

Meeting the ISO 9001:2008 Standard for Quality Management Systems

Airgas is committed to providing top-quality products and services to meet the needs of our customers. Our procedures, processes and products are designed to meet or exceed your expectations. From raw material sourcing, cylinder preparation and filling, to delivery and customer service, we make sure you get the quality you expect.

The Airgas specialty gas network includes 11 national labs, 67 regional labs, two equipment centers, and one R&D center that support products including high-purity, rare, calibration, and specialty-blend gases — nearly three-quarters of specialty gas labs are ISO 9001 registered; eight are also ISO/IEC 17025 accredited. Meeting the highest standards for quality management is important to Airgas because it is important to our customers.

The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies from more than 140 countries, one from each country. The ISO 9001:2008 standard specifies requirements for a quality management system for any organization that needs to demonstrate its ability to consistently provide products that meet customer and applicable regulatory requirements and aims to enhance customer satisfaction. Independent third-party registrars, like Quality Systems Registrars, Inc., conduct audits and grant certifications based on the ISO 9000 standards. QSR is accredited by RAB (United States) and RvA (Dutch).



Airgas maintains the latest analytical equipment and techniques to assure precise analytical data. The majority of Airgas' specialty gas facilities are certified to the ISO 9001:2008 standard for quality management systems, and seven laboratories are also accredited to the stringent ISO 17025 standards.



With more than 60 specialty gas facilities, Airgas maintains the industry's largest specialty gas production and analysis capabilities. Each Airgas facility maintains strict calibration standards. A systematic Round Robin testing procedure assures that each facility produces consistent products. So whether your specialty gas needs are across town or across the country, you can be sure of getting the quality and consistency you need.



Airgas developed and patented AcuGrav™, the company's proprietary computerized high-tolerance specialty gas filling system, enabling quality, precision, and consistent filling of multi-component blends. AcuGrav enables Airgas to reduce the variability in manual filling, providing greater accuracy, consistency and reliability for high-tolerance gas mixtures.

Specialty Gas Cylinder Size Comparison Chart

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Approximate Dimensions (inches)	Airgas	Linde	Air Liquide	Praxair	Matheson Trigas	MG	Air Liquide/Scott Specialty Gases
High Pressure Steel							
9 x 55	300	049	49	T	1L	300	K
9 x 51	200	044	44	K	1A	200	A
7 x 33	80	016	16	Q	2	80	B
7 x 19	35	007	7	G	3	35	C
2 x 12	LB	LBR	LB	LB	LB	LB	LB
4 x 26	E	005	MEDE	ANE	3L	E	ER
10 x 51	3HP	485	44H	6K	1U	6K	—
9 x 51	2HP	—	44H	3K	1H	3K	—
Aluminum							
10 x 52	300A	—	AT	—	—	—	—
8 x 48	150A	A31	30AL	AS	1R	150AL	AL
7 x 33	80A	A16	22AL	AQ	2R	80AL	BL
7 x 16	33A	A07	7AL	AG	3R	33AL	CL
4.5 x 15	9A	—	9AL	—	—	9AL	—

Additional Supply Modes —

Bulk Specialty Gases and Chemicals

Many Airgas specialty gases and chemicals can be supplied in bulk quantity. Products available in bulk quantity are identified throughout the catalog by the symbols shown below:



Tank trucks are used for over-the-road transportation of cryogenic liquids. Liquid product is then transfilled to cryogenic storage tanks at customer locations.



Tube trailers (T.T.) provide over-the-road shipment of high-pressure gases, gaseous chemicals, and gas mixtures. The trailers serve as on-site storage systems at customer locations.

Cryogenic Liquid Cylinders

Cryogenic liquids such as nitrogen and helium are supplied in dewars (low-pressure cryogenic tanks) for larger requirements near customers' point of use.



MicroBulk

As your need for higher gas volumes increases, time lost to changing out cylinders and gas lost to venting liquid dewars can take a bigger bite out of your bottom line. Airgas MicroBulk delivery is the perfect way to get the cost efficiencies of bulk deliveries, but in smaller volumes. Airgas' integrated MicroBulk delivery system eliminates the hassles and extra expense of cylinders and liquid dewars and provides a safer work environment.



If you are considering large-volume supply, a representative from Airgas can discuss your requirements and the economics of alternate supply systems.

Cylinder Identification

Packaging and Color

Airgas uses a teal paint to identify specialty gas cylinders. Here are the highlights of our cylinder packaging:

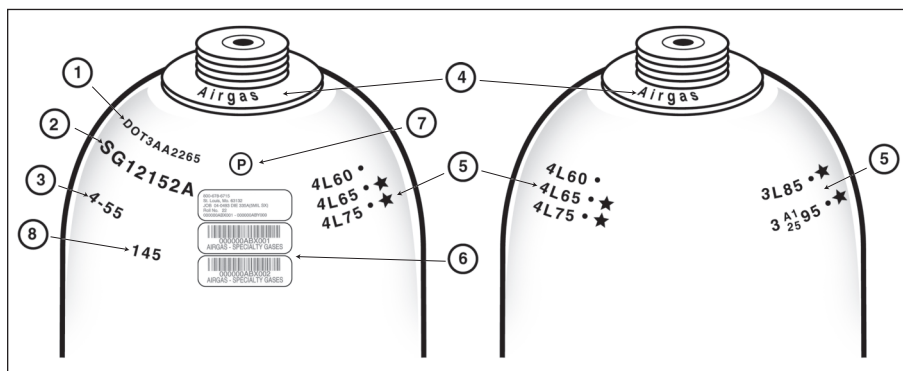
- A cylinder neck ring is permanently fixed below the base of the valve. Airgas does not use color coding to identify cylinder contents. Cylinder color should never be used to identify contents. Please read the contents label.
- A shoulder label indicates the product's shipping name and identification number. On pure products, a grade label is also applied to the cylinder shoulder. The shoulder label identifies cylinder contents.

Markings

Airgas specialty gas cylinders are stamped with markings designed to indicate ownership, specifications, pressure ratings, and other important data. Airgas also utilizes a bar code label for product identification and tracking.

1. Cylinder Specification:

- DOT—Department of Transportation (previously ICC—Interstate Commerce Commission), which is the regulatory body that governs the use of cylinders.



- Specification of the cylinder type of material of construction (e.g., 3AA).
- Service or working pressure in pounds per square inch (e.g., 2,265 psig).

2. Cylinder Serial Number

3. Date of Manufacture:

- This date (month-year) also indicates the original hydrostatic test.

4. Neck Ring Identification:

- The cylinder neck ring displays the name of the original owner of the cylinder.

5. Retest Markings:

- The format for a retest marking is:
Month – Facility – Year – Plus Rating – Star Stamp.
- The + symbol (Plus Rating) indicates that the cylinder qualifies for 10% overfill.
- The ★ symbol (Star Stamp) indicates that the cylinder meets the requirements for 10-year retest, instead of a 5-year retest.

6. Bar Code Label:

- The bar code label provides a unique cylinder identifier and is used by computer systems to track cylinders throughout the fill process. As an optional service, we have the capability of tracking cylinders to and from customers.

7. Cylinder Manufacturer's Inspection Marking

8. Cylinder Tare (Empty) Weight:

- This value may be preceded by the letters TW.



D.O.T. Classifications

Your compressed gas cylinders will have one or more of the hazardous materials placards shown at right. The United States Department of Transportation (US DOT) in Title 49 Section 173 of the United States Code of Federal Regulations (49 CFR 173) requires the use of hazardous materials placards when shipping compressed gases. These hazardous materials placards are intended to indicate the general hazards associated with the contents of the gas in the cylinder. For complete hazardous material information, refer to the Material Data Safety Sheet (MSDS).