



# Gas and Equipment Brochure 2024



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# Who we are

Calgaz has been the global leader in specialty calibration gases for over 45 years. With the largest range of calibration gases in non-refillable cylinders and equipment in the world and a large network of international distribution hubs Calgaz is truly the global leader.

**Calgaz is the “one-stop shop” for all your calibration gas needs, wherever you are.**

- Industrial Safety, Marine, Mudlogging, Breath Testing and Laboratory markets
- Manufacturing and global distribution from the USA and UK
- Distribution Hubs in Benelux, Dubai, Singapore, and Shanghai
- Accredited to ISO 9001:2015 certification, ISO 11118:2019 and ISO/IEC 17025:2017

Calgaz, the world’s leading manufacturer of calibration gases and equipment is proud to offer the most comprehensive range of specialist regulators and equipment for non-refillable and high pressure gas cylinders.

# Our Vision

“Lead the Global Market as the #1 trusted calibration gas partner through agility, flexibility and sustainable partnerships.”

# Our Mission

“To deliver sustainable calibration gas solutions for a positive Customer experience worldwide every time.”



# A Record of Excellence

Our reputation is what defines us.

Calgaz is part of the Air Liquide / Airgas Group the global leader in industrial and specialty gases.

As your business partner, we deliver unique solutions that include standard and special gas mixtures, pure gases, reactive binary mixtures and complex hydrocarbon mixtures in small, lightweight cylinders.

Uniquely positioned with manufacturing on two continents and a network of distribution hubs and sales offices globally, Calgaz is #1 in the worldwide supply of calibration gases and equipment.

At Calgaz, we are extremely proud of our record of innovation. Whether it is our industry changing products, our unique networks of hubs, or the consistent way Calgaz has been the most trusted supplier of calibration gases for over 45 years, you can be sure we will be here to support you wherever you are.

You can rely on CALGAZ.



# Global Leaders in Innovation and Service

**2019**

Calgaz merges with Gasco

**2019**

Establish new Distribution Hub in Benelux to service mainland Europe

**2018**

Grand Opening of new state of the art manufacturing facility in Stoke, UK

**2014**

Open second global manufacturing facility in Stoke, UK

**2007**

Establish Shanghai Sales and Distribution Hub in China

**2005**

Receive first ISO17025 Accreditation

**2004**

Establish Singapore Sales and Distribution Hub

**2000**

Establish Dubai, UAE. Distribution Hub

**1998**

Set up first Calgaz overseas Sales and Distribution Hub in UK

**1994**

Launch industry changing four-in-one gas calibration gas mixture

# Safety

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At Calgaz, we put Safety first. So it is no surprise that we are recognized as the Global Safety Leader in the industry, including areas such as operations and workplace safety. Safety has been and always will be a priority in our operations. Calgaz believes that safety is every associate's responsibility and we are very proud of our workplace safety track record.

The need to work and act safely in every action we take is driven through the organisation from the CEO of Air Liquide through to every to every staff member on a regular basis.

Safety Moments are a regular feature of every meeting we hold which in turn is underpinned by the 12 Life Saving Rules. Safety is a choice we all sign up to via the Calgaz Pledge.

Safety is factored into every element of the work we do. Whether it is working to ensure all products conform to local and global standards or filling cylinders in line with corporate directives, we analyse every activity to ensure we carry it out safely. This carries through to the shipping of dangerous goods in compliance with global rules or just ensuring the offices are safe and free from trip or fall hazards. Safety underpins all activities within our company.

For more information on Calgaz's safety policies please contact us at [info@calgaz.com](mailto:info@calgaz.com).



## Environmental

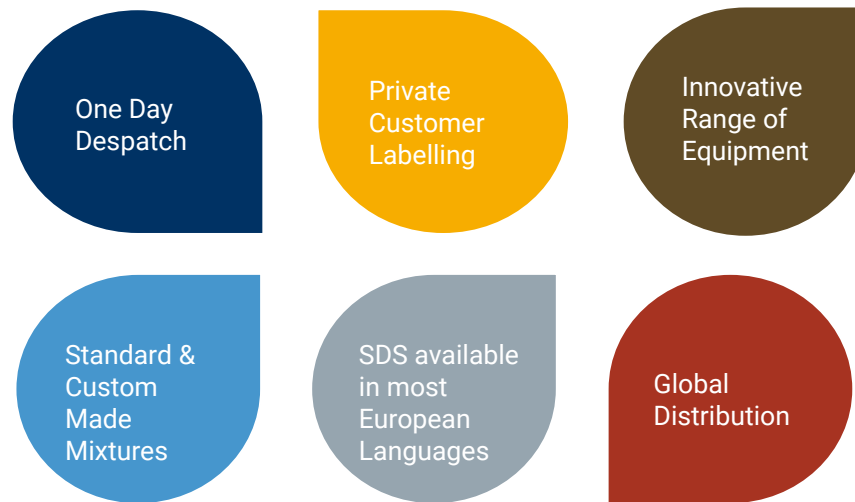


At Calgaz our commitment to social and climate responsibility focuses on helping our customers environmentally optimize their processes while reducing our own carbon footprint; ensuring a reliable, efficient, local supply of essential molecules to all customers, including healthcare providers; engaging a diverse and inclusive workforce; acting safely with business integrity and making a meaningful difference by creating a sustainable future.

In 2014, we created our Corporate Sustainability Committee, which covers all functional areas, from product stewardship and gas production to talent management and safety and compliance. Through this committee, we are becoming more responsible, accountable, data-driven and transparent about our sustainability aspirations, activities and progress.

# Services

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In addition to having the most comprehensive range of calibration gases in the world, Calgaz also offers a unique industry leading range of services tailored to meet our specific customers needs.

## OneDay Despatch

Customers can log into [www.calgaz.com](http://www.calgaz.com) and see an up to date listing of all of our “OneDay” gases held in stock at locations around the world. Any *OneDay* product can normally be despatched the next working day to your location.

## Private Customer Labelling

Calgaz has led the world in providing private labelled products to meet your needs and company brand. In addition to private labelling we can now offer other premium services including branded paperwork; SDS’s and Certification.

## Innovative Range of Equipment

Calgaz can offer standard equipment such as Fixed Flow regulators, Demand Flow regulators and accessories. We are also able to work with our customers to develop specialised equipment designed to meet very specific customer needs, including solenoid regulators, fixed pressure equipment, recycle tools and other products.

## Standard and Custom Made Mixtures

As well as the largest range of standard and *OneDay* products, Calgaz can also supply specialized mixtures to meet exacting specifications in both Non-Refillable (NRC) and Refillable High Pressure Cylinders (HPC). In the USA Calgaz offers a cylinder returns program *Calgaz Plus* allowing a more efficient use of cylinders.

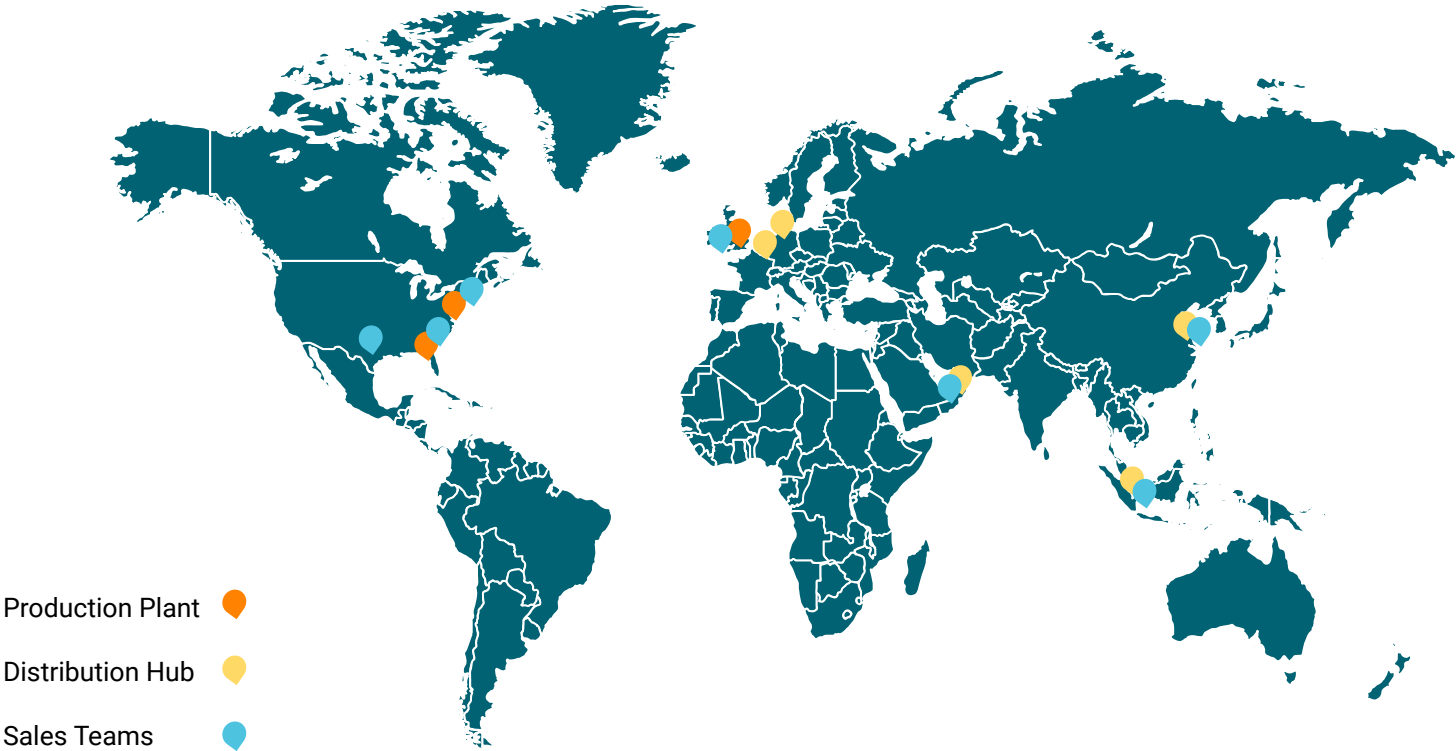
## SDS in most European Languages

Calgaz utilises a world leading software to offer customers a range of SDS’s in many languages including English, Spanish, German, French and many others.

## Global Distribution

Calgaz has manufacturing plants in the USA and UK. In addition we can offer stock holding and distribution from Hubs in Dubai, Singapore and China. With over 4 years experience, Calgaz has the expertise to ship gases and equipment to almost every country in the world via our network of Dangerous Goods Logistic partners.

# Global Reach



With Calgaz production facilities located in the United States and the United Kingdom, as well as storage facilities on four continents, our global reach allows us to deliver your gases to where and when you need them. You may choose from a wide range of cylinder sizes and model, including non-refillable and refillable cylinders. We are well-versed with all shipping requirements that apply to the global shipment of dangerous goods, so, you can be assured that your order will be delivered safely, efficiently and on time. Same day "OneDay" despatch is available for many Calgaz products.

Quality - ISO 9001-2015  
Certifications for our US and UK  
manufacturing facilities.

ISO 17025:2017 Laboratory  
Accreditation for Ethanol, H2S,  
CO, O2 and CH4 gases

## Expertise in many market sectors

Gas Detection



Breath Testing



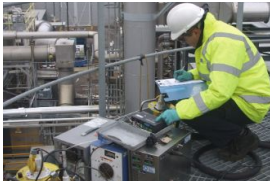
Marine



Mudlogging



Environmental



# Cylinder Range



# Calgaz Brand - Cylinder Range



1AL

2AL

6D

7HP

8AL

10AL

65AL

| Cyl Type | Material  | Gas Volume | Outlet  | Reactive | Non-Reactive | Typical Gases                         |
|----------|-----------|------------|---------|----------|--------------|---------------------------------------|
| 1AL      | Aluminium | 11 litres  | Aerosol |          | ✓            | Non Reactive Gases                    |
| 2AL      | Aluminium | 34 litres  | C10     | ✓        | ✓            | H2S, SO2, Cl2, HCL, NH3, PH3 and SiH4 |
| 6D       | Steel     | 103 litres | C10     |          | ✓            | Non Reactive Gases                    |
| 7HP      | Steel     | 34 litres  | CGA 660 |          | ✓            | Non Reactive Gases                    |
| 8AL      | Aluminium | 58 litres  | C10     | ✓        | ✓            | H2S, SO2, Cl2, HCL, NH3, PH3 and SiH4 |
| 10AL     | Aluminium | 112 litres | C10     | ✓        | ✓            | H2S, SO2, Cl2, HCL, NH3, PH3 and SiH4 |
| 65AL     | Aluminium | 850 litres | CGA     | ✓        |              | H2S, SO2, Cl2, HCL, NH3, PH3 and SiH4 |

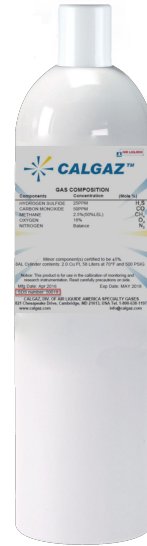
# 1AL Aluminium Cylinders

## Product offering

Calgaz offers two aerosol type gas cylinders used where the quantity of gas required is small.

The 1ALE is supplied with a screw type valve and requires a regulator from the FF20 range to be fitted to regulate flow and replaces the 12DA cylinder. This product is approved globally.

The 1ALU is supplied with a plastic trigger mechanism allowing an unregulated flow of gas to be released and replaces the 1AL cylinder. This product is approved globally.



1ALE



1ALU

| Characteristic |           |                     |                                |                      |
|----------------|-----------|---------------------|--------------------------------|----------------------|
|                | Contents  | Service Pressure    | Dimensions                     | Weight               |
| 1ALE           | 10 liters | 10 bar<br>(145 psi) | 285 mm x 74 mm<br>(11.2"x2.9") | 0.14 kg<br>(0.31 lb) |
| 1ALU           | 10 liters | 10 bar<br>(145 psi) | 292 mm x 74 mm<br>(11.5"x2.9") | 0.14 kg<br>(0.31 lb) |

| Specifications |   |                |                 |                        |
|----------------|---|----------------|-----------------|------------------------|
|                | Approvals                                       | Type           | Cylinder Valve  | Recommended Equipment  |
| 1ALE           | Global  | Non-Refillable | Screw Thread    | FF20 Series Regulators |
| 1ALU           | Not to be shipped into European (ADR) countries | Non-Refillable | Trigger Aerosol | None                   |

# 2AL Aluminium Cylinders

## Product offering

Calgaz has a range of three types of 2AL cylinders designed to meet your needs. The 2ALE and 2ALU are both approved for global use and vary only slightly in terms of height, appearance and weight. The 2ALR is our refillable cylinder version which again can only be supplied in the USA.

All cylinders have the universal C10 valve as standard and can be filled with both non-reactive and reactive gases.



\*2ALU Picture

| Characteristic |           |                      |                                |                    |
|----------------|-----------|----------------------|--------------------------------|--------------------|
|                | Contents  | Pressure             | Dimensions                     | Weight             |
| 2ALE           | 34 liters | 35 bar<br>(500 psi)  | 289 mm x 76 mm<br>(11.4" x 3") | 0.61 kg<br>(1.3lb) |
| 2ALR           | 60 liters | 70 bar<br>(1000 psi) | 293 mm x 74 mm<br>(11.6" x 3") | 0.54 kg<br>(1.2lb) |
| 2ALU           | 34 liters | 35 bar<br>(500 psi)  | 289 mm x 76 mm<br>(11.4" x 3") | 0.44 kg<br>(1lb)   |

| Specifications |           |                |                |  |
|----------------|-----------|----------------|----------------|--|
|                | Approvals | Type           | Cylinder Valve | Recommended Equipment  |
| 2ALE           | Global    | Non-Refillable | C10            | Most commonly used regulators include 700 Series, DFR 2000 Series, or 4200 Trigger regulators. |
| 2ALR           | Only U.S. | Refillable     | C10            |  |
| 2ALU           | Global    | Non-Refillable | C10            |  |

# 7HP/7EOC Steel Cylinders

## Product Offering

Calgaz supplies calibration gas in two types of small steel cylinder. The 7HP contains 34 litres of gas and the 7EOC contains 17 litres of gas.

Each cylinder type is fitted with a CGA 600 valve. The cylinders can be supplied worldwide with the exception of Europe and are used for non reactive gases only when small volumes are required.



\*7HP Picture

| Characteristic |           |                     |                              |                    |
|----------------|-----------|---------------------|------------------------------|--------------------|
|                | Contents  | Pressure            | Dimensions                   | Weight             |
| 7HP            | 34 litres | 34 bar<br>(494 psi) | 279 mm x 76 mm<br>(11" x 3") | 0.68kg<br>(1.5 lb) |
| 7EOC           | 17 litres | 17 bar<br>(246 psi) | 279 mm x 76 mm<br>(11" x 3") | 0.68kg<br>(1.5 lb) |

| Specifications |                            |                |                |   |
|----------------|----------------------------|----------------|----------------|---|
|                | Approvals                  | Type           | Cylinder Valve | Recommended Equipment                                   |
| 7HP            | Global<br>(except Europe)* | Non-Refillable | CGA 600        | Most commonly used regulators include 713 and DFR 2007. |
| 7EOC           | Global<br>(except Europe)* | Non-Refillable | CGA 600        |   |

\* These cylinder types cannot be shipped throughout Europe.

# 8AL Aluminium Cylinders

## Product Offering

Calgaz has two types of 8AL cylinders designed to meet your needs. The 8ALE and 8ALU are both approved for global use and vary only slightly in terms of appearance and weight.

All cylinders have the universal C10 valve as standard and can be filled with both non-reactive and reactive gases.



*\*8ALU Picture*

| Characteristic |           |                     |                                      |                     |
|----------------|-----------|---------------------|--------------------------------------|---------------------|
|                | Contents  | Pressure            | Dimensions                           | Weight              |
| 8ALE           | 58 litres | 35 bar<br>(500 psi) | 362 mm x 89 mm<br>(14 1/4" x 3 1/2") | 1.2 kg<br>(2.65lb)  |
| 8ALU           | 58 litres | 35 bar<br>(500 psi) | 362 mm x 89 mm<br>(14 1/4" x 3 1/2") | 0.73 kg<br>(1.6 lb) |

| Specifications |           |                |                |  |
|----------------|-----------|----------------|----------------|--|
|                | Approvals | Type           | Cylinder Valve | Recommended Equipment  |
| 8ALE           | Global    | Non-Refillable | C10            | Most commonly used regulators include 700 Series, DFR 2000 Series, or 4200 Trigger regulators. |
| 8ALU           | Global    | Non-Refillable | C10            |  |



# 6D/6DM Steel Cylinders

## Product offering

The 6D and 6DM are globally approved steel cylinders. These cylinders are ideally suited for non reactive gas use. In addition steel cylinders are often specified for use in Mines and other explosive atmospheres (please check regulations). The 6D cylinder holds 103 litres nominal gas capacity and the 6DM being more compact 58 litres of gas. The small lightweight cylinders are easy to carry around. Both cylinders are fitted with a C10 valve.



6D



6DM

| Characteristic |            |                       |                                    |                     |
|----------------|------------|-----------------------|------------------------------------|---------------------|
|                | Contents   | Service Pressure      | Dimensions                         | Weight              |
| 6D             | 103 liters | 69 bar<br>(1000 psig) | 345mm x 83mm<br>(13 1/2" x 3 1/4") | 1.4 kg<br>(3 lb)    |
| 6DM            | 58 liters  | 69 bar<br>(1000 psig) | 83mm x 204mm<br>(3.259" x 8.093")  | 0.9 kg<br>(1.90 lb) |

| Specifications |           |                |                |  |
|----------------|-----------|----------------|----------------|--|
|                | Approvals | Type           | Cylinder Valve | Recommended Equipment  |
| 6D             | Global    | Non-Refillable | C10            | Most commonly used regulators include 700 Series, DFR 2000 Series, or 4200 Trigger regulators. |
| 6DM            | Global    | Non-Refillable | C10            |  |

# 10AL Aluminium Cylinders

## Product Offering

Calgaz has a range of three types of 10AL cylinders designed to meet your needs. The 10ALE and 10ALU are both approved for global use and vary only slightly in terms of height, appearance and weight. The 10ALR is our refillable cylinder version which again can only be supplied in the USA.

All cylinders have the universal C10 valve as standard and can filled with both non-reactive and reactive gases.



*Pictured on left is 10ALU cylinder  
Pictured on right is 10ALE cylinder*

| Characteristic |            |                      |                                    |                     |
|----------------|------------|----------------------|------------------------------------|---------------------|
|                | Contents   | Pressure             | Dimensions                         | Weight              |
| 10ALE          | 112 liters | 70 bar<br>(1000 psi) | 360 mm x 90 mm<br>(14.17" x 3.54") | 1.0 kg<br>(2.25 lb) |
| 10ALR*         | 116 liters | 70 bar<br>(1000 psi) | 381 mm x 89 mm<br>(15" x 3 1/2")   | 1.0 kg<br>(2.25 lb) |
| 10ALU          | 116 liters | 70 bar<br>(1000 psi) | 381 mm x 89 mm<br>(15" x 3 1/2")   | 1.0 kg<br>(2.25 lb) |

| Specifications |           |                |                |  |
|----------------|-----------|----------------|----------------|--|
|                | Approvals | Type           | Cylinder Valve | Recommended Equipment  |
| 10ALE          | Global    | Non-Refillable | C10            | Most commonly used regulators include 700 Series, DFR 2000 Series, or 4200 Trigger regulators. |
| 10ALR*         | U.S. Only | Refillable     | C10            |  |
| 10ALU          | Global    | Non-Refillable | C10            |  |

*\* Can only be shipped from our Cambridge, MD USA facility*

# 5ELR Aluminium Cylinders

## Product offering

The 5ELR is a globally approved aluminium cylinder. The 625 litres nominal gas capacity means the cylinder is ideal when larger volumes of gas are required. The cylinder can be supplied with a range of CGA valves designed to meet your specific needs. The cylinder can be filled with non-reactive gases.



| Characteristic |            |                    |  |                        |
|----------------|------------|--------------------|--|------------------------|
|                | Contents   | Service Pressure   | Dimensions                               | Weight (full pressure) |
| 5E             | 625 liters | 139 bar (2016 psi) | 734 mm x 111 mm (w/valve) (28.9" x 4.4") | 3.95 kg (8.7 lb)       |
| 5ELR           | 625 liters | 139 bar (2016 psi) | 734 mm x 111 mm (w/valve) (28.9" x 4.4") | 3.95 kg (8.7 lb)       |

| Specifications |           |  |   |  |
|----------------|-----------|--|---|--|
|                | Approvals | Type                                   | Cylinder Valve  | Recommended Equipment  |
| 5E             | Global    | Non-Refillable Non Reactive Gases Only | CGA Type. Connection to cylinders varies with gas mixtures required | Most commonly used regulators include 1000 Series, DFR 2003, or 718 with CGA connection. |
| 5ELR           | Global    | Refillable Non Reactive Gases Only     | CGA Type. Connection to cylinders varies with gas mixtures required | Most commonly used regulators include 1000 Series, DFR 2003, or 718 with CGA connection. |

# 65ALR Aluminium Cylinders

## Product offering

The 65ALR is a globally approved aluminium cylinder. The 875 litres nominal gas capacity means the cylinder is ideal when larger volumes of gas are required. The cylinder can be supplied with a range of CGA valves designed to meet your specific needs.



| Characteristics |             |                        |                                    |                    |
|-----------------|-------------|------------------------|------------------------------------|--------------------|
|                 | Contents    | Typical Fill Pressure  | Dimensions                         | Weight             |
| 65ALR           | 875 Litres* | 153 bar<br>(2216 psig) | 514 mm x 175 mm<br>(20.25" x 6.9") | 7.24 kg<br>(16 lb) |

*\*Actual volume is dependant on vapour pressure of mixture*

| Specifications |           |                                      |  |  |
|----------------|-----------|--------------------------------------|--|--|
|                | Approvals | Type                                 | Cylinder Valve   | Recommended Equipment  |
| 65ALR          | Global    | Refillable<br>Reactive Gases<br>Only | CGA Type. Connection to<br>cylinders varies with gas<br>mixtures required. | Most commonly used regulators<br>include 1000 Series, DFR 2003, or 718<br>with CGA connection. |

# Eco-Bump Cylinders

The Eco-Bump cylinder is a small handy lightweight cylinder which is available globally and can be filled with reactive Quad mixtures including H<sub>2</sub>S, CO, CH<sub>4</sub>, O<sub>2</sub> in N<sub>2</sub> offering up to a 12 month shelf life.

The cylinder contains enough gas for up to 250 Bumps of 3 seconds each.

*Note - The Eco-Bump cylinder is filled to 83 bar and so care must be taken to use appropriately rated regulators.*



| Characteristic |            |                      |                                 |           |                     |
|----------------|------------|----------------------|---------------------------------|-----------|---------------------|
|                | Contents   | Pressure             | Dimensions                      | Material  | Weight              |
| Eco-Bump       | 5.8 litres | 83 bar<br>(1200 psi) | 84.3mm x 50.5mm<br>(3.32" x 2") | Aluminium | 0.25kgs<br>(0.55lb) |

| Specifications |           |                |                |   |
|----------------|-----------|----------------|----------------|---|
|                | Approvals | Type           | Cylinder Valve | Recommended Equipment                             |
| Eco-Bump       | Global    | Non-Refillable | C10            | <i>Eco-Trigger Regulator - Rated up to 90 bar</i> |

# High Pressure Refillable Cylinders (HPC)



5ST / 5AL\*



10ST / 10AL\*



50ST / 50AL\*

Calgaz the world leader in calibration gases, is able to supply a wide range of gas mixtures in High Pressure refillable Cylinders (HPC) globally in addition to its non-refillable cylinder product offering. Calgaz is able to offer HPC mixtures for a wide variety of applications including:

**Gas Detection / Safety - Breath Testing (BrAC) - Mud Logging - Marine**

In addition, Calgaz can also supply a range of regulators compatible with the gas mixtures and cylinder threads supplied.

*\* Can only be shipped from our Stoke, UK facility*



# Regulator Range



# Calgaz Global Regulator Range



700 Series



800 Series



1000 Series



1700 Series



2000 Series



3850 Push Button Regulator



4200 Series



Eco-Trigger Regulator



FF20 Series Regulator



R- Series

|                            |  |
|----------------------------|--|
| 700 Series                 | Single-stage preset fixed flow rate regulator. Available in Brass, hybrid Stainless Steel/Aluminium or Stainless Steel versions. |
| 800 Series                 | Variflow regulators available in Brass/Stainless Steel versions.   |
| 1000 Series                | High pressure dual-stage regulator offers a high degree of accuracy and control.   |
| 1700 Series                | For low ppm reactive gases and high-purity gas mixtures, designed for low-flow rate and adjustable delivery pressure.            |
| 2000 Series                | Demand-flow regulators designed for use with pumped instruments.   |
| 3850 Push Button Regulator | Single stage flow control regulator designed for delivering calibration gas to breath alcohol instruments                        |
| 4200 Series                | Trigger regulators designed to provide aerosol capability.   |
| Eco-Trigger Regulator      | Regulator designed for Eco-Bump cylinder.  |
| FF20 Regulator             | Regulators designed to fit the 1AL aerosol type cylinder.  |
| R - Series                 | Single and double stage regulators designed for use with High Pressure Cylinders (HPC).  |

# 700 Series Regulators

## Fixed Flow Regulators



702



705



713



715



715E\*



718\*



718E\*



725



735

### PERFORMANCE

|              | Inlet                      | Outlet             | Preset Fixed Flow | Stages | Max Inlet Pressure    | Max Outlet Pressure | Gauge/Knob                                 |
|--------------|----------------------------|--------------------|-------------------|--------|-----------------------|---------------------|--|
| <b>702</b>   | CGA 600                    | 4.8mm (3/16") Barb | 0.2 to 4.0 LPM    | 1      | 35 Bar<br>(500 Psi)   | 4.5 Bar<br>(65 Psi) | No gauge /<br>No On/Off knob               |
| <b>705</b>   | 5/8" - UNF C-10 Connection | 4.8mm (3/16") Barb | 0.2 to 6.0 LPM    | 1      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) | 0-70 Bar<br>(0-1000 Psi)<br>No On/Off knob |
| <b>713</b>   | CGA 600                    | 4.8mm (3/16") Barb | 0.2 to 6.0 LPM    | 1      | 35 Bar<br>(500 Psi)   | 4.5 Bar<br>(65 Psi) | 0-70 Bar<br>(0-1000 Psi)                   |
| <b>715</b>   | 5/8" - UNF C-10 Connection | 4.8mm (3/16") Barb | 0.2 to 6.0 LPM    | 1      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) | 0-70 Bar<br>(0-1000 Psi)                   |
| <b>715E*</b> | 5/8" - UNF C-10 Connection | 4.8mm (3/16") Barb | 0.3 to 7.0 LPM    | 1      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) | 0-70 Bar<br>(0-1000 Psi)                   |
| <b>718*</b>  | 1/4" NPT Internal          | 4.8mm (3/16") Barb | 0.2 to 6.0 LPM    | 1      | 150 Bar<br>(2200 Psi) | 4.1 Bar<br>(60 Psi) | 0-205 Bar<br>(0-3000 Psi)                  |
| <b>718E*</b> | 1/4" NPT Internal          | 4.8mm (3/16") Barb | 0.05 to 15.0 LPM  | 1      | 150 Bar<br>(2200 Psi) | 4.5 Bar<br>(65 Psi) | 0-315 Bar                                  |
| <b>725</b>   | 5/8" - UNF C-10 Connection | 4.8mm (3/16") Barb | 0.1 to 7.0 LPM    | 1      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) | 0-70 Bar<br>(0-1000 Psi)                   |
| <b>735</b>   | 5/8" - UNF C-10 Connection | 4.8mm (3/16") Barb | 0.1 to 7.0 LPM    | 1      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) | 0-70 Bar<br>(0-1000 Psi)                   |

### MATERIALS OF CONSTRUCTION

|              | Body                      | Piston          | Piston Seal | Seat           | Weight         |
|--------------|---------------------------|-----------------|-------------|----------------|----------------|
| <b>702</b>   | Ni-Brass                  | Brass           | Viton       | Teflon         | 0.2kg (0.4lb)  |
| <b>705</b>   | Ni-Brass                  | Brass           | Viton       | Teflon         | 0.2kg (0.4lb)  |
| <b>713</b>   | Ni-Brass                  | Brass           | Viton       | Teflon         | 0.28kg (0.6lb) |
| <b>715</b>   | Ni-Brass                  | Brass           | Viton       | Teflon         | 0.24kg (0.5lb) |
| <b>715E*</b> | Fully plated Ni-Brass     | Brass           | Viton       | Teflon         | 0.24kg (0.5lb) |
| <b>718*</b>  | Ni-Brass                  | Brass           | Viton       | Kel-F          | 0.32kg (0.7lb) |
| <b>718E*</b> | Stainless Steel           | Stainless Steel | Viton       | Teflon / PCTFE | 0.35kg (0.8lb) |
| <b>725</b>   | Stainless Steel/Aluminium | Stainless Steel | Viton       | Teflon / Peek  | 0.13kg (0.3lb) |
| <b>735</b>   | Stainless Steel           | Stainless Steel | Viton       | Teflon / PCTFE | 0.24kg (0.5lb) |

### CYLINDERS COMPATIBILITY

|                     | 2AL | 6D | 6DM | 7HP | 8AL | 10AL | 5ELR | 65ALR |
|---------------------|-----|----|-----|-----|-----|------|------|-------|
| <b>702</b>          |     |    |     | ✓   |     |      |      |       |
| <b>705</b>          | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |
| <b>713</b>          |     |    |     | ✓   |     |      |      |       |
| <b>715 / 715E*</b>  | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |
| <b>718 */ 718E*</b> |     |    |     |     |     |      | ✓    | ✓     |
| <b>725</b>          | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |
| <b>735</b>          | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |

\* The connector is not included with the 718 or 718E and is charged extra.

\*The 715E, 718 and 718E is not available from our Cambridge, MD USA facility.

# 800 Series Regulators

## Variflow Regulators



801 \*



802 \*



803 \*



804 \*

| PERFORMANCE |                 |                       |                             |        |                       |                     |
|-------------|-----------------|-----------------------|-----------------------------|--------|-----------------------|---------------------|
|             | Inlet           | Outlet                | Variflow                    | Stages | Max Inlet Pressure    | Max Outlet Pressure |
| 801         | C 10            | 4.8mm (3/16")<br>Barb | 0.5 Lit/Mn to 5.0<br>Lit/Mn | 2      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) |
| 802         | 1/4" NPT Female | 4.8mm (3/16")<br>Barb | 0.5 Lit/Mn to 5.0<br>Lit/Mn | 2      | 275 Bar<br>(4000 Psi) | 4.1 Bar<br>(60 Psi) |
| 803         | C 10            | 4.8mm (3/16")<br>Barb | 0.5 Lit/Mn to 5.0<br>Lit/Mn | 2      | 70 Bar<br>(1000 Psi)  | 4.1 Bar<br>(60 Psi) |
| 804         | 1/4" NPT Female | 4.8mm (3/16")<br>Barb | 0.5 Lit/Mn to 5.0<br>Lit/Mn | 2      | 275 Bar<br>(4000 Psi) | 4.1 Bar<br>(60 Psi) |

| MATERIALS OF CONSTRUCTION |                  |                  |             |        |                 |
|---------------------------|------------------|------------------|-------------|--------|-----------------|
|                           | Body             | Piston           | Piston Seal | Seat   | Weight          |
| 801                       | Brass Forged     | Brass Forged     | Viton       | Teflon | 0.26kg (0.57lb) |
| 802                       | Brass Forged     | Brass Forged     | Viton       | Teflon | 0.32kg (0.7lb)  |
| 803                       | Brass Forged /SS | Brass Forged /SS | Viton       | Teflon | 0.26kg (0.57lb) |
| 804                       | Brass Forged /SS | Brass Forged /SS | Viton       | Teflon | 0.32kg (0.7lb)  |

| CYLINDERS COMPATIBILITY |     |      |    |     |     |      |       |
|-------------------------|-----|------|----|-----|-----|------|-------|
|                         | 2AL | 5ELR | 6D | 6DM | 8AL | 10AL | 65ALR |
| 801                     | ✓   |      | ✓  | ✓   | ✓   | ✓    |       |
| 802                     |     | ✓    |    |     |     |      | ✓     |
| 803                     | ✓   |      | ✓  | ✓   | ✓   | ✓    |       |
| 804                     |     | ✓    |    |     |     |      | ✓     |

\* Not available from our Cambridge, MD USA facility

# 1000 Series Regulators

## Pressure Regulators



1001



1002



1003

### PERFORMANCE

|             | Inlet       | Outlet        | Stages | Max Inlet Pressure    | Max Outlet Pressure     | Gauge/Knob                |
|-------------|-------------|---------------|--------|-----------------------|-------------------------|---------------------------|
| <b>1001</b> | 1/4-18" NPT | 1/8" - 27 NPT | 2      | 207 Bar<br>(3000 Psi) | 0-0.7 Bar<br>(0-10 Psi) | 0-207 Bar<br>(0-3000 Psi) |
| <b>1002</b> | 1/4-18" NPT | 1/8" - 27 NPT | 2      | 207 Bar<br>(3000 Psi) | 0-3.5 Bar<br>(0-50 Psi) | 0-207 Bar<br>(0-3000 Psi) |
| <b>1003</b> | 1/4-18" NPT | 1/8" - 27 NPT | 2      | 207 Bar<br>(3000 Psi) | 0-7 Bar<br>(0-100 Psi)  | 0-207 Bar<br>(0-3000 Psi) |

### MATERIALS OF CONSTRUCTION

|             | Body     | Diaphragm       | Piston Seal | Seat   | Weight       |
|-------------|----------|-----------------|-------------|--------|--------------|
| <b>1001</b> | Ni-Brass | Stainless Steel | Viton       | Teflon | 0.63kg (1lb) |
| <b>1002</b> | Ni-Brass | Stainless Steel | Viton       | Teflon | 0.63kg (1lb) |
| <b>1003</b> | Ni-Brass | Stainless Steel | Viton       | Teflon | 0.63kg (1lb) |

### CYLINDERS COMPATIBILITY

|             | 2AL | 5ELR | 6D | 8AL | 10AL | 65ALR |
|-------------|-----|------|----|-----|------|-------|
| <b>1001</b> | ✓   | ✓    | ✓  | ✓   | ✓    | ✓     |
| <b>1002</b> | ✓   | ✓    | ✓  | ✓   | ✓    | ✓     |
| <b>1003</b> | ✓   | ✓    | ✓  | ✓   | ✓    | ✓     |

# 1700 Series Regulators

## Single Stage Regulators



1767



1768



1781



1782

### PERFORMANCE

|             | Inlet         | Outlet                  | Flow Rate      | Flow Rate Control | Stages | Max Inlet Pressure   | Gauge/Knob               |
|-------------|---------------|-------------------------|----------------|-------------------|--------|----------------------|--------------------------|
| <b>1767</b> | 5/8" - 18 UNF | 4.8mm (3/16")<br>Tubing | 0.1 to 6.0 LPM | Factory Preset    | 1      | 70 Bar<br>(1000 Psi) | 0-70 Bar<br>(0-1000 Psi) |
| <b>1768</b> | 5/8" - 18 UNF | 4.8mm (3/16")<br>Tubing | 0.3 to 2.0 LPM | Adjustable        | 1      | 70 Bar<br>(1000 Psi) | 0-70 Bar<br>(0-1000 Psi) |
| <b>1781</b> | 5/8" - 18 UNF | 4.8mm (3/16")<br>Tubing | 0.1 to 6.0 LPM | Factory Preset    | 1      | 70 Bar<br>(1000 Psi) | 0-70 Bar<br>(0-1000 Psi) |
| <b>1782</b> | 5/8" - 18 UNF | 4.8mm (3/16")<br>Tubing | 0.3 to 2.0 LPM | Adjustable        | 1      | 70 Bar<br>(1000 Psi) | 0-70 Bar<br>(0-1000 Psi) |

### MATERIALS OF CONSTRUCTION

|             | Body     | Diaphragm       | Piston Seal | Seat   | Weight       |
|-------------|----------|-----------------|-------------|--------|--------------|
| <b>1767</b> | Ni-Brass | Stainless Steel | Viton       | Viton  | 0.63kg (1lb) |
| <b>1768</b> | Ni-Brass | Stainless Steel | Viton       | Viton  | 0.63kg (1lb) |
| <b>1781</b> | Ni-Brass | Stainless Steel | Buna N      | Buna N | 0.63kg (1lb) |
| <b>1782</b> | Ni-Brass | Stainless Steel | Buna N      | Buna N | 0.63kg (1lb) |

### CYLINDERS COMPATIBILITY

|             | 2AL | 6D | 8AL | 10AL |
|-------------|-----|----|-----|------|
| <b>1767</b> | ✓   | ✓  | ✓   | ✓    |
| <b>1768</b> | ✓   | ✓  | ✓   | ✓    |
| <b>1781</b> | ✓   | ✓  | ✓   | ✓    |
| <b>1782</b> | ✓   | ✓  | ✓   | ✓    |

# 2000 Series Regulators

## Demand Flow Regulators



DFR 2001



DFR 2003



DFR 2004



DFR 2006



DFR 2007



DFR 2008 \*

| PERFORMANCE     |                  |                      |                     |        |                    |                 |                        |
|-----------------|------------------|----------------------|---------------------|--------|--------------------|-----------------|------------------------|
|                 | Inlet            | Outlet               | on-Demand Flow Rate | Stages | Max Inlet Pressure | Demand Pressure | Gauge/Knob             |
| <b>DFR 2001</b> | 5/8 - UNF C-10   | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 70 Bar (1000 Psi)  | 5.6mm (3" H2O)  | 0-70 Bar (0-1000 Psi)  |
| <b>DFR 2003</b> | 1/4" NPT Female* | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 150 Bar (2200 Psi) | 5.6mm (3" H2O)  | 0-207 Bar (0-3000 Psi) |
| <b>DFR 2004</b> | 5/8 - UNF C-10   | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 70 Bar (1000 Psi)  | 5.6mm (3" H2O)  | 0-70 Bar (0-1000 Psi)  |
| <b>DFR 2006</b> | 1/4" NPT Female* | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 150 Bar (2200 Psi) | 5.6mm (3" H2O)  | 0-207 Bar (0-3000 Psi) |
| <b>DFR 2007</b> | CGA 600          | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 35 Bar (500 Psi)   | 5.6mm (3" H2O)  | 0-35 Bar (0-500 Psi)   |
| <b>DFR 2008</b> | 5/8 - UNF C-10   | 4.8mm (3/16") Tubing | 0 to 3 LPM          | 2      | 70 Bar (1000 Psi)  | 5.6mm (3" H2O)  | 0-70 Bar (0-1000 Psi)  |

\* Various connection including BS & CGA

| MATERIALS OF CONSTRUCTION |                 |           |                 |             |              |              |
|---------------------------|-----------------|-----------|-----------------|-------------|--------------|--------------|
|                           | Body            | Diaphragm | Piston          | Piston Seal | Seat         | Weight       |
| <b>DFR 2001</b>           | Ni-Brass        | Buna      | Ni-Brass        | PTFE        | Buna         | 0.63kg (1lb) |
| <b>DFR 2003</b>           | Ni-Brass        | Buna      | Ni-Brass        | PTFE        | Buna         | 0.63kg (1lb) |
| <b>DFR 2004</b>           | Ni-Brass        | PVC       | Ni-Brass        | PTFE        | Viton        | 0.63kg (1lb) |
| <b>DFR 2006</b>           | Ni-Brass        | PVC       | Ni-Brass        | PTFE        | Viton        | 0.63kg (1lb) |
| <b>DFR 2007</b>           | Ni-Brass        | Buna      | Ni-Brass        | PTFE        | Buna         | 0.63kg (1lb) |
| <b>DFR 2008</b>           | Stainless Steel | Nitrile   | Stainless Steel | Viton       | Teflon/PCTFE | 0.49kgs      |

| CYLINDERS COMPATIBILITY |     |    |     |     |     |      |      |       |
|-------------------------|-----|----|-----|-----|-----|------|------|-------|
|                         | 2AL | 6D | 6DM | 7HP | 8AL | 10AL | 5ELR | 65ALR |
| <b>DFR 2001</b>         | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |
| <b>DFR 2003</b>         |     |    |     |     |     |      | ✓    | ✓     |
| <b>DFR 2004</b>         | ✓   | ✓  |     |     | ✓   | ✓    |      |       |
| <b>DFR 2006</b>         |     |    |     |     |     |      | ✓    | ✓     |
| <b>DFR 2007</b>         |     |    |     | ✓   |     |      |      |       |
| <b>DFR 2008</b>         | ✓   | ✓  | ✓   |     | ✓   | ✓    |      |       |

\* Can only be shipped from our Stoke, UK facility

# 3850 Push Button Regulator

The easy to use PBR (Push Button Regulator) is a single stage flow control device, designed for delivering calibration gas to breath alcohol instruments and for other non-reactive gas applications. With preset flow rates up to 23 LPM the PBR is the most versatile regulator of its type on the market.

| Cylinder Compatibility |
|------------------------|
| 2AL                    |
| 2ALR                   |
| 6D                     |
| 6DM                    |
| 8AL                    |
| 10AL                   |
| 10ALR                  |

| Gas Type Suitability  |
|-----------------------|
| Ethanol               |
| Non-Reactive Mixtures |
| Non-Reactive Pure Gas |

| Performance             |                                 |
|-------------------------|---------------------------------|
| Inlet                   | C-10 Connection (5/8 - 18" UNF) |
| Outlet                  | 1/8" (3.2mm) Barb               |
| Fixed Flow              | 0.2 to 23.0 LPM                 |
| Stages                  | 1 Stage                         |
| Max Outlet Pressure     | 4.1 Bar (70 PSI)                |
| Max Inlet Pressure      | 70 Bar (1000 PSI)               |
| Gauge                   | 0-70 Bar (0-1000 psi)           |
| Weight                  | 0.32 Kg (0.5 LB)                |
| Warranty                | 24 months                       |
| Recommended Replacement | 2 years                         |



| Material of Construction |                                 |
|--------------------------|---------------------------------|
| Body/Outlet              | Electroless Nickel Plated Brass |
| Piston                   | Electroless Nickel Plated Brass |
| Cap                      | Aluminium                       |
| Piston Seal              | PTFE (Teflon)                   |
| O-Ring Seals             | Fluorocarbon (Viton)            |

# 4200 Series Regulators

## Trigger Regulators



4205



4206



4210



4211

| PERFORMANCE         |                     |                      |                  |        |                    |                       |
|---------------------|---------------------|----------------------|------------------|--------|--------------------|-----------------------|
|                     | Inlet               | Outlet               | Fixed Flow       | Stages | Max Inlet Pressure | Gauge                 |
| <b>TRIGGER 4205</b> | C10 (5/8" - 18 UNF) | 4.8mm (3/16") Tubing | 0.2 to 4.0 LPM   | 1      | 70 Bar (1000 Psi)  | None                  |
| <b>TRIGGER 4206</b> | C10 (5/8" - 18 UNF) | 4.8mm (3/16") Tubing | 14.0 to 18.0 LPM | 1      | 70 Bar (1000 Psi)  | None                  |
| <b>TRIGGER 4210</b> | C10 (5/8" - 18 UNF) | 4.8mm (3/16") Tubing | 0.2 to 6.0 LPM   | 1      | 70 Bar (1000 Psi)  | 0-70 Bar (0-1000 Psi) |
| <b>TRIGGER 4211</b> | C10 (5/8" - 18 UNF) | 4.8mm (3/16") Tubing | 14.0 to 18.0 LPM | 1      | 70 Bar (1000 Psi)  | 0-70 Bar (0-1000 Psi) |

| MATERIALS OF CONSTRUCTION |          |             |        |                |
|---------------------------|----------|-------------|--------|----------------|
|                           | Body     | Piston Seal | Seat   | Weight         |
| <b>TRIGGER 4205</b>       | Ni-Brass | Viton       | Teflon | 0.35kg (0.7lb) |
| <b>TRIGGER 4206</b>       | Ni-Brass | Viton       | Teflon | 0.35kg (0.7lb) |
| <b>TRIGGER 4210</b>       | Ni-Brass | Viton       | Teflon | 0.35kg (0.7lb) |
| <b>TRIGGER 4211</b>       | Ni-Brass | Viton       | Teflon | 0.35kg (0.7lb) |

| CYLINDERS COMPATIBILITY |     |    |     |     |      |
|-------------------------|-----|----|-----|-----|------|
|                         | 2AL | 6D | 6DM | 8AL | 10AL |
| <b>TRIGGER 4205</b>     | ✓   | ✓  | ✓   | ✓   | ✓    |
| <b>TRIGGER 4206</b>     | ✓   | ✓  | ✓   | ✓   | ✓    |
| <b>TRIGGER 4210</b>     | ✓   | ✓  | ✓   | ✓   | ✓    |
| <b>TRIGGER 4211</b>     | ✓   | ✓  | ✓   | ✓   | ✓    |

# 4220 Series Regulators

Trigger Regulators for 5ELR and 5E cylinders



| PERFORMANCE         |         |                          |            |        |                    |                    |
|---------------------|---------|--------------------------|------------|--------|--------------------|--------------------|
|                     | Inlet   | Outlet                   | Fixed Flow | Stages | Max Inlet Pressure | Gauge              |
| <b>TRIGGER 4223</b> | CGA 350 | 5.8mm (0.23") hose barb  | 6.0 LPM    | 2      | 207 Bar (3000 Psi) | 207 Bar (3000 Psi) |
| <b>TRIGGER 4226</b> | CGA 600 | 5/32"compression fitting | 14.0 LPM   | 2      | 207 Bar (3000 Psi) | 207 Bar (3000 Psi) |

| MATERIALS OF CONSTRUCTION |             |        |      |                |
|---------------------------|-------------|--------|------|----------------|
|                           | Body/Bonnet | Piston | Seat | Weight         |
| <b>TRIGGER 4223</b>       | Ni-Brass    | Brass  | Buna | 0.98kg (2.2lb) |
| <b>TRIGGER 4226</b>       | Ni-Brass    | Brass  | Buna | 0.98kg (2.2lb) |

| GAS SUITABILITY     |              |           |                 |                                |
|---------------------|--------------|-----------|-----------------|--------------------------------|
|                     | Non-Reactive | H2S & SO2 | NO & NO2        | Cl2 , HCL, NH3, PH3,SiH4 & HCN |
| <b>TRIGGER 4223</b> | Suitable     | Suitable  | Not recommended | Not recommended                |
| <b>TRIGGER 4226</b> | Suitable     | Suitable  | Not recommended | Not recommended                |

| CYLINDER COMPATIBILITY |    |      |
|------------------------|----|------|
|                        | 5E | 5ELR |
| <b>TRIGGER 4223</b>    | ✓  | ✓    |
| <b>TRIGGER 4226</b>    | ✓  | ✓    |

# Eco-Trigger Regulator

For use with the Eco-Bump Cylinder

The Eco-Trigger Regulator has been designed to meet the needs of the Eco-Bump cylinder. Offering a simple and easy solution for bump or function testing. Operation is by an easy to use thumb operated paddle trigger.



| Cylinder Compatibility |
|------------------------|
| Eco-Bump               |

| Gas Type Suitability |          |
|----------------------|----------|
| Non-Reactive         | Suitable |
| H2S                  | Suitable |
| Quad Mixtures        | Suitable |

| Performance             |                                  |
|-------------------------|----------------------------------|
| Inlet Pressure          | 1305 psig (90 bar)               |
| Inlet                   | C10                              |
| Outlet                  | 3/16" barbed                     |
| Plating                 | Ni-Brass                         |
| Flow                    | Fixed flow 0.5 to 5.0 LPM preset |
| Warranty                | 24 months                        |
| Recommended Replacement | 2 years                          |

| Material of Construction    |              |
|-----------------------------|--------------|
| Body/Piston                 | Brass Forged |
| Bonnet                      | Brass Forged |
| Body Seals/<br>Piston Seals | Viton        |
| Main Valve Seat             | Teflon/Peek  |

# FF20 Series Regulators

Fixed Flow Regulators for 1AL Cylinders



FF20 Septum \*



FF20 Stem Flow \*



FF20 Flow Meter \*



FF20 Nozzle \*

| PERFORMANCE            |                            |                 |                 |        |                    |                                 |
|------------------------|----------------------------|-----------------|-----------------|--------|--------------------|---------------------------------|
|                        | Inlet                      | Outlet          | Flow            | Stages | Max Inlet Pressure | On /Off Knob                    |
| <b>FF20 Septum</b>     | 7/16" x 28 UNF -2B Aerosol | Septum          | -               | 1      | 11 bar             | Yes                             |
| <b>FF20 Stem Flow</b>  | 7/16" x 28 UNF -2B Aerosol | 4mm Barb - HDPE | 0.25 to 1.0 LPM | 1      | 11 bar             | Yes with Brass 28 bar max gauge |
| <b>FF20 Flow Meter</b> | 7/16" x 28 UNF -2B Aerosol | 4mm Barb - HDPE | 0.5 to 1.0 LPM  | 1      | 11 bar             | Yes                             |

| MATERIALS OF CONSTRUCTION |                    |        |         |            |          |           |                 |
|---------------------------|--------------------|--------|---------|------------|----------|-----------|-----------------|
|                           | Body               | Needle | Seals   | Flow Meter | Plating  | Knob      | Weight          |
| <b>FF20 Septum</b>        | Ni-Brass           | Brass  | Nitrile | -          | Ni-Brass | Aluminium | 0.06kg (0.13lb) |
| <b>FF20 Stem Flow</b>     | Aluminium - SS 303 | SS 303 | Viton   | Acrylic    | Ni-Brass | Aluminium | 0.14kg (0.31lb) |
| <b>FF20 Flow Meter</b>    | Ni-Brass           | Brass  | Nitrile | Acrylic    | Ni-Brass | Aluminium | 0.14kg (0.31lb) |

| GAS SUITABILITY        |              |           |
|------------------------|--------------|-----------|
|                        | Non-Reactive | H2S & SO2 |
| <b>FF20 Septum</b>     | Suitable     | Suitable  |
| <b>FF20 Stem Flow</b>  | Suitable     | Suitable  |
| <b>FF20 Flow Meter</b> | Suitable     | Suitable  |
| <b>FF20 Nozzle</b>     | Suitable     | Suitable  |

| CYLINDERS COMPATIBILITY |      |      |
|-------------------------|------|------|
|                         | 1ALE | 1ALU |
| <b>FF20 Septum</b>      | ✓    |      |
| <b>FF20 Stem Flow</b>   | ✓    |      |
| <b>FF20 Flow Meter</b>  | ✓    |      |
| <b>FF20 Nozzle</b>      |      | ✓    |

\* Not available from our Cambridge, MD USA facility

# R Series Regulators

## HPC Single and Two Stage Regulators



R21 \*



R31 \*

\* These photos are for illustration only. The actual supply of products may differ.

| Features |               |                  |                 |                |                 |                    |                 |
|----------|---------------|------------------|-----------------|----------------|-----------------|--------------------|-----------------|
|          | Configuration | Inlet Pressure   | Outlet Pressure | Body Port Size | Material        | Stability          | Weight          |
| R21B     | Single Stage  | 200bar (2900psi) | 3.5 or 7 bar    | 1/4" NPT(F)    | NI-Brass        | Non reactive Gases | 1.8 kg (4 lbs)  |
| R21S     | Single Stage  | 200bar (2900psi) | 3.5 or 7 bar    | 1/4" NPT(F)    | Stainless Steel | Reactive Gases     | 1.8 kg (4 lbs)  |
| R31B     | Two Stage     | 200bar (2900psi) | 3.5 or 7 bar    | 1/4" NPT(F)    | NI-Brass        | Non-Reactive Gases | 2.1 kg (4.6lbs) |
| R31S     | Two Stage     | 200bar (2900psi) | 3.5 or 7 bar    | 1/4" NPT(F)    | Stainless Steel | Reactive Gases     | 2.1 kg (4.6lbs) |

**Temperature Range:** 40°F to 165°F (-40°C to 74°C)

**Temperature Range** 2 x 10 atm.cc/sec He

**Connectors** 1/4" NPT(F) to available with British Standard (BS), US CGA or DIN

\* Not available from our Cambridge, MD USA facility

# Equipment for HPC Cylinders

Can be used with NRC's and HPC Cylinders

Calgaz HPC products can be supplied with a range of valves including BS, DIN and CGA. Cylinders are normally sold outright and so not subject to rental or the need to return.



R21 \*



R31 \*



718



802 \*



804 \*



1001



1002



1003



DFR 2003



DFR 2006

\* Not available from our Cambridge, MD USA facility

# Stem Connectors

Range of US, UK and European adaptors

## Commonly used with Reactive gases



CGA 330



CGA 580



BS 15 \*

## Commonly used with Non Reactive gases



CGA 350



DIN 10 \*



BS 3 \*



BS 4 \*

Calgaz is the world's leading manufacturer of calibration gases and equipment. We are proud to offer the most comprehensive range of specialist regulators and associated equipment for non-refillable (NRC) and high pressure (HPC) refillable gas cylinders.

As part of our range we can supply a variety of cylinder valve connectors (Stem connectors). All the connectors supplied conform to either British (BS), US (CGA) or European (DIN) standards. Calgaz is able to supply

- BS3, BS4, and BS15
- CGA330, CGA350 and CGA580
- DIN 10

All connectors are approved for a working pressure up to 200 Bar and can be supplied in Brass or Stainless Steel and are generally ¼" NPT inlet with a range of outlets to meet your requirements.

All stem connectors carry a 24 month warranty and we recommend replacing them after two years of service and can often be shipped to you the next working day.

*\* Not available from our Cambridge, MD USA facility*

# Best Practices, Storage and Warranty

## Guidance Only

### Introduction

This information provided is for guidance only. For detailed safety information ALWAYS refer to the appropriate SDS.

### Recommended Storage

Non refillable cylinders should be firmly secured to prevent falling or being knocked-over. When a gas cylinder is empty or not being used, ensure that the regulator is removed and the valve protector cap is secured in place.

Take measures to protect cylinders against physical damage. Where flammable gases are stored, all lighting and any other electrical equipment including tools used in that area must be flameproof and suitable for a hazardous area.

Cylinders must be protected from the environment and preferably kept at room temperature approximately 21°C (70°F). Cylinders should be stored in secure, dry, well-ventilated areas, and in fire resistant rooms away from sources of heat, ignition, and direct sunlight. Cylinders should never be subjected to conditions above 50°C or below -20°C. Aluminium Cylinders that have been subjected to fire or extreme heat should be vented and disposed of immediately.

Please follow local regulations with regards to the segregation of flammable, non-flammable and oxidizing gases.

### Moisture

When cylinders are stored in a cool environment there is a possibility that by moving them into a warm humid environment that moisture can form in the valve. Please take all measures to keep dry and remove any moisture from the cylinder prior to use.

When attaching a regulator please ensure the regulator is switched to the “on” position\*\* to allow the gas to flow when the valve is depressed ensuring that any dust, debris or moisture is forced out of the valve through the cylinder and into the atmosphere. Failure to follow this process may lead to moisture entering the cylinder when the valve is open.

\*\* Please ignore if there is no “on” position on the regulator i.e. DFR

### Safety

When attaching a regulator to a non-refillable cylinder please ensure:

- There is no corrosion on the valve or regulator and that the correct regulator is selected for the application.
- The thread on the regulator is not worn, is intact and undamaged
- There is no dirt or debris in the valve or regulator including the gauge.
- That you always wear safety glasses and other necessary PPE when handling cylinders
- The cylinder is disposed of correctly and recycled as required

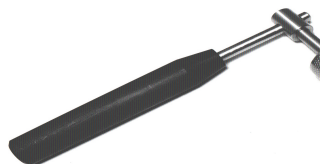
**Non-refillable cylinders** are designed for one-time use and **MUST never be refilled or re-used.**

### Warranty

Most regulators carry a 24 month warranty and we recommend replacing them after 2 years of service. Full details can be found on the individual regulator page or [www.calgaz.com](http://www.calgaz.com).



# Accessories



# Carry Cases

## Hard & soft Case



570\*



574



582



584\*

Calgaz offers a range of carry cases designed to meet your business needs. The 570 is designed to give maximum protection to the cylinders and equipment being carried or transported.

The 574 and 582 carry cases are durable and heavy-duty made from impact-resistant plastic constructed for safety and are easily transported. These carry cases allows the user to carry two cylinders and undertake the calibration with the cylinders remaining in the case. The 574 has traditionally been our most popular product, however the 582 is mainly used within North America.

The 584 soft carry case with its shoulder strap makes it easy to transport up to 3 cylinders and equipment safely whilst keeping both hands free. Very useful when climbing up ladders and working on gangways.

Each case can contain cylinders plus one or two regulators and appropriate tubing.

| Characteristics |                      |                |                |                   |                        |  |
|-----------------|----------------------|----------------|----------------|-------------------|------------------------|--|
|                 | Material             | Length         | Width          | Cylinder capacity | Accessories capacity   | Cylinder compatibility                     |
| 570             | Blue Plastic - HDPE  | 440 mm (17.3") | 330 mm (13")   | 2                 | 2 regulators + Tubings | 2AL, 6D, 6DM, 7HP, 8AL, 10ALE (not 10ALLU) |
| 574             | Blue Plastic - HDPE  | 585 mm (23")   | 229 mm (9")    | 2                 | 2 regulators + Tubings | 2AL, 6D, 6DM, 7HP, 8AL, 10ALE (not 10ALLU) |
| 582             | Black Plastic - HDPE | 554 mm (21.8") | 353 mm (13.9") | 2                 | 2 regulators + Tubings | 2AL, 6D, 6DM, 7HP, 8AL, 10AL               |
| 584             | Black Nylon          | 370 mm (14.6") | 300 mm (11.8") | 3                 | 2 regulators + Tubings | 2AL, 6D, 6DM, 7HP, 8AL, 10AL               |

*\* Can only be shipped from our Stoke, UK facility*

# Recycling Tool

For use with Calgaz Cylinders only



As part of our ongoing commitment to the environment, Calgaz recommends that all Non-Refillable cylinders (NRC's) are safely and properly disposed of using our recycle tool and local metal recycling facilities.

NRC products are designed to be recycled locally reducing the need for the expense in returning the cylinders to their place of manufacturing, reducing costs and more importantly preventing the unnecessary transportation of empty cylinders, keeping our carbon footprint to a minimum.

Calgaz offers three types of Recycle Tools which are called **RC 4240**, **RC 4250** and **RC 4260** and they are specifically designed for the cylinders being recycled.

The Calgaz Cylinder Recycling tool has been designed to safely render the cylinder valve inoperative. The process will leave a visible hole in the cylinder valve assembly, making it obvious that there can be no pressure left in the cylinder. The empty cylinder can then be recycled in accordance with the local regulations.



**Model RC 4240**  
**(External Threads)**



**Model RC 4250**  
**(External Threads)**



**Model RC 4260**  
**(Internal Threads)**

Watch the video tutorial here

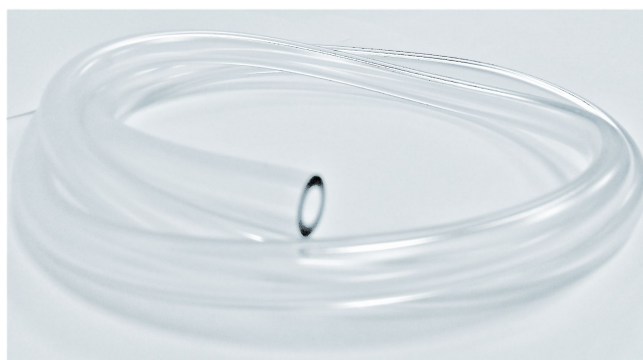


# Gas Tubing

Transfer of gas



TU 1596 - PVC  
Tubing



TU 1670 - PVC lined with  
Teflon (Tygon)

Calgaz supplies two types of tubing in a range of lengths including 2ft (0.6m), 3ft (1m), 10ft (3m), and 100ft (30m).

The PVC tubing is recommended for use with applications involving non-reactive gases.

For reactive gases, Tygon tubing performs better with reduced gas absorption due to the inner teflon coating.

| Calgaz Global Standards |                                      |                                     |                                    |
|-------------------------|--------------------------------------|-------------------------------------|------------------------------------|
| Name                    | Description                          | Dimension                           | Application                        |
| TU -1596                | PVC Tubing                           | Int Dia = 4.8mm<br>Ext Dia = 6.4mm  | Non-reactive mixtures only         |
| TU -1670                | PVC Tubing lined with Teflon (Tygon) | Int Dia = 4.8mm<br>Ext Dia = 7.9 mm | Non-reactive and Reactive mixtures |



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