Non-refillable canister solutions for ultimate portability

Making the difference

Air Products has been serving customers in the analytical, testing and calibration markets for decades. Through these close working relationships we have built a wealth of technical expertise, a thorough understanding of specific applications and broad market knowledge. This, together with our global supply capabilities and extensive product portfolio is why Air Products has become a trusted partner of choice for companies around the world—from those with one-off application needs, through to multinationals requiring multi-site supply agreements.

Air Products unrivalled experience and knowledge is backed-up by one of the most comprehensive product ranges from any gas supplier in the market today. It is able to supply the gas mixture itself, a full range of regulators, carry case options and even have the ability to offer customer-bespoke product labelling.

Our unique strengths

- A complete portfolio of non-refillable canisters, manufactured to the highest standards
- Specialised manufacturing plants in Europe and Middle East, ensuring fast deliveries to all locations
- Large distribution network capabilities, enabled by our European distribution hub
- Extensive equipment range—including regulators, flow valves and carry cases.

Customers who take advantage of Air Products canister range and its' supply capabilities operate in diverse markets including:

- Oxygen depletion and alarm testing
- Gas detection and industrial hygiene
- Academic research
- Hazardous materials management
- Breath Alcohol (including EBT)
- Refrigerant leak detection
- Food atmosphere analysis
- Mud logging

"Our business relies on simple bump testing of gas detectors on board marine vessels. Complex high pressure cylinders and regulators would make the job too difficult but we find the Air Products non-refillable offerings very easy to use and the equipment is simple to operate."

— GMS Instruments, Rotterdam

Comprehensive canister range

Air Products' canister range allows users to achieve the ideal compromise between gas capacity and portability.

Aerosol

The aerosol type canister provides the ultimate in portability and ease of use. It is perfect where low volumes of gas are required, and it supports mixture shelf-life up to 5 years making it an ideal solution for low or infrequent usage.

34L canister

Our 34L is the smallest canister in the range featuring the universal C10 valve. This high specification aluminium canister, combined with advanced treatment processes, makes it suitable for all mixture components including H_2S, SO_2 and highly reactive components like Cl_2 and HCN. The C10 connection facilitates use with a wide range of gas control equipment for varied applications.

58L canister

The 58L is the second largest canister to feature the C10 valve. Its unique characteristics means that it supports highly stable 'quad' gas mixtures used extensively in the field of gas detection and industrial hygiene.

110L canister

Our 110L canister represents the ultimate in economy. A higher fill pressure means it contains twice as much gas as the 58L canister, yet has similar physical dimensions. This highly popular canister is designed to support both non-reactive and reactive mixture components including H_2S, SO_2 and NO_2. It is used extensively in a wide range of applications where high gas yield is needed without compromising portability and ease of use.

All Air Products' canisters are dual approved, meaning they can be used and offered for sale in virtually all regions around the world.

Canister specification

	Aerosol	34L	58L	110L
Water capacity	1.0 L	0.9 L	1.72 L	1.6 L
Pressure	10 Bar	34 Bar	34 Bar	69 Bar
Dimensions (height x diameter)	265 mm x 73 mm	283 mm x 74 mm	357 mm x 89 mm	358 mm x 90 mm
Empty weight	108 g	474 g	731 g	1160 g
Valve outlet	7/16" (28 NS/2 Male)	5/8" (18UNF C10)	5/8" (18UNF C10)	5/8" (18UNF C10)
Material	Aluminium alloy	Aluminium alloy	Aluminium alloy	Aluminium alloy
Regulatory compliance	75/324/EEC (US) DOT* 39	ISO 11118 and EN 13340 π marked (US) DOT* 39	ISO 11118 and EN 13340 π marked (US) DOT* 39	ISO 11118 and EN 13340 π marked (US) DOT* 39
Gas type	All non-reactive Some reactive	All mixture types	All mixture types	All mixture types

*US Department of Transport (DOT)

Stability and shelf life

Our gas mixture stability and the validity of our shelf life claims are absolutely critical in the markets we serve. Advanced canister preparation techniques, high integrity filling manifolds and the use of ultra high purity raw materials all contribute to the long term stability of our gas mixtures, resulting in mixture shelf lives up to 5 years.

We are world leaders in specialty gas mixture preparation. Over 50 years of research and development in this field tells us that mixture stability is achieved by a combination of factors including:

- Optimum canister and valve selection enhanced by proprietary preparation and passivation techniques
- The selection of ultra high purity raw materials
- Proprietary filling technology using ultra high integrity filling manifolds
- Comprehensive shelf life studies

This knowledge and experience is brought together to achieve the accurately certified and reliable calibration gas standards that customers demand.

All of our gas mixtures are issued with hard copy certificates of analysis that exceed the requirements defined in ISO 6141. Certificates of analysis are also available on-line 24/7 via MyAirProducts℠*.

* account registration required

Mixture shelf life

		Shelf life (months)	
Gas	**Balance**	**Aerosol**	**34L/58L/110L**
Non-reactives[1]	Air or Nitrogen	60	60
Ammonia (NH_3)	Air or Nitrogen	6	12
Chlorine (Cl_2)	Air or Nitrogen	n/a	12
Ethanol (C_2H_6O)	Air or Nitrogen	6	36
Ethylene Oxide (C_2H_4O)	Air or Nitrogen	6	6
Hydrogen Chloride (HCl)	Air or Nitrogen	n/a	12
Hydrogen Cyanide (HCN)	Air or Nitrogen	n/a	12
Hydrogen Sulphide (H_2S)	Nitrogen	12	24
Hydrogen Sulphide (H_2S)	Air and Multimix[2]	n/a	24 [3]
Nitric Oxide (NO)	Air or Nitrogen	6	12
Nitrogen Dioxide (NO_2)	Air or Nitrogen	n/a	6
Phosphine (PH_3)	Air or Nitrogen	n/a	12
Sulphur Dioxide (SO_2)	Air or Nitrogen	6	12

[1] Non-reactive gases include: Argon, Benzene, Butane, Iso-Butane, Iso-Butylene, Carbon Dioxide, Carbon Monoxide, Ethylene, Heptane, Hexane, Hydrogen, Methane, Nitrous Oxide, Oxygen, Pentane, Propane, Propylene, Refrigerants, Toluene

[2] Multimix is defined as any multi-component mixture including both H_2S and O_2 components.

[3] For 110L canisters, the shelf life is 12 months

Regulators

To compliment our extensive range of non-refillable canisters we have a diverse portfolio of regulators suitable for almost any application and flow rate.

	Type	Description	Product number	Compatibility with canister type			
				Aerosol	34L	58L	110L
	Brass control valve	A brass control valve with a barbed outlet which accomodates a short length of polyurethane tubing. This economical unit allows the user to control the flow of gas by adjusting a knurled knob on top of the valve. An alternative version with a threaded outlet (dimension 5M) is also available.	199382: Barbed outlet 199385: Threaded outlet	●			
	Mini-flow valve	A plated brass control valve with a flow meter and a barbed outlet that accommodates a length of polyurethane tubing. This unit allows the user to control the flow of gas by adjusting a knurled knob on top of the valve. Units with a higher indicated flow range of 1.5–2.5 lpm are also available.	198485: 0.5–1.5 lpm 199384: 0.5–1.5 lpm	●	●	●	●
	S-flow valve	Offers more precise setting of adjustable flow rates than the Mini-flow valve. It features an integral flow adjustment valve and a clearly marked graduated flow meter for ease of use, and a pressure gauge indicating canister contents.	198252: 0–1 lpm 198253: 0–1 lpm	●	●	●	●
	Pump-flow valve	A plated brass valve for instruments fitted with pumps. Adjusting the control knob so the ball in the flow meter is airborne simulates normal operating conditions of the pump. An excess of gas vents to atmosphere, while the major part of the gas flow will satisfy the pumps requirements.	198487 198489	●	●	●	●
	Fixed-flow regulator (plated brass)	These units are preset to deliver gas at a fixed flow rate. Standard flow rates include 0.3, 0.5, 1.0, 1.5, 2.0, and 2.5 lpm. Other fixed flow rates are also available. Ideal for non-corrosive gases. The pressure gauge shows the canister contents and a short length of polyurethane tubing is supplied.	198840 : 0.3 lpm 186414 : 0.5 lpm 198842 : 1.0 lpm 198841 : 1.5 lpm 198322 : 2.0 lpm 198481 : 2.5 lpm		●	●	●
	Fixed-flow regulator (stainless steel)	These units are preset to deliver gas at a fixed flow rate. Stainless steel fixed flow regulators are recommended for use with highly corrosive gas mixtures like Cl_2 and HCl. The pressure gauge shows the canister contents. A short length of polyurethane tubing is supplied.	198483 : 0.3 lpm 197943 : 0.5 lpm 197941 : 1.0 lpm 197942 : 1.5 lpm		●	●	●
	Pressure regulator (two stage)	Suitable for when the precise control of the outlet pressure is required. The incorporated Exact® technology delivers two stage performance, within the footprint of a single stage unit. It is ideally suited to the 58L and 110L canisters. A stainless steel version of this regulator is also available for corrosive gas mixtures.	432820: 0–1.5 bar 422334: 0–4 bar			●	●

Regulators

To compliment our extensive range of non-refillable canisters we have a diverse portfolio of regulators, suitable for almost any application and flow rate.

	Type	Description	Product number	Compatibility with canister type			
				Aerosol	34L	58L	110L
	Trigger regulator	These units are preset to deliver gas at a flowrate of 0.5, 1.0 or 6.0 lpm or unrestricted. Pressing the trigger activates the regulator and dispenses gas. It can be locked in the "on" position to achieve continuous gas flow. The pressure gauge shows the contents. Features a 4mm OD straight connection.	198251: 1.0 lpm		●	●	●
	Push button regulator	This simple unit features a push button to give an aerosol style squirt of gas at 0.5 lpm from the large canisters. The pressure gauge shows the canister contents. A "breath alcohol" adaptor is supplied.	198326: 0.5 lpm		●	●	●
	Dial-a-Flow™ regulator (plated brass)	An easy to use, plated brass, lightweight regulator, giving enhanced functionality over the traditional fixed flow unit. It offers 9 pre-setflow rates in a single compact design. The pressure gauge shows shows the canister contents 0 – 3.0 lpm, and 0 – 5.0 lpm versions are available.	431834: 0–3.0 lpm 431835: 0–5.0 lpm		●	●	●
	Dial-a-Flow™ regulator (stainless steel)	An easy to use, lightweight regulator, giving enhanced functionality over the traditional fixed flow unit. It offers 9 pre-set flow rates in a single compact design. The pressure gauge shows the canister contents. Recommended for use with corrosive gases.	431836: 0–3.0 lpm 431837: 0–5.0 lpm		●	●	●
	Demand flow regulator (plated brass)	Designed for instruments fitted with a pump. The regulator flow matches that demanded by the instrument. It negates separate accessories such as T-pieces and sampling bags, and avoids wasted gas. The pressure gauge shows the canister contents.	198329: 0–5.0 lpm		●	●	●
	Demand flow regulator (stainless steel)	Designed for instruments fitted with a pump. The regulator flow matches that demanded by the instrument. It negates separate accessories such as T-pieces and sampling bags, and avoids wasted gas. The pressure gauge shows the canister contents. Recommended for use with corrosive gases.	402214: 0–5.0 lpm		●	●	●
	Septa-Flow regulator	The Septa-Flow regulator enables gas to be extracted from the canister using a syringe. The unit also features a contents pressure gauge.	401471		●	●	●
	Duo-Flow regulator	Thes Duo-Flow regulator features a push button to give an aerosol style squirt of gas, and an on/off control for continuous fixed flow rate delivery. The pressure gauge shows the canister contents. A "breath alcohol" adaptor is supplied.	198793: 0.5 lpm 198794: 1.0 lpm		●	●	●

For alternative flow rates or regulators please contact us.

Accessories

Air Products' carry cases are the ideal solution for the safe storage and transportation of your non-refillable canisters and regulators. They are versatile enough to hold any combination of aerosol, 34L, 58L, or 110L canister.

Hard plastic carry case

Product number: 198258

- Integrated carry handle
- Suitable for two canisters and a regulator

Soft shell carry case

Product number: 198257

- Adjustable shoulder strap
- Suitable for up to three 110L or 58L canisters

Carry case insert for 34L canisters

Product number: 458376

- Insert to secure three 34L canisters in soft shell carry case

Wall mounted canister holder

Product number: 199710

- Secure canister holder, ideal for wall mounting

Breath alcohol adapter

Product number: 457970

- Adapter suitable for use with fixed and variable flow regulators

Canister recycling tool

Product number: 198260

The recycling tool allows non-refillable canisters to be punctured and safely recycled*

**Outside EU check local legislations*

Additional benefits – at no extra cost

Air Products is pleased to offer the following service at no additional charge:

- Bespoke, custom labelling service* – clear product labeling with your company name/logo to ensure your company brand is maximised.
- Convenient, hassle-free user delivery service – for customers re-selling our canisters we can deliver directly to your customer on your behalf – be it in your home market or export.

**Minimum annual quantities apply*

"We are involved in the installation, commissioning and maintenance of a wide range of gas detection equipment into many market sectors. The fact that the Air Products' range covers all of the flammable, toxic, quad-gas and corrosive gas requirements for this market is very important to us."

— Autochim, France

About us
Supply options

Air Products is one of the world's largest merchant gas and chemicals companies and has an extensive range of industrial, medical and speciality gases available. Our gas experts will help you determine the most economical supply option for your specific needs and geographic location. Industrial gases are typically provided in gaseous and liquid form through a variety of supply systems, including:

- on-site gas generation
- liquid bulk and
- pack and single cylinder options.

For more information about our supply capabilities, please visit:
airproducts.co.uk/supply-options

A helping hand when and where you need it . . .

Alongside our extensive product portfolio we have a built a comprehensive support network to ensure our customers are never far from technical advice and expertise; we have local customer service and order management centres throughout the world, with dedicated specialist teams on hand to assist with your enquiries.

Our online 'AP Direct' service provides 24 hour access to customer critical information. We have state of the art mixture filling plants strategically located throughout Europe and, combined with our supply network and world class logistical capabilities allows us to respond rapidly to the demands of our customers wherever they are.

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Your products, your way
from bespoke labelling to delivery

Our capability to manufacture in-house means we can supply an extensive range of both standard and custom mixtures for both reactive and non-reactive gases applications.

Many standard gas mixtures we offer are held in stock and available for immediate delivery. And, with a central distribution hub, it means that you can be confident you will receive products within the shortest possible timescale.

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