**MicroBulk Argon, Carbon Dioxide and Nitrogen**

**Benefits of MicroBulk.** Scheduled delivery system provides an uninterrupted supply of gas. Unique auto shut-off feature allows remote filling through a wall box, eliminating the need for the driver to enter the facility. Mounts permanently in very little space and conforms to ASME standards for stationary operation. MicroBulk the other alternative to high pressure or liquid cylinders. With the delivery system's "smart" flow-meter and easy-to-read printouts, reports of your delivery are available in seconds. MicroBulk tank sizes range from 450 liters to 2,000 liters and have a variety of applications...

**Argon...**
Laboratories - Analysis, purging
Electronics - Crystal growth
Metal fabrication - Plasma, MIG and TIG welding

**Carbon Dioxide...**
Laboratories - Cell Culture (incubator)
Water treatment - Process water pH control
Metal fabrication - MIG welding
Restaurants - Beverage dispensing

**Nitrogen...**
Biotech - Cryogenic storage, analytical, blanketing, purging
Laboratories - R&D, cryogen storage, analysis
Electronics - Purging, thermal testing
Food - Processing, transport, preservation, flash freezing
Metal fabrication - Laser cutting, plasma cutting, heat treating, inerting

For more information on the benefits of MicroBulk please call or visit one of our store locations.

Roberts Oxygen Co, Inc.

Cryo-Bio Newsletter

Register online for our E-Newsletter at www.robertsoxygen.com

info@robertsoxygen.com

www.robertsoxygen.com
Features

- High performance modern construction and advanced insulation materials assure high thermal efficiency
- New rugged construction, ribbed high strength aluminum body, magniformed necktube design, and more durable paint system
- Easy operation lightweight snap-on cap and necktube assures tight closure and easy access, convenient larger handles
- Superior vacuum performance with super insulation provides maximum holding times
- Optional equipment includes liquid withdrawal device, tipping stand, dippers and roller base (for some models)

<table>
<thead>
<tr>
<th>Models</th>
<th>LD4</th>
<th>LD5</th>
<th>LD10</th>
<th>LD25</th>
<th>Classic 25</th>
<th>LD35</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Holding Time days (1)</td>
<td>10</td>
<td>6</td>
<td>45</td>
<td>109</td>
<td>119</td>
<td>152</td>
<td>122</td>
</tr>
<tr>
<td>Working Time days (2)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (1) liters/days</td>
<td>0.40</td>
<td>0.77</td>
<td>0.22</td>
<td>0.23</td>
<td>0.21</td>
<td>0.23</td>
<td>0.41</td>
</tr>
<tr>
<td>Liquid Nitrogen Capacity - liters</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>25</td>
<td>25</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Weight Empty - lbs. - kg.</td>
<td>6.6</td>
<td>6.9</td>
<td>14.5</td>
<td>23.2</td>
<td>19</td>
<td>35.1</td>
<td>38.7</td>
</tr>
<tr>
<td>Weight Full - lbs. - kg.</td>
<td>13.7</td>
<td>15.8</td>
<td>32.3</td>
<td>67.7</td>
<td>63.5</td>
<td>97.4</td>
<td>127.7</td>
</tr>
<tr>
<td>Neck Diameter - in. - mm.</td>
<td>1.2</td>
<td>5.6</td>
<td>2.0</td>
<td>2.5</td>
<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Overall Height - in. - mm.</td>
<td>17.0</td>
<td>432</td>
<td>23.5</td>
<td>597</td>
<td>22.9</td>
<td>582</td>
<td>26.3</td>
</tr>
<tr>
<td>Overall Diameter - in. - mm.</td>
<td>7.6</td>
<td>193</td>
<td>11.4</td>
<td>290</td>
<td>15.5</td>
<td>394</td>
<td>18.8</td>
</tr>
</tbody>
</table>

For more information on all Taylor Wharton products please call or visit one of our store locations.

www.robertsoxygen.com
CONCOA 202 Series
Single Stage Chrome-Plated Brass Cylinder Regulator

⇒ Single Stage Chrome-Plated
⇒ Forged Brass Body
⇒ Five-Port Configuration
⇒ 316L Stainless Steel Diaphragm
⇒ Cleaned Room Assembled

The 202 Series regulators are intended for primary pressure control of noncorrosive, high purity or liquefied gases (up to grade 4.5) in applications where minor fluctuations in outlet pressure due to diminishing inlet supply pressure can be tolerated.

200 Advantage Materials Specifications

- Capsule® seat
  Increased serviceability and life
- 316L stainless steel diaphragm
  No inboard diffusion
- Forged body
  Durable, long-lasting construction
- Field-adjustable pressure limit
  Safeguard downstream equipment
- Large convoluted diaphragm
  Smooth pressure changes
- Standard relief valve
  Diaphragm and gauge protection

Body
  Chrome-plated forged brass
Bonnet
  Chrome-plated die cast zinc
Seat
  PTFE
Filter
  PTFE with 4500 PSIG inlet option
Diaphragm
  316L stainless steel
Internal Seals
  PTFE

Maximum Inlet Pressure
  3000 PSIG (210 BAR)
Temperature Range
  -40°F to 140°F (-40°C to 60°C)
Gauges
  2½” diameter chrome-plated brass
Ports
  ½” FPT
Helium Leak Integrity
  1 x 10⁻⁸ scce/sec
Cv
  0.2
Weight (202-3331-580)
  3.8 lbs. (1.74 kg)

Economically Priced... Starting at only *$215.00.
*Depending on regulator configuration and additional fittings

For more information on CONCOA products please call or visit one of our store locations.

www.robertsoxygen.com
WE APPRECIATE YOUR BUSINESS!

MARYLAND
Annapolis, MD 21401, 1801 George Ave. #B.
Phone: 410-263-5506 Fax: 410-268-6892
Retail Store and Distribution Location
Baltimore, MD 21227, 1601 South Caton Ave.
Phone: 410-644-5015 Fax: 410-644-5086
Baltimore, MD 21224, 4520 O’Donnell St.
Phone: 410-522-7440 Fax: 410-522-7455
Bladensburg, MD 20710, 4246 Kenilworth Ave. #A.
Phone: 301-927-5600 Fax: 301-927-7280
Cockeysville, MD 21030, 10626 York Rd.
Phone: 410-683-1783 Fax: 410-683-0198
Edgewood, MD 21040, 2014 Pulaski Highway.
Phone: 410-676-3900 Fax: 410-676-3370
Essex, MD 21221, 712 Stemmers Run Rd.
Phone: 410-574-7501 Fax: 410-574-4633
Frederick, MD 21704, 5705 Industry Lane. #Q.
Phone: 301-696-0044 Fax: 301-696-0681
DISTRIBUTION LOCATION
Gaithersburg, MD 20877, 1701 Railroad St.
(800) 626-3433 Fax: 301-948-2465
Glen Burnie, MD 21061, 706 N. Crain Highway North #B.
Phone: 410-768-1175 Fax: 410-787-9733
Hagerstown, MD 21740, 916 South Potomac St.
Phone: 301-791-6400 Fax: 301-423-4540
Laurel, MD 20707, 13309 Baltimore Ave.
Phone: 301-470-1431 Fax: 301-470-2133
Retail Store and Distribution Location
Marlow Heights, MD 20748, 4811 Stamp Rd.
Phone: 301-899-6400 Fax: 301-470-2133
Rockville, MD 20855, 15830 Redland Rd.
Phone: 301-948-2205 Fax: 301-948-0037
Salisbury, MD 21801, 2002 N. Salisbury Blvd.
Phone: 410-749-9620 Fax: 410-749-9651
Westminster, MD 21157, 96 John St.
Phone: 410-840-0400 Fax: 410-840-1912

VIRGINIA
Charlottesville, VA 22903, 770 Harris St. #101.
Phone: 434-296-1915 Fax: 434-295-3848
Fairfax, VA 22031, 2929 Eskridge Rd. #A.
Phone: 703-698-5322 Fax: 703-204-2913
Manassas, VA 20110, 8607 Quarry Rd.
Phone: 703-369-0400 Fax: 703-631-8264
Petersburg, VA 23803, 2200 E. Washington St.
Phone: 804-733-4944 Fax: 804-732-3468
Retail Store and Distribution Location
Portsmouth, VA 23701, 3931 Garwood Ave.
Phone: 757-487-7005 Fax: 757-487-1510
Retail Store and Distribution Location
Springfield, VA 22153, 7653 Fullerton Rd.
Phone: 703-644-5065 Fax: 703-644-2630
Sterling, VA 20166, 45000 Underwood Lane #N.
Phone: 703-471-9586 Fax: 703-471-9638
Retail Store and Distribution Location
Richmond, VA 23230, 2117 N. Hamilton St.
Phone: 804-353-1355 Fax: 804-353-0892
Retail Store and Distribution Location
Waynesboro, VA 22980, 716 N. Bath Ave.
Phone: 540-949-7178 Fax: 540-943-2148
Retail Store and Distribution Location
Winchester, VA 22603, 221 Brick Kiln Rd.
Phone: 540-662-1180 Fax: 540-722-9353

Pennsylvania
Retail Store and Distribution Location
Collingdale, PA 19023, 1230 Macdade Blvd.
Phone: 610-461-1952 Fax: 610-461-1964
Retail Store and Distribution Location
Johnstown, PA 15905, 101 Ferndale Ave.
Phone: 814-539-2833 Fax: 814-539-2994
Retail Store and Distribution Location
Lancaster, PA 17601, 3150 Hempland Rd.
Phone: 717-390-3009 Fax: 717-390-2059
Retail Store and Distribution Location
Pleasant Gap, PA 16823, 380 West College Ave
Phone: 814-359-3399 Fax: 814-359-4376
West Chester, PA 19382 614 Westtown Rd.
Phone: 610-701-0700 Fax: 610-701-9898

Delaware
Retail Store and Distribution Location
Bridgeville, DE 19933
16223 Sussex Highway.
Phone: 302-337-9666 Fax: 302-337-9663

New Jersey
Retail Store and Distribution Location
Pleasantville, NJ 08232, 580 West Delilah Rd.
Phone: 609-484-8181 Fax: 609-484-0281

North Carolina
Distribution Location and Retail Store
Charlotte, NC 28206, 3320 Service St.
Phone: 704-371-3030 Fax: 704-371-3033
Distribution Location and Retail Store
Greensboro, NC 27409, 8311 Triad Dr.
Phone: 336-664-6565 Fax: 336-664-6566
Retail Store
Bessemer City, NC 28016, 1206 Edgewood Rd.
Phone: 704-629-9898 Fax: 704-629-9696

Roberts Oxygen is a Full Line Supplier of Specialty Gases.

PURE GASES
- Acetylene
- Air
- Ammonia
- Argon
- Butadiene 1,3
- Butane (Normal)
- Butane (1)
- Carbon Dioxide
- Carbon Monoxide
- Chlorine
- Ethane
- Ethylene
- Halocarbon-116
- Halocarbon-134A
- Halocarbon-14
- Halocarbon-218
- Halocarbon-22
- Halocarbon-23
- Halocarbon-C318
- Helium
- Hydrogen
- Hydrogen Bromide
- Hydrogen Chloride
- Hydrogen Sulfide
- Isobutane
- Isobutylene
- Krypton
- Methane
- Methyl Chloride
- Neon
- Nitric Oxide
- Nitrogen
- Nitrogen Dioxide
- Nitrogen Trifluoride
- Nitrous Oxide
- Oxygen
- Phosphine
- Propane
- Propylene
- Silane
- Silicon Tetrachloride
- Sulfur Dioxide
- Sulfur Hexafluoride
- Tungsten Hexafluoride
- Xenon

For a complete listing of all our Specialty Gases...ask for our Specialty Gas Line Card.
Call or visit one of our 36 convenient store locations.