



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

Global Leaders in Innovation and Service

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.



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

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.



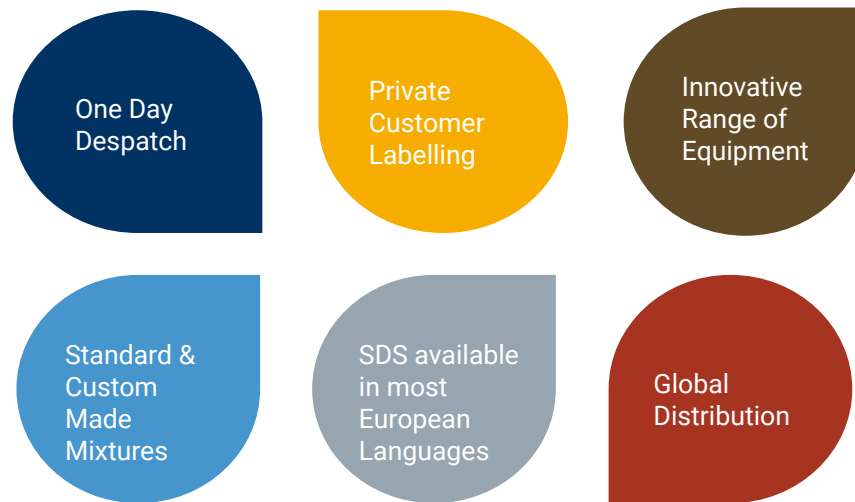
Environmental



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



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 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.

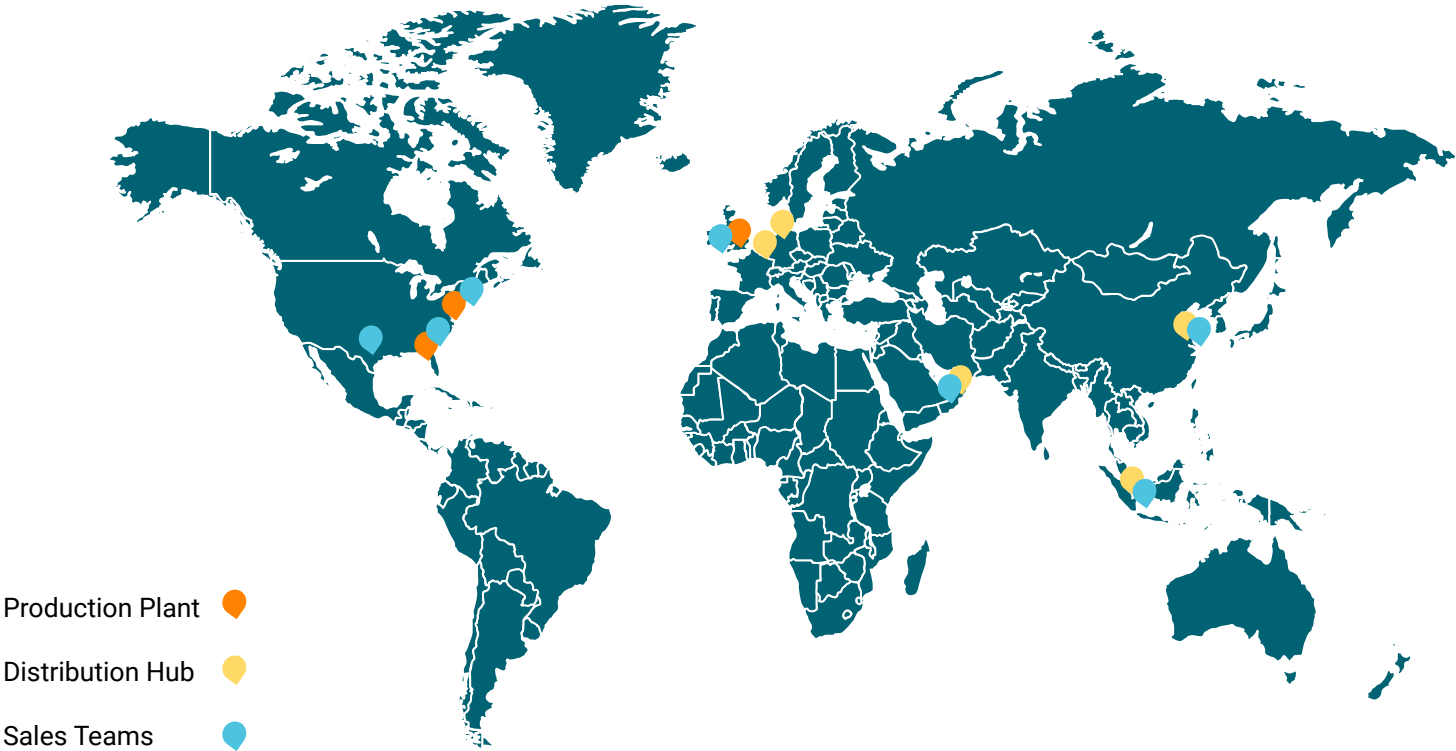
SDS in most European Languages

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



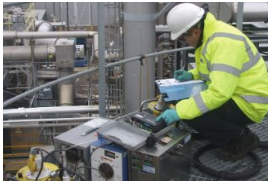
Marine



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 (145 psi)	285 mm x 74 mm (11.2"x2.9")	0.14 kg (0.31 lb)
1ALU	10 liters	10 bar (145 psi)	292 mm x 74 mm (11.5"x2.9")	0.14 kg (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 (500 psi)	289 mm x 76 mm (11.4" x 3")	0.61 kg (1.3lb)
2ALR	60 liters	70 bar (1000 psi)	293 mm x 74 mm (11.6" x 3")	0.54 kg (1.2lb)
2ALU	34 liters	35 bar (500 psi)	289 mm x 76 mm (11.4" x 3")	0.44 kg (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 (494 psi)	279 mm x 76 mm (11" x 3")	0.68kg (1.5 lb)
7EOC	17 litres	17 bar (246 psi)	279 mm x 76 mm (11" x 3")	0.68kg (1.5 lb)

Specifications				
	Approvals	Type	Cylinder Valve	Recommended Equipment
7HP	Global (except Europe)*	Non-Refillable	CGA 600	Most commonly used regulators include 713 and DFR 2007.
7EOC	Global (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 (500 psi)	362 mm x 89 mm (14 1/4" x 3 1/2")	1.2 kg (2.65lb)
8ALU	58 litres	35 bar (500 psi)	362 mm x 89 mm (14 1/4" x 3 1/2")	0.73 kg (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	

65DA Aluminium Cylinders

Product offering

Calgaz offers a range of 65DA cylinders designed to meet your needs. These cylinders combine the portability of our 2AL cylinder with the gas capacity of our larger 8AL cylinder. These cylinders are approved for global use.

All 65DA cylinders have the universal C10 valve as standard and can be filled with both non-reactive and reactive gases.

Characteristic				
	Contents	Pressure	Dimensions	Weight
65DA	65 litres	70 Bar (1000 psi)	289 mm x 76 mm (11.4" x 3")	0.61 kg (1.3lb)



*65DA Picture

Specifications				
	Approvals	Type	Cylinder Valve	Recommended Equipment
65DA	Global	Non-Refillable	C10	Most commonly used regulators include 700 Series, DFR 2000 Series, or 4200 Trigger regulators.

* Can only be shipped from our Stoke, UK facility

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 (1000 psig)	345mm x 83mm (13 1/2" x 3 1/4")	1.4 kg (3 lb)
6DM	58 liters	69 bar (1000 psig)	83mm x 204mm (3.259" x 8.093")	0.9 kg (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 (1000 psi)	360 mm x 90 mm (14.17" x 3.54")	1.0 kg (2.25 lb)
10ALR*	116 liters	70 bar (1000 psi)	381 mm x 89 mm (15" x 3 1/2")	1.0 kg (2.25 lb)
10ALU	116 liters	70 bar (1000 psi)	381 mm x 89 mm (15" x 3 1/2")	1.0 kg (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 (2216 psig)	514 mm x 175 mm (20.25" x 6.9")	7.24 kg (16 lb)

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

Specifications				
	Approvals	Type	Cylinder Valve	Recommended Equipment
65ALR	Global	Refillable 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.

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 H₂S, CO, CH₄, O₂ in N₂ 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 (1200 psi)	84.3mm x 50.5mm (3.32" x 2")	Aluminium	0.25kgs (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
702	CGA 600	4.8mm (3/16") Barb	0.2 to 4.0 LPM	1	35 Bar (500 Psi)	4.5 Bar (65 Psi)	No gauge / No On/Off knob
705	5/8" - UNF C-10 Connection	4.8mm (3/16") Barb	0.2 to 6.0 LPM	1	70 Bar (1000 Psi)	4.1 Bar (60 Psi)	0-70 Bar (0-1000 Psi) No On/Off knob
713	CGA 600	4.8mm (3/16") Barb	0.2 to 6.0 LPM	1	35 Bar (500 Psi)	4.5 Bar (65 Psi)	0-70 Bar (0-1000 Psi)
715	5/8" - UNF C-10 Connection	4.8mm (3/16") Barb	0.2 to 6.0 LPM	1	70 Bar (1000 Psi)	4.1 Bar (60 Psi)	0-70 Bar (0-1000 Psi)
715E	5/8" - UNF C-10 Connection	4.8mm (3/16") Barb	0.3 to 7.0 LPM	1	70 Bar (1000 Psi)	4.1 Bar (60 Psi)	0-70 Bar (0-1000 Psi)
718	1/4" NPT Internal	4.8mm (3/16") Barb	0.2 to 6.0 LPM	1	150 Bar (2200 Psi)	4.1 Bar (60 Psi)	0-205 Bar (0-3000 Psi)
718E	1/4" NPT Internal	4.8mm (3/16") Barb	0.05 to 15.0 LPM	1	150 Bar (2200 Psi)	4.5 Bar (65 Psi)	0-315 Bar
725	5/8" - UNF C-10 Connection	4.8mm (3/16") Barb	0.1 to 7.0 LPM	1	70 Bar (1000 Psi)	4.1 Bar (60 Psi)	0-70 Bar (0-1000 Psi)
735	5/8" - UNF C-10 Connection	4.8mm (3/16") Barb	0.1 to 7.0 LPM	1	70 Bar (1000 Psi)	4.1 Bar (60 Psi)	0-70 Bar (0-1000 Psi)

MATERIALS OF CONSTRUCTION

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

CYLINDERS COMPATIBILITY

	2AL	6D	6DM	7HP	8AL	10AL	5ELR	65ALR
702				✓				
705	✓	✓	✓		✓	✓		
713				✓				
715/715E	✓	✓	✓		✓	✓		
718/718E							✓	✓
725	✓	✓	✓		✓	✓		
735	✓	✓	✓		✓	✓		

* 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") Barb	0.5 Lit/Mn to 5.0 Lit/Mn	2	70 Bar (1000 Psi)	4.1 Bar (60 Psi)
802	1/4" NPT Female	4.8mm (3/16") Barb	0.5 Lit/Mn to 5.0 Lit/Mn	2	275 Bar (4000 Psi)	4.1 Bar (60 Psi)
803	C 10	4.8mm (3/16") Barb	0.5 Lit/Mn to 5.0 Lit/Mn	2	70 Bar (1000 Psi)	4.1 Bar (60 Psi)
804	1/4" NPT Female	4.8mm (3/16") Barb	0.5 Lit/Mn to 5.0 Lit/Mn	2	275 Bar (4000 Psi)	4.1 Bar (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
1001	1/4-18" NPT	1/8" - 27 NPT	2	207 Bar (3000 Psi)	0-0.7 Bar (0-10 Psi)	0-207 Bar (0-3000 Psi)
1002	1/4-18" NPT	1/8" - 27 NPT	2	207 Bar (3000 Psi)	0-3.5 Bar (0-50 Psi)	0-207 Bar (0-3000 Psi)
1003	1/4-18" NPT	1/8" - 27 NPT	2	207 Bar (3000 Psi)	0-7 Bar (0-100 Psi)	0-207 Bar (0-3000 Psi)

MATERIALS OF CONSTRUCTION

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

CYLINDERS COMPATIBILITY

	2AL	5ELR	6D	8AL	10AL	65ALR
1001	✓	✓	✓	✓	✓	✓
1002	✓	✓	✓	✓	✓	✓
1003	✓	✓	✓	✓	✓	✓

1700 Series Regulators

Single Stage Regulators



1767



1768



1781



1782

PERFORMANCE

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

MATERIALS OF CONSTRUCTION

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

CYLINDERS COMPATIBILITY

	2AL	6D	8AL	10AL
1767	✓	✓	✓	✓
1768	✓	✓	✓	✓
1781	✓	✓	✓	✓
1782	✓	✓	✓	✓

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
DFR 2001	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)
DFR 2003	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)
DFR 2004	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)
DFR 2006	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)
DFR 2007	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)
DFR 2008	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
DFR 2001	Ni-Brass	Buna	Ni-Brass	PTFE	Buna	0.63kg (1lb)
DFR 2003	Ni-Brass	Buna	Ni-Brass	PTFE	Buna	0.63kg (1lb)
DFR 2004	Ni-Brass	PVC	Ni-Brass	PTFE	Viton	0.63kg (1lb)
DFR 2006	Ni-Brass	PVC	Ni-Brass	PTFE	Viton	0.63kg (1lb)
DFR 2007	Ni-Brass	Buna	Ni-Brass	PTFE	Buna	0.63kg (1lb)
DFR 2008	Stainless Steel	Nitrile	Stainless Steel	Viton	Teflon/PCTFE	0.49kgs

CYLINDERS COMPATIBILITY

	2AL	6D	6DM	7HP	8AL	10AL	5ELR	65ALR
DFR 2001	✓	✓	✓		✓	✓		
DFR 2003							✓	✓
DFR 2004	✓	✓			✓	✓		
DFR 2006							✓	✓
DFR 2007				✓				
DFR 2008	✓	✓	✓		✓	✓		

* 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
TRIGGER 4205	C10 (5/8" - 18 UNF)	4.8mm (3/16") Tubing	0.2 to 4.0 LPM	1	70 Bar (1000 Psi)	None
TRIGGER 4206	C10 (5/8" - 18 UNF)	4.8mm (3/16") Tubing	14.0 to 18.0 LPM	1	70 Bar (1000 Psi)	None
TRIGGER 4210	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)
TRIGGER 4211	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
TRIGGER 4205	Ni-Brass	Viton	Teflon	0.35kg (0.7lb)
TRIGGER 4206	Ni-Brass	Viton	Teflon	0.35kg (0.7lb)
TRIGGER 4210	Ni-Brass	Viton	Teflon	0.35kg (0.7lb)
TRIGGER 4211	Ni-Brass	Viton	Teflon	0.35kg (0.7lb)

CYLINDERS COMPATIBILITY					
	2AL	6D	6DM	8AL	10AL
TRIGGER 4205	✓	✓	✓	✓	✓
TRIGGER 4206	✓	✓	✓	✓	✓
TRIGGER 4210	✓	✓	✓	✓	✓
TRIGGER 4211	✓	✓	✓	✓	✓

4220 Series Regulators

Trigger Regulators for 5ELR and 5E cylinders



PERFORMANCE						
	Inlet	Outlet	Fixed Flow	Stages	Max Inlet Pressure	Gauge
TRIGGER 4223	CGA 350	5.8mm (0.23") hose barb	6.0 LPM	2	207 Bar (3000 Psi)	207 Bar (3000 Psi)
TRIGGER 4226	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
TRIGGER 4223	Ni-Brass	Brass	Buna	0.98kg (2.2lb)
TRIGGER 4226	Ni-Brass	Brass	Buna	0.98kg (2.2lb)

GAS SUITABILITY				
	Non-Reactive	H ₂ S & SO ₂	NO & NO ₂	Cl ₂ , HCL, NH ₃ , PH ₃ ,SiH ₄ & HCN
TRIGGER 4223	Suitable	Suitable	Not recommended	Not recommended
TRIGGER 4226	Suitable	Suitable	Not recommended	Not recommended

CYLINDER COMPATIBILITY		
	5E	5ELR
TRIGGER 4223	✓	✓
TRIGGER 4226	✓	✓

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/ 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
FF20 Septum	7/16" x 28 UNF -2B Aerosol	Septum	-	1	11 bar	Yes
FF20 Stem Flow	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
FF20 Flow Meter	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
FF20 Septum	Ni-Brass	Brass	Nitrile	-	Ni-Brass	Aluminium	0.06kg (0.13lb)
FF20 Stem Flow	Aluminium - SS 303	SS 303	Viton	Acrylic	Ni-Brass	Aluminium	0.14kg (0.31lb)
FF20 Flow Meter	Ni-Brass	Brass	Nitrile	Acrylic	Ni-Brass	Aluminium	0.14kg (0.31lb)

GAS SUITABILITY		
	Non-Reactive	H2S & SO2
FF20 Septum	Suitable	Suitable
FF20 Stem Flow	Suitable	Suitable
FF20 Flow Meter	Suitable	Suitable
FF20 Nozzle	Suitable	Suitable

CYLINDERS COMPATIBILITY		
	1ALE	1ALU
FF20 Septum	✓	
FF20 Stem Flow	✓	
FF20 Flow Meter	✓	
FF20 Nozzle		✓

* 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

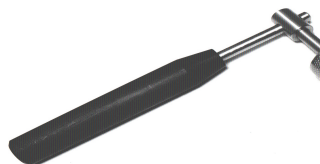
Non-refillable cylinders are designed for one-time use and **MUST never be refilled or re-used.**

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.



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

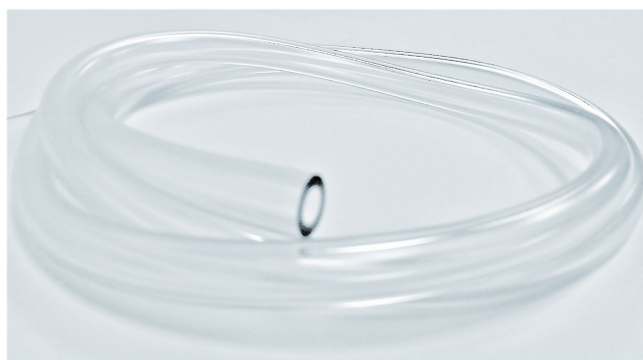


Gas Tubing

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 Ext Dia = 6.4mm	Non-reactive mixtures only
TU -1670	PVC Tubing lined with Teflon (Tygon)	Int Dia = 4.8mm Ext Dia = 7.9 mm	Non-reactive and Reactive mixtures



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