

## Precision Calibration Gas





## Setting Standards - Exceeding Expectations

- GASCO is an organization characterized by integrity, competence, cooperation and professionalism. We continually strive to earn customers' satisfaction and respect by providing exceptional products and services while remaining quality conscious and proactive.
- GASCO products provide the industry benchmark through internal design and ingenuity. Our evolution of achievement comes from maintaining the highest standards in the calibration gas industry.

## Dependability

- GASCO is flexible and ready to meet its customers' needs.
- GASCO fulfills orders for next day or same day shipments.
- GASCO has the BEST Customer Service in the Industry!
- GASCO consistently meets or exceeds customer expectations.

## Quality

- GASCO has the facilities and expertise to blend gases to your specifications.
- GASCO'S professional employees have the knowledge and the know-how to recommend the proper gas mixture and delivery technique for your calibration requirements.
- Proven partnership, extended hours.
- GASCO'S precision and quality is consistent with NIST standards.
- We are ISO Certified.

## Value

- GASCO provides exceptional products at a competitive price.
- GASCO educates daily on the importance of calibration and bump testing to aid in the protection of life and property.
- GASCO has no minimum order requirements.
- GASCO is the innovator of Calibration Gas products for today's market.

## **Fast Delivery**

## **Unmatched Warranty**

**40 Years Industry Experience** 

**Highest Quality** 

Industry Experienced Customer Service







## **Specialization**

Gasco's vast experience and technical knowledge enables us to offer the most difficult reactive gas mixtures with confidence and our guarantee of quality and stability.

## **Reactive Single Gas Mixtures**

GAS	SYMBOL	BALANCE	RANGE	WARRANTY
Ammonia	NH <sub>3</sub>	AIR OR NITROGEN	10 PPM – 500 PPM	12 Mo.
Chlorine	CI <sub>2</sub>	NITROGEN	2 – 1000 PPM	12 Mo.
Ethylene Oxide	ETO	NITROGEN	5 – 100 PPM	12 Mo.
Hydrogen Cyanide	HCN	NITROGEN	1 – 500 PPM	12 Mo.
Hydrogen Chloride	HCI	NITROGEN	3 – 1000 PPM	12 Mo.
Hydrogen Sulfide	H <sub>2</sub> S	Air or Nitrogen	5 PPM – 1% Vol.	15 Mo.
Nitric Oxide	NO	NITROGEN	5 – 900 PPM	12 Mo.
Nitrogen Dioxide	NO <sub>2</sub>	AIR OR NITROGEN	3 – 200 PPM	12 Mo.
Phosphine	PH <sub>3</sub>	NITROGEN	0.5 – 15 PPM	12 Mo.
Silane	SiH <sub>4</sub>	NITROGEN	1 – 100 PPM	12 Mo.
Sulfur Dioxide	SO <sub>2</sub>	AIR OR NITROGEN	2 – 500 PPM	15 Mo.

## How To Order Gases

The part number prefix is determined by the cylinder size (10L, 17L, 34L, etc.) The part number suffix for each gas is determined by the gas mixture of interest and the gas concentration.



Select Cylinder Size. (pg 7-9)

Select the Gas. (pg 4)

Add the Gas Part Number to the Cylinder Part Number.



## **Non-Reactive Mixtures**

P/N SUFFIX	GAS	CONCENTRATION	BALANCE GAS
	NITROGEN	100%	N/A
-135A-2.5	METHANE	2.5% VOL. (50% LEL)	AIR
	PROPANE	1.1% VOL. (50% LEL)	AIR
	ZERO AIR	20.9% VOL.	NITROGEN
	ISOBUTYLENE	100 PPM	AIR
	HEXANE	0.44% VOL. (40% LEL)	AIR
	CARBON DIOXIDE	2000 PPM	AIR

<sup>\*</sup>Recommended cylinder sizes are 10, 17, 34S, 105L, and any ecosmart size. Many more mixtures available.

## **Reactive Mixtures**

P/N SUFFIX	GAS	CONCENTRATION	BALANCE GAS
	NITROGEN DIOXIDE	10 PPM	NITROGEN
	NITRIC OXIDE	10 PPM	NITROGEN
	AMMONIA	25 PPM	NITROGEN
	SULFUR DIOXIDE	10 PPM	NITROGEN
	CHLORINE	10 PPM	NITROGEN
	HYDROGEN SULFIDE	25 PPM	NITROGEN
-HCL-10	HYDROGEN CHLORIDE	10 PPM	NITROGEN
-HCN-10	HYDROGEN CYANIDE	10 PPM	NITROGEN
	PHOSPHINE	1 PPM	NITROGEN

<sup>\*</sup>Recommended Aluminum cylinder sizes are 34, 58, 74, 116 and any ecosmart size. Many more mixtures available.

## **Reactive Multi-Mixtures**

P/N SUFFIX	CARBON MONOXIDE	METHANE	PENTANE	PROPANE	HYDROGEN SULFIDE	OXYGEN	BALANCE
	50 PPM	1.62%VOL = (50% LEL PROPANE EQUIVALENT)			25 PPM	18.0%	NITROGEN
	100 PPM	50% LEL			25 PPM		AIR
	50 PPM	50% LEL			25 PPM	18.0%	NITROGEN
	50 PPM	50% LEL			25 PPM	12.0%	NITROGEN
	100 PPM		25% LEL		25 PPM	19.0%	NITROGEN
	50 PPM	50% LEL			25 PPM		AIR
	300 PPM	1.45% VOL. (58% LEL PENTANE SIMULANT)			10 PPM	15.0%	NITROGEN
	200 PPM	2.5% VOL. (50% LEL)			20 PPM	18.0%	NITROGEN
	100 PPM	50% LEL			25 PPM	18.0%	NITROGEN
	60 PPM	1.45% VOL. (58% LEL PENTANE SIMULANT)			20 PPM	15.0%	NITROGEN
	50 PPM	2.5% VOL. (50% LEL)	10	PPM SULFUR DIC	OXIDE	19.0%	NITROGEN
	50 PPM			1.05% VOL. (48% LEL)	25 PPM	18.0%	NITROGEN
	100 PPM	50% LEL			40 PPM	15.0%	NITROGEN
	100 PPM			1.1% VOL. (50% LEL)	25 PPM	19.0%	NITROGEN
-490T	200 PPM	2.5% VOL. (50% LEL)			10 PPM	18.0%	NITROGEN

<sup>\*</sup>Recommended Aluminum cylinder sizes are 34, 58, 74, 116 or any ecosmart size. Many more mixtures available.



## **Carrying Cases**

These Carrying Cases are ideal for safely storing and transporting Gas Cylinders and Regulators. They are available in a soft canvas bags or molded hard plastic cases and are capable of holding 17, 34, 58, 103 and 116 Liter cylinders.



#### CC-58-AL

Stands vertically or can be wall mounted. Velcro straps hold accessories in place. New handle design allows case to open without letting go, also opens to perform calibrations while carrying the case – no need to carry single cylinders. Comfort strap adjusts over one shoulder and across chest. Two straps can be used for back pack style.



Molded hard plastic casing protects valuable contents and can be used to hold 2 cylinders: 17, 34, 58, 103, 105, or 116L, a regulator, tubing and a monitor. Easy transport. Dimensions: 17"x 14"x 4.5".





#### **GD-HPCC-3**

Three cylinder carrying case is soft sided for 58, 103 & 105 liter cylinders. Zippered space for accessories.

## **Regulator Gauges**

These replacement Regulator Gauges are available in 0-500 psi, 0-1500 psi, or 0-3000 psi with a 1/8" mail NPT inlet.





## **Calibration Tubing**

Vinyl tubing as well as Teflon tubing for Reactive Mixtures are available for calibration.



## **Tedlar Bags**

A convenient, reliable and economical way of collecting airborne chemical hazards, especially where concentrations are above detection limits of analytical instruments.

- Assessing exposure from spills and leaks.
- Leaking underground storage tanks.
- Calibration gas standards.
- Indoor air sampling.
- Gas blending.
- Magnetic imaging.
- · Grab sampling.
- Sampling flues and vents.
- Groundwater testing.
- Soil gas sampling.
- Hazardous waste site sampling.
- · Stack sampling.





## ecosmart<sup>TM</sup> Calibration Gas Cylinders

Calibration Gas is a requirement for everyone using fixed or portable gas detection within the workplace. Disposable cylinders that house the gas can be a nuisance when empty; they cannot be reused and are often interpreted as hazardous waste within the workplace. Gasco introduced an alternative replacement to these disposable cylinders. The ecosmart family of cylinders contain standard gas mixes at no additional cost per liter. GASCO is the leader in developing and launching reusable cylinder products. Join the green revolution - Call Today!

- ecosmart cylinders are a replacement for the disposables which are currently in the market place
- ecosmart cylinders offer the same dimensions as the current disposable products
- ecosmart cylinders utilize the same valve as in disposable products; therefore there is no need to change out regulators
- ecosmart cylinders are in line with many green initiative programs; it makes all the sense in the world to reduce, reuse, and recycle!

Customers do not have to change how they buy gas. The ecosmart program simply solves the issue of what to do with empty cylinders. Returning cylinders is simple. Request a prepaid label by sending an email to: freeshipping@gascogas.com

## Return Program



- 1. Contact your Distributor to generate Purchase Order
- 2. Ensure cylinder is empty (DOT Compliant)
- 3. PEEL OFF label wrap by pulling on perforated strip. Empty sticker appears
- 4. For Free Return Shipping Label: Email freeshipping@gascogas.com

PROVIDE: Name, phone number, address where cylinders are being shipped from, cylinder size(s) and quantity. A label will be generated and emailed to requester.

Ship via FEDEX with adequate and reasonable packing material



Gasco Affiliates, LLC 320 Scarlet Boulevard, Oldsmar, FL 34677

Very Important:

Add emailable@fedex.com to your address book to ensure labels are delivered promptly to inbox.





# ecosmart TM refillable cylinder

## Refill vs. Landfill

Gasco introduced green initiative products that have revolutionized the industry! ecosmart<sup>™</sup> cylinders reduce solid waste - No recycling or disposal worries. ecosmart<sup>™</sup> is offered in a 44, 58, 66, 116, or 650 Liter aluminum cylinder.

- Cylinders are standard physical dimensions
- The cylinder process leaves a positive impact on the environment; taking the burdon off the end user and onto the manufacturer















## ecosmart™ Cylinders

P/N	44ES	58ES	66ES	116ES	650ES
Pressure	825 PSI	1000 PSI	1200 PSI	1000 PSI	1650 PSI
Gas Type	REACTIVE/NON- REACTIVE	REACTIVE/NON- REACTIVE	REACTIVE/NON- REACTIVE	REACTIVE/NON- REACTIVE	REACTIVE/NON- REACTIVE
Dimensions	9.8" X 2.9"	9.8" X 2.9"	10.5" X 2.9"	14.3" X 3.5"	19.25" X 5.25"
Water Capacity	0.79 LITERS	0.79 LITERS	0.79 LITERS	1.7 LITERS	5.77 LITERS
Material	ALUMINUM ALLOY	ALUMINUM ALLOY	ALUMINUM ALLOY	ALUMINUM ALLOY	ALUMINUM ALLOY
Weight	1.7 LBS.	1.7 LBS.	1.7 LBS.	2 LBS.	15.8 LBS. W/VALVE
Valve Inlet	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	CGA 330
Regulator	DEMAND FLOW, 70 SERIES, 70-SS SERIES, 74-DAF	DEMAND FLOW, 70 SERIES, 70-SS SERIES, 74-DAF	DEMAND FLOW, 70 SERIES, 70-SS SERIES, 74-DAF	DEMAND-FLOW, DIAL-A-FLOW, 70-SERIES, 70-SS	75 DFR/330
Contents	1.5 Cu Ft	2.05 Cu Ft	2.33 Cu Ft	4 Cu Ft	22.8 Cu Ft















## Regulators

PART NUMBER	DEMAND FLOW	DIAL-A-FLOW	70 & 70/SS-*	70-FMV	71-*	70-TRIGGER
Valve Inlet	C-10 or CGA 600	C-10	C-10	C-10 or CGA 600	CGA 600	C-10 or CGA 600
Fits Cylinder	17L, 34L, 34LS, 58L, 74L, 103L, 116L	34L, 58L, 74L, 103L, 116L	34L, 58L, 74L, 103L, 116L	17L, 34L, 34LS, 58L, 74L, 103L, 116L	17L, 34LS	17L, 34L, 34LS, 58L, 74L, 103L, 116L
Flow Rate	Instrument Pump Draws Needed Flow Rate	0.3 – 3 LPM Selectable	0.1 – 6 LPM Fixed	Flow Matching	0.1 – 6 LPM Fixed	0.1 – 6 LPM Fixed
Gauge PSI	1000 PSI	1200 PSI	1200 PSI	1200 PSI	600 PSI	1200 PSI
Material	Brass, Nickel Plated	Brass, Nickel Plated	Brass, Nickel Plated or Stainless Steel	Brass	Brass, Nickel Plated	Brass, Nickel Plated

We use the highest quality cylinders in the industry, which meet and exceed all criteria of its customers and appropriate regulatory authorities.

For ordering information see page 3.













## **Cylinders**

PART NUMBER	10L	17L	34LS	34L	58L	74L
Pressure	160 PSI	240 PSI	500 PSI	500 PSI	500 PSI	500 PSI
Gas Type	Most Reactive & All Non-Reactive	Non-Reactive	Non-Reactive	All Reactive Mixtures	All Reactive Mixtures	All Reactive Mixtures
Dimensions	9.4" x 2.9"	10.75" x 2.9"	10.75" x 2.9"	10.64" x 3.125"	14.25" x 3.5"	14.25" x 4.25"
Water Capacity	0.97 Liters	1.0 Liters	0.9 Liters	0.9 Liters	1.72 Liters	2.2 Liters
Material	Aluminum Alloy	Steel	Steel	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Weight	5 oz.	1 lb.	1 lb. 8 oz.	1 lb. 14.9 oz.	1 lb. 12 oz.	2 lbs. 5 oz.
Valve Inlet	N/A	CGA 600	CGA 600	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)
Regulator	TRIGGER AEROSOL	DEMAND FLOW 71-SERIES 72-MFV/17 CV-2	DEMAND FLOW 71-SERIES 72-MFV/17 CV-2	DEMAND FLOW 70-SERIES DIAL-A-FLOW 70-FMV 70-SS-SERIES	DEMAND FLOW DIAL-A-FLOW 70-SERIES 70-FMV 70-SS-SERIES	DEMAND FLOW DIAL-A-FLOW 70-SERIES 70-FMV 70-SS-SERIES
Contents	10 LITERS (0.35 Cu Ft)	17 LITERS (0.6 Cu Ft)	34 LITERS (1.2 Cu Ft)	34 LITERS (1.2 Cu Ft)	58 LITERS (2.0 Cu Ft)	74 LITERS (2.6 Cu Ft)









76-Q70-*	76-Q71-*	CV-2
C-10	CGA 600	CGA 600
34L, 58L, 74L, 103L, 116L	17L, 34LS	17L, 34LS
0.1 – 6 LPM Fixed	0.1 – 6 LPM Fixed	N/A
N/A	N/A	N/A
Aluminum or Brass, Nickel Plated	Aluminum or Brass, Nickel Plated	Brass

<sup>\*</sup>Suffix delineates the desired flow rate.

## **Demand Flow Regulator**

Lighter weight than most, this design uses a single stage approach with a balanced valve stem. Supplies greater flow at increased vacuum. Offers variety of optional connections.













103L	105L	116L	221L	552L
1000 PSI	1000 PSI	1000 PSI	250 PSI	2200 PSI
Non-Reactive	Non-Reactive	All Reactive Mixtures	Non-Reactive	Non-Reactive
13.6" x 3.3"	14.25" x 3.53"	14.25" x 3.53"	16.25" x 9"	20.75" x 4.5"
1.52 Liters	1.72 Liters	1.72 Liters	12 Liters	3.69 Liters
Steel	Aluminum Alloy	Aluminum Alloy	Steel	Steel
3 lbs.	2 lbs. 2 oz.	2 lbs. 2 oz.	6.3 lbs.	11 lbs.
5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	5/8" – 18 UNF (C-10)	CGA 165	Gas Specific
DEMAND FLOW DIAL-A-FLOW 70-SERIES 70-FMV	DEMAND FLOW DIAL-A-FLOW 70-SERIES 70-FMV	DEMAND FLOW DIAL-A-FLOW 70-SERIES 70-FMV	70-SERIES W/ADAPTER	N/A
103 LITERS (3.6 Cu Ft)	116 LITERS (4 Cu Ft)	116 LITERS (4 Cu Ft)	221 LITERS (8.0 Cu Ft)	552 LITERS (19.4 Cu Ft)

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