibility with the gases and mixtures to be used in these facilities.

The GAS POINT distribution points, the manifold systems, the cylinder racks and flexible connections come in three different versions (copper, PTFE, polyamide) and with two different lengths (1 or 3 metres) are part of the new Oxyturbo range.

Our work doesn't end here: our technical department is working to be able to offer other items over the next months in order to complement our centralised distribution systems for the industrial field.





## **DEFINE A GAS DISTRIBUTION SYSTEM:**

#### Step 1 Choosing the welding procedure

Define the gas or gases to be used

#### Step 2 Identify

- The number of workstations
- The type of equipment used (cutting torch welding heating MIG-MAG-TIG welding machine)
- The actual operating time in welding per piece of equipment

#### Step 3 Establishing the instantaneous flow rate

The instantaneous flow rate allows you to measure the capacity of the control unit:

- Normal flow rate control unit
- ↗ High flow rate control unit

#### Step 4 Defining control unit autonomy

This step involves deciding the number of cylinders or cylinder packs to be used:

- Control unit with cylinders
- Control unit with cylinder packs

#### Step 5 Deciding control unit productivity

Productivity is directly related to the management of work interruptions due to gas supply disruptions once cylinders or cylinder packs have emptied.

If gas interruptions do not cause large operating problems for workshops, you can choose:

- Manual, simplified control units.
  - The decompression unit is powered by 1 or 2 sources of gas, but workstation power is interrupted when the source is emptied.

If interruptions are to be avoided as much as possible, you should choose:

Semi-automatic control units

The decompression unit is powered by 2 sources of gas, one of which is in service and the other is the reserve. When the source in service is emptied, the reserve source automatically intervenes: supply to the workstations is therefore not interrupted.





# **GAS POINT**

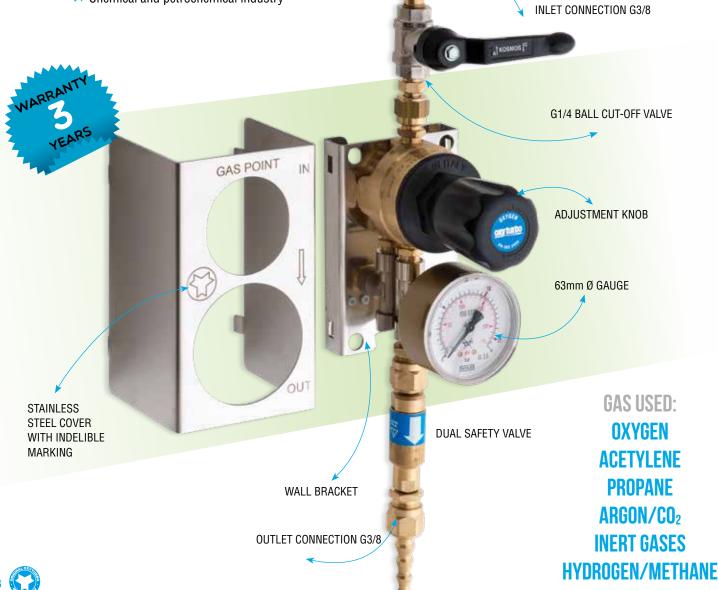
## The necessary complements for centralised gas distribution are compact and easy to install.

#### **FEATURES**

GAS POINT distribution points are equipped with easy-to-mount stainless steel casing enclosures that envelop components to ensure maximum protection. Markings on the enclosure are built into it without the use of labels which could detach over time. The models for oxygen, acetylene and propane are equipped with a dual safety valve against flame and gas returns. The inlet connection is G3/8 male and is equipped with a G1/4 ball cut-off valve with inspecting filter. At outlet, the connection is G3/8 with hose connection. The pressure control gauges are 63 mm diameter and allow for easy reading of the internal scale.

#### **USE IN THE FOLLOWING FIELDS OF APPLICATION**

- ↗ Automotive
- ↗ Metallurgical
- Production or use of metal, plastic, glass and paper
- ↗ Packaging
- Chemical and petrochemical industry



## **GAS POINT**

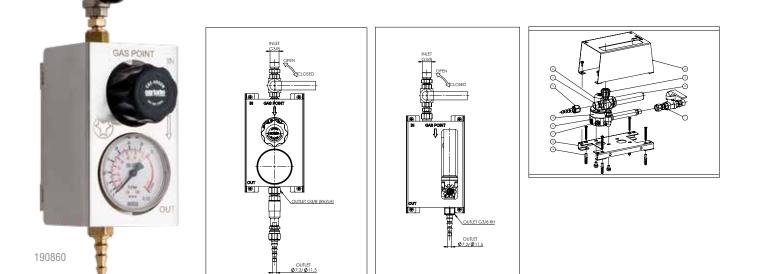


The pressure reducers included in our gas distribution points are equipped with a high-pressure capsule with a sintered filter at the inlet and are all provided with a safety valve. Their high supply precision makes them suitable for all welding and cutting applications. (*F.A.V.= FLASHBACK ARRESTOR VALVE*)

| CODE   | Description           | Outlet | P1 (bar) | P2 (bar) | <b>Q1</b> (m <sup>3</sup> /h) | Weight (kg) | No.Pcs. |
|--------|-----------------------|--------|----------|----------|-------------------------------|-------------|---------|
| 190800 | GAS POINT O2 + F.A.V. | 3/8    | 30       | 10       | 30                            | 1.75        | 1       |

| CODE   | Description                                      | Outlet | P1 (bar) | <b>P2</b> (bar) | <b>Q1</b> (m³/h) | Weight (kg) | No.Pcs. |
|--------|--|--------|----------|-----------------|------------------|-------------|---------|
| 190820 | GAS POINT C <sub>2</sub> H <sub>2</sub> + F.A.V. | 3/8    | 1.5      | 1.5             | 5                | 1.85        | 1       |
| 190830 | GAS POINT C₃H <sub>8</sub> + F.A.V.              | 3/8    | 6        | 4.0             | 10               | 1.90        | 1       |
| 190840 | GAS POINT H2 CH4 + F.A.V.                        | 3/8    | 30       | 10              | 30               | 1.85        | 1       |

| CODE   | Description                             | Outlet | P1 (bar) | <b>P2</b> (bar) | <b>Q1</b> (m³/h) | Weight (kg) | No.Pcs. |
|--------|---|--------|----------|-----------------|------------------|-------------|---------|
| 190860 | GAS POINT ARGON/CO2<br>WITHOUT F.A.V.   | 3/8    | 30       | 4.0             | 32 L/min         | 1.75        | 1       |
| 190870 | GAS POINT INERT GASES<br>WITHOUT F.A.V. | 3/8    | 30       | 10              | 30               | 1.75        | 1       |



9

## **GAS POINTS WITH FLOW METERS**



Flow measurements are essential for process control. Where it is useful or necessary to have a flow at a specific value, the best tool to use is a flow meter, which also allows for an immediate reading. Our Gas Points are available in versions with one up to four flow meters for possible use with one or more utilities. Their compact, elegant design makes them the favourite for use in laboratories, however they are ideal for any industrial application.

| CODE   | Description                                 | Outlet | P1 (bar) | <b>P2</b> (bar) | <b>Q1</b> (L/min) | Weight (kg) | No.Pcs. |
|--------|---|--------|----------|-----------------|-------------------|-------------|---------|
| 190861 | GAS POINT AR/CO <sub>2</sub> + 1 FLOW METER | 3/8    | 30       | 3.5             | 30                | 2.15        | 1       |
| 190864 | GAS POINT AR/CO <sub>2</sub> + 2 FLOW METER | 3/8    | 30       | 3.5             | 30                | 3.90        | 1       |
| 190863 | GAS POINT AR/CO <sub>2</sub> + 3 FLOW METER | 3/8    | 30       | 3.5             | 30                | 4.24        | 1       |
| 190862 | GAS POINT AR/CO <sub>2</sub> + 4 FLOW METER | 3/8    | 30       | 3.5             | 30                | 4.60        | 1       |





## **2ND STAGE LASER GAS POINT**

190864

## APPROVED UP TO **300 BAR**



190880





These high flow rate, powerful distribution points are ideal for centralised and laser cutting plants. Suitable for operating temperatures from – 20 °C to + 60 °C.

- Made with:
- Maximum series piston reducer with all brass membrane
- Low pressure gauge, 63 Ø, in accordance with ISO 5171, approved for welding systems
- G1/2 F ball cut-off valve
- G1/2 M outlet fitting
- Wall support with stainless steel enclosure

#### Available for use with oxygen and with nitrogen.

|   | CODE   | Description                                     | Outlet | P1 (bar) | <b>P2</b> (bar) | <b>Q1</b> (m³/h) | Weight (kg) | No.Pcs. |
|---|--------|---|--------|----------|-----------------|------------------|-------------|---------|
| _ | 190880 | GAS POINT laser cutting $\rm O_22^{nd}$ stage   | 1/2    | 60       | 50              | 180              | 2.40        | 1       |
| - | 190881 | GAS POINT laser cutting $\rm N_2^{\ 2nd}$ stage | 1/2    | 60       | 50              | 180              | 2.40        | 1       |

10





GAS USED: OXYGEN ACETYLENE PROPANE ARGON/CO2 INERT GASES

The simplest, easiest and quickest socket designed by Oxyturbo to complete gas distribution centralisation.

The inlet connection is G3/8 female. It is composed of a MaxySmart line regulator with 63 mm diameter pressure gauge or with a flow meter and outlet flexible hose connection. The pressure gauge is oriented so as to allow for easy operator reading.

The variants for oxygen, acetylene and propane are arranged for the connection of a dual safety valve against flame and gas returns.

#### **GAS POINT SMART**



| CODE        | Description                    | Inlet   | Outlet  | P2       | Weight (Kg) | No. Pcs. | Pack. Dim.<br>(I x w x h) cm | Pack. Weight |
|-------------|--------------------------------|---------|---------|----------|-------------|----------|------------------------------|--------------|
| 240302.PP   | Gas Point Smart<br>Oxygen      | 3/8"    | 1/4"    | 10 BAR   | 0.85        | 8        | 41 X 29 X 22                 | 7.00         |
| 241352.PP   | Gas Point Smart<br>Acetylene   | 3/8" LH | 3/8" LH | 1.5 BAR  | 0.83        | 8        | 41 X 29 X 22                 | 6.90         |
| 242352.PP   | Gas Point Smart<br>Propane     | 3/8" LH | 3/8" LH | 4 BAR    | 0.85        | 8        | 41 X 29 X 22                 | 7.00         |
| 245302.PP   | Gas Point Smart<br>CO2/Argon   | 3/8"    | 1/4"    | 32 L/min | 0.83        | 8        | 41 X 29 X 22                 | 6.90         |
| 245352.10PP | Gas Point Smart<br>Inert gases | 3/8"    | 3/8"    | 10 BAR   | 0.86        | 8        | 41 X 29 X 22                 | 7.10         |

### **GAS POINT SMART WITH FLOW METER**

The Gas Point Smart with flow meter is supplied with an adjustment knob and for this reason is particularly suitable for work where flow measurement requires greater immediancy and reading precision.



| CODE      | Description  | Inlet | Outlet | P2       | Weight (Kg) | No. Pcs. | Pack. Dim.<br>(I x w x h) cm | Pack. Weight |
|-----------|--|-------|--------|----------|-------------|----------|------------------------------|--------------|
| 245402.PP | Gas Point Smart CO <sub>2</sub> /<br>Argon + flowmeter | 3/8"  | 1/4"   | 30 L/min | 0.87        | 8        | 41 X 29 X 22                 | 7.20         |



Gas outlet

Allow for multiple cylinders or cylinder packs to be connected in parallel to decompression devices on distribution plants in order to increase the autonomy of the plant supply itself.

Our manifolds are available from single to triple and contain cut-off valves at inlet and and a double outlet (both on the right and on the left). Valve and inlet and outlet fitting bodies are made of brass.

↗ Inlet threading is in accordance with standard UNI/ISO and are dependent on gas.

 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is made by indication of the name and/or symbol of the gas supplied and the
 A Identification is a Identification of the name and/or symbol of the gas supplied and the
 A Identification of the name and/or symbol of the name an production batch marked with laser on the stainless steel bracket.

To avoid the incompatibility of gases with some materials, all braze-welding with silver alloy (potentially dangerous with acetylene) has been eliminated.

## SINGLE MANIFOLD SYSTEMS

These are ideal for stable wall fixing of a powerful delivery reducer, to then be connected to the cylinder or to the ted to have to fix it and remove it from the cylinder or the cylinder pack every time the gas is depleted.



cylinder pack by means of a flexible one. As this reducer is rather heavy and bulky, it would otherwise be complica-

| CODE   | Description                                    | <b>P1</b> max. (bar) | Inlet       | Outlet      | Weight (kg) | No.Pcs. |
|--------|--|----------------------|-------------|-------------|-------------|---------|
| 191810 | $\rm O_2$ and inert gas single manifold system | 300                  | W21.8X1/14" | W21.8x1/14" | 1.35        | 1       |
| 192810 | Acetylene single manifold system               | 25                   | G5/8"LH     | G5/8"Lh     | 1.35        | 1       |
| 193810 | Fuel gas* single manifold system               | 300                  | W20X1/14"LH | W20x1/14"Lh | 1.35        | 1       |



## **TWIN MANIFOLD SYSTEMS**



These are ideal for stable wall fixing of a powerful delivery reducer and for having two separate inlets to obtain a gas reserve system, connecting for example a cylinder pack at inlet 1 and a cylinder at inlet 2, to be activated during a pack changeover to avoid any interruptions in operating processes. It is also possible to connect the manifold to a decompression panel via a flexible hose.

| CODE   | Description                                    | <b>P1</b> max. (bar) | Inlet       | Outlet      | Weight (kg) | No.Pcs. |
|--------|--|----------------------|-------------|-------------|-------------|---------|
| 191820 | $\rm O_{2}$ and inert gas twin manifold system | 300                  | W21.8X1/14" | W21.8X1/14" | 3.20        | 1       |
| 192820 | Acetylene twin manifold system                 | 25                   | G5/8"LH     | G5/8"LH     | 3.20        | 1       |
| 193820 | Fuel gas twin manifold system                  | 300                  | W20X1/14"LH | W20X1/14"LH | 3.20        | 1       |

## **TRIPLE MANIFOLD SYSTEMS**



These are ideal for having 3 separate inlets for connecting for example 3 cylinders for good gas autonomy. The manifolds can be connected both to a decompression panel via a flexible hose and directly to a powerful delivery reducer.

| CODE   | Description  | P1 max.(bar) | Inlet       | Outlet      | Weight (kg) | No.Pcs. |
|--------|--|--------------|-------------|-------------|-------------|---------|
| 191830 | $\boldsymbol{0}_{_{2}}$ and inert gas triple manifold system | 300          | W21.8X1/14" | W21.8X1/14" | 5.10        | 1       |
| 192830 | Acetylene triple manifold system                             | 25           | G5/8"LH     | G5/8"LH     | 5.10        | 1       |
| 193830 | Fuel gas triple manifold system                              | 300          | W20X1/14"LH | W20X1/14"LH | 5.10        | 1       |

## MANIFOLD SYSTEM CONNECTION FITTINGS



If more than 3 cylinders (or cylinder packs) need to be connected to power the plant, multiple manifolds in series can be installed using specific swivel connection fittings.

| CODE     | Description   | Weight (Kg) | No. Pcs. | Pack. Dim. (cm) | Pack. Weight (Kg) |
|----------|---|-------------|----------|-----------------|-------------------|
| C5419050 | O2 and inert gas manifold system connection fitting | 0.25        | 50       | 41 x 36 x 24    | 12.70             |
| C5419051 | Acetylene manifold system connection fitting        | 0.35        | 50       | 41 x 36 x 24    | 17.70             |
| C5419052 | Fuel gas manifold system connection fitting         | 0.20        | 50       | 41 x 36 x 24    | 10.20             |



C5419052





# **CYLINDER RACKS**

Oxyturbo proposes accessories for cylinder storage in compliance with safety regulations in the workplace.



## CYLINDER RACKS



Accessories can be placed inside the laboratory or warehouse.

Cylinder packs are made of laser-cut INOX 430 stainless steel sheet and are equipped with a white galvanised chain to hold cylinders. They are single, twin and triple and are used to secure one or more 40/50 L compressed gas cylinders to the wall to thus prevent accidental falls.

Multiple, different type cylinder packs can be combined to meet space requirements or simply to increase the number of cylinders to be installed.

| CODE   | Description          | Weight (kg) | No.Pcs. | Pack.Dim. (cm)   | Pack.Weight (kg) |
|--------|----------------------|-------------|---------|------------------|------------------|
| 194890 | Single cylinder pack | 0.80        | 5       | 35 x 19 x 17     | 4.20             |
| 194891 | Twin cylinder pack   | 1.50        | 10      | 73.5 x 30.5 x 23 | 15.20            |
| 194892 | Triple cylinder pack | 2.30        | 5       | 100 x 19 x 32.5  | 11.70            |



# FLEXIBLE CONNECTIONS



The coils are the element needed to connect cylinders or cylinder packs to ramps or directly to the decompression panels on industrial gas distribution systems.

They have a gas-specific UNI connection and are available in three versions:

- ↗ Nickel-plated copper
- Coated double stainless-steel braid PTFE with anti-kink safety cable
- ↗ Steel coated polyamide, polyurethane cover and an anti-kink safety cable

## **COPPER COILS**



#### Nickel-plated copper coils complete with handle for easy cylinder connection.

#### Operating pressure: 240 bar Operating temperature: from -15°C to +60°C

It is advisable to use appropriate length coils and to check the condition of the gaskets at each cylinder or cylinder pack change. The production lot number and references to inlet and outlet fittings are also engraved on the handle.

Available lengths: 1 and 3 metres.

Please see instructions contained in the table for connections (which differ depending on the gases). (Page 20-21)

### **FLEXIBLE COILS IN PTFE**



Flexible coils in PTFE coated in double stainless-steel braiding with anti-kink safety cable and handle for easy cylinder connection.

#### Operating pressure: up to 240 bar Operating temperature: from -60°C to +180°C

It is advisable to use appropriate length coils and to check the condition of the gaskets at each cylinder or cylinder pack change.

Available lengths: 1, 2 and 3 metres.

The production lot number and references to inlet and outlet fittings are also engraved on the handle. **Please see instructions contained in the table for connections (which differ depending on the gases).** (Page 20-21)

#### FLEXIBLE COILS IN POLYAMIDE



Flexible coils in steel coated polyamide, polyurethane cover and anti-kink safety cable and handle for easy cylinder connection.

#### Operating pressure: up to 240 bar

Operating temperature: from -60°C to +180°C

It is advisable to use appropriate length flexible coils and to check the condition of the gaskets at each cylinder or cylinder pack change.

Available lengths: 1, 2 and 3 metres.

The production lot number and references to inlet and outlet fittings are also engraved on the handle. **Please see instructions contained in the table for connections (which differ depending on the gases)**. (Page 20-21)



# SAFE OPERATIONS

## **PERIODIC MAINTENANCE OF EQUIPMENT**

UNI 11627 is the UNI reference standard for the periodic maintenance and checking of manual gas welding and cutting equipment. It also relates to techniques connected downstream of the cylinder valve or, in the case of centralised distribution, of mobile equipment downstream at the point of use. This standard describes the methods and frequency of verifications by the type of product, which integrate but do not replace the requirements that the manufacturer indicates in the use and maintenance manual related to individual products.

|   | VISUAL INSPECT   | ON - VERIFICATION SEA   | L TESTING   | FREQUENCY OF<br>Complete overhaul  |
|---|--|---|---|--|
| EQUIPMENT                                     | EACH TIME THE CYLINDER IS REPLACED<br>OR COMPONENTS ARE CONNECTED  | EACH TIME EQUIPMENT IS USED   | ANNUALLY  | OR REPLACEMENT<br>(2)  |
| General,<br>common to all<br>equipment<br>(2) | Follow manufacturer instructions.<br>Always include:<br>Visual inspection to determine the<br>appropriateness of equipment for the<br>intended use (for example: the type<br>of gas, pressure, flow rate), absence<br>of damage, absence of grease or oily<br>residue (see below for details for each<br>specific piece of equipment)  | Visual inspection to determine the<br>appropriateness of equipment for<br>the intended use (for example: the<br>type of gas, pressure, flow rate),<br>absence of damage, absence of<br>grease or oily residue <i>(see below<br/>for details for each specific piece<br/>of equipment)</i> | Includes verifications required<br>each time cylinders are<br>replaced or any components<br>are connected, to which the<br>specific checks for each type<br>of equipment are to be added<br>(see below):<br>(This check can be made<br>more frequently depending on<br>the conditions of use) | This check can be<br>made more frequently<br>depending on the<br>conditions of use             |
| Pressure<br>reducers<br>(1)                   | Visual inspection:<br>• Conditions of threading, gaskets, pres-<br>sure gauges, inlet and outlet fittings<br>• Absence of grease or oily residue<br>• Upon start-up: check that pressure<br>gauge indicators are correctly indicating<br>starting zero position and have smooth,<br>uniform movement at pressure increase<br>• Junction seal testing at operating<br>pressure  | <ul> <li>Upon start-up: check that<br/>the pressure gauge indicators<br/>correctly indicate the initial zero<br/>position and have smooth and<br/>uniform movement at the pressure<br/>increase</li> <li>Junction seal testing at operating<br/>pressure</li> </ul>                       | <ul> <li>Perform a general test<br/>to verify correct operation<br/>throughout the operating<br/>pressure range</li> <li>Junction seal testing at<br/>operating pressure</li> </ul>   | Complete overhaul or<br>replacement maximum<br>every 5 years                                   |
| Shutter quick<br>coupling                     | <ul> <li>Verification of correct closing mechanism operation</li> <li>Junction seal testing at operating pressure</li> </ul>   | Junction seal testing at operating pressure   | <ul> <li>Verification of correct closing mechanism operation</li> <li>Junction seal testing at operating pressure</li> </ul>  | Systematic<br>replacement in the<br>event of operating<br>failure, or maximum<br>every 5 years |
|   | Note:<br>1) Does not apply to reducers integrated integra | o the cylinder valve, whose maintenance   | is entrusted to the gas supplier  |  |

1) Does not apply to reducers integrated into the cylinder valve, whose maintenance is entrusted to the gas supplier.

2) Contact your local supplier regarding safety data for the gas and materials used.

It is extremely important to follow these tips and treat your equipment carefully. All manufacturers try to produce safe materials, but a small distraction during their use can have serious consequences.

It is also advisable to apply safety valves on reducers to provide greater safety during daily work.



# PRESSURE REDUCERS FOR RECHARGEABLE CYLINDERS

These pressure reducers are devices connected to rechargeable cylinders to reduce the pressure of the gas used, as it is unusable by the user at the values present in the cylinder. It is also referred to as a pressure regulator as it also has the function of stabilising the outlet pressure from the cylinder itself.

Rechargeable cylinder connection consists of a gas conveyor injector in the high pressure chamber of the reducer and of a nut (for cylinders with a male attachment) or a ring nut (for cylinders with a female attachment) or a bracket (only for acetylene cylinders and specific bracket attachment).



## **PRESSURE REDUCERS FOR USE WITH INDUSTRIAL GASES IN CYLINDERS**

## Designed and manufactured according to the most stringent international safety standards.











#### **EN ISO 2503**

All our pressure reducers are built in compliance with standard EN ISO 2503 which foresees: safety valve

- obligatory marking
- gauges according to the standard
- unremovable pressure adjusting knob

Failure to comply with any of the mentioned conditions indicates that the pressure reducer shall no more comply with the standard. Pressure reducer connections are in compliance with standard UNI 11144

#### **P1-PRESSIONE**

300 bar is the max. supply pressure for Maxymum, Magnum Smart, Magnum Rear Side, Maxy, Maxy Power Control, Maxy Flux, Maxy Smart and Mini series.

#### **OBLIGATORY MARKING**

Standard EN ISO 2503 foresees the following obligatory markings:

- > Name or trademark of the manufacturer and/or distributor
- > Pressure reducer class -K- or operating pressure -P2-
- Rated inlet pressure, -p1-
- Gas intended for use
- Our markings are made with a laser procedure
- > It is important to carefully read the marking, this way you can distinguish an original from a counterfeit product.

#### **PRESSURE GAUGES**

The pressure gauges fitted on our pressure reducers are built according to standard ISO 5171 and are marked accordingly.

#### **UNREMOVABLE PRESSURE ADJUSTING KNOB**

Our pressure reducers are provided with an unremovable adjusting knobs to ensure the highest safety during their use at maximum working pressures.

#### **INTEGRATED CAPSULE**

All our pressure reducers are equipped with an INTEGRATED CAPSULE device with a filter to provide increased reliability and easier maintenance.

#### > All our pressure reducers are tested individually to ensure their operation and safety.

Our range includes the following reducers:

| FRONT CONTROL          | VERTICAL CONTROL   | FOR DISPOSABLE CYLINDERS |
|------------------------|--------------------|--------------------------|
| MAXYMUM                | MAXY               | MIGNON                   |
| MAGNUM SMART           | MAXY POWER CONTROL | MICRO                    |
| MAGNUM REAR SIDE SMART | MAXY FLUX          |                          |
| MINI                   | MAXY SMART         |                          |

## **CYLINDER CONNECTIONS**

| GAS                      | CHIMICAL SYMBOL                                   | OUTLET DIMENSIONS                 | STANDARD                        | OUTLET NUMBER |
|--------------------------|---|-----------------------------------|---------------------------------|---------------|
|                          |   | ITALY                             |                                 |               |
| Acetylene                | C <sub>2</sub> H <sub>2</sub>                     | 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<br>Carbon dioxide | C <sub>4</sub> H <sub>10</sub><br>CO <sub>2</sub> | W20 X 1/14" LH<br>W21.7 X 1/14"   | 1P - UNI 11144<br>2 - UNI 11144 | 2             |
| Air                      | 00 <sub>2</sub>                                   | W30 X 1/14                        | 6 - UNI 11144                   | 2             |
| Helium                   | Не  | W24.5 X 1/14"                     | 8 - UNI 11144<br>8 - UNI 11144  | 1             |
| Hydrogen                 | H <sub>a</sub>                                    | W24.3 X 1/14<br>W20 X 1/14" LH    | 1H - UNI 11144                  | 2             |
| Methane                  | CH4   | W20 X 1/14" LH                    | 1H - UNI 11144                  | 2             |
| Nitrogen                 | N <sub>2</sub>                                    | W 21.7 X 1/14"                    | 5 - UNI 11144                   | 1             |
| Oxygen                   | 0,  | W21.7 X 1/14"                     | 2 - UNI 11144                   | 2             |
| Propane                  | C <sub>3</sub> H <sub>8</sub>                     | W20 X 1/14" LH                    | 1P - UNI 11144                  | 2             |
|                          |   |                                   |                                 |               |
|                          |   | AND, CZECH REPUBLI                |                                 | -             |
| Acetylene                | C <sub>2</sub> H <sub>2</sub>                     | 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 <sub>4</sub> H <sub>10</sub>                    | W21.8 X 1/14" LH                  | DIN 477 No.6                    | 2             |
| Carbon dioxide*          | C02   | 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 <sub>2</sub>                                    | W21.8 X 1/14" LH                  | DIN 477 No.1                    | 2             |
| Methane                  | CH <sub>4</sub><br>N <sub>2</sub>                 | W21.8 X 1/14" LH<br>W24.32 X 1/4" | DIN 477 No.1<br>DIN 477 No.10   | 2             |
| Nitrogen<br>Oxygen*      | 0 <sub>2</sub>                                    | G 3/4"                            | DIN 477 No.10<br>DIN 477 No.9   | 2             |
| Propane                  | C <sub>3</sub> H                                  | W21.8 X 1/14" LH                  | DIN 477 No.3                    | 2             |
|                          | Blovakia: CO, G 3/4" - Oxyg                       |                                   |                                 | ۷۲            |
|                          |   | UK                                |                                 |               |
| Acetylene                | C,H,  | G 5/8" LH                         | BS 341 No.2                     | 1             |
| Argon                    | Ar  | G 5/8"                            | BS 341 No.3                     | 1             |
| Butane                   | C <sub>4</sub> H <sub>10</sub>                    | G 5/8" LH                         | BS 341 No.4                     | 1             |
| Carbon dioxide           | C02   | 0.860" X 14 TPI                   | BS 341 No.8                     | 2             |
| Air                      |   | G 5/8"                            | BS 341 No.3                     | 1             |
| Helium                   | Не  | G 5/8"                            | BS 341 No.3                     | 1             |
| Hydrogen                 | H <sub>2</sub>                                    | G 5/8" LH                         | BS 341 No.2                     | 1             |
| Methane                  | CH4   | G 5/8" LH                         | BS 341 No.2                     | 1             |
| Nitrogen                 | N <sub>2</sub>                                    | G 5/8"                            | BS 341 No.3                     | 1             |
| Oxygen                   | 02  | G 5/8"                            | BS 341 No.3                     | 1             |
| Propane                  | C <sub>3</sub> H <sub>8</sub>                     | G 5/8" LH                         | BS 341 No.4                     | 1             |
|                          |   | FRANCE                            |                                 |               |
| Acetylene                | C <sub>2</sub> H <sub>2</sub>                     | Ø 21 X Ø 10mm                     | NF E 29-650/A                   | 4             |
| Auctylene                | Ar  | W 22.91 X 1/14" LH                | NF E 29-650/H                   | 1             |
| Argon                    | C <sub>4</sub> H <sub>10</sub>                    | W 21.7 X 1/14"                    | NF E 29-650/C                   | 2             |
| Butane                   | C02   | W 21.7 X 1/14" LH                 | NF E 29-650/E                   | 2             |
| Carbon dioxide           |   | W 21.7 X 1/14"                    | NF E 29-650/C                   | 2             |
| Helium                   | Не  | W 21.7 X 1/14"                    | NF E 29-650/C                   | 2             |
| Hydrogen<br>Mothana      |   | W 21.7 X 1/14" LH                 | NF E 29-650/E                   | 2             |
| Methane<br>Nitrogon      | CH <sub>4</sub>                                   | W 21.7 X 1/14" LH                 | NF E 29-650/E                   | 2             |
| Nitrogen                 | N <sub>2</sub>                                    | W 21.7 X 1/14"<br>W 22 91 X 1/14" | NF E 29-650/C                   | 1             |
| Oxygen<br>Bronane        | 0 <sub>2</sub>                                    | W 22.91 X 1/14"                   | NF E 29-650/F                   | 2             |
| Propane                  | C <sub>3</sub> H <sub>8</sub>                     | W 21.7 X 1/14"LH                  | NF E 29-650/E                   | ۷             |

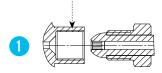


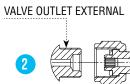
VALVE OUTLET INTERNAL

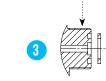
VALVE OUTLET EXTERNAL

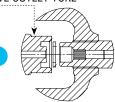
VALVE OUTLET YOKE

Λ









| GAS             | CHIMICAL SYMBOL                                   | OUTLET DIMENSIONS                   | STANDARD           | OUTLET NUMBER |
|-----------------|---|-------------------------------------|--------------------|---------------|
|                 |   | HOLLAND, BELGIUM                    |                    |               |
| Acetylene       | C <sub>2</sub> H <sub>2</sub>                     | Ø 20 X Ø 9mm                        | NEN 3268 YOKE      | 4             |
| Acetylelle      | $C_2H_2$  | 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 <sub>2</sub>                                   | 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 <sub>2</sub>                                    | W21.8 X 1/14" LH                    | NEN 3268 LU 1      | 2             |
| Methane         | CH4   | W21.8 X 1/14" LH                    | NEN 3268 LU 1      | 2             |
| Nitrogen        | N <sub>2</sub>                                    | W24.32 X 1/14"                      | NEN 3268 RU 3      | 2             |
| Oxygen          | 02  | G 5/8"                              | NEN 3268 RI 2      | 1             |
| Propane         | C <sub>3</sub> H <sub>8</sub>                     | W21.8 X 1/14" LH                    | NEN 3268 LU 1      | 2             |
|                 | S   | VEDEN, NORWAY, FINL                 | AND                |               |
| Acetylene       | $C_2H_2$  | G3/4"                               | SS 2238/C2         | 1             |
| Argon           | Ar  | W24.32 X 1/14"                      | SS 2238/A          | 2             |
| Butane          | C <sub>4</sub> H <sub>10</sub>                    | CGA 510 LH                          | SS 2238/C1         | 1             |
|                 | C <sub>4</sub> H <sub>10</sub>                    | W21.8 X 1/14" LH                    |                    | 2             |
| Carbon dioxide  | C0 <sub>2</sub>                                   | W21.8 X 1/14"                       | SS 2238/A          | 2             |
| Air             |   | G5/8"                               | SS 2238/C2         | 1             |
| Helium          | He  | W24.32 X 1/14"                      | SS 2238/A          | 2             |
| Hydrogen        | H <sub>2</sub>                                    | W21.8 X 1/14" LH                    | SS 2238/A          | 2             |
| Methane         | CH4   | W21.8 X 1/14" LH                    | SS 2238/A          | 2             |
| Nitrogen        | N <sub>2</sub>                                    | W24.32 X 1/14"                      | SS 2238/A          | 2             |
| Oxygen          | 02  | W21.8 X 1/14"                       | SS 2238/A          | 2             |
| Propane         | C <sub>3</sub> H <sub>8</sub>                     | CGA 510 LH                          | SS 2238/C1         | 1             |
|                 | C <sub>3</sub> H <sub>8</sub>                     | W21.8 X 1/14" LH                    |                    | 2             |
|                 | 0.11  | SPAIN, PORTUGAL                     | VOVE               |               |
| Acetylene       | C <sub>2</sub> H <sub>2</sub>                     | YOKE                                | YOKE               | 4             |
| Argon           | C <sub>2</sub> H <sub>2</sub><br>Ar               | Ø 22.91 X 1/14" LH<br>W21.7 X 1/14" | MIE AP7<br>MIE AP7 | 1 2           |
| Argon<br>Butane |   | W21.7 X 1/14<br>W21.7 X 1/14" LH    | MIE AP7<br>MIE AP7 | 2             |
| Carbon dioxide  | C <sub>4</sub> H <sub>10</sub><br>CO <sub>2</sub> | W21.7 X 1/14 Ln                     | MIE AP7            | 2             |
| Air             | 002   | M 30 X 1.75                         | MIE AP7            | 3             |
| Helium          | Не  | W21.7 X 1/14"                       | MIE AP7            | 2             |
| Hydrogen        | H <sub>2</sub>                                    | W21.7 X 1/14" LH                    | MIE AP7            | 2             |
| Methane         | CH  | W21.7 X 1/14" LH                    | MIE AP7            | 2             |
| Nitrogen        | N <sub>2</sub>                                    | W21.7 X 1/14"                       | MIE AP7            | 2             |
| Oxygen          | 0,  | W22.91 X 1/14"                      | MIE AP7            | 1             |
| Propane         | C <sub>3</sub> H <sub>8</sub>                     | W 21.7 X 1/14" LH                   | MIE AP7            | 2             |
|                 | 3 0   | U.S.A.                              |                    |               |
| Acetylene       | C,H,  | CGA 510 LH                          | CGA V-1            | 1             |
| Argon           | Ar  | CGA 580                             | CGA V-1            | 1             |
| Butane          | C <sub>4</sub> H <sub>10</sub>                    | CGA 510 LH                          | CGA V-1            | 1             |
| Carbon dioxide  | CO <sub>2</sub>                                   | CGA 320                             | CGA V-1            | 2             |
| Air             | 2   | CGA 346                             | CGA V-1            | 2             |
| Helium          | Не  | CGA 580                             | CGA V-1            | 1             |
| Hydrogen        | H <sub>2</sub>                                    | CGA 350                             | CGA V-1            | 2             |
| Methane         | CH <sub>4</sub>                                   | CGA 510 LH                          | CGA V-1            | 1             |
| Nitrogen        | N <sub>2</sub>                                    | CGA 580                             | CGA V-1            | 1             |
| Oxygen          | 02  | CGA 540                             | CGA V-1            | 2             |
| Propane         | C <sub>3</sub> H <sub>8</sub>                     | CGA 510 LH                          | CGA V-1            | 1             |

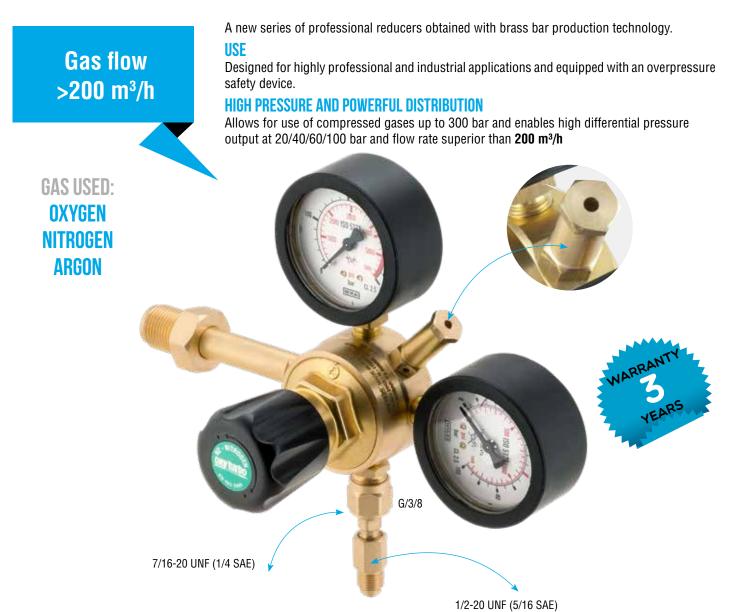






# MAXYMUM

## Professional pressure reducers for operating pressures up to 100 bar.



#### **MAXYMUM REDUCER TECHNICAL FEATURES**

- Approved by APRAGAZ for input pressure **p1=300 bar**
- The solid body made of brass bar guarantees resistance to hydraulic pressure of 450 bar without permanent deformation
- In addition to high-pressure and low-pressure machine marking, two threaded holes are present in the rear of the reducer body which allows reducer fastening for fixed wall applications.
- The high-pressure capsule is equipped with a new constant, limited high pressure tablet compression system. Combined with a piston pressure adjustment system, constructed entirely in brass, which ensures the best resistance even for the most heavy duty uses
- The pressure adjustment system, made with a plastic knob combined with an unremovable adjusting screw, can easily be used to reach the desired pressures.

- The safety valve used to discharge overpressure in case of high pressure system breakage has been approved in accordance with EN ISO 2503.
- The injector connecting to the cylinder enables connection to cylinders with all types of valve protections present on the market.
- The easy to read 63 Ø pressure gauges are protected by suitably sized protective caps.
- MAXYMUM reducers are packaged in a lithographed box with double die-cut protection to prevent collisions caused during transport.
- Used in a host of applications thanks to its versatility.







Especially suitable for cleaning air conditioning or inflating tyres. Available with four different pressure calibrations. **The nitrogen version is equipped with a kit which has two fittings: 1/4 SAE and 5/16 SAE.** OR seal lubrication inside the reducer is carried out using a lubricant (a specific grease) that is compatible with oxygen, approved by BAM. (for the oxygen version only).

MAXYMUM 100 BAR Low pressure gauge 0-160 bar red mark 100 bar



#### P1 Inlet pressure 300 bar - P2 Outlet pressure 100 bar - Q1 standard delivery flow > 200 m³/h

| GAS      | OUTLET             | UNI        | DIN        | BS         | NF         | NEN         | SS         | MIE        | CGA        |
|----------|--------------------|------------|------------|------------|------------|-------------|------------|------------|------------|
| NITROGEN | 1/4 SAE + 5/16 SAE | 294200.100 | 294209.100 | 294203.100 | 294202.100 | 2942049.100 | 294204.100 | 294202.100 | 294205.100 |
| OVVOEN   | G1/4               | 290200.100 | 290201.100 | 290203.100 | 290203.100 | 290203.100  | 290200.100 | 290203.100 |            |
| OXYGEN   | 9/16               |            |            |            |            |             |            |            | 290295.100 |
| ARGON    | 1/4 SAE + 5/16 SAE | 296200.100 | 296201.100 | 296203.100 | 296202.100 | 296209.100  | 296204.100 | 296202.100 | 296205.100 |

Weight of pressure reducer 1.60 Kg - No.Pcs. 6 - Packaging dimensions (|x w x h) 53 x 25 x 37.5 cm - Packaging weight 9.80 Kg



#### MAXYMUM 60 BAR Low pressure gauge 0-100 bar red mark 60 bar

#### P1 Inlet pressure 300 bar - P2 Outlet pressure 60 bar - Q1 standard delivery flow < 150 m $^3/h$

| GAS      | OUTLET             | UNI    | DIN    | BS     | NF     | NEN     | SS     | MIE    | CGA    |
|----------|--------------------|--------|--------|--------|--------|---------|--------|--------|--------|
| NITROGEN | 1/4 SAE + 5/16 SAE | 294200 | 294209 | 294203 | 294202 | 2942049 | 294204 | 294202 | 294205 |
| OXYGEN   | G1/4               | 290200 | 290201 | 290203 | 290203 | 290203  | 290200 | 290203 |        |
| UATGEN   | 9/16               |        |        |        |        |         |        |        | 290295 |
| ARGON    | 1/4 SAE + 5/16 SAE | 296200 | 296201 | 296203 | 296202 | 296209  | 296204 | 296202 | 296205 |

Weight of pressure reducer 1.60 Kg - No.Pcs. 6 - Packaging dimensions (I x w x h) 53 x 25 x 37.5 cm - Packaging weight 9.80 Kg

#### MAXYMUM 40 BAR Low pressure gauge 0-100 bar red mark 40 bar

#### P1 Inlet pressure 300 bar - P2 Outlet pressure 40 bar - Q1 standard delivery flow < 100 m<sup>3</sup>/h

|          |                    | •         |           |           | -         |            |           |           |           |
|----------|--------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| GAS      | OUTLET             | UNI       | DIN       | BS        | NF        | NEN        | SS        | MIE       | CGA       |
| NITROGEN | 1/4 SAE + 5/16 SAE | 294200.40 | 294209.40 | 294203.40 | 294202.40 | 2942049.40 | 294204.40 | 294202.40 | 294205.40 |
| OXYGEN   | G1/4               | 290200.40 | 290201.40 | 290203.40 | 290203.40 | 290203.40  | 290200.40 | 290203.40 |           |
| UNTUEN   | 9/16               |           |           |           |           |            |           |           | 290295.40 |
| ARGON    | 1/4 SAE + 5/16 SAE | 296200.40 | 296201.40 | 296203.40 | 296202.40 | 296209.40  | 296204.40 | 296202.40 | 296205.40 |

Weight of pressure reducer 1.60 Kg - No.Pcs. 6 - Packaging dimensions (I x w x h) 53 x 25 x 37.5 cm - Packaging weight 9.80 Kg

#### MAXYMUM 20 BAR Low pressure gauge 0-100 bar red mark 25 bar

#### P1 Inlet pressure 300 bar - P2 Outlet pressure 20 bar - Q1 standard delivery flow < 60 m<sup>3</sup>/h

| GAS      | OUTLET             | UNI       | DIN       | BS        | NF        | NEN       | SS        | MIE       | CGA       |
|----------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|          | 1/4 SAE + 5/16 SAE |           |           |           |           |           |           |           |           |
| NIINUUEN |                    |           |           |           |           |           |           |           |           |
| OXYGEN   | G1/4               | 290200.20 | 290201.20 | 290203.20 | 290203.20 | 290203.20 | 290200.20 | 290203.20 |           |
| UNTULN   | 9/16               |           |           |           |           |           |           |           | 290295.20 |
| ARGON    | 1/4 SAE + 5/16 SAE | 296200.20 | 296201.20 | 296203.20 | 296202.20 | 296209.40 | 296204.20 | 296202.20 | 296205.20 |

Weight of pressure reducer 1.60 Kg - No.Pcs. 6 - Packaging dimensions (I x w x h) 53 x 25 x 37.5 cm - Packaging weight 9.80 Kg





290200



EN ISO 2503



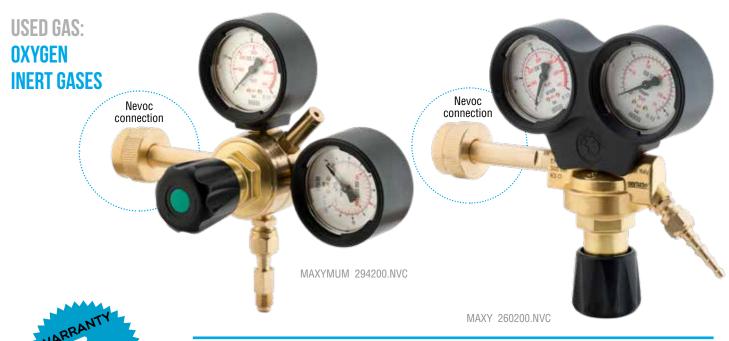
## NEVOC SYSTEM The pressure reducers for 300 bar cylinders with international valve outlet

IMPORTANT SAFETY NOTE: IT IS NEVER ACCEPTABLE TO USE ADAPTORS OR TO MODIFY REGULATORS TO FIT TO CYLINDERS WITH NON- MATCHING VALVE OUTLET CONNECTIONS. SUCH PRACTICES ARE POTENTIALLY DANGEROUS. The trend towards increased cylinder filling pressures has led Oxyturbo to the adoption of the new NEVOC cylinder valve connection for industrial applications requiring 300bar pressure. **NEVOC** stands for **New European Valve Outlet Connections**. The NEVOC system was intended to be used to facilitate future harmonisation of gas cylinder valve outlets across Europe. But recently **ISO 5145** has taken over the NEVOC system.

#### USE

High quality engineering provides for stable regulation over the life of a cylinder, reducing gas consumption, promoting safety and increasing the efficiency of applications.

We can supply models providing outlet pressures from 10 - 200 bar, suitable for all inert gases including Nitrogen, Helium and Argon especially suitable for laser and heavy duty cutting applications.



#### **MAXYMUM NEVOC - OUTLET 3/8**

P1 Inlet pressure 300 bar - P2 Outlet pressure 60-40-20 bar

| GAS                    | Maxymum 60 bar                                       | Maxymum 40 bar                                  | Maxymum 20 bar                   |
|------------------------|--|---|----------------------------------|
| OXYGEN                 | 290200.NVC   | 290200.40NVC                                    | 290200.20NVC                     |
| INERT GASES            | 294200.NVC   | 294200.40NVC                                    | 294200.20NVC                     |
| Weight of pressure red | ucer <b>1.80 Kg</b> - No.Pcs. <b>6</b> - Packaging d | imensions ( l x w x h) <b>53 x 25 x 37.5</b> cr | n - Packaging weight <b>11 K</b> |

#### MAXY NEVOC - OUTLET 1/4

#### P1 Inlet pressure 300 bar

| GAS   | P2= 10 bar with gauge | P2= 32 L/min with gauge | P2= 30 L/min with flow meter |  |  |  |  |  |  |
|---|-----------------------|-------------------------|------------------------------|--|--|--|--|--|--|
| OXYGEN  | 260200.NVC            | -                       | -                            |  |  |  |  |  |  |
| INERT GASES   | 266200.10NVC          | 266200.NVC              | 266400.NVC                   |  |  |  |  |  |  |
| Weight of pressure reducer 1.60 Kg - No.Pcs. 8 - Packaging dimensions (   x w x h) 41 x 29 x 22 cm - Packaging weight 13 Kg |                       |                         |                              |  |  |  |  |  |  |









## Always the same quality, now in a refined design.

#### **FEATURES**

MAXY reducers are extremely reliable and cost effective, designed and manufactured in strict compliance with EN ISO 2503 to ensure accurate and safe gas use... even at low pressures. They are equipped with an automatic overpressure valve and sintered bronze filter on the integrated capsule inlet. Pressure regulation is extremely straightforward and smooth thanks to a new ergonomic knob.

The particularly well-designed reducer body is made of brass and pickled to withstand oxidation over time.

#### USE

Ideal for equipping flame welding units and professional machines.

#### ACCURATE, STRONG, RELIABLE, INDESTRUCTIBLE

Highly reliable with internal components that ensure functionality and ease of use.



MAKE YOUR PRESSURE REDUCER Better Protect (see Page 45)

## PRESSURE REDUCERS APPROVED UP TO 300 BAR

USED GAS: CO2 Argon/Mix Oxygen Acetylene Propane Nitrogen Nitrogen Hydrogen/Methane Helium

All our cylinder attaching nuts bear thread designation.



The label under the knob and the marking on the body indicate gas use. The newly designed knob has been ergonomically improved.



## MAXY FOR MIG/MAG/TIG WELDING



Designed for use on MIG/MAG/TIG welding machines that require high productivity and sufficient flexibility of use. They are fitted with an automatic overpressure valve and pressure gauges in compliance with ISO 5171. The  $CO_2$  reducers can also be combined with a pre-heater (see page 43) to eliminate the "brine" effect. The argon fitting inserted in some versions allows the use of the  $CO_2$  reducer also with argon or mixture cylinders. If present, the cap gives the pressure gauges further protection from impact.

All mano-flow meters on our Maxy reducers have been upgraded for an adjustable flow up to 32 L/min at 4 bar operating pressure.

|  |        | · · · · · · · · · · · · · · · · |        |        |        | <b>4</b> | ,      | ,      |        |  |
|--|--------|---------------------------------|--------|--------|--------|----------|--------|--------|--------|--|
| GAS  | OUTLET | UNI                             | DIN    | BS     | NF     | NEN      | SS     | MIE    | CGA    |  |
| 00   | G1/4   | 265200                          | 266201 | 265200 | 265200 | 265209   | 265200 | 265200 | 265205 |  |
| C0 <sub>2</sub>  | G3/8   | 265250                          | 266251 | 265250 | 265250 | 265259   | 265250 | 265250 | 265255 |  |
| 40001  | G1/4   | 266200                          | 266201 | 266203 | 265200 | 266209   | 266204 | 265200 | 266200 |  |
| ARGON  | G3/8   | 266250                          | 266251 | 266253 | 265250 | 266259   | 266254 | 265250 | 266250 |  |
| Weight of pressure reducer <b>1.30 Kg</b> - No.Pcs. <b>8</b> - Packaging dimensions ( I x w x h) <b>41 x 29 x 22 cm</b> - Packaging weight <b>11.00 Kg</b> |        |                                 |        |        |        |          |        |        |        |  |

#### K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| 1000200      |     | METED |
|--------------|-----|-------|
|              |     | METER |
| <b>VVIII</b> | LUW |       |
|              |     |       |

Reducers with fixed calibration flow meter 3.5 bar with 0-30 L/min scale are particularly suitable for work where flow measurement requires greater immediacy and reading precision.

#### K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 3.5 bar - Q1 standard delivery flow >2 m³/h

| GAS             | OUTLET         | UNI          | DIN    | BS            | NF     | NEN          | SS         | MIE           | CGA    |
|-----------------|----------------|--------------|--------|---------------|--------|--------------|------------|---------------|--------|
| CO <sub>2</sub> | G1/4           | 265400       | 266401 | 265400        | 265400 | 265409       | 265400     | 265400        | 265405 |
| ARGON           | G1/4           | 266400       | 266401 | 266403        | 265400 | 266409       | 266404     | 265400        | 266400 |
| Waight of p     | raaaura raduaa | r 1 EO Va No |        | aina dimonoid |        | 41 - 20 - 22 | m Dookogin | a waiaht 0 20 | Va     |

Weight of pressure reducer 1.50 Kg - No.Pcs. 6 - Packaging dimensions ( | x w x h) 41 x 29 x 22 cm - Packaging weight 9.20 Kg



#### **MAXY WITH TWO FLOW METERS**

Reducers with two flow meters are available for special work requirements. These allow the same reducer to be used with two welding machines, which also work with different distribution.

| K pressure reducer class 1 | - P1 Inlet pressure 300 bar | - P2 Outlet pressure 3.5 bar - Q | 1 standard delivery flow >2 m³/h |
|----------------------------|-----------------------------|----------------------------------|----------------------------------|
|----------------------------|-----------------------------|----------------------------------|----------------------------------|

| GAS             | OUTLET | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CO <sub>2</sub> | G1/4   | 265800 | 266801 | 265800 | 265800 | 265809 | 265800 | 265800 | 265805 |
| ARGON           | G1/4   | 266800 | 266801 | 266803 | 265800 | 266809 | 266804 | 265800 | 266800 |

Weight of pressure reducer 1.70 Kg - No.Pcs. 6 - Packaging dimensions ( I x w x h) 53 x 25 x 37.5 cm - Packaging weight 10.50 Kg

#### **ARGON FITTINGS**

These fittings also enable use of CO<sub>2</sub> reducers with argon/mixture cylinders.

| CODE     | Description          | $\mathrm{CO}_{_2}$ pressure reducer inlet | Argon cylinder inlet | Weight (kg) | No.Pcs. |
|----------|----------------------|---|----------------------|-------------|---------|
| C5649000 | ARGON FITTING IT     | W21.80 RHE                                | W24.51 RHE           | 0.16        | 1       |
| C5649001 | ARGON FITTING U.S.A. | W20.91 RHE                                | W24.51 RHE           | 0.16        | 1       |
| C5629000 | ARGON FITTING GB     | W21.80 RHE                                | W22.92 RHE           | 0.15        | 1       |
| C5639000 | ARGON FITTING NL/SE  | W21.80 RHE                                | W24.32 RHI           | 0.09        | 1       |
| C5619000 | ARGON FITTING NL/SE  | W24.32 RHE                                | W21.80 RHI           | 0.11        | 1       |

C5649000

266400





A very solid structure for a vertical drive and side attachment, designed and built to ensure accurate and safe gas use. The ergonomic knob allows the user to adjust the flame during the welding operation so that it remains neutral and reducing. These units are particularly suitable for heavy duty cutting in the demolition and steel industry.



#### MAXY FOR OXYGEN

K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m<sup>3</sup>/h

| GAS    | OUTLET  | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
|        | G1/4    | 260200 | 260201 | 260203 | 260203 | 260203 | 260200 | 260203 |        |
| OVVCEN | G3/8    | 260250 | 260251 | 260253 | 260253 | 260253 | 260250 | 260253 |        |
| OXYGEN | 9/16    |        |        |        | 260293 |        |        |        | 260295 |
|        | M16X1.5 |        |        |        | 260283 |        |        |        | 260285 |

Weight of pressure reducer 1.45 Kg - No.Pcs. 8 - Packaging dimensions ( I x w x h) 41 x 29 x 22 cm - Packaging weight 11.80 Kg





#### **MAXY FOR ACETYLENE**

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure <1.5 bar - Q1 standard delivery flow 5 m³/h

| GAS  | OUTLET  | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |  |  |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|--|--|
| ACETYLENE<br>BULLNOSE  | G1/4 Lh   | 261203 |        | 261203 | 261203 | 261203 | 261204 | 261203 |        |  |  |
| ACETYLENE<br>BULLNOSE  | G3/8 Lh   | 261253 |        | 261253 | 261253 | 261253 | 261254 | 261253 |        |  |  |
| ACETYLENE<br>YOKE  | G1/4 Lh   | 261200 | 261201 |        | 261200 | 261209 |        |        |        |  |  |
| ACETYLENE<br>YOKE  | G3/8 Lh   | 261250 | 261251 |        | 261250 | 261259 |        |        |        |  |  |
| ACETYLENE<br>BULLNOSE  | 9/16 Lh   |        |        |        |        |        |        |        | 261295 |  |  |
| ACETYLENE<br>BULLNOSE  | M16X1.5 Lh  |        |        |        | 261283 |        |        |        |        |  |  |
| ACETYLENE<br>YOKE  | M16x1.5 Lh  |        |        |        | 261280 |        |        |        |        |  |  |
| WITH YOKE: Weight of p. reducer 1.60 Kg - No.Pcs. 8 - Packaging dimensions (  x w x h) 41 x 29 x 22 cm - Packaging weight 13.00 Kg |   |        |        |        |        |        |        |        |        |  |  |
| WITH BULLNOS   | WITH BULLNOSE: Weight of p. reducer 1.35 Kg - No.Pcs. 8 - Packaging dimensions (I x w x h) 41 x 29 x 22 cm - Pack.Weight 11.00 Kg |        |        |        |        |        |        |        |        |  |  |

#### **MAXY FOR PROPANE**



K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow 5 m3/h

| -            |                   | -            |              | -             |             |              | -             |                       |        |
|--------------|-------------------|--------------|--------------|---------------|-------------|--------------|---------------|-----------------------|--------|
| GAS          | OUTLET            | UNI          | DIN          | BS            | NF          | NEN          | SS            | MIE                   | CGA    |
|              | G1/4 Lh           | 262300       | 262301       | 262303        | 262301      | 262309       | 262301        | 262301                |        |
| PROPANE      | G3/8 Lh           | 262350       | 262351       | 262353        | 262351      | 262359       | 262351        | 262351                |        |
| FRUFANE      | 9/16 Lh           |              |              |               |             |              |               |                       | 262395 |
|              | M16x1.5 Lh        |              |              |               | 262381      |              |               |                       |        |
| Weight of in | ressure reducer . | 1 20 Ka - No | Pcs 8 - Pack | aning dimensi | nns (Ixwxh) | 41 x 29 x 22 | cm - Packanii | na weiaht <b>9 80</b> | Ka     |

Weight of pressure reducer **1.20 Kg** - No.Pcs. **8** - Packaging dimensions ( | x w x h) **41 x 29 x 22** cm - Packaging weight **9.80 Kg** 

OUR OXYGEN REDUCERS DURING THE APPROVAL STAGES HAVE Successfully passed inflammability testing required by standard iso 2503.





Constructed for use with compressed gases up to 300 bar, enabling high differential pressure output. Recommended for tyre servicing, fire extinguisher refilling and arc welding work.

#### **MAXY FOR NITROGEN**

K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m3/h

| GAS      | OUTLET  | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|----------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
|          | G1/4    | 264200 | 264201 | 264203 | 264202 | 264209 | 264204 | 264202 |        |
|          | G3/8    | 264250 | 264251 | 264253 | 264252 | 264259 | 264254 | 264252 |        |
| NITROGEN | 9/16    |        |        |        |        |        |        |        | 264295 |
|          | M16X1.5 |        |        |        | 264282 |        |        |        |        |

Weight of pressure reducer 1.35 Kg - No.Pcs. 8 - Packaging dimensions (| x w x h) 41 x 29 x 22 cm - Packaging weight 11.00 Kg

#### **MAXY FOR COMPRESSED AIR**

#### K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m3/h

| GAS  | OUTLET | UNI    | DIN    | BS     | NF | NEN    | SS     | MIE    | CGA    |  |
|--|--------|--------|--------|--------|----|--------|--------|--------|--------|--|
|  | G1/4   | 268200 | 268203 | 268203 |    | 268209 | 268203 | 268208 |        |  |
| COMPRESSED<br>AIR  | G3/8   | 268250 | 268253 | 268253 |    | 268259 | 268253 | 268258 |        |  |
| /  | 9/16   |        |        |        |    |        |        |        | 268295 |  |
| Weight of pressure reducer <b>1.45 Kg</b> - No.Pcs. <b>8</b> - Packaging dimensions ( I x w x h) <b>41 x 29 x 22</b> cm - Packaging weight <b>11.80 Kg</b> |        |        |        |        |    |        |        |        |        |  |

#### **MAXY FOR HYDROGEN/METHANE**

K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m³/h

| GAS       | OUTLET     | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|-----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
|           | G1/4 Lh    | 263200 | 263201 | 263203 | 263201 | 263201 | 263201 | 263201 |        |
| HYDROGEN/ | G3/8 Lh    | 263250 | 263251 | 263253 | 263251 | 263251 | 263251 | 263251 |        |
| METHANE   | 9/16 Lh    |        |        |        |        |        |        |        | 263295 |
|           | M16x1.5 Lh |        |        |        | 263281 |        |        |        |        |

Weight of pressure reducer 1.45 Kg - No.Pcs. 8 - Packaging dimensions (| x w x h) 41 x 29 x 22 cm - Packaging weight 11.80 Kg

#### **MAXY FOR HELIUM**

K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m3/h

| GAS    | OUTLET  | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
|        | G1/4    | 267200 | 267201 | 267203 | 267202 | 267209 | 267204 | 267202 |        |
|        | G3/8    | 267250 | 267251 | 267253 | 267252 | 267259 | 267254 | 267252 |        |
| HELIUM | 9/16    |        |        |        |        |        |        |        | 267295 |
|        | M16x1.5 |        |        |        | 267282 |        |        |        |        |

Weight of pressure reducer 1.45 Kg - No.Pcs. 8 - Packaging dimensions ( I x w x h) 41 x 29 x 22 cm - Packaging weight 11.80 Kg





28







#### **FEATURES**

A very solid structure for a vertical drive and side attachment, designed and built to ensure accurate and safe gas use. The extremely well-designed reducer body is made of brass and pickled to withstand oxidation over time.

#### USE

Ideal for equipping MIG/MAG/TIG and flame welding units where robustness and stability are required.

#### **STABLE DISTRIBUTION**

These units are highly valued for their side tap function, which ensures high **distribution stability** and savings on gas used.



Our reducers bear a mark indicating the manufacturer's name or brand, reducer class K, the type of supply gas, the production lot number and the maximum inlet pressure.



## MAXY POWER CONTROL FOR MIG/MAG/TIG WELDING



The control tap intercepts the output gas and allows flow opening, choking and shut off without having to use the main adjusting knob, which can remain adjusted for later use. For more efficient operation, we have inserted a 63mm Ø pressure gauge up to 32 L/min at 4 bar pressure.

#### K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| GAS             | OUTLET | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <u></u>         | G1/4   | 265500 | 266501 | 265500 | 265500 | 265509 | 265500 | 265500 | 265505 |
| CO <sub>2</sub> | G3/8   | 265550 | 266551 | 265550 | 265550 | 265559 | 265550 | 265550 | 265555 |
|                 | G1/4   | 266500 | 266501 | 266503 | 265500 | 266509 | 266504 | 265500 | 266500 |
| ARGON           | G3/8   | 266550 | 266551 | 266553 | 265550 | 266559 | 266554 | 265550 | 266550 |
| Mainha af a     | G3/8   |        |        |        |        |        |        |        |        |

Weight of pressure reducer 1.45 Kg - No.Pcs.8 - Packaging dimensions ( I x w x h) 41 x 29 x 22 cm - Packaging weight 11.80 Kg

#### MAXY POWER CONTROL FOR OXY ACETYLENE WELDING

APPROVED UP TO **300 BAR** 



#### MAXY POWER CONTROL FOR OXYGEN

The presence of the control tap in the Power Control version helps to improve the stabiliser as well as Maxy pressure reducer function.

K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m3/h

| GAS         | OUTLET  | UNI                        | DIN                   | BS                 | NF     | NEN            | SS                  | MIE                   | CGA    |
|-------------|---------|----------------------------|-----------------------|--------------------|--------|----------------|---------------------|-----------------------|--------|
|             | G1/4    | 260500                     | 260501                | 260503             | 260503 | 260503         | 260500              | 260503                |        |
| OXYGEN      | G3/8    | 260550                     | 260551                | 260553             | 260553 | 260553         | 260550              | 260553                |        |
| UXTGEN      | 9/16    |                            |                       |                    | 260593 |                |                     |                       | 260595 |
|             | M16X1.5 |                            |                       |                    | 260583 |                |                     |                       | 260585 |
| Weight of p |         | <br>er <b>1.50 Kg</b> - No | Pcs. <b>8</b> - Packa | l<br>aina dimensio |        | 41 x 29 x 22 c | <b>m</b> - Packagin | a weiaht <b>12.20</b> |        |

#### MAXY POWER CONTROL FOR ACETYLENE

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure <1.5 bar - Q1 standard delivery flow 5 m³/h

| GAS                   | OUTLET     | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|-----------------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| ACETYLENE<br>BULLNOSE | G1/4 Lh    | 261503 |        | 261503 | 261503 | 261503 | 261504 | 261503 |        |
| ACETYLENE<br>BULLNOSE | G3/8 Lh    | 261553 |        | 261553 | 261553 | 261553 | 261554 | 261553 |        |
| ACETYLENE<br>YOKE     | G1/4 Lh    | 261500 | 261501 |        | 261500 | 261509 |        |        |        |
| ACETYLENE<br>YOKE     | G3/8 Lh    | 261550 | 261551 |        | 261550 | 261559 |        |        |        |
| ACETYLENE<br>BULLNOSE | 9/16 Lh    |        |        |        |        |        |        |        | 261595 |
| ACETYLENE<br>BULLNOSE | M16X1.5 Lh |        |        |        | 261583 |        |        |        |        |
| ACETYLENE<br>YOKE     | M16x1.5 Lh |        |        |        | 261580 |        |        |        |        |

WITH YOKE: Weight of p. reducer 1.70 Kg - No.Pcs. 8 - Packaging dimensions (I x w x h) 41 x 29 x 22 cm - Packaging weight 13.80 Kg

WITH BULLNOSE: Weight of p. reducer 1.45 Kg - No.Pcs. 8 - Packaging dimensions ( | x w x h) 41 x 29 x2 2 cm - Pack.Weight 11.80 Kg

IDEAL FOR CUTTING WORKS In the demolition and steel Industry sector



261553

261550









## Great Italian quality with a small price.

MAKE YOUR PRESSURE REDUCER Better Protect with the Varnished Steel Cage (see Page 45)



it lighter without giving up safety. The cover is manufactured of high resistance polymer and a series of joined components make it extremely cost effective.

A new reducer body design has made

The colour of the label under the knob and the marking on the body indicate gas used. The newly designed knob has been ergonomically improved.



USED GAS: CO2 Argon/Mix OXygen Acetylene Propane

#### **INTEGRATED CAPSULE**

Equipped with an INTEGRATED CAPSULE device with filter to afford increased reliability and easier maintenance.



## MAXYSMART FOR MIG/MAG/TIG WELDING



Constructed for use with compressed gases up to 300 bar and especially suitable for use on MIG/ MAG/TIG welding machines. The new body design and cover in high resistance polymer make MaxySmart lighter but equally powerful and safe. Although not essential, we have also used 63 mm diameter 32 L/min at 4 bar pressure gauges for MaxySmart reducers.

These reducers have a double cap and injector L=110 mm.

#### K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| -               |        | -      |        | -      |        |        | -      |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GAS             | OUTLET | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|                 | G1/4   | 245200 | 246201 | 245200 | 245200 | 245209 | 245200 | 245200 | 245205 |
| CO <sub>2</sub> | G3/8   | 245250 | 246251 | 245250 | 245250 | 245259 | 245250 | 245250 | 245255 |
|                 | G1/4   | 246200 | 246201 | 246203 | 245200 | 246209 | 246204 | 245200 | 246200 |
| ARGON           | G3/8   | 246250 | 246251 | 246253 | 245250 | 246259 | 246254 | 245250 | 246250 |
|                 |        |        |        |        |        |        |        |        |        |

Weight of pressure reducer 1.25 Kg - No.Pcs 8 - Packaging dimensions (I x w x h) 41 x 29 x 22 cm - Packaging weight 10.20 Kg

#### MAXYSMART FOR OXY ACETYLENE AND OXY PROPANE WELDING

APPROVED UP TO **300 BAR** 



#### **MAXYSMART FOR OXYGEN**

Constructed in accordance with EN ISO 2503, this unit allows easy pressure reading on the pressure gauges and precise regulation of dispensing thanks to the newly designed ergonomic knob. The acetylene version is available with two different types of cylinder attachment depending on user needs: with ring nut or bracket. **These reducers are all supplied with an installed double cap.** 

#### K pressure reducer class 3 - P1 Inlet pressure 300 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow 30 m³/h

| P           |                |                       |                 |                |             |                |                       |                       |        |  |
|-------------|----------------|-----------------------|-----------------|----------------|-------------|----------------|-----------------------|-----------------------|--------|--|
| GAS         | OUTLET         | UNI                   | DIN             | BS             | NF          | NEN            | SS                    | MIE                   | CGA    |  |
|             | G1/4           | 240200                | 240201          | 240203         | 240203      | 240203         | 240200                | 240203                |        |  |
| OXYGEN      | G3/8           | 240250                | 240251          | 240253         | 240253      | 240253         | 240250                | 240253                |        |  |
| UATGEN      | 9/16           |                       |                 |                | 240293      |                |                       |                       | 240295 |  |
|             | M16X1.5        |                       |                 |                | 240283      |                |                       |                       | 240285 |  |
| Weight of p | ressure reduce | r <b>1.30 Kg</b> - No | .Pcs. 8 - Packa | aging dimensio | ons (Ixwxh) | 41 x 29 x 22 ( | <b>:m</b> - Packaging | g weight <b>10.60</b> | ) Kg   |  |

#### **MAXYSMART FOR ACETYLENE**

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure <1.5 bar - Q1 standard delivery flow 5 m³/h

| OUTLET     | UNI   | DIN   | BS  | NF   | NEN   | SS  | MIE  | CGA   |
|------------|---|---|---|--|---|---|--|---|
| G1/4 Lh    | 241203  |   | 241203  | 241203   | 241203  | 241204  | 241203   |   |
| G3/8 Lh    | 241253  |   | 241253  | 241253   | 241253  | 241254  | 241253   |   |
| G1/4 Lh    | 241200  | 241201  |   | 241200   | 241209  |   |  |   |
| G3/8 Lh    | 241250  | 241251  |   | 241250   | 241259  |   |  |   |
| 9/16 Lh    |   |   |   |  |   |   |  | 241295  |
| M16X1.5 Lh |   |   |   | 241283   |   |   |  |   |
| M16x1.5 Lh |   |   |   | 241280   |   |   |  |   |
|            | G1/4 Lh<br>G3/8 Lh<br>G1/4 Lh<br>G3/8 Lh<br>9/16 Lh<br>M16X1.5 Lh | G1/4 Lh         241203           G3/8 Lh         241253           G1/4 Lh         241200           G3/8 Lh         241250           9/16 Lh | G1/4 Lh         241203           G3/8 Lh         241253           G1/4 Lh         241200           241201         241201           G3/8 Lh         241250           241251         241251           9/16 Lh | G1/4 Lh         241203         241203           G3/8 Lh         241253         241253           G1/4 Lh         241200         241201           G3/8 Lh         241250         241251           G3/8 Lh         241250         241251           G3/8 Lh         241250         241251           M16X1.5 Lh | G1/4 Lh         241203         241203         241203           G3/8 Lh         241253         241253         241253           G1/4 Lh         241200         241201         241200           G3/8 Lh         241250         241251         241250           G3/8 Lh         241250         241251         241250           9/16 Lh           241283 | G1/4 Lh         241203         241203         241203         241203           G3/8 Lh         241253         241253         241253         241253           G1/4 Lh         241200         241201         241200         241209           G3/8 Lh         241250         241251         241250         241259           G3/8 Lh         241250         241251         241250         241259           G1/4 Lh         241250         241251         241250         241259           G3/8 Lh         241250         241251         241250         241259           G1/6 Lh | G1/4 Lh         241203         241203         241203         241203         241203         241204           G3/8 Lh         241253         241253         241253         241253         241253         241253         241253           G1/4 Lh         241200         241201         241203         241209         241259           G3/8 Lh         241250         241251         241250         241259         241259           G3/8 Lh         241250         241251         241250         241259         241259           9/16 Lh         Image: Mark State St | G1/4 Lh         241203         241253 |

WITH BULLNOSE: Weight of p. reducer 1.35 Kg - No.Pcs. 8 - Packaging dimensions ( | x w x h) 41 x 29 x 22 cm - Pack. Weight 11.00 Kg

#### **MAXYSMART FOR PROPANE**

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow 5 m3/h

| -            |                | -             |               | -             |                  |              | -                    |                       |        |
|--------------|----------------|---------------|---------------|---------------|------------------|--------------|----------------------|-----------------------|--------|
| GAS          | OUTLET         | UNI           | DIN           | BS            | NF               | NEN          | SS                   | MIE                   | CGA    |
|              | G1/4 Lh        | 242300        | 242301        | 242303        | 242301           | 242309       | 242301               | 242301                |        |
| DDODANE      | G3/8 Lh        | 242350        | 242351        | 242353        | 242351           | 242359       | 242351               | 242351                |        |
| PROPANE      | 9/16 Lh        |               |               |               |                  |              |                      |                       | 242395 |
|              | M16x1.5 Lh     |               |               |               | 242381           |              |                      |                       |        |
| Weight of pr | essure reducer | 1.15 Kg - No. | Pcs. 8 - Pack | aging dimensi | ons ( I x w x h) | 41 x 29 x 22 | <b>cm</b> - Packagir | ng weight <b>9.20</b> | Kg     |















Solid, accurate and now with a new design.

63mm diameter pressure gauges for easy pressure reading

The colour of the label on the adjusting knob and the marking on the body indicate gas used.

285200MS

The cover is made of high resistance polymer The body is machined directly from brass bar. The front adjusting knob allows easy pressure regulation and has a new design that improves ergonomics.

> **USED GAS: ARGON/MIX OXYGEN ACETYLENE** PROPANE

## MAGNUMSMART FOR MIG/MAG/TIG WELDING

APPROVED UP TO **300 BAR** 

Allows stable delivery even at low flow rates and are particularly suitable for long MIG/MAG/TIG welding working cycles. They have a robust brass body obtained directly from a bar. 63mm diameter pressure gauges reduce the overall dimensions, and a they have a practical front adjusting knob. The standard version does not include protection on pressure gauges, which can be requested separately.

K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - O1 standard delivery flow >2 m³/h

| ······································ |             |                      |                         |                |                  |                       |                      |                |                   |  |  |
|--|-------------|----------------------|-------------------------|----------------|------------------|-----------------------|----------------------|----------------|-------------------|--|--|
| GAS                                    | OUTLET      | UNI                  | DIN                     | BS             | NF               | NEN                   | SS                   | MIE            | CGA               |  |  |
| <b>CO</b>                              | G1/4        | 285200MS             | 286201MS                | 285200MS       | 285200MS         | 285209MS              | 285200MS             | 285200MS       | 285205MS          |  |  |
| CO <sub>2</sub>                        | G3/8        | 285250MS             | 286251MS                | 285250MS       | 285250MS         | 285259MS              | 285250MS             | 285250MS       | 285255MS          |  |  |
| ADCON                                  | G1/4        | 286200MS             | 286201MS                | 286203MS       | 285200MS         | 286209MS              | 286204MS             | 285200MS       | 286200MS          |  |  |
| ARGON                                  | G3/8        | 286250MS             | 286251MS                | 286253MS       | 285250MS         | 286259MS              | 286254MS             | 285250MS       | 286250MS          |  |  |
| Weight of                              | pressure re | ducer <b>1.20 Kg</b> | - No.Pcs. <b>4</b> - Pa | ackaging dimer | nsions ( I x w x | h) <b>30.5 x 45.5</b> | <b>x 16.5 cm</b> - P | ackaging weigh | nt <b>4.80 Kg</b> |  |  |



## MAGNUMSMART FOR OXY ACETYLENE AND OXY PROPANE WELDING



These reducers are especially suitable for use on disposable cylinders for oxy fuel welding work. The acetylene version is available with two different types of cylinder attachment depending on different user needs: with ring nut or bracket. The coloured label on the knob identifies the gas used.

#### **MAGNUMSMART FOR OXYGEN**

K pressure reducer class 4 - P1 Inlet pressure 300 bar - P2 Outlet pressure 12.5 bar - Q1 standard delivery flow 40 m3/h

| GAS    | OUTLET  | UNI      | DIN      | BS       | NF       | NEN      | SS       | MIE      | CGA      |
|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|        | G1/4    | 280200MS | 280201MS | 280203MS | 280203MS | 280203MS | 280200MS | 280203MS |          |
| OXYGEN | G3/8    | 280250MS | 280251MS | 280253MS | 280253MS | 280253MS | 280250MS | 280253MS |          |
| UXTGEN | 9/16    |          |          |          | 280293MS |          |          |          | 280295MS |
|        | M16X1.5 |          |          |          | 280283MS |          |          |          | 280285MS |

Weight of pressure reducer 1.15 Kg - No.Pcs. 4 - Packaging dimensions (I x w x h) 30.5 x 45.5 x 16.5 cm - Packaging weight 4.60 Kg

#### **MAGNUMSMART FOR ACETYLENE**

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure <1.5 bar - Q1 standard delivery flow 5 m³/h

| GAS                   | OUTLET        | UNI                  | DIN                           | BS            | NF              | NEN             | SS                  | MIE           | CGA                |
|-----------------------|---------------|----------------------|-------------------------------|---------------|-----------------|-----------------|---------------------|---------------|--------------------|
| ACETYLENE<br>BULLNOSE | G1/4 Lh       | 281203MS             |                               | 281203MS      | 281203MS        | 281203MS        | 281204MS            | 281203MS      |                    |
| ACETYLENE<br>BULLNOSE | G3/8 Lh       | 281253MS             |                               | 281253MS      | 281253MS        | 281253MS        | 281254MS            | 281253MS      |                    |
| ACETYLENE<br>YOKE     | G1/4 Lh       | 281200MS             | 281201MS                      |               | 281200MS        | 281209MS        |                     |               |                    |
| ACETYLENE<br>YOKE     | G3/8 Lh       | 281250MS             | 281251MS                      |               | 281250MS        | 281259MS        |                     |               |                    |
| ACETYLENE<br>BULLNOSE | 9/16 Lh       |                      |                               |               |                 |                 |                     |               | 281295MS           |
| ACETYLENE<br>BULLNOSE | M16X1.5 Lh    |                      |                               |               | 281283MS        |                 |                     |               |                    |
| ACETYLENE<br>YOKE     | M16x1.5 Lh    |                      |                               |               | 281280MS        |                 |                     |               |                    |
| WITH YOKE:            | Weight of p.r | educer <b>1.40 K</b> | <b>g -</b> No.Pcs. <b>4</b> - | Pack. dimensi | ons ( I x w x h | ) 30.5 x 45.5 x | <b>16.5 cm</b> - Pa | ck.Weight 5.6 | D Kg               |
|                       |               | of p roducor         | 1 15 Kg No.                   | Doc 4 Dook d  | limoncione ( L) | (W v b) 20 5 v  | 45 5 x 16 5 c       | m Dook woid   | ht <b>1 60 V</b> a |

WITH BULLNOSE: Weight of p. reducer 1.15 Kg - No.Pcs.4 - Pack. dimensions (| x w x h) 30.5 x 45.5 x 16.5 cm - Pack.weight 4.60 Kg

#### **MAGNUMSMART FOR PROPANE**

K pressure reducer class 1 - P1 Inlet pressure 25 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow 5 m3/h

| GAS       | OUTLET     | UNI      | DIN                       | BS             | NF       | NEN      | SS                    | MIE           | CGA      |
|-----------|------------|----------|---------------------------|----------------|----------|----------|-----------------------|---------------|----------|
| PROPANE   | G1/4 Lh    | 282300MS | 282301MS                  | 282303MS       | 282301MS | 282309MS | 282301MS              | 282301MS      |          |
|           | G3/8 Lh    | 282350MS | 282351MS                  | 282353MS       | 282351MS | 282359MS | 282351MS              | 282351MS      |          |
|           | 9/16 Lh    |          |                           |                |          |          |                       |               | 282395MS |
|           | M16X1.5 Lh |          |                           |                | 282381MS |          |                       |               |          |
| Weight of |            |          | <br>No.Pcs. <b>6</b> - Pa | ckaging dimens |          |          | <b>x 16.5 cm</b> - Pa | ckaging weigh | t 6,80 I |

## **MAGNUMSMART FOR SPECIAL APPLICATIONS**

#### APPROVED UP TO **300 BAR**



| K pressure reducer class 4 - P1 Inlet pressure 300 bar - P2 Outlet pressure 12.5 b | oar - Q1 standard delivery flow 40 m³/h |
|--|---|
|--|---|

|          | UTLET   | UNI      | DIN      | BS       | NF       | NEN      | SS       | MIE      | CGA      |
|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|          | G1/4    | 284200MS | 284201MS | 284203MS | 284202MS | 284209MS | 284204MS | 284202MS |          |
|          | G3/8    | 284250MS | 284251MS | 284253MS | 284252MS | 284259MS | 284254MS | 284252MS |          |
| NITROGEN | 9/16    |          |          |          |          |          |          |          | 284295MS |
| М        | 116X1.5 |          |          |          | 284282MS |          |          |          |          |

284250MS













## A new reducer with rear side connection designed for kits with rechargeable cylinders.



## MAGNUMSMART REAR SIDE FOR OXY ACETYLENE AND OXY PROPANE WELDING

### APPROVED UP TO **300 BAR**

These reducers are especially suitable for equipping welding kits with rechargeable cylinders. The rear connection enables easy reducer installation and pressure adjustment is facilitated by the front knob.

#### MAGNUMSMART REAR SIDE FOR OXYGEN

K pressure reducer class 4 - P1 Inlet pressure 300 bar - P2 Outlet pressure 12.5 bar - Q1 standard delivery flow 40 m3/h

| MS       |
|----------|
|          |
| MS       |
| 280595MS |
| 280585MS |
|          |

Weight of pressure reducer 1.15 Kg - No.Pcs.4 - Packaging dimensions (I x w x h) 30.5 x 45.5 x 16.5 cm - Packaging weight 4.60 Kg

#### MAGNUMSMART REAR SIDE FOR ACETYLENE

K pressure reducer class 2 - P1 Inlet pressure 25 bar - P2 Outlet pressure <1.5 bar - Q1 standard delivery flow 5 m3/h

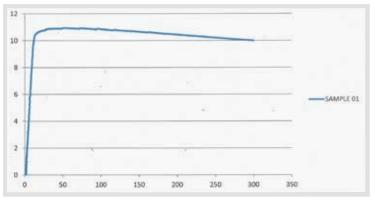
| GAS                   | OUTLET  | UNI                  | DIN                           | BS            | NF             | NEN             | SS                  | MIE            | CGA      |  |  |
|-----------------------|---|----------------------|-------------------------------|---------------|----------------|-----------------|---------------------|----------------|----------|--|--|
| ACETYLENE<br>BULLNOSE | G1/4 Lh   | 281503MS             |                               | 281503MS      | 281503MS       | 281503MS        | 281504MS            | 281503MS       |          |  |  |
| ACETYLENE<br>BULLNOSE | G3/8 Lh   | 281553MS             |                               | 281553MS      | 281553MS       | 281553MS        | 281554MS            | 281553MS       |          |  |  |
| ACETYLENE<br>YOKE     | G1/4 Lh   | 281500MS             | 281501MS                      |               | 281500MS       | 281509MS        |                     |                |          |  |  |
| ACETYLENE<br>YOKE     | G3/8 Lh   | 281550MS             | 281551MS                      |               | 281550MS       | 281559MS        |                     |                |          |  |  |
| ACETYLENE<br>BULLNOSE | 9/16 Lh   |                      |                               |               |                |                 |                     |                | 281595MS |  |  |
| ACETYLENE<br>BULLNOSE | M16X1.5 Lh  |                      |                               |               | 281583MS       |                 |                     |                |          |  |  |
| ACETYLENE<br>YOKE     | M16x1.5 Lh  |                      |                               |               | 281580MS       |                 |                     |                |          |  |  |
| WITH YOKE:            | Weight of p.r   | educer <b>1.40 K</b> | <b>g -</b> No.Pcs. <b>4</b> - | Pack. dimensi | ons (I x w x h | ) 30.5 x 45.5 x | <b>16.5 cm</b> - Pa | ick.Weight 5.6 | D Kg     |  |  |
| WITH BULLN            | WITH BULLNOSE: Weight of p. reducer 1.15 Kg - No.Pcs. 4 - Pack. dimensions (I x w x h) 30.5 x 45.5 x 16.5 cm - Pack. Weight 4.60 Kg |                      |                               |               |                |                 |                     |                |          |  |  |

#### **MAGNUMSMART REAR SIDE FOR PROPANE**

K pressure reducer class 1 - P1 Inlet pressure 25 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow 5 m3/h

| GAS       | OUTLET   | UNI      | DIN      | BS       | NF       | NEN      | SS       | MIE      | CGA      |  |
|-----------|--|----------|----------|----------|----------|----------|----------|----------|----------|--|
| PROPANE   | G1/4 Lh  | 282500MS | 282501MS | 282503MS | 282501MS | 282509MS | 282501MS | 282501MS |          |  |
|           | G3/8 Lh  | 282550MS | 282551MS | 282553MS | 282551MS | 282559MS | 282551MS | 282551MS |          |  |
|           | 9/16 Lh  |          |          |          |          |          |          |          | 282595MS |  |
|           | M16X1.5 Lh   |          |          |          | 282581MS |          |          |          |          |  |
| Weight of | Weight of pressure reducer 1.10 Kg - No.Pcs. 6 - Packaging dimensions (I x w x h) 30.5 x 45.5 x 16.5 cm - Packaging weight 6.80 Kg |          |          |          |          |          |          |          |          |  |

#### **COEFFICIENT OF IRREGULARITY OF OXYGEN REDUCERS**



Our Apragaz approved pressure reducers have been tested in compliance with EN ISO 2503 and a graph of the coefficient of irregularity has been reconstructed for each reducer.













### The first and most valued reducer in the Oxyturbo range, "inspiring" other reducer manufacturers.

Mini is a compact reducer, designed and constructed for MIG/MAG-TIG welding equipment. Thanks to its high reliability and small size, this unit has become a standard for mobile equipment.

The highest performance in the small-sized Mini reducer:

- Safety valve in accordance with standard EN ISO 2503
- High resistance integrated capsule
- Unremovable knob with mechanical support

#### **USE**

Suitable for:

**EN ISO 2503** 

- Small mobile flame welding units
- Professional MIG/MAG-TIG welding machines
- Special applications







Indelible marking on each individual reducer body.



Despite their small dimensions, these reducers are tested for an inlet pressure up to 300 bar which makes them the most suitable reducers for use with mobile equipment and for continuous MIG/MAG/TIG welding. The CO<sub>2</sub> and argon versions are provided with an output hose connection. Available in versions with two pressure gauges with only low or high-pressure, or without pressure gauges to fully meet the needs of each end user.

#### **2 GAUGES**

| K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 st | andard delivery flow >2 m³/h |
|---|------------------------------|
|---|------------------------------|

| GAS   | GAUGES      | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|
| CO <sub>2</sub>   | H.P. + L.P. | 255200 | 256201 | 255200 | 255200 | 255209 | 255200 | 255200 | 255205 |
| ARGON   | H.P. + L.P. | 256200 | 256201 | 256203 | 255200 | 256209 | 256204 | 255200 | 256200 |
| Weight of pressure reducer <b>0.70 Kg</b> - No.Pcs. <b>16</b> - Packaging dimensions (   x w x h) <b>41 x 36 x 24 cm</b> - Packaging weight <b>11,40 Kg</b> |             |        |        |        |        |        |        |        |        |

#### H.P. GAUGE

K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| GAS   | GAUGES | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |  |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| CO <sub>2</sub>   | H.P.   | 255100 | 256101 | 255100 | 255100 | 255109 | 255100 | 255100 | 255105 |  |
| ARGON   | H.P.   | 256100 | 256101 | 256103 | 255100 | 256109 | 256104 | 255100 | 256100 |  |
| Weight of pressure reducer <b>0.60 Kg</b> - No.Pcs. <b>30</b> - Packaging dimensions (   x w x h) <b>41 x 36 x 24 cm</b> - Packaging weight <b>18.20 Kg</b> |        |        |        |        |        |        |        |        |        |  |

#### L.P. GAUGE

K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| GAS  | GAUGES | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| CO <sub>2</sub>  | L.P.   | 255300 | 256301 | 255300 | 255300 | 255309 | 255300 | 255300 | 255305 |  |
| ARGON  | L.P.   | 256300 | 256301 | 256303 | 255300 | 256309 | 256304 | 255300 | 256300 |  |
| Weight of pressure reducer 0.60 Kg - No.Pcs.30 - Packaging dimensions ( I x w x h) 41 x 36 x 24 cm - Packaging weight 18.20 Kg |        |        |        |        |        |        |        |        |        |  |

#### **NO GAUGES**

#### K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow >2 m³/h

| GAS  | GAUGES    | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |
|--|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| CO <sub>2</sub>  | NO GAUGES | 255000 | 256001 | 255000 | 255000 | 255009 | 255000 | 255000 | 255005 |
| ARGON  | NO GAUGES | 256000 | 256001 | 256003 | 255000 | 256009 | 256004 | 255000 | 256000 |
| Weight of pressure reducer 0.50 Kg - No.Pcs.50 - Packaging dimensions ( I x w x h) 46 x 29.5 x 26 cm - Packaging weight 25.00 Kg |           |        |        |        |        |        |        |        |        |







256000





The rear connection, with its small size and front adjusting knob make these reducers highly used in oxy acetylene and oxy propane welding kits. Units are supplied with black pressure gauge protective caps and the gas used is identified by the label on the adjusting knob.



#### **MINI FOR OXYGEN**

K pressure reducer class 1 - P1 Inlet pressure 300 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow 5 m³/h

| OUTLET  | UNI                  | DIN  | BS   | NF   | NEN  | SS   | MIE  | CGA   |
|---------|----------------------|--|--|--|--|--|--|---|
| G1/4    | 250200               | 250201   | 250203   | 250203   | 250203   | 250200   | 250203   |   |
| G3/8    | 250250               | 250251   | 250253   | 250253   | 250253   | 250250   | 250253   |   |
| 9/16    |                      |  |  | 250293   |  |  |  | 250295  |
| M16X1.5 |                      |  |  | 250283   |  |  |  | 250285  |
|         | G1/4<br>G3/8<br>9/16 | G1/4         250200           G3/8         250250           9/16 | G1/4         250200         250201           G3/8         250250         250251           9/16 | G1/4         250200         250201         250203           G3/8         250250         250251         250253           9/16 | G1/4         250200         250201         250203         250203           G3/8         250250         250251         250253         250253           9/16         250293         250293 | G1/4         250200         250201         250203         250203         250203           G3/8         250250         250251         250253         250253         250253           9/16         250293         250293         250293         250293 | G1/4         250200         250201         250203         250203         250203         250200           G3/8         250250         250251         250253         250253         250253         250250           9/16 | G1/4         250200         250201         250203         250203         250203         250200         250203           G3/8         250250         250251         250253 |

Weight of pressure reducer 0.80 Kg - No.Pcs.16 - Packaging dimensions ( I x w x h) 41 x 36 x 24 cm - Packaging weight 13,00 Kg

#### **MINI FOR ACETYLENE**

K pressure reducer class 1 - P1 lnlet pressure 25 bar - P2 Outlet pressure <0,8 bar - Q1 standard delivery flow > 1  $m^3/h$ 

| GAS                   | OUTLET           | UNI                  | DIN                    | BS                      | NF              | NEN           | SS                    | MIE                  | CGA    |
|-----------------------|------------------|----------------------|------------------------|-------------------------|-----------------|---------------|-----------------------|----------------------|--------|
| ACETYLENE<br>BULLNOSE | G1/4 LH          | 251203               |                        | 251203                  | 251203          | 251203        | 251204                | 251203               |        |
| ACETYLENE<br>BULLNOSE | G3/8 LH          | 251253               |                        | 251253                  | 251253          | 251253        | 251254                | 251253               |        |
| ACETYLENE<br>YOKE     | G1/4 LH          | 251200               | 251201                 |                         | 251200          | 251209        |                       |                      |        |
| ACETYLENE<br>YOKE     | G3/8 LH          | 251250               | 251251                 |                         | 251250          | 251259        |                       |                      |        |
| ACETYLENE<br>BULLNOSE | 9/16 LH          |                      |                        |                         |                 |               |                       |                      | 251295 |
| ACETYLENE<br>BULLNOSE | M16X1.5 LH       |                      |                        |                         | 251283          |               |                       |                      |        |
| ACETYLENE<br>YOKE     | M16X1.5 LH       |                      |                        |                         | 251280          |               |                       |                      |        |
| WITH YOKE:            | Weight of p. red | ducer <b>1.10 Kg</b> | - No.Pcs. <b>6</b> - I | Pack. dimensio          | ons (I x w x h) | 30.5 x 45.5 x | <b>x 16.5 cm</b> - Pa | ck.Weight <b>6.8</b> | 0 Kg   |
| WITH BULLN            | OSE: Weight of   | p. reducer <b>0.</b> | <b>85 Kg -</b> No.Pc   | s. <b>16</b> - Pack. di | imensions ( I x | (wxh)41x3     | <b>6 x 24 cm</b> - Pa | ack.Weight <b>13</b> | ,80 Kg |

#### **MINI FOR PROPANE**

#### K pressure reducer class 0 - P1 Inlet pressure 25 bar - P2 Outlet pressure 1.5 bar - Q1 standard delivery flow > 1 m³/h

| GAS   | OUTLET     | UNI    | DIN    | BS     | NF     | NEN    | SS     | MIE    | CGA    |  |
|---|------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|   | G1/4 LH    | 252300 | 252301 | 252303 | 252301 | 252309 | 252301 | 252301 |        |  |
| PROPANE   | G3/8 LH    | 252350 | 252351 | 252353 | 252351 | 252359 | 252351 | 252351 |        |  |
|   | 9/16 LH    |        |        |        |        |        |        |        | 252395 |  |
|   | M16X1.5 LH |        |        |        | 252381 |        |        |        |        |  |
| Weight of pressure reducer <b>0.65 Kg</b> - No.Pcs. <b>30</b> - Packaging dimensions ( I x w x h) <b>41 x 36 x 24 cm</b> - Packaging weight <b>19.70 Kg</b> |            |        |        |        |        |        |        |        |        |  |





# PRESSURE REDUCERS FOR DISPOSABLE CYLINDERS

Oxyturbo also produces pressure reducers used for industrial gases in disposable cylinders. Cylinder attachment is derived and integrated directly into the body of the reducer. A pin permits opening of the cylinder and a gasket guarantees the seal of its valve.

All our reducers are constructed in compliance with standard EN ISO 2503 which requires:

- Obligatory marking
- Gauges according to the standard
- Unremovable pressure adjusting knob

Failure to comply with only of the mentioned conditions indicates that the pressure reducer shall no more be in compliance with the standard.

ALL OUR PRESSURE Reducers are tested Individually to ensure User safety





EN ISO 2503

# MIGNON

# Small reducers with high performance for $CO_2$ / Argon / Mix / Nitrogen



# Even the small size of these reducers still manage to offer high performance:

- Safety valve in accordance with standard EN ISO 2503
- High resistance integrated capsule with mechanical lock
- Unremovable pressure adjusting knob
- Mechanical locking system on cylinder to preserve OR sealing

Reliable and safe, equipped with overpressure exhaust device and high and/or low pressure 40 diameter pressure gauges.

#### USE

Reducers built for intermediate pressure with disposable cylinders for MIG/MAG welding machines.

#### **SMALL BUT EFFICIENT**

Their size allows them to be widely used in small spaces without affecting their efficiency.

### **MIGNON FOR DISPOSABLE CYLINDERS**







#### MIGNON FOR MIG/MAG WELDING

K pressure reducer class 1 - P1 Inlet pressure 150 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow < 1 m³/h

| -      |  | -          |             |         | -              |                  |
|--------|--|------------|-------------|---------|----------------|------------------|
| CODE   | Description                                  | Connection | Weight (kg) | No.Pcs. | Pack.Dim. (cm) | Pack.Weight (kg) |
| 225200 | MIGNON CO <sub>2</sub> /ARGON/MIX 2 gauges   | M10X1RH    | 0.50        | 30      | 41 x 36 x 24   | 15.20            |
| 225300 | MIGNON CO <sub>2</sub> /ARGON/MIX L.P. gauge | M10X1RH    | 0.45        | 30      | 41 x 36 x 24   | 13.70            |
| 225100 | MIGNON CO <sub>2</sub> /ARGON/MIX H.P. gauge | M10X1RH    | 0.45        | 30      | 41 x 36 x 24   | 13.70            |
| 225000 | MIGNON CO <sub>2</sub> /ARGON/MIX NO gauges  | M10X1RH    | 0.35        | 50      | 46 x 29.5 x 26 | 17.70            |
|        |  |            |             |         |                |                  |

#### **MIGNON NITROGEN FOR SPECIAL APPLICATIONS**

K pressure reducer class 1 - P1 Inlet pressure 150 bar - P2 Outlet pressure 10 bar - Q1 standard delivery flow < 1 m<sup>3</sup>/h

| CODE   | Description                | Connection | Weight (kg) | No.Pcs. | Pack.Dim. (cm) | Pack.Weight (kg) |
|--------|----------------------------|------------|-------------|---------|----------------|------------------|
| 324280 | MIGNON NITROGEN 2 gauges   | M10X1RH    | 0.50        | 16      | 41 x 36 x 24   | 15.20            |
| 324380 | MIGNON NITROGEN L.P. gauge | M10X1RH    | 0.45        | 30      | 41 x 36 x 24   | 13.70            |
| 324180 | MIGNON NITROGEN H.P. gauge | M10X1RH    | 0.45        | 30      | 41 x 36 x 24   | 13.70            |
| 324080 | MIGNON NITROGEN NO gauges  | M10X1RH    | 0.35        | 50      | 46 x 29.5 x 26 | 17.70            |





# **MICRO** Small vertical drive reducers ideal for "do-it-yourself" works



Extremely small, these units enable delivery control via low pressure gauge.

#### USE

Ideal for disposable cylinders for small MIG welding machines.

#### **EASY AND PRACTICAL**

Easy to use and small in size for fast installation and practical use.

### **MICRO FOR TIG WELDING**



K pressure reducer class 1 - P1 Inlet pressure 130 bar - P2 Outlet pressure 4 bar - Q1 standard delivery flow < 1 m³/h

| CODE   | Description                                 | Connection | Weight (kg) | No.Pcs. | Pack.Dim. (cm) | Pack.Weight (kg) |
|--------|---|------------|-------------|---------|----------------|------------------|
| 215300 | Micro Co <sub>2</sub> /Argon/Mix L.p. Gauge | M10X1RH    | 0.25        | 50      | 46 x 29.5 x 26 | 12.70            |
| 215000 | Micro Co <sub>2</sub> /Argon/Mix No Gauges  | M10X1RH    | 0.17        | 60      | 35 x 19 x 17   | 10.40            |

#### **DISPOSABLE BOTTLES**



| CODE   | Description   | Outlet | Weight<br>(kg) | No.Pcs. | Pack.Dim.<br>(cm) | Pack.Weight<br>(kg) |
|--------|---|--------|----------------|---------|-------------------|---------------------|
| 485300 | CO <sub>2</sub> Cylinder 390g 950cc                     | M10X1  | 1.60           | 12      | 32 x 26 x 34      | 19.40               |
| 485600 | CO <sub>2</sub> Cylinder 2,2 L<br>1200g with foot stand | M10X1  | 4.00           | 4       | 24 x 24 x 40      | 16.60               |
| 486301 | ARGON Cylinder<br>110bar 950cc                          | M10X1  | 1.35           | 12      | 32 x 26 x 34      | 16.40               |
| 486400 | ARGON EXTERNAL 110bar<br>2,2 L<br>with foot stand       | M10X1  | 3.20           | 4       | 24 x 24 x 40      | 13.00               |
| 486351 | MIX Cylinder<br>110bar 950cc                            | M10X1  | 1.35           | 12      | 32 x 26 x 34      | 16.40               |
| 486451 | MIX Cylinder110bar<br>2,2 L with foot stand             | M10X1  | 3.20           | 4       | 24 x 24 x 40      | 13.30               |
| 484300 | Nitrogen cylinder<br>1 L 110 bar                        | M10X1  | 1.30           | 12      | 32 X 24 X 34      | 15.80               |
| 484400 | Nitrogen cylinder 2,2 L with foot stand - 110 bar       | M10X1  | 4.00           | 4       | 24 X 24 X 40      | 16.20               |

# **FITTINGS AND ACCESSORIES**

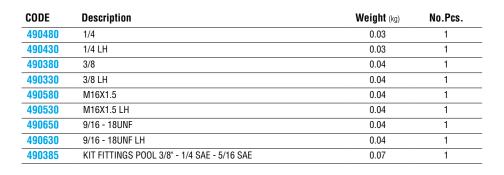
#### **NUTS AND HOSE CONNECTIONS**

Carefully and expertly machined. Normally provided as standard on our pressure reducers.



299705

299706



#### **PRE-HEATER**

Allows for elimination of the "brine" effect on  $\text{CO}_2$  reducers. CE approved. Minimum current consumption.

| CODE      | Description                 | Weight (kg) | No.Pcs. |
|-----------|-----------------------------|-------------|---------|
| 299705    | 220 VOLT - 25 W             | 1.60        | 1       |
| 299705.DE | 220 VOLT - 25 W with SCHUKO | 1.70        | 1       |
| 299706    | 230 VOLT - 75 W             | 0.85        | 1       |

#### **FLOWMETER**

Provides high reading accuracy of the operating pressure indicated on the internal scale (3.5 bar). The inner ball is easily visible and immediate reading is provided thanks to the presence of the two-colour silk-screen column (black writing on a white background).

| CODE   | Description | Weight (kg) | No.Pcs. |
|--------|-------------|-------------|---------|
| 290300 | Flowmeter   | 0.26        | 1       |
|        |             |             |         |

#### **INJECTOR GASKETS**

Sealing gaskets for reducer connection to cylinders. They differ based on the gas with which they will be used.

| CODE     | Description   | Weight (kg) | No.Pcs. |
|----------|---|-------------|---------|
| D0932002 | Gasket for nitrogen injector 19x8.2x3.2 in Teflon   | 0.08        | 1       |
| D0932004 | Gasket for $\text{CO}_2/\text{Argon}/\text{O}_2/\text{C}_2\text{H}_2$ injector 18.5x11.5x2 in natural polyamide | 0.04        | 1       |
| D0913000 | Gasket for propane/hydrogen injector 16.9x10.3x2 in NBR   | 0.03        | 1       |

#### **FLOWMETER FOR TORCH**

0-30 L/min

A torch insertion shape has been designed to allow reading on the column up to 30 L/min.

| CODE   | Description         | Weight (kg) | No.Pcs. |
|--------|---------------------|-------------|---------|
| 260090 | Flowmeter for torch | 0.033       | 1       |







### GAUGES







| CODE                   | Description                   | Pressure  | Ømm       | Connection       | Range        | Red mark     |
|------------------------|-------------------------------|-----------|-----------|------------------|--------------|--------------|
| Q6030510I              | MAXY                          | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q6030511I              | MAXY SMART                    | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q6030511I              | MAGNUM SMART                  | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q6030511I              | MAGNUM SMART RS               | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q6030510I              | MAXYMUM                       | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q5000101I              | MINI                          | HIGH      | 50        | G1/8-R           | 0-315        | 230          |
|                        | 1                             |           | OW PRESS  |                  |              |              |
| Q6160501I              | MAXY                          | LOW       | 63        | G1/4-R           | 0-16         | 10           |
| Q6160503I              | MAXY SMART                    | LOW       | 63        | G1/4-R           | 0-16         | 10           |
| Q6160503I              | MAGNUM SMART                  | LOW       | 63        | G1/4-R           | 0-16         | 10           |
| Q6160503I              | MAGNUM SMART RS               | LOW       | 63        | G1/4-R           | 0-16         | 10           |
| Q6140500I              | MAXYMUM                       | LOW       | 63        | G1/4-R           | 0-160        | 100          |
| Q6170500I              | MAXYMUM                       | LOW       | 63        | G1/4-R           | 0-100        | 60           |
| Q6600500I              | MAXYMUM                       | LOW       | 63        | G1/4-R           | 0-60         | 46           |
| Q6400504I              | MAXYMUM                       | LOW       | 63        | G1/4-R           | 0-40         | 25           |
| Q6161500I              | GAS POINT                     | LOW       | 63        | G1/4-P           | 0-16         | 10           |
| Q6171500I              | GAS POINT LASER               | LOW       | 63        | G1/4-P           | 0-100        | 60           |
| Q5060101I              | MINI                          | LOW       | 50        | G1/8-R           | 0-6          | 4            |
| 064005041              | B44307                        | ACETYLENE |           |                  | 0.40         | 00           |
| Q64005011              |                               | HIGH      | 63        | G1/4-R           | 0-40         | 26           |
| Q64005031              | MAGNUM SMART                  | HIGH      | 63        | G1/4-R           | 0-40         | 26           |
| Q6400503I              | MAGNUM SMART RS               | HIGH      | 63        | G1/4-R           | 0-40         | 26           |
| Q6400503I              | MAXY SMART                    | HIGH      | 63        | G1/4-R           | 0-40         | 26           |
| Q5400100I              | MINI                          | HIGH      | 50        | G1/8-R           | 0-40         | 25           |
| 004005041              | MAXY                          |           | 1         |                  | 0.0.5        | 1.5          |
| Q64205011<br>Q64205031 | MAGNUM SMART                  | LOW       | 63<br>63  | G1/4-R<br>G1/4-R | 0-2,5        | 1.5          |
| Q64205031              | MAGNUM SMART RS               | LOW       | 63        | G1/4-R           | 0-2,5        | 1.5          |
| Q64205031              | MAXY SMART                    | LOW       | 63        | G1/4-R           | 0-2,5        | 1.5          |
| Q6421500I              | GAS POINT                     | LOW       | 63        | G1/4-N           | 0-2,5        | 1.5          |
| Q54201001              | MINI                          | LOW       | 50        | G1/4-1           | 0-2,5        | 1.3          |
| 04201001               | iviiivi                       | -         | LOW PRESS |                  | 0 2,0        | 1,0          |
| Q6060501I              | MAXY                          | LOW       | 63        | G1/4-R           | 0-6          | 4            |
| Q60605011              | MAGNUM RS                     | LOW       | 63        | G1/4-R           | 0-0          | 4            |
| Q60605011              | MAGNUM SMART                  | LOW       | 63        | G1/4-R           | 0-0          | 4            |
| 060605011              | MAGNUM SMART RS               | LOW       | 63        | G1/4-R           | 0-0          | 4            |
| Q6061500I              | GAS POINT                     | LOW       | 63        | G1/4-P           | 0-6          | 4            |
| Q5420100I              | MINI                          | LOW       | 50        | G1/8-R           | 0-2,5        | 1,8          |
| 04201001               | iviiivi                       | NITROGEN  |           |                  | 0 2,0        | 1,0          |
| Q6030500I              | MAXY                          | HIGH      | 63        |                  | 0-400        | 300          |
| Q60305001              | MAGNUM RS                     | HIGH      | 63        | G1/4-R<br>G1/4-R | 0-400        | 300          |
| Q60305001              | MAGNUM SMART                  | HIGH      | 63        | G1/4-R<br>G1/4-R | 0-400        | 300          |
| Q60305021              | MAGNUM SMART RS               | HIGH      | 63        | G1/4-R<br>G1/4-R | 0-400        | 300          |
| Q60305001              | MACINOM SMART RS<br>MAXY PLUS | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q60305001              | MAXYMUM                       | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q60305001              | MAJOR HP                      | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q6030500I              | MEGA HP                       | HIGH      | 63        | G1/4-R           | 0-400        | 300          |
| Q50001011              | MIGNON                        | HIGH      | 50        | G1/8-R           | 0-315        | 230          |
| 400001011              |                               |           | LOW PRES  |                  | 0.010        | 200          |
| 061605001              | MAVV                          |           | 1         |                  | 0.10         | 10           |
| Q61605021              | MAXY<br>MACNUM BS             | LOW       | 63        | G1/4-R           | 0-16         | 10           |
| Q61605021              | MAGNUM RS<br>MAGNUM SMART     | LOW       | 63<br>63  | G1/4-R           | 0-16<br>0-16 | 10           |
| Q6160502I<br>Q6160502I | MAGNUM SMART                  | LOW       | 63        | G1/4-R<br>G1/4-R | 0-16         | 10           |
|                        |                               |           |           |                  | 0-16         | 25           |
| Q64005041              | MAXY PLUS                     | LOW       | 63        | G1/4-R           |              |              |
| Q6140500I              |                               | LOW       | 63        | G1/4-R           | 0-160        | 100          |
| Q6170500I              | MAXYMUM                       | LOW       | 63        | G1/4-R           | 0-100        | 60           |
| Q6600500I              |                               | LOW       | 63        | G1/4-R           | 0-60         | 46           |
| Q6400504I              |                               | LOW       | 63        | G1/4-R           | 0-40         | 25           |
| Q61705001              | MAJOR HP                      | LOW       | 63        | G1/4-R           | 0-100        | 60           |
| Q6521500I<br>Q6171500I | GAS POINT                     | LOW       | 63<br>63  | G1/4-P           | 0-6          | 32 L/min=4ba |
| 1001/1000              | GAS POINT LASER               | LOW       | 63        | G1/4-P           | 0-100        | 60           |



| CODE      | Description               | Pressure     | Ømm        | Connection*  | Range | Red mark       |
|-----------|---------------------------|--------------|------------|--------------|-------|----------------|
| Q6030500I | MAXY                      | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q6030502I | MAXY SMART                | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q6030502I | MAGNUM SMART              | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q6030502I | MAGNUM SMART RS           | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q5000101I | MINI                      | HIGH         | 50         | G1/8-R       | 0-315 | 230            |
| Q4020100I | MIGNON                    | HIGH         | 40         | G1/8-R       | 0-315 | 230            |
|           | CO                        | 2 / ARGON LO | N PRESSUR  | RE           |       |                |
| Q6520503I | MAXY                      | LOW          | 63         | G1/4-R       | 0-6   | 32 L/min=4 bar |
| Q6520505I | MAXY SMART                | LOW          | 63         | G1/4-R       | 0-6   | 32 L/min=4 bar |
| Q6520505I | MAGNUM SMART              | LOW          | 63         | G1/4-R       | 0-6   | 32 L/min=4 bar |
| Q6520505I | MAGNUM SMART RS           | LOW          | 63         | G1/4-R       | 0-6   | 32 L/min=4 bar |
| Q6521500I | GAS POINT                 | LOW          | 63         | G1/4-RS      | 0-6   | 32 L/min=4bar  |
| Q6061500I | GAS POINT CON FLUSSOMETRI | LOW          | 63         | G1/4-RS      | 0-6   | 4              |
| Q5520102I | MINI                      | LOW          | 50         | G1/8-R       | 0-6   | 12 L/min=4 baı |
| Q4520100I | MIGNON                    | LOW          | 40         | G1/8-R       | 0-6   | 6 L/min=4 bar  |
| Q4520100I | MICRO                     | LOW          | 40         | G1/8-R       | 0-6   | 6 L/min=4 bar  |
|           | HELIUM/HYDRO              | GEN/COMPRES  | SED AIR H  | IGH PRESSURE |       |                |
| Q6030500I | MAXY                      | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q6030500I | MAXY LIFT                 | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
| Q4020100I | MINIMUMFLY                | HIGH         | 40         | G1/8-R       | 0-315 | 230            |
|           | HELIUM/HYDRO              | GEN/COMPRES  | SSED AIR L | OW PRESSURE  |       |                |
| Q6160502I | MAXY                      | LOW          | 63         | G1/4-R       | 0-16  | 10             |
| Q6160510I | MAXY LIFT                 | LOW          | 63         | G1/4-R       | 0-20  | 12,5           |
| Q6161500I | GAS POINT                 | LOW          | 63         | G1/4-RS      | 0-16  | 10             |
|           | A                         | ZOIDRO HIGH  | PRESSURE   |              |       |                |
| Q6030500I | MAJOR HP                  | HIGH         | 63         | G1/4-R       | 0-400 | 300            |
|           | A                         | ZOIDRO LOW   | PRESSURE   |              |       |                |
| Q6170500I | MAJOR HP                  | LOW          | 63         | G1/4-R       | 0-100 | 60             |

\*R= radial connection

\*RS= rear connection

Oxyturbo reserves the right to deliver available gauges, ensuring their proper operation.

#### **GAUGES GASKET**

| CODE     | Description            | Weight (kg) | No.Pcs. |
|----------|------------------------|-------------|---------|
| D0943001 | Gasket for G1/8 gauges | 0.08        | 100     |



#### **GAUGES PROTECTIONS**

| CODE     | Description                               | Weight (kg) | No.Pcs. |
|----------|---|-------------|---------|
| Q0060302 | Black smooth cap ø 63mm                   | 0.03        | 1       |
| Q0070300 | Double cap ø 63 mm for Maxy and MaxySmart | 0.14        | 1       |
| Q0050302 | Black smooth cap ø 50mm                   | 0.026       | 1       |

#### **GAUGES CAGE**

Only for Maxy and Maxysmart.

| CODE  | Description                          | Weight (kg) | No.Pcs. |
|-------|--------------------------------------|-------------|---------|
| 19889 | Gauges cage in black varnished steel | 0.7         | 1       |

















# FLAME WELDING

Oxyturbo offers a wide range of products for oxy propane and oxy acetylene flame welding equipment. These complete and easy-to-use systems are characterised by the availability of high-capacity cylinders for long and practical operation. The Oxyturbo flame welding solutions include various size and type items (welding and cutting torches, numerous tips and accessories) all designed to aid professional operators in optimising their work and results.

Especially popular are the MINI and MAXI kit versions which make welding work even easier and more straight forward.

The company quality system has been certified EN ISO 9001 since 1996-certificate No. IT96/0040. Oxyturbo also uses a traceability system that allows you to know the life of the product which helps to ensure its manufacturing history is easy to see and document.

# SAFE OPERATION PERIODIC MAINTENANCE OF EQUIPMENT

UNI 11627 is the UNI reference standard for the periodic maintenance and checking of manual gas welding and cutting equipment. It covers the related techniques connected downstream of the cylinder valve or, in the case of centralised distribution, of mobile equipment downstream of the point of use. This standard describes the methods and frequency of verifications by the type of product, which integrate but do not replace the requirements that the manufacturer highlights in the use and maintenance manual related to their individual products.

|   | VISUAL IN  | ISPECTION - VERIFI<br>SEAL TESTING  | CATION  | FREQUENCY OF COMPLETE  |
|---|--|---|---|--|
| EQUIPMENT   | EACH TIME THE CYLINDER IS<br>Replaced or components are<br>Connected   | EACH TIME EQUIPMENT IS<br>USED  | ANNUALLY  | OVERHAUL OR REPLACEMENT<br>(1)   |
| General,<br>common to all<br>equipment<br>(1)                               | Follow manufacturer instructions.<br>Always include:<br>Visual inspection to determine the<br>appropriateness of equipment for<br>the intended use (for example: the<br>type of gas, pressure, flow rate),<br>absence of damage, absence of<br>grease or oily residue ( <i>see below</i><br>for details for each specific piece<br>of equipment) | Visual inspection<br>to determine the<br>appropriateness of<br>equipment for the intended<br>use (for example: the type<br>of gas, pressure, flow rate),<br>absence of damage, absence<br>of grease or oily residue ( <i>see</i><br><i>below for details for each</i><br><i>specific piece of equipment</i> ) | Includes verifications required<br>each time cylinders are<br>replaced or any components<br>are connected. Specific checks<br>are required for each type of<br>equipment connected. (see<br>below):<br>( <i>This check can be made more</i><br><i>frequently depending on the</i><br><i>conditions of use</i> ) | This check can be made more<br>frequently depending on the<br>conditions of use  |
| Flexible hoses<br>(2)   | • Check the colours of hoses<br>according to the type of gas.<br>Visual inspection to ensure the<br>proper conditions and integrity of<br>hoses (i.e. no shrinkage, cracking,<br>abrasion, etc.)<br>Hose and junction seal to be tested<br>at operating pressure   | • Visual inspection to ensure<br>the proper condition and<br>integrity of hoses (i.e.<br>no shrinkage, cracking,<br>abrasion, etc)  | <ul> <li>Visual inspection on bent hoses to determine the absence of tears, bulges, damage and cracks.</li> <li>Hose seal test at maximum operating pressure</li> </ul>   | <ul> <li>Replacement:</li> <li>If the visual inspection has detected damage.</li> <li>Or replace every 3 years after commissioning for heavy duty applications (for example at construction sites).</li> <li>Maximum every 5 years after commissioning in other cases</li> </ul> |
| Safety valves<br>with flashback<br>arrestor and<br>gas return<br>restrictor | <ul> <li>Verification:</li> <li>Ensure presence of correct number and instruction of installation.</li> <li>The colours and marking are correct according to the type of gas</li> <li>Junction seal testing at operating pressure</li> </ul>   | • Junction seal To be tested at service pressure  | <ul> <li>Visual Inspection and seal<br/>check outwards at maximum<br/>service pressures</li> <li>Gas return restrictor seal<br/>check both at minimum and<br/>maximum operating pressures</li> </ul>  | • Replacement: to be evaluated<br>in case of flashback, or within a<br>maximum of every 5 years after<br>commissioning, depending on the<br>nature of use  |
| Torches<br>Nota:  | <ul> <li>Visual inspection of the con-<br/>ditions of tips, particularly on<br/>sealing surfaces.</li> <li>Junction seal testing at operating<br/>pressure.</li> </ul>   | <ul> <li>Visual inspection of the conditions of tips.</li> <li>Junction seal testing.</li> </ul>  | <ul> <li>Complete visual inspection</li> <li>General external seal testing</li> <li>Sealing of individual valves<br/>(internal)</li> </ul>  | • Overhaul or replace within a maximum 5 years from the date of commissioning  |

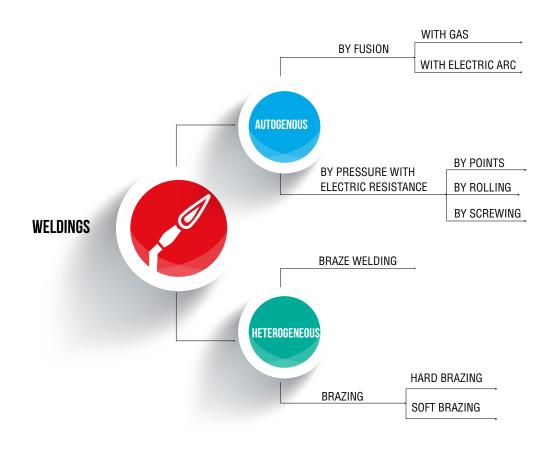
1) Contact your local supplier regarding safety data for the gas and materials used.

2) Please note that the date indicated on the hose is that of manufacture (UNI EN ISO 3821) and not the expiration date as is the case for gas pipes intended for other applications.

It is extremely important to follow these tips and treat your equipment carefully. All manufacturers try to produce safe materials, however a small loss of concentration by the operator during their use can have serious consequences. It is also advisable to apply safety valves on reducers to provide greater safety during daily work.



A process used to permanently join two hot metals. It uses the flame obtained by the combustion of a gas with oxygen, with or without a filler metal as a source of heat. Gases used as fuel must have: high flame temperature, high thermal content and flame adjustment stability.



#### **AUTOGENOUS WELDING**

Is a technique that allows the connection of two metals of the same material using fusion with or without a filler metal. It includes all systems where the base metal is involved in forming the welded joint. It enables great mechanical strength and can be used for small thicknesses on sheet metal and iron pipes but depends on the physical state in which the pieces are found at the time of their union.

**FUSION WELDING:** A generic term for welding processes that rely upon melting to join materials of similar compositions and melting points. Gas or arc welding is determined depending on how the required heat is produced to fuse the metal.

**PRESSURE WELDING:** When pieces are not connected in a molten state, but when they are in a 'plastic-type' condition. This state is generally achieved by the Joule effect of passing an electric current.



#### **HETEROGENEOUS WELDING:**

Where an additional foreign metal or alloy is introduced, the melting point of which is below that of the metals to be welded.

**BRAZE WELDING:** The connection technique that is performed in degrees with a filler metal with a melting point lower than that of the metal itself. This type of welding allows joining of most types of metals, creating a very durable joint particularly suitable for repairs in bodywork and ironmongery.

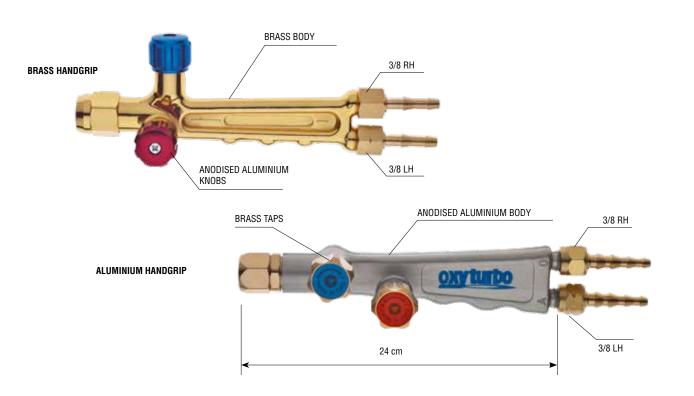
**BRAZING:** A bonding technique that is carried out by means of by capillary action, placing the base metal so that there is a minimum space between the parts. The base metal is heated to a temperature lower than that of its own melting point, but higher than the melting point of the filler metal which, with a gas flame, is dropped between the surfaces, moving closer to be able to penetrate by capillary action. The different types are:

- Hard brazing (melting > 400°C)
- Soft brazing (melting < 400°C)

The choice of one welding process with respect to another depends on many factors and must be made considered i.e. the type of alloy to be welded, the thickness of the parts, the weld position, the type of production (in series or not), and the equipment available in the workshop.

49





#### MAXI HANDGRIPS FOR WELDING AND CUTTING

Oxyturbo offers two maxi handgrips: one in robust and long-lasting brass, the other in anodised lightweight and easyto-handle aluminium. These handgrips have been designed with a meticulous attention to detail, are easily adjustable and provided with extra-fine threaded taps which are equipped with a coloured sticker for immediate identification of gas even during use. All handles have been tested individually with an electronic digital check.

| CODE   | Description        | Connection | Outlet        | Weight (kg) | No.Pcs. |
|--------|--------------------|------------|---------------|-------------|---------|
| 150550 | BRASS HANDGRIP     | M 22X1.25  | 3/8"RH-3/8"LH | 0.70        | 1       |
| 150500 | ALUMINIUM HANDGRIP | M 22X1.25  | 3/8"RH-3/8"LH | 0.65        | 1       |





All lances are APRAGAZ approved and have been tested individually in operating pressure with a lit flame. All constructive components are also separately marked to ensure greater safety during coupling.

#### **ACETYLENE WELDING LANCES**

To be used on our MAXI handgrips for welding from 0.4 to 12.5 mm. Lances are supplied with nozzle.

| CODE   | Description    | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|----------------|----------------|-------------|---------|
| 156101 | LANCE 40 L/H   | 0.4            | 0.16        | 1       |
| 156102 | LANCE 80 L/H   | 0.8            | 0.16        | 1       |
| 156103 | LANCE 160 L/H  | 1.6            | 0.17        | 1       |
| 156104 | LANCE 225 L/H  | 2.2            | 0.17        | 1       |
| 156105 | LANCE 315 L/H  | 3.0            | 0.17        | 1       |
| 156106 | LANCE 500 L/H  | 5.0            | 0.20        | 1       |
| 156107 | LANCE 800 L/H  | 8.0            | 0.20        | 1       |
| 156108 | LANCE 1250 L/H | 12.5           | 0.22        | 1       |



CAUTION: sizes printed on nozzles and lances must match. **Do not install different size nozzles from** the original size on lances.



| Description     | Thickness (mm)   | Weight (kg)  | No.Pcs.   |
|-----------------|--|--|---|
| NOZZLE 40 L/H   | 0.4  | 0.04   | 1   |
| NOZZLE 80 L/H   | 0.8  | 0.04   | 1   |
| NOZZLE 160 L/H  | 1.6  | 0.04   | 1   |
| NOZZLE 225 L/H  | 2.2  | 0.04   | 1   |
| NOZZLE 315 L/H  | 3.0  | 0.04   | 1   |
| NOZZLE 500 L/H  | 5.0  | 0.05   | 1   |
| NOZZLE 800 L/H  | 8.0  | 0.05   | 1   |
| NOZZLE 1250 L/H | 12.5   | 0.05   | 1   |
|                 | NOZZLE 40 L/H<br>NOZZLE 80 L/H<br>NOZZLE 160 L/H<br>NOZZLE 225 L/H<br>NOZZLE 315 L/H<br>NOZZLE 500 L/H | NOZZLE 40 L/H         0.4           NOZZLE 80 L/H         0.8           NOZZLE 160 L/H         1.6           NOZZLE 225 L/H         2.2           NOZZLE 315 L/H         3.0           NOZZLE 500 L/H         5.0           NOZZLE 800 L/H         8.0 | NOZZLE 40 L/H         0.4         0.04           NOZZLE 80 L/H         0.8         0.04           NOZZLE 160 L/H         1.6         0.04           NOZZLE 225 L/H         2.2         0.04           NOZZLE 315 L/H         3.0         0.04           NOZZLE 500 L/H         5.0         0.05           NOZZLE 800 L/H         8.0         0.05 |

#### **ACETYLENE BENDABLE LANCES**

These lances are particularly useful for thermo-hydraulic works and are ideal for welding in special positions. Complete with brass mixer and special copper tubing with hammered ends.

| CODE   | Description   | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|---------------|----------------|-------------|---------|
| 156203 | LANCE 160 L/H | 1.6            | 0.13        | 1       |
| 156204 | LANCE 225 L/H | 2.2            | 0.13        | 1       |
| 156205 | LANCE 315 L/H | 3.0            | 0.13        | 1       |
| 156206 | LANCE 500 L/H | 5.0            | 0.13        | 1       |





#### **ASP CUTTING LANCES**

These cutting lances with suction mixing guarantee the highest cutting quality. When gas is mixed in the handgrip, the lance is already ready and the gun is "fired" directly on the piece. They use AC and NX nozzles.

| CODE   | Description | Weight (kg) | No.Pcs. |
|--------|-------------|-------------|---------|
| 156600 | ACETYLENE   | 0.64        | 1       |
| 156650 | PROPANE     | 0.66        | 1       |

#### AC AND NX ASP CUTTING NOZZLES

Nozzles should be selected based on cutting thickness and on the gas to be used. AC nozzles are to be used with acetylene, while NX nozzles are used for cutting with propane. They are both two-piece, flat housing nozzles with brass interiors and nickel-plated copper exteriors. Cutting thickness is marked directly on the nozzle and are indicative.



| CODE   | Description  | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|--------------|----------------|-------------|---------|
| 157600 | AC ACETYLENE | 5-10           | 0.06        | 1       |
| 157601 | AC ACETYLENE | 10-15          | 0.06        | 1       |
| 157602 | AC ACETYLENE | 15-25          | 0.06        | 1       |
| 157603 | AC ACETYLENE | 25-50          | 0.06        | 1       |
| 157604 | AC ACETYLENE | 50-100         | 0.06        | 1       |
| 157605 | AC ACETYLENE | 100-175        | 0.06        | 1       |
| 157606 | AC ACETYLENE | 175-250        | 0.06        | 1       |
| 157607 | AC ACETYLENE | 250-300        | 0.06        | 1       |
|        |              |                |             |         |

| CODE   | Description | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|-------------|----------------|-------------|---------|
| 157650 | NX PROPANE  | 5-10           | 0.06        | 1       |
| 157651 | NX PROPANE  | 10-15          | 0.06        | 1       |
| 157652 | NX PROPANE  | 15-25          | 0.06        | 1       |
| 157653 | NX PROPANE  | 25-50          | 0.06        | 1       |
| 157654 | NX PROPANE  | 50-75          | 0.06        | 1       |
| 157655 | NX PROPANE  | 75-150         | 0.06        | 1       |
| 157656 | NX PROPANE  | 150-200        | 0.06        | 1       |
| 157657 | NX PROPANE  | 200-300        | 0.06        | 1       |



#### **MIX CUTTING LANCES**



They are built in two versions: with tap and with a lever. They are the most cost-effective solution for cutting small and medium-thickness metals. Mixing takes place in the cutting head for greater work safety. The mixing system reduces the path of already mixed gases practically to zero, reducing the danger of flame back flow to minimum. They use ANME and PNME nozzles.

| _ | 0     |
|---|-------|
|   | 0'e + |

156500

| CODE   | Description              | Weight (kg) | No.Pcs. |
|--------|--------------------------|-------------|---------|
| 156510 | CUTTING LANCE WITH LEVER | 0.7         | 1       |
| 156500 | CUTTING LANCE WITH TAP   | 0.7         | 1       |



#### ANME AND PNME MIX CUTTING NOZZLES

Nozzles should be selected based on cutting thickness and on the gas to be used. ANME nozzles are single block self-mixing copper-coated nozzles to be used for cutting with acetylene. PNME nozzles are two-piece self-mixing nozzles with brass interior and copper exterior, to be used on cutting with propane. Cutting thickness is marked directly on the nozzle and are indicative.

| CODE   | Description    | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|----------------|----------------|-------------|---------|
| 157500 | ANME ACETYLENE | 6-10           | 0.1         | 1       |
| 157501 | ANME ACETYLENE | 10-13          | 0.1         | 1       |
| 157502 | ANME ACETYLENE | 13-25          | 0.1         | 1       |
| 157503 | ANME ACETYLENE | 25-38          | 0.1         | 1       |
| 157504 | ANME ACETYLENE | 38-50          | 0.1         | 1       |
| 157505 | ANME ACETYLENE | 50-75          | 0.1         | 1       |
| 157506 | ANME ACETYLENE | 75-125         | 0.1         | 1       |
| 157507 | ANME ACETYLENE | 125-200        | 0.1         | 1       |
| 157508 | ANME ACETYLENE | 200-300        | 0.1         | 1       |
|        |                |                |             |         |

| CODE   | Description  | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|--------------|----------------|-------------|---------|
| 157550 | PNME PROPANE | 6-10           | 0.1         | 1       |
| 157551 | PNME PROPANE | 10-13          | 0.1         | 1       |
| 157552 | PNME PROPANE | 13-25          | 0.1         | 1       |
| 157553 | PNME PROPANE | 25-38          | 0.1         | 1       |
| 157554 | PNME PROPANE | 38-50          | 0.1         | 1       |
| 157555 | PNME PROPANE | 50-75          | 0.1         | 1       |
| 157556 | PNME PROPANE | 75-125         | 0.1         | 1       |
| 157557 | PNME PROPANE | 125-200        | 0.1         | 1       |
| 157558 | PNME PROPANE | 200-300        | 0.1         | 1       |
|        |              |                |             |         |

#### **HEATING LANCES**

High heating power. These lances allow for absolute safe operation even for high power flames in all surface tempering operations, forging, heating of materials before welding, large brazing and annealing, etc. Lances are supplied with nozzle.

Weight (kg)

0.28

0.50

0.28

0.60

No.Pcs.

1

1

1

1

| CODE   | Description                           |
|--------|---------------------------------------|
| 156308 | HEATING LANCE ACETYLENE 1250 L/H      |
| 156309 | HEATING LANCE ACETYLENE 2500/4000 L/H |
| 156359 | HEATING LANCE PROPANE 800/1250 L/H    |
| 156361 | HEATING LANCE PROPANE 2500/4000 L/H   |

#### **HEATING NOZZLES**

Special copper nozzles which produce a flame that enables accurate control of all fusion operations.



| CODE   | Description                             | Weight (kg) | No.Pcs. |
|--------|---|-------------|---------|
| 157308 | HEATING NOZZLES ACETYLENE 1250 L/H      | 0.07        | 1       |
| 157309 | HEATING NOZZLES ACETYLENE 2500/4000 L/H | 0.18        | 1       |
| 157359 | HEATING NOZZLES PROPANE 800/1250 L/H    | 0.07        | 1       |
| 157361 | HEATING NOZZLES PROPANE 2500/4000 L/H   | 0.17        | 1       |

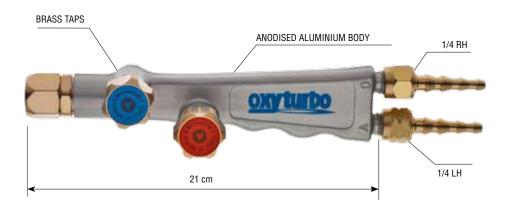








# A range complete with handgrips, lances and nozzles for welding up to 12.5 mm and cutting up to 50 mm for small and medium carpentry.



### MINI HANDGRIPS FOR WELDING AND CUTTING

Anodised aluminium handgrips that can be used in all welding and cutting operations on small and medium carpentry. Ideal for bodywork and refrigerator technicians, allowing for **welding up to 12.5mm** in thickness and **cutting up to 50mm** with special supplied lances. The brass taps are equipped with coloured stickers for immediate identification of gas, even during use. All handgrips have been tested individually with an electronic digital check.

| CODE   | Description        | Connection | Outlet        | Weight (kg) | No.Pcs. |
|--------|--------------------|------------|---------------|-------------|---------|
| 140500 | ALUMINIUM HANDGRIP | M 20X1.25  | 1/4"RH-1/4"LH | 0.35        | 1       |





All lances are APRAGAZ approved and have been tested separately in operating pressure with a lit flame. All constructive components are individually marked to ensure greater safety during coupling.

#### ACETYLENE WELDING LANCES

These can be used on our MINI handgrips, allowing for welding with acetylene up to 12.5 mm thick. Lances are supplied with a nozzle.

| CODE       | Description    | Thickness (mm) | Weight (kg) | No.Pcs. |
|------------|----------------|----------------|-------------|---------|
| 146101     | LANCE 40 L/H   | 0.4            | 0.11        | 1       |
| 146102     | LANCE 80 L/H   | 0.8            | 0.11        | 1       |
| <br>146103 | LANCE 160 L/H  | 1.6            | 0.12        | 1       |
| 146104     | LANCE 225 L/H  | 2.2            | 0.12        | 1       |
| 146105     | LANCE 315 L/H  | 3.0            | 0.13        | 1       |
| 146106     | LANCE 500 L/H  | 5.0            | 0.13        | 1       |
| 146107     | LANCE 800 L/H  | 8.0            | 0.13        | 1       |
| 146108     | LANCE 1250 L/H | 12.5           | 0.13        | 1       |
|            |                |                |             |         |

#### **ACETYLENE WELDING NOZZLES**

CAUTION: sizes printed on nozzles and lances must match. Do not install different size nozzles from the original on lances.

| CODE   | Description     | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|-----------------|----------------|-------------|---------|
| 147101 | NOZZLE 40 L/H   | 0.4            | 0.03        | 1       |
| 147102 | NOZZLE 80 L/H   | 0.8            | 0.03        | 1       |
| 147103 | NOZZLE 160 L/H  | 1.6            | 0.03        | 1       |
| 147104 | NOZZLE 225 L/H  | 2.2            | 0.03        | 1       |
| 147105 | NOZZLE 315 L/H  | 3.0            | 0.03        | 1       |
| 147106 | NOZZLE 500 L/H  | 5.0            | 0.03        | 1       |
| 147107 | NOZZLE 800 L/H  | 8.0            | 0.03        | 1       |
| 147108 | NOZZLE 1250 L/H | 12.5           | 0.03        | 1       |
|        |                 |                |             |         |

#### **PROPANE WELDING LANCES**

These can be used on our MINI handgrips, allowing for welding with propane up to 5 mm thick. Lances are supplied with a nozzle.



| CODE   | Description   | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|---------------|----------------|-------------|---------|
| 146152 | LANCE 100 L/H | 1.0            | 0.11        | 1       |
| 146153 | LANCE 160 L/H | 1.6            | 0.11        | 1       |
| 146154 | LANCE 225 L/H | 2.5            | 0.12        | 1       |
| 146155 | LANCE 315 L/H | 3.0            | 0.12        | 1       |
| 146156 | LANCE 500 L/H | 5.0            | 0.12        | 1       |

#### **PROPANE WELDING NOZZLES**

CAUTION: sizes printed on nozzles and lances must match. **Do not install different size nozzles from the original size on lances.** 



| CODE   | Description    | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|----------------|----------------|-------------|---------|
| 147152 | NOZZLE 100 L/H | 1.0            | 0.03        | 1       |
| 147153 | NOZZLE 160 L/H | 1.6            | 0.03        | 1       |
| 147154 | NOZZLE 250 L/H | 2.5            | 0.03        | 1       |
| 147155 | NOZZLE 315 L/H | 3.0            | 0.03        | 1       |
| 147156 | NOZZLE 500 L/H | 5.0            | 0.03        | 1       |



#### ACETYLENE BENDABLE LANCES

These lances are particularly useful for thermo-hydraulic works and are indicated for welding in special positions. Complete with brass mixer and special copper tubing with hammered ends.

| CODE   | Description   | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|---------------|----------------|-------------|---------|
| 146203 | LANCE 160 L/H | 1.6            | 0.11        | 1       |
| 146204 | LANCE 225 L/H | 2.2            | 0.11        | 1       |
| 146205 | LANCE 315 L/H | 3.0            | 0.11        | 1       |

#### **CUTTING LANCES**

MINI handgrips can also be combined with cutting lances available in this version with a tap or lever are both for acetylene and propane. They can be combined with three different size nozzles for cutting up to 50 mm. Cutting lances have an o-ring seal protected by a nut, ensuring safe connection with handgrips.



| CODE   | Description                        | Weight (kg) | No.Pcs. |
|--------|------------------------------------|-------------|---------|
| 146500 | ACETYLENE cutting lance with tap   | 0.45        | 1       |
| 146510 | ACETYLENE cutting lance with lever | 0.50        | 1       |
| 146550 | PROPANE cutting lance with tap     | 0.38        | 1       |
| 146560 | PROPANE cutting lance with lever   | 0.45        | 1       |

### **CUTTING NOZZLES**

Nozzles should be selected based on cutting thickness and on the gas to be used. The acetylene nozzles are single-piece in copper, while those for propane are two-piece with a brass interior and a copper exterior. Both have flat housings. Cutting thickness is marked directly on the nozzle and are indicative.

| CODE   | Description | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|-------------|----------------|-------------|---------|
| 147601 | ACETYLENE   | 8-20           | 0.03        | 1       |
| 147602 | ACETYLENE   | 20-50          | 0.03        | 1       |
| 147603 | ACETYLENE   | 50-100         | 0.03        | 1       |
|        |             |                |             |         |
| 147651 | PROPANE     | 8-20           | 0.03        | 1       |
| 147652 | PROPANE     | 20-50          | 0.03        | 1       |
| 147653 | PROPANE     | 50-100         | 0.03        | 1       |

#### **HEATING LANCES**

With high heating power, these lances allow for absolute safe operation for high power flames in all surface tempering operations, forging, heating of materials before welding, large brazing and annealing, etc. Lances are supplied with a nozzle.

| CODE   | Description                          | Weight (kg) | No.Pcs. |
|--------|--------------------------------------|-------------|---------|
| 146308 | HEATING LANCE ACETYLENE 800/1250 L/h | 0.18        | 1       |
| 146358 | HEATING LANCE PROPANE 800/1250 L/h   | 0.18        | 1       |

#### **HEATING NOZZLES**

Special copper nozzles which produce a flame that enables accurate control of all fusion operations.

| CODE   | Description                            | Weight (kg) | No.Pcs. |
|--------|--|-------------|---------|
| 147308 | HEATING NOZZLES ACETYLENE 800/1250 L/h | 0.05        | 1       |
| 147358 | HEATING NOZZLES PROPANE 800/1250 L/h   | 0.05        | 1       |





## The best and safest solution for cutting professionals.

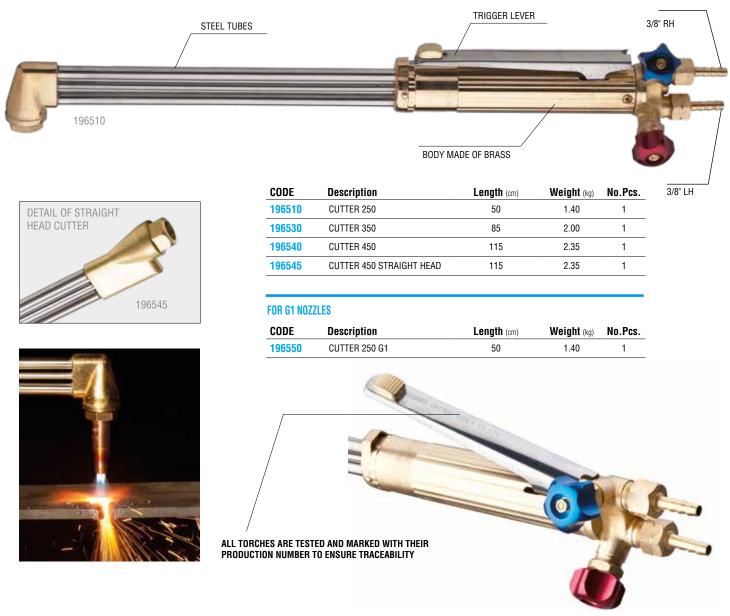
Our cutters are the best solution for all cutting applications up to 300 mm, and are especially popular in the shipbuilding industry. The extremely robust structure of the three tubes makes them particularly suitable for demolition, ensuring the best cutting quality without burring on the piece being worked on.

#### **TO USE WITH ANME AND PNME NOZZLES**

Supplied in three different lengths, **50**, **85** and **115** cm. Designed and constructed for cutting professionals and built to ensure maximum operational safety. Head mixing is extremely safe as the two gases, oxygen and acetylene or LPG, travel separately through their respective tubes.

PERFECT FOR 300mm AND FOR HEAVY USES

### **INDESTRUCTIBLE, EASY TO HANDLE, LIGHTWEIGHT!**



#### **ANME/PNME NOZZLES**

Nozzles should be selected based on cutting thickness and on the gas to be used. ANME nozzles are single block self-mixing copper-coated nozzles to be used for cutting with acetylene. PNME nozzles are two-piece self-mixing nozzles with brass interiors and copper exteriors, to be used on cutting with propane. The indicated cutting thickness is marked directly on the nozzle.

| Description    | Thickness (mm)   | Weight (kg)  | No.Pcs.   |
|----------------|--|--|---|
| ANME ACETYLENE | 6-10   | 0.10   | 1   |
| ANME ACETYLENE | 10-13  | 0.10   | 1   |
| ANME ACETYLENE | 13-25  | 0.10   | 1   |
| ANME ACETYLENE | 25-38  | 0.10   | 1   |
| ANME ACETYLENE | 38-50  | 0.10   | 1   |
| ANME ACETYLENE | 50-75  | 0.10   | 1   |
| ANME ACETYLENE | 75-125   | 0.10   | 1   |
| ANME ACETYLENE | 125-200  | 0.10   | 1   |
| ANME ACETYLENE | 200-300  | 0.10   | 1   |
|                | ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE<br>ANME ACETYLENE | ANME ACETYLENE6-10ANME ACETYLENE10-13ANME ACETYLENE13-25ANME ACETYLENE25-38ANME ACETYLENE38-50ANME ACETYLENE50-75ANME ACETYLENE75-125ANME ACETYLENE125-200 | ANME ACETYLENE         6-10         0.10           ANME ACETYLENE         10-13         0.10           ANME ACETYLENE         13-25         0.10           ANME ACETYLENE         13-25         0.10           ANME ACETYLENE         25-38         0.10           ANME ACETYLENE         38-50         0.10           ANME ACETYLENE         50-75         0.10           ANME ACETYLENE         75-125         0.10           ANME ACETYLENE         125-200         0.10 |

| CODE   | Description  | Thickness (mm) | Weight (kg) | No.Pcs. |
|--------|--------------|----------------|-------------|---------|
| 157550 | PNME PROPANE | 6-10           | 0.10        | 1       |
| 157551 | PNME PROPANE | 10-13          | 0.10        | 1       |
| 157552 | PNME PROPANE | 13-25          | 0.10        | 1       |
| 157553 | PNME PROPANE | 25-38          | 0.10        | 1       |
| 157554 | PNME PROPANE | 38-50          | 0.10        | 1       |
| 157555 | PNME PROPANE | 50-75          | 0.10        | 1       |
| 157556 | PNME PROPANE | 75-125         | 0.10        | 1       |
| 157557 | PNME PROPANE | 125-200        | 0.10        | 1       |
| 157558 | PNME PROPANE | 200-300        | 0.10        | 1       |

#### **G1 NOZZLES**

Nozzles for cutting with mixing to be used with Cutter G1. The acetylene nozzles are single block copper- coated nozzles, while the propane ones are two-piece with brass interiors and copper exteriors. Nozzle should be selected based on cutting thickness and on the gas to be used.



| CODE   | Nozzle hole  | Nozzle hole | Thickness (mm) | Weight (kg) | No. pcs. |
|--------|--------------|-------------|----------------|-------------|----------|
| 167502 | G1 ACETYLENE | 10/10       | 10-25          | 0.10        | 1        |
| 167504 | G1 ACETYLENE | 16/10       | 50-80          | 0.10        | 1        |
| 167505 | G1 ACETYLENE | 20/10       | 80-120         | 0.10        | 1        |



| CODE   | Nozzle hole | Nozzle hole | Thickness (mm) | Weight (kg) | No. pcs. |
|--------|-------------|-------------|----------------|-------------|----------|
| 167552 | G1 PROPANE  | 10/10       | 10-25          | 0.10        | 1        |
| 167554 | G1 PROPANE  | 16/10       | 50-80          | 0.10        | 1        |
| 167555 | G1 PROPANE  | 20/10       | 80-120         | 0.10        | 1        |











# Safety devices have been especially designed and constructed for use in welding, oxy fuel welding and other related techniques.

It is inappropriate to use them in other different fields i.e. heating systems, domestic gas distribution networks etc.

Depending on the models, they should be used on pressure reducers, along flexible hoses (hose-hose models) or on torch handles. Normally, the most appropriate use involves one valve for each gas on the pressure reducer and one on the handle of the torch or, in place of the latter, one along the hose at a maximum distance of 1 m from the torch.

OXYTURBO valves are tested individually at 100% with digital machine and are supplied with an instructions manual with explanations of markings and installation and maintenance instructions.

Flashback arrestor valves should be replaced every five years as prescribed by standard EN 730-1, however should be checked and replaced after each flashback.

#### **GOOD WELDING ALSO EQUALS HIGHER SAFETY!**

VALVES TESTED INDIVIDUALLY. SHOULD BE REPLACED EVERY 5 YEARS

#### SAFETY VALVES

#### APRAGAZ APPROVED ACCORDING TO EN 730-1

All gas and flame back flows are caused by the alteration of the balance between the mix output speed and the combustion rate. Our valves prevent the gas and flame back flows during welding work. In compliance with European standard EN 730-1, our valves contain:

- ↗ Valve model
- ↗ The name or brand of the manufacturer
- → Standard reference number (EN 730-1)
- **7** The functions performed by the valve (FA for flashback arrestor, NV for gas back flow)
- The type of gas (code) for which the valve has been designed

The colour of the label is also differentiated for prompt identification of valves and to facilitate easier installation and maintenance.



#### **FLAME ARRESTOR**

#### HOSE-HOSE SAFETY VALVE - MAX FLOW RATE 1.500 L/h

These valves are single protection: they prevent flame back flow.

They are constructed using very high-quality components. Hose connection 7-10 mm

| CODE   | Description                     | Weight (kg) | No.Pcs. |
|--------|---------------------------------|-------------|---------|
| 150140 | OXYGEN HOSE-HOSE flame arrestor | 0.10        | 1       |
| 150190 | GAS HOSE-HOSE flame arrestor    | 0.10        | 1       |





FLAME BACK ARRESTOR HOSE-HOSE



FLAME BACK ARRESTOR VALVE FOR HANDLE



FLAME BACK ARRESTOR HANDLE WITH HOSE CONNECTION

#### FLAME BACK ARRESTOR

#### DUAL PROTECTION SAFETY VALVE - FLOW RATE 3,000 L/h

Prevents flame and gas back flow. Available in two versions: for hose-hose, with hose connection 7-11 mm and for handles, with or without hose connection.

| CODE   | Description            | Weight (kg) | No.Pcs. |
|--------|------------------------|-------------|---------|
| 150210 | Oxygen hose-hose valve | 0.06        | 1       |
| 150260 | Gas hose-hose valve    | 0.06        | 1       |

| CODE   | Description             | Connection | Weight (kg) | No.Pcs. |
|--------|-------------------------|------------|-------------|---------|
| 150200 | Oxygen valve for handle | 1/4        | 0.11        | 1       |
| 150250 | Gas valve for handle    | 1/4 LH     | 0.11        | 1       |
| 150205 | Oxygen valve for handle | 3/8        | 0.12        | 1       |
| 150255 | Gas valve for handle    | 3/8 LH     | 0.12        | 1       |
| 150201 | Oxygen valve for handle | M16X1.5    | 0.12        | 1       |
| 150251 | Gas valve for handle    | M16X1.5 LH | 0.12        | 1       |
| 150202 | Oxygen valve for handle | 9/16       | 0.11        | 1       |
| 150252 | Gas valve for handle    | 9/16 LH    | 0.11        | 1       |

| CODE   | Description                                  | Connection | Weight (kg) | No.Pcs. |
|--------|--|------------|-------------|---------|
| 150211 | Oxygen valve for handle with hose connection | 1/4        | 0.14        | 1       |
| 150261 | Gas valve for handle with hose connection    | 1/4 LH     | 0.14        | 1       |
| 150212 | Oxygen valve for handle with hose connection | 3/8        | 0.15        | 1       |
| 150262 | Gas valve for handle with hose connection    | 3/8 LH     | 0.15        | 1       |
| 150213 | Oxygen valve for handle with hose connection | M16X1.5    | 0.15        | 1       |
| 150263 | Gas valve for handle with hose connection    | M16X1.5 LH | 0.15        | 1       |
| 150214 | Oxygen valve for handle with hose connection | 9/16       | 0.14        | 1       |
| 150264 | Gas valve for handle with hose connection    | 9/16 LH    | 0.14        | 1       |

#### **20 Ø SWIVEL FLAME BACK ARRESTORS**

#### SWIVEL SAFETY VALVES FOR REDUCERS - FLOW RATE 3,000 L/h

These carry out two important functions - Preventing flame back flow and preventing gas back flow

Their small dimensions allow them to be assembled on any reducer, however they guarantee an adequate flow even for cutting operations up to 300 mm.

| Description | Connection  | Weight (kg)   | No.Pcs.   |
|-------------|---|---|---|
| Oxygen      | 1/4   | 0.12  | 1   |
| Gas         | 1/4 LH  | 0.12  | 1   |
| Oxygen      | 3/8   | 0.13  | 1   |
| Gas         | 3/8 LH  | 0.13  | 1   |
| Oxygen      | M16X1.5   | 0.13  | 1   |
| Gas         | M16X1.5 LH  | 0.13  | 1   |
| Oxygen      | 9/16  | 0.12  | 1   |
| Gas         | 9/16 LH   | 0.12  | 1   |
|             | Oxygen<br>Gas<br>Oxygen<br>Gas<br>Oxygen<br>Gas<br>Oxygen | Oxygen         1/4           Gas         1/4 LH           Oxygen         3/8           Gas         3/8 LH           Oxygen         M16X1.5           Gas         M16X1.5 LH           Oxygen         9/16 | Oxygen         1/4         0.12           Gas         1/4 LH         0.12           Oxygen         3/8         0.13           Gas         3/8 LH         0.13           Oxygen         M16X1.5         0.13           Gas         M16X1.5 LH         0.13           Oxygen         M16X1.5 LH         0.13           Oxygen         9/16         0.12 |



FLAME BACK ARRESTOR SWIVEL SAFETY VALVES FOR REDUCERS



FLAME BACK ARRESTOR FIXED FOR REDUCERS

#### **FIXED 28 Ø FLAME BACK ARRESTOR**

#### SAFETY VALVES FOR REDUCERS - FLOW RATE 3.000 L/h

For assembly at output on pressure reducers, ensuring total protection against flame and gas back flow. Max flow rate: 30 m<sup>3</sup>/h oxygen, 5 m<sup>3</sup>/h (propane), 5 m<sup>3</sup>/h (acetylene)

| CODE   | Description | Connection | Weight (kg) | No.Pcs. |
|--------|-------------|------------|-------------|---------|
| 150305 | Oxygen      | 3/8        | 0.25        | 1       |
| 150355 | Gas         | 3/8 LH     | 0.25        | 1       |
| 150301 | Oxygen      | M16X1.5    | 0.25        | 1       |
| 150351 | Gas         | M16X1.5 LH | 0.25        | 1       |
| 150302 | Oxygen      | 9/16       | 0.24        | 1       |
| 150352 | Gas         | 9/16 LH    | 0.24        | 1       |
|        |             |            |             |         |





# CYLINDER HOLDER TROLLEYS

# Product quality and safety in the transport of large size cylinders.

Oxyturbo offers a range of trolleys to facilitate the transport of cylinders, especially large ones.

A two-seater trolley is available for 50-litre, 250 mm diameter cylinders. Trolleys are equipped with a storage tray, galvanised chains, 2 full 200 mm diameter rubber wheels and 2 rear rubber pivoting full 125 mm diameter support wheels.

| CODE   | Description                  | Weight (kg) | No.Pcs. |
|--------|------------------------------|-------------|---------|
| 105900 | CYLINDER HOLDER TROLLEY 50 L | 22.00       | 1       |

The two-seater trolleys comply with CE standards and are ideal for 14 litre cylinders. They are equipped with 2 full 200 mm diameter rubber wheels and a convenient drawer so everything you need for work is always on hand.

| CODE   | Description                  | Weight (kg) | No.Pcs. |
|--------|------------------------------|-------------|---------|
| 105700 | CYLINDER HOLDER TROLLEY 14 L | 12.00       | 1       |

Oxyturbo trolleys allow for cylinder handling, supporting a weight up to 30 kg. and are equipped with a convenient storage compartment.

| CODE   | Description           | Weight (kg) | No.Pcs. |
|--------|-----------------------|-------------|---------|
| 105500 | ACETYLENE TROLLEY 5 L | 3.70        | 1       |
| 105550 | PROPANE TROLLEY 5 L   | 3.70        | 1       |
|        |                       |             |         |
| 105200 | TROLLEY 2 L           | 2.20        | 1       |

CARRELLO VUOTO 2 LT



CE

CARRELLO VUOTO 14 LT









# Technological gas leakage detector. An extremely useful tool for your safety.

This product is designed to test the hermetic sealing of systems using any type of gas. The liquid used in the gas leakage detector has a special formula against corrosion if used on copper, brass and steel.

#### **DVGW** approved in accordance with DIN EN 14291

The gas leakage detector reveals any leak forming bubbles or foam.

| CODE      | Description                                | Weight (Kg) | No.Pcs. |
|-----------|--|-------------|---------|
| 405000.EX | DISPLAY 12 PCS. 400 g WITH ACC-U-SOL VALVE | 0.46        | 2X12    |



ACC-U-SOL VALVE



#### 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.











OXYTURBO SpA Via Serio, 15 - 25015 Desenzano del Garda (BS) - Italy Tel. +39 030-9911855 Fax +39 030-9911271

info@oxyturbo.it www.oxyturbo.it