The More You Know

November 29, 2023

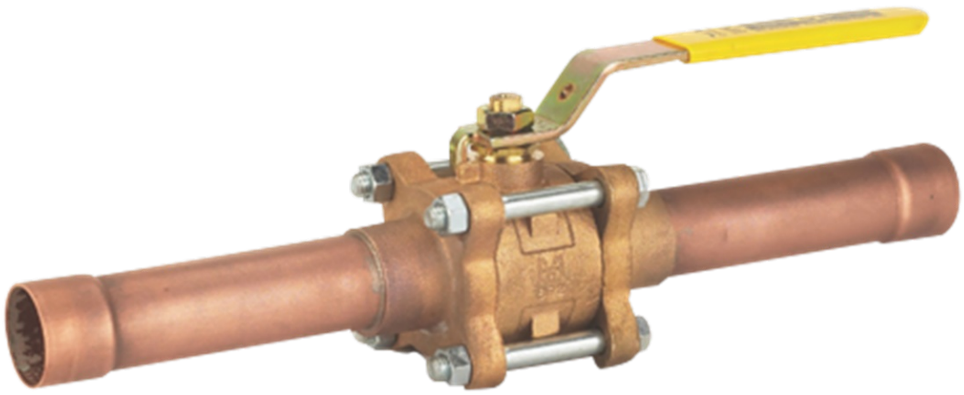
When Med Gases Test Your Service Coverages

Well known for application coverage throughout hospitals and the medical construction, one specialized application for Milwaukee Valve is medical gases.

But what are these medical gases and what are their primary uses? Below is a list of the most common gases found in many healthcare facilities. These gases can be delivered and stored in cylinders or tanks on-site, or larger facilities may even have their own air separation plants on site and actually make their own.

OXYGEN	Oxygen is a medical gas required in every healthcare setting, and is used for resuscitation and inhalation therapy. It was introduced in the early 1900's. You can use it for medical conditions such as COPD, cyanosis, shock, severe hemorrhage, carbon monoxide poisoning, trauma, cardiovascular and respiratory arrest, resuscitation, and life support. Pressures are kept around 55 psig.

NITROUS OXIDE	Nitrous Oxide is a medical gas commonly known as "laughing gas". This medical gas is used in numerous surgical procedures as both an anesthetic and analgesic.
CARBON DIOXIDE	Carbon dioxide is used to suspend or inflate various tissues and is used in laser surgeries. Most commonly, carbon dioxide is used in abdominal and thoracic surgeries, where the surgeon may need to move various organs to get to one particular area of the body. Carbon dioxide can also be combined with oxygen or air for respiratory simulation and treatment of various respiratory disorders. System pressures are maintained at about 50 psi.
MEDICAL AIR	Medical Air is supplied by a specialized air compressor to patient care areas. Clean outside air is pressurized to around 55 psi, and brought inside to the patient. Medical air should never be used as oxygen, and cannot be used for HVAC controls, or to provide power to surgery tools. Medical air is used extensively in the ICU, PICU, and NICU areas, and with pulmonary nebulizers to reduce the risk of excess oxygen in the lungs or other body tissues (known as hyperoxia), during mechanical ventilation or surgical procedures.
NITROGEN	Nitrogen is a medical gas used for cryosurgery removal of some cancers and skin lesions, and also for the storage of tissues, cells, and blood in cryogenic temperatures to avoid oxidation of the samples. It can also be used as part of the medical gas mixture for lung function tests. The pharmaceutical industry uses this medical gas in the manufacture of medications.



Milwaukee Valve's **BA-350TE** is designed for use in medical gas systems, pharmaceuticals and other applications where brazing or soldering is the preferred method of installation. This 3-piece bronze full-port ball valve includes 6'' copper tube extensions brazed to each tailpiece. Because there is no need to disassemble the valve as required when installing other 3-piece valves, contractors can realize considerable labor savings with the **BA-350TE**.

Ranging in sizes from 1/2'' – 3'', the **BA-350TE** can be ordered with straight male tube-ends, female expanded ends or with a combination of male and female ends for increased installation flexibility. Manufactured and tested in accordance with MSS SP-110, the valve's full-port design provides high flow with minimal pressure drop, and the 3-piece construction simplifies maintenance and repair.

For information on specific applications or gases, **contact your Milwaukee Valve sales representative**, your regional manager or one of our application engineers today. Or check out the **BA-350STE**, the Milwaukee Valve 3-piece tube-end ball valve designed for handling medical gases on the company website by clicking **HERE**.

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