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Plastic Valve Protection Carry Handles are available to fit Catalina® and Luxfer® brand aluminum cylinders. We stock carry handles and retaining rings for both manufacturers cylinders. For 15 and 20 lb. Aluminum cylinders. Can be installed without removing valve.

### For 15 & 20 lb. Aluminum Cylinders

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCH-AC-xx</td>
<td>Catalina® Style Carry Handle</td>
</tr>
<tr>
<td>CCH-AC-R</td>
<td>Retaining Ring for Catalina® Style Carry Handles</td>
</tr>
<tr>
<td>CCH-AL-xx</td>
<td>Luxfer® Style Carry Handle</td>
</tr>
<tr>
<td>CCH-AL-R</td>
<td>Retaining Ring for Luxfer® Style Carry Handles</td>
</tr>
<tr>
<td>CCH-AS-xx</td>
<td>Thread On Style Carry Handle</td>
</tr>
</tbody>
</table>

### Ordering Information:
Replace xx in the part number with the color codes below
- Black – BK
- Blue – B
- Red – RR
- Yellow – Y
- Green – GR
- Orange – O

### Installing Carry Handles for Aluminum Cylinder

1. **Handle & snap ring with steel cylinder adapter.** Allows addition of plastic carrying handle to steel cylinders. **Valve must be removed to install handle.** 
   
   (Adapter comes with set screws.)

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCH-118</td>
<td>Conversion Kit 1.9”</td>
</tr>
</tbody>
</table>

2. **Catalina® Style Carry Handle**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCH-AC-R</td>
<td>Retaining ring for Catalina®</td>
</tr>
<tr>
<td>CCH-AL-R</td>
<td>Retaining ring for Luxfer®</td>
</tr>
</tbody>
</table>

3. **Installing carry handle valve protector**

### Cylinder Retaining Rings for Carry Handles

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCH-AC-R</td>
<td>Retaining ring for Catalina® Style Carry Handles</td>
</tr>
<tr>
<td>CCH-AL-R</td>
<td>Retaining ring for Luxfer® Style Carry Handles</td>
</tr>
</tbody>
</table>

### Cylinder Safety Conversion Kit

**Handle & snap ring with steel cylinder adapter.** Allows addition of plastic carrying handle to steel cylinders. **Valve must be removed to install handle.** 

(Adapter comes with set screws.)
CO2 Valve Conversion Kit

Converting a CO2 valve:

For aligning and tapping special thread into valve outlet, so that the Ring-Seal 3 piece insert Unit can be screwed in.

The kit makes this simple and easy, while the valve stays on the cylinder. The chips are blown out by the gas in the cylinder.

Kit includes:
- Special Drill (needed only on some valves)
- Special Tap
- Guide Collar
- Grip Nut
- Ring Grip Wheel
- Special Tag Handle
- Allen Driver
- Thread Chaser

Cylinder Connections
For Permanent Leak Proof Cylinder Connection

CARBON DIOXIDE

- Hand Tight Lasts for Life of Valve
- Self-Sealing Connections Designed for Leak-Proof Dependability
- No Service Calls

Replacement O-Ring for CC-1
Part # CC-1-OR
Seals – Permanent ABC Units
Part # CC-1

Stems – 103 SF
2 1/2” - 1/4” pipe
Part # CC1-STEM

Grip-Nut 103N
Part # CC1-NUT

O-Ring for CC1-STEM
Part # CC1-STEM-OR

PTFE Seals for CO2

Find your Leaks Fast and Easily
with the Extending Tube to Get in the Hard to Reach Areas.

Ratermann’s Oxygen Safe Valve Leak Check

Small Cylinder Status Tags
Economy Paper Tags

MOST PREFERRED BY CUSTOMERS

Elastic Tie
Pt # CB-1EPTI

PTFE Seals for CO2

<table>
<thead>
<tr>
<th>Description</th>
<th>Part # for Pack of 100</th>
<th>Part # for Pack of 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFE Seals for CO2</td>
<td>CO2-TWSEALPK100</td>
<td>CO2-TWSEALPK10</td>
</tr>
<tr>
<td>FIBRE, 320/330</td>
<td>PH-320WFPK100</td>
<td>PH-320WFPK10</td>
</tr>
</tbody>
</table>

Small Economy Paper Tags

<table>
<thead>
<tr>
<th>Part # for Pkg. of 1000</th>
<th>Description</th>
<th>Part # for Pkg. of 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB-EPTPK1000</td>
<td>String Tie</td>
<td>(Pt # CB-EPTPK1000)</td>
</tr>
<tr>
<td>CB-1EPTPK1000</td>
<td>Elastic Tie</td>
<td>(Pt # CB-1EPTPK1000)</td>
</tr>
</tbody>
</table>

String Tie
Pt # CB-EPT

The String Tie does not stretch or loop around the cylinder.
Aluminum Carbon Dioxide Cylinders for Industrial Gas

Clean, corrosion-resistant, lightweight cylinders are ideal for dispensing carbonated soft drinks, beers, lagers and other beverages.

**Ideal for Dispensing Carbonated Soft Drinks, Beers, Lagers and Other Beverages.**

**Features**
- Lightweight, high strength 6061-T6 aluminum alloy improves cylinder system portability while reducing the rigors of material handling.
- Corrosion-resistant interior and exterior
- Brushed exterior provides a durable, low-maintenance finish for years of dependable service.
- Optional carrying handle offers superior valve protection.

**Manufactured to DOT and TC requirements**
- U.S. Department of Transportation (DOT) 3AL
- Transport Canada (TC) 3ALM
- Every cylinder inspected and tested by DOT- and TC-authorized independent agency
- Cycle-tested in excess of 100,000 cycles at service pressure
- Minimum burst pressure tested to 2.5 times service pressure without failure

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>SERVICE PRESSURE</th>
<th>CO₂ MAX. CAP.</th>
<th>N₂ CAPACITY</th>
<th>OUTSIDE DIAMETER</th>
<th>OVERALL LENGTH</th>
<th>EMPTY WEIGHT</th>
<th>MIN. INTERNAL VOLUME</th>
<th>MIN. WATER WEIGHT</th>
<th>THREAD SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYL-CO2-2.5</td>
<td>1800 PSI 124 BAR</td>
<td>2.5 LBS 1.13 KG</td>
<td>7.2 CU.FT 4.38 LITERS</td>
<td>204 IN. 10.4 MM</td>
<td>264 IN. 10.4 MM</td>
<td>3.3 LBS 1.5 KG</td>
<td>102 LITERS 1.7 LBS</td>
<td>3.68 KG</td>
<td>.750-16 UNF-2B</td>
</tr>
<tr>
<td>CYL-CO2-5</td>
<td>1800 PSI 124 BAR</td>
<td>5.0 LBS 2.30 KG</td>
<td>14.5 CU.FT 14.5 LITERS</td>
<td>411 IN. 14.0 MM</td>
<td>356 IN. 14.0 MM</td>
<td>6.2 LBS 2.8 KG</td>
<td>205 LITERS 3.4 LBS</td>
<td>7.40 KG</td>
<td>1.125-12 UNF-2B</td>
</tr>
<tr>
<td>CYL-CO2-10*</td>
<td>1800 PSI 124 BAR</td>
<td>10.0 LBS 4.50 KG</td>
<td>28.9 CU.FT 28.9 LITERS</td>
<td>818 IN. 16.4 MM</td>
<td>417 IN. 12.9 MM</td>
<td>12.9 LBS 5.9 KG</td>
<td>408 LITERS 6.7 LBS</td>
<td>14.73 KG</td>
<td>1.125-12 UNF-2B</td>
</tr>
<tr>
<td>CYL-CO2-15*</td>
<td>1800 PSI 124 BAR</td>
<td>15.0 LBS 6.80 KG</td>
<td>43.3 CU.FT 43.3 LITERS</td>
<td>1226 IN. 22.8 MM</td>
<td>579 IN. 16.8 MM</td>
<td>16.8 LBS 7.6 KG</td>
<td>612 LITERS 10.0 LBS</td>
<td>22.09 KG</td>
<td>1.125-12 UNF-2B</td>
</tr>
</tbody>
</table>

* 10 lbs. and 15 lbs. have the option of either a Carry Handle (add “-H”) or Cap and Collar (add “-CC”).

**Models available include**
- 2.5 lbs.
- 5 lbs.
- 10 lbs.
- 15 lbs.

**E-Track & E-Track Restraints**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSK-E12</td>
<td>12’ E-Track Strap, Standard</td>
</tr>
<tr>
<td>TSK-E20</td>
<td>20’ E-Track Strap, Standard</td>
</tr>
</tbody>
</table>

**For more E-Track & E-Track Restraints see page 18A-2**

**CGA 320 Valve Plugs**

**Carbon Dioxide**

**Dust Cap with Strap**

- CGA 320 Dust Cap – Yellow
  - Pt # PM-C12-YPK1000
  - Pt # PM-C12-YPK100
- CGA 320 Dust Cap – Green
  - Pt # PM-C12-GRPK1000
  - Pt # PM-C12-GRPK100
- CGA 320 Dust Cap – Red
  - Pt # PM-C12-RPK1000
  - Pt # PM-C12-RPK100
- CGA 320 Dust Cap – Blue
  - Pt # PM-C12-BPK1000
  - Pt # PM-C12-BPK100

**CGA Plugs are available in Packs of 1,000 (PK1000) and Packs of 100 (PK100)**

- Flexible Thread Protector for CO₂
- Male Thread Valves

- Rigid Plastic with Pull Tab for Carbon Dioxide
**Cylinder Boots**

The Cylinder Boot is made out of black molded plastic. Slip onto round bottom CO2 tanks to convert to upright standing cylinders.

**High Pressure Cylinder Caps**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Diameter</th>
<th>Rim</th>
<th>Cylinder Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2-CDB-AR7</td>
<td>7.25&quot; Dia</td>
<td>Round Rim</td>
<td>Steel Cylinders (flat bottom)</td>
</tr>
<tr>
<td>CO2-CDB-SO7</td>
<td>7.25&quot; Dia</td>
<td>Round Rim</td>
<td>Aluminum Cylinders (flat bottom)</td>
</tr>
</tbody>
</table>

**Soda Regulator**

For Single Cylinder Use – No Shutoff Valve

0-160 P.S.I.

**Beer Regulator**

For Single Cylinder Use – Includes Shutoff Valve

0-60 P.S.I.

**INSIDE CAP CYLINDER THREADS**

**Fine Thread:**
11 threads to an inch

**Coarse Thread:**
7 threads to an inch. Cap I.D. is 3 1/4
Residual Pressure Cylinder Valve

Residual Pressure Cylinder Valve

Benefit
Backup of product into CO2 tank is stopped by the Check Valve in the cylinder valve.

For Nitrogen – Helium - Argon

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHW-GRPV58061-32</td>
<td>CGA 580, 3/4&quot; NPT, Plug Safety</td>
<td>3360</td>
</tr>
<tr>
<td>SHW-GRPV58061-35</td>
<td>CGA 580, 3/4&quot; NPT, Plug Safety</td>
<td>3775</td>
</tr>
<tr>
<td>SHW-GRPV58061-38</td>
<td>CGA 580, 3/4&quot; NPT, Plug Safety</td>
<td>4000</td>
</tr>
</tbody>
</table>

For Carbon Dioxide

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHW-GRPV2061-28</td>
<td>3/4&quot; NPT, Tapered Thread, Brass</td>
<td>3000</td>
</tr>
<tr>
<td>SHW-GRPV2061-32</td>
<td>3/4&quot; NPT, Tapered Thread, Brass</td>
<td>3360</td>
</tr>
<tr>
<td>SHW-GRPV2061-35</td>
<td>3/4&quot; NPT, Tapered Thread, Brass</td>
<td>3775</td>
</tr>
<tr>
<td>SHW-GRPV2061-38</td>
<td>3/4&quot; NPT, Tapered Thread, Brass</td>
<td>4000</td>
</tr>
<tr>
<td>SHW-GRPV2051-2BLX</td>
<td>1-1/8 UNF Straight Thread</td>
<td>3000</td>
</tr>
<tr>
<td>SHW-GRPV2051-2BLX-75</td>
<td>3/4&quot; UNF Straight Thread</td>
<td>3000</td>
</tr>
</tbody>
</table>

Residual Pressure Cylinder Valve Features
Sherwood GRPV valves are designed to retain approximately 30 to 50 psig pressure, maintaining the integrity of the cylinder contents against contaminants, even if the valve is left open.

The unique combination of innovative design and quality construction offers protection of cylinder contents without the expense of a time-consuming purge and clean cycle.

1. Durable forged brass body, precisely machined internal components and design elements meet the most stringent International valve performance standards. Automated assembly and testing processes ensure exceptional quality. All Sherwood GRPV valves are 100% leak tested.

2. Dynamic front piston seal design is not in direct contact with the flow passage during filling.

3. Inlet and Outlet thread configurations are available for a broad spectrum of Customer, Country and Code specifications.

4. The unitized plug design of the Pressure Relief Device (PRD) provides excellent flow characteristics. Optical Character Recognition technology utilized to verify appropriate burst disc pressure rating.

Sherwood's exclusive “webbed washer” design protects burst disc during handling and bulk shipment.

What Does a RPV Cylinder Valve Do?

The concept of a RPV (Residual Pressure Valve) Cylinder Valve is to retain a small positive pressure of gas in a gas cylinder. (RPV’s) sometimes called Positive Flow Valves, are typically of brass construction. RPV’s are high pressure cylinder valves with a built-in check valve that retains approximately 30-50 psig in the cylinder. This prevents backflow contamination when cylinder pressure gets below the customer’s system pressure. RPV’s also prevent atmospheric contamination if a customer leaves the valve open when the cylinder is empty.
CO2 Thermoplastic Low-Temp Pigtails | 3,000 PSI
Ratermann Mfg. TPL Family of Hoses

3000 PSIG MAWP Rated – Plated Carbon Steel End Fittings

Standard Hose without Armor Casing

1/4” NPT Female x 1/4” NPT Female

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>TPL-24F14</td>
</tr>
<tr>
<td>36”</td>
<td>TPL-36F14</td>
</tr>
<tr>
<td>48”</td>
<td>TPL-48F14</td>
</tr>
<tr>
<td>72”</td>
<td>TPL-72F14</td>
</tr>
</tbody>
</table>

1/4” NPT Female x 1/4” NPT Male

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>TPL-24F14M14</td>
</tr>
<tr>
<td>36”</td>
<td>TPL-36F14M14</td>
</tr>
<tr>
<td>48”</td>
<td>TPL-48F14M14</td>
</tr>
<tr>
<td>72”</td>
<td>TPL-72F14M14</td>
</tr>
</tbody>
</table>

1/4” NPT Male x 1/4” NPT Male

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>TPL-24M14</td>
</tr>
<tr>
<td>36”</td>
<td>TPL-36M14</td>
</tr>
<tr>
<td>48”</td>
<td>TPL-48M14</td>
</tr>
<tr>
<td>72”</td>
<td>TPL-72M14</td>
</tr>
</tbody>
</table>

1/4” NPT Female x 1/4” NPT Female JIC 37 Swivel

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>TPL-24F14FJIC14S</td>
</tr>
<tr>
<td>36”</td>
<td>TPL-36F14FJIC14S</td>
</tr>
<tr>
<td>48”</td>
<td>TPL-48F14FJIC14S</td>
</tr>
<tr>
<td>72”</td>
<td>TPL-72F14FJIC14S</td>
</tr>
</tbody>
</table>

1/4” NPT Male x 1/4” NPT Female JIC 37 Swivel

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>TPL-24M14FJIC14S</td>
</tr>
<tr>
<td>36”</td>
<td>TPL-36M14FJIC14S</td>
</tr>
<tr>
<td>48”</td>
<td>TPL-48M14FJIC14S</td>
</tr>
<tr>
<td>72”</td>
<td>TPL-72M14FJIC14S</td>
</tr>
</tbody>
</table>

Hoses for the Following Gases

CO2 Thermoplastic Low-Temp Pigtails | 3,000 PSI

Style Specifications
Not recommended for oxygen service. Meets SAE 100R7 specs
Liner: Low temperature Polyester
Reinforcement: Polyester braid
Cover: Pin-pricked Polyester
Temperature: -65˚ F to +212˚ F

For Part # QF-SH320 Fill Tool Option see page 4A-8

Custom Length Hoses – Thermoplastic Low-Temp Pigtails | 3,000 PSI

ORDER CUSTOM LENGTH HOSE

Custom length hoses are not returnable for either credit or refund.
**Quick Fill Connector for CO2**

**Easy Connecting and Disconnecting from Cylinder**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>QF-SH320</td>
<td>Carbon Dioxide – Hand Spin On</td>
</tr>
</tbody>
</table>

**Hose Reel for Thermoplastic Hoses**

**Hose Reel to be Installed on Liquid CO2 Delivery Vehicles**

BEV-REEL with 1/2” full-flow Super Swivel with low temp Buna seal and FDA grease. Spring retractable heavy duty painted reel will handle up to 100 feet of 1/2” hose. 3000 PSIIG Rated.

**Paint Ball 2 Lever Fill Station**

**Fill stations are designed to fill your constant air (C.A.) bottles (3 1/2 oz., 7 oz., 10 oz. and 20 oz. bottles) with liquid carbon dioxide (CO2). Please note that the CO2 is liquid; the bottles are designed to hold the designated amount in liquid form.**

If you do not use a bulk tank with a siphon tube, you will probably transfer gas CO2, and this will change the weight of the tank. The bottles are designed to accommodate approximately 65% of their volume in liquid CO2. The remaining space is unfilled, allowing for the expansion of the CO2 as temperature convert into gas.

**WARNING:**

- Always use a scale to transfer the correct volume of CO2.
- DO NOT overfill your C.A. bottle to try for a few more shots.
- Secure your bulk tank so it will not fall/bump into other objects.

**Paint Ball Fill Station**

<table>
<thead>
<tr>
<th>Pt #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB-FS2L</td>
<td>Paint Ball 2 Lever Fill Station</td>
</tr>
</tbody>
</table>
**Transfill Pump with Scale**  
Part # TFPS-CO2

**Features**
- Liquefied Carbon Dioxide and Nitrous Oxide fill station
- Complete system, includes pump, scale and hose sets
- Excellent for on-demand filling of customers cylinders
- Patented double-ended pump with 9:1 ratio, fills at rate of 4 lbs. per minute
- Momentary fill button ensures operator attention
- "Economizer" fill valve bleeds pressure to cylinder while maintaining pressure in pump
- Lube free operation
- Powered by shop air or remaining pressure in spent cylinders

**Specifications**
- Part Number: TFPS-CO2
- Drive Air Required: 90-140 psi
- Drive Ratio: 9:1
- Fill Rate: 4 lbs/min
- Pump: Liquid gases only
- Design: Aluminum Body – Heat Treated Stainless Steel Piston

**Applications**
- HVAC service cylinders
- Nitrous Oxide cylinders
- Paintball cylinders
- Class 2 fire extinguishers

**Accessories**
- Cylinder hanging stand* for filling small cylinders (shown)
- Drive air kit
- CO2 drive air kit
- Pin valve depressor
- Pump only

**Dry Ice Machine for Cryogenic Dewars**

**Dry Ice, on Demand, When you Need it.**

You will need a Dewar (350psi Cryotank) of Liquid CO2.

Attach to the Liquid outlet of your Bulk CO2 tank using an Adjustable wrench. Open the cylinder valve and direct the nozzle into the Dry Ice Bag (sold separately).

One way to pack dry ice is by packing it into a small cardboard box. Pack it down with a 2x4, and tape it shut. Put the cardboard box into your cooler or insulated container.

Makes Dry Ice snow at the rate of 1 + lbs. every two minutes.

**Dry Ice Machine for High Pressure Tanks**

CO2 tank needs to be a liquid withdrawal tank that has a dip tube inside the tank so liquid comes out to produce dry ice.

Attach to the 0 to 70 lb (high pressure) Dip Tube/Siphon CO2 Cylinder using an Adjustable wrench. Open the cylinder valve and direct the nozzle into the Dry Ice Bag (sold separately).

Another way to use your dry ice, is to spread a couple layers of newspaper on a hard surface. Dump the Dry Ice from the bag or container onto the newspaper. Wrap your dry ice like a burrito in the newspaper and tape it shut. Place in cooler.

Makes Dry Ice snow at the rate of 1 lb. every two minutes.

**Dry Ice Accessories**

**Catch / Storage Bag**  
Part # DIM BAG

This is a dual purpose bag designed to be used as a “Catch” bag for your Dry Ice increasing efficiency and which can also be used to store your dry ice maker when you are not using it. Two layers of Heavy Duty “Duck” canvas that allow CO2 Gas to escape while holding dry ice inside.

- 16” wide by 26” long, with draw string.
Carbon Dioxide Piping | Manifold

Beverage Manifold Accessories

Automatic Manifold for Beverage Gases

Fountain and keg service are the profit center of many bars, restaurants, and concession stands. When CO₂ cylinders run dry, so do the drinks that are being served. This will almost always occur during peak serving times. This unit allows for uninterrupted gas service which eliminates all down time between cylinder changeouts and flat drinks. The unit is compact and works with standard beverage regulators and is the ideal alternative to costly bulk supply systems.

* Regulator not included

Beverage Manifold 100 PSI Switch Over

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Switch Over Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN-BEV-2-100</td>
<td>100 PSI Manifold – 2 cylinder</td>
<td>100 psi</td>
</tr>
<tr>
<td>MAN-BEV-4-100</td>
<td>100 PSI Manifold – 4 cylinder</td>
<td>100 psi</td>
</tr>
<tr>
<td>MAN-BEV-6-100</td>
<td>100 PSI Manifold – 6 cylinder</td>
<td>100 psi</td>
</tr>
<tr>
<td>MAN-RASO</td>
<td>Optional Accessory – Alarm</td>
<td></td>
</tr>
</tbody>
</table>

Beverage Manifold 200 PSI Switch Over

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Switch Over Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN-BEV-2-200</td>
<td>200 PSI Manifold – 2 cylinder</td>
<td>200 psi</td>
</tr>
<tr>
<td>MAN-BEV-4-200</td>
<td>200 PSI Manifold – 4 cylinder</td>
<td>200 psi</td>
</tr>
<tr>
<td>MAN-BEV-6-200</td>
<td>200 PSI Manifold – 6 cylinder</td>
<td>200 psi</td>
</tr>
<tr>
<td>MAN-RASO</td>
<td>Optional Accessory – Alarm</td>
<td></td>
</tr>
</tbody>
</table>

Low Pressure Changeover Valve

Keep backup supply ready for fast changeover.

- Has 1/4” male flare back check inlets, and 1/4” male flare outlet.
- Requires two CO₂ regulators.

For Regulators please see section 24A

For Carbon Dioxide Piping

The Performance of Plastic with the Strength of Metal

- 3/8”, 1/2”, 3/4” and 1” sizes
- Operating Pressures 200 psi at 73˚F, 160 psi at 140˚F

Inert gas distribution system designed to be absolutely leak-proof, installed quickly and easily, and maintained cost-effectively.

The entire Duratec system can be easily and quickly installed, modified or expanded without the need for specialized equipment.

QUICK DISCONNECT for CO₂ TANK!

CO₂ Plug & Socket

We build tough products for tough environments*
CO2 Transfer Hoses 450 PSIG

A lightweight, yet durable rubber hose manufactured specially for the demands of Carbon Dioxide

Transfer hoses are manufactured specifically for the demanding requirements of CO2 liquid and vapor transfer. Unlike rubber hydraulic hose that is constructed with carbon steel reinforcing, these hoses are reinforced with stainless steel braids to resist carbonic acid – the result of CO2 and moisture combination. In addition, our pricked cover solves the problem of bubbling that the covers of hydraulic hoses have experienced. These hoses will be dramatically more flexible in CO2 transfer than standard rubber hoses due to a specially blended tube rated to minus 65° F. The two-braid construction also offers much better kink resistance than comparable single braid products.

SPECIFICATIONS
Liquid / Vapor CO2 Transfer Hose

- Tube: Special Neoprene blend rated for -65° F
- Reinforcement: Two stainless steel braids
- Cover: Special Neoprene blend. Black with blue Mylar
- Temperature: -65° F to +180° F
- Pressure Range: 450 PSIG
- Branding: Blue Mylar
- CGA Fittings: Brass sleeve, nut, and dust caps available
- Other Fittings Available: Female NPT brass bar-stock fitting with aluminum crimp collar

<table>
<thead>
<tr>
<th>Part #</th>
<th>I.D. (In.)</th>
<th>O.D. (In.)</th>
<th>Max WP PSIG</th>
<th>Min Burst PSIG</th>
<th>Weight Per Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTH1</td>
<td>1</td>
<td>1.58</td>
<td>450</td>
<td>2250</td>
<td>0.83</td>
</tr>
<tr>
<td>CTH112</td>
<td>1 1/2</td>
<td>2.08</td>
<td>450</td>
<td>2250</td>
<td>1.19</td>
</tr>
<tr>
<td>CTH2</td>
<td>2</td>
<td>2.60</td>
<td>450</td>
<td>2250</td>
<td>1.90</td>
</tr>
</tbody>
</table>

**CO2 Transfer Hoses – 450 PSIG**

**Female NPT x Female NPT**

- **1” I.D. - 1” FNPT x 1” FNPT**
  - 10’: CTH-1ID-F1BH120
  - 20’: CTH-1ID-F1BH240

- **1 1/2” I.D. - 1 1/2” FNPT x 1 1/2” FNPT**
  - 10’: CTH-112ID-F112BH120
  - 20’: CTH-112ID-F112BH240

- **2” I.D. - 2” FNPT x 2” FNPT**
  - 10’: CTH-2ID-F2BH120
  - 20’: CTH-2ID-F2BH240

**Custom Length Hose – CO2 Transfer Hoses**

ORDER CUSTOM LENGTH HOSE

Choose Your Hose Ends Pt #

- 1” FNPT x 1” FNPT …………………… Pt # F1
- 1 1/2” FNPT x 1 1/2” FNPT ………Pt # F112
- 2” FNPT x 2” FNPT …………………… Pt # F2

*Custom length hoses are not returnable for either credit or refund.

**Carbon Dioxide Pump**

Positive Displacement Pumps and Oil-Free Gas Compressors for Liquid CO2 Applications

- Recirculation
- Processing
- Bulk Transfer
- Truck & Transport
- Railcar Unloading
- Vapor Recovery

Pump on Mounting base plate with Motor.

Part # Description

CO2P-114-BPM3H Carbon Dioxide Pump 1 1/4” on a Base Plate with Motor
**Carbon Dioxide Hose Products**

### Wall Box Nipple with 6-Hole Flange

**Part #** BEV-WBNIPPLE

### Carbon Dioxide Fittings

**Fill Gun Quick Connector / Dry Break Wing Nut Style**

(Standard Nitrile seals are rated to -40˚ F. Contact Ratermann for information on parts with special order seals rated below -40˚ F.)

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV-QCWC</td>
<td>Nut Style</td>
</tr>
<tr>
<td>BEV-QCNF</td>
<td>Nut Style</td>
</tr>
</tbody>
</table>

**Crimping System**

**Part #** BEV-BCS

**Part #** BEV-CRIMPER Crimper & Stand-Up Frame

**Part #** BEV-HANDPUMP Dual Stage Hand Pump for Crimper w/ .670 Die for 1/2” Hose

**Bulk Crimp Couplings**

**Part #** BEV-100

**Part #** BEV-150

**Part #** BEV-200

**Part #** BEV-300

### Carbon Dioxide Hose End Assembly*

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHEA-C02-100</td>
<td>1&quot;</td>
</tr>
<tr>
<td>BHEA-C02-150</td>
<td>1-1/2&quot;</td>
</tr>
<tr>
<td>BHEA-C02-200</td>
<td>2&quot;</td>
</tr>
<tr>
<td>BHEA-C02-300</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

*with O-Ring, please see page 19B-33

For more Carbon Dioxide Bulk Fittings see pages 19B 32-35

---

**Food Grade LCO2 Transfer Hose for CO2 & Beverage Applications**

**RATERMANN’S LCO2 compatible hose** will help you meet your FOOD SAFETY MODERNIZATION ACT (FSMA) requirements.

Our thermoplastic hose is specially designed for the transfer of liquid and gaseous carbon dioxide (CO2) for beverage applications. It is commonly used on small bulk delivery trucks as well as flexible lines from the restaurant wall-box to the liquid cylinders. The hose is specially formulated to perform well in temperatures as low as -40F, and the proprietary core tube is plasticizer free and FDA compliant. Our unique bonding process guarantees excellent kink resistance, and the proprietary “Tuff-Skin” cover provides for superior handling and abrasion resistance.

**Specifications**

- **Nominal I.D.:** 1/2 inch
- **Maximum O.D.:** 0.310 inches
- **Minimum Bend Radius:** 3.0 inches
- **Maximum Working Pressure:** 2,000 PSI
- **Weight:** lbs. per 100 ft = 14.8 kg per 100 m = 22.0

**Features**

- Plasticizer Free core tube
- Core tube is FDA compliant
- 100% Bonded Construction
- Excellent kink resistance
- Non-stick, low co-efficient of friction cover (75% better)
- Superior abrasion resistant cover (67% better)

**Temperature**

- -40F to + 150°F (-109°F Intermittent)
- -40°C to + 66°C (-78°C Intermittent)
- (Delta) Working length @ rated W PSI:
  - 2.2% max.

**Part #** BEV-F-250R

**Part #** BEV-F-1200FJIC58

**Part #** BEV-F-900FJIC58

**Part #** BEV-F-780FJIC58

**Part #** BEV-F-600FJIC58

**Part #** BEV-F-1200M12

**Part #** BEV-F-900M12

**Part #** BEV-F-780M12

**Part #** BEV-F-600M12

**Part #** BEV-F-VT60M12

**Part #** BEV-F-VT120FJIC58

**Part #** BEV-F-VT120FJIC58

---

**Hose Reel for Thermoplastic Hoses**

**Hose Reel to be Installed on Liquid CO2 Delivery Vehicles**

BEV-REEL with 1/2” full-flow Super Swivel with low temp Buna seal and FDA grease. Spring retractable heavy duty painted reel will handle up to 100 feet of 1/2” hose. 2000 Psi Rated.

**Part #** BEV-REEL
Carbon Dioxide Accessories

Assorted Flexible Tubing, Fittings, & Reels for all CO2 Requirements

Polyethylene Tubing
Vent Hose
White polyethylene tubing, 1/2” O.D. x .062” wall, 135 PSIG W.P. – 100 ft. coil

Clear Braided Tubing Series 1100
FDA rated.

Clear Braided Tubing Series 1100

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV-VH14CB</td>
<td>1/4” I.D. 300 ft. coil</td>
</tr>
<tr>
<td>BEV-VH38CB</td>
<td>3/8” I.D. 300 ft. coil</td>
</tr>
<tr>
<td>BEV-VH12CB</td>
<td>1/2” I.D. 300 ft. coil</td>
</tr>
</tbody>
</table>

Carbon Dioxide Fittings

90 Degree Live Swivel for Connection to Hose Reel
(Plated steel construction and -60˚ F low-temp Buna-N seals, and FDA grease.)

90 Degree Live Swivel

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV-LS90M12F12</td>
<td>1/2” Male Pipe x 1/2” Female Pipe</td>
</tr>
</tbody>
</table>

90 Degree Live Swivel

Brass Adapters

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV-58MJIC</td>
<td>5/8” Male JIC x 5/8” Male JIC</td>
</tr>
<tr>
<td>BEV-12MJIC</td>
<td>1/2” Male JIC x 1/2” Male JIC</td>
</tr>
</tbody>
</table>

Brass Adapters

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV-58MJIC34M</td>
<td>5/8” Male JIC x 3/4” Male NPT</td>
</tr>
<tr>
<td>BEV-58MJIC12M</td>
<td>5/8” Male JIC x 1/2” Male NPT</td>
</tr>
<tr>
<td>BEV-58MJIC38M</td>
<td>5/8” Male JIC x 3/8” Male NPT</td>
</tr>
<tr>
<td>BEV-12MJIC34M</td>
<td>1/2” Male JIC x 3/4” Male NPT</td>
</tr>
<tr>
<td>BEV-12MJIC12M</td>
<td>1/2” Male JIC x 1/2” Male NPT</td>
</tr>
<tr>
<td>BEV-12MJIC38M</td>
<td>1/2” Male JIC x 3/8” Male NPT</td>
</tr>
</tbody>
</table>

Plastic Push-to-Connect Fittings for CO2 Vessel Venting – 1/2” Tube O.D.

Union Tee  Pt # BEV-UT

Stem Adapter  Pt # BEV-SA

Union Elbow  Pt # BEV-UE

Union Connector  Pt # BEV-UC

Male Connector  Pt # BEV-MC

Rev: 9/15/14; 7/1/13
Carbon Dioxide and Gas Purification

Improve Carbonation
Advanced technology now provides a filter for both solid particulate and oil mist reduction. The excellent specifications for solid particulate reduction, oil aerosols and vapor reduction translate into increased carbonation and efficiency. Provides 40 times more solid particulate holding capacity than conventional filters.

Applications include beverage carbonation and brewing operations, gas packaging, injection molding, processing, medical uses, refrigeration / chilling systems and a host of others to meet your needs.

Applications:
- CO₂ & GAS PURIFICATION
- Beer & Beverage Carbonation
- Bottling and brewing
- Gas Packaging
- Chilling, Quick Freezing & Refrigeration
- Fire Extinguishers
- Medical & Surgical Uses
- Critical Instrumentation
- Industrial CO₂ Laser Cutting & Welding
- Blending, Foaming & Injection Molding
- Micro-Elements
- Ceramics Processing
- Holography

Benefits:
- One Filter does it all
- No pre filter required
- Low pressure drop
- Increase Carbonation

Features:
- Ultra High Porosity Carbon with Micro-Structure
- Nylon construction withstands high pressure
- Modular filter design for up to 80% less installation time!
- 40 times more solid particulate holding capacity than conventional filters!

Specified to:
- Provide 100% 0.5-1 Micron Solid Particulate Reduction
- Provide 100% Oil Aerosols and Vapor Reduction at 61 mg/m³
- Increase Carbonation

Materials of Construction:
Filter Media: Hollow Carbon
Housing: Polypropylene
Head: Proprietary reinforced nylon

Cartridge Specifications and Performance Data
Maximum Dimensions: 14” x 9” x 23”
Micron Rating: 0.5
Initial ΔP (psi) at Flow Rate (gpm): 8 psi @ 150 scfm
Temperature Rating: 40° to 100° F

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFS-CO2</td>
<td>Purification System</td>
</tr>
<tr>
<td>PFS-CO2-RC</td>
<td>Replacement Cartridge</td>
</tr>
</tbody>
</table>

COMPLETE LINE OF CARBON DIOXIDE DELIVERY HOSES...

Call Customer Service to Fill Your Hose Needs for Your Application.
Automatic Changeover Manifold

Utilizes Two Compensating Regulators

This Automatic Changeover Utilizes two compensating regulators to insure a seamless changeover from empty cylinder to full cylinder.

Features:
- For use with all inert gases
- Accurate and stable
- Changeover utilized two patented compensating regulators insuring accuracy
- Smooth and silent changeover
- Quick and simple installation
- Durable and compact
- Ideal application for: Beverage Industry (fountain and keg service); Welding (uninterrupted shield gas flow for automated systems); Laboratory (ideal for application requiring a stable constant flow without interruption)

Specifications:
- Max Inlet PSIG: 3,000 PSIG
- Size: 5" W x 10" H x 2" D
- Outlet Pressure: 125 PSI - 170 PSI

![Image of Automatic Changeover Manifold](image.jpg)

Ball Valves, Carbon Steel with Vented Ball

Features:
- Forged Construction
- Raised Handle Stops
- Blowout proof stem design
- Adjustable packing gland
- Zinc phosphate corrosion protection
- Stainless Steel Ball and Stem
- Vented Ball
- 2,000 PSIG

![Image of Ball Valve](image2.jpg)

Typical Setup: Can be used with manifolds on either side or on both inputs

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN-ACD</td>
<td>Automatic Changeover Manifold</td>
</tr>
<tr>
<td>MAN-ACD-20-24</td>
<td>Automatic Changeover Manifold, with 24&quot; Pigtails for Carbon Dioxide</td>
</tr>
<tr>
<td>MAN-ACD-30-36</td>
<td>Automatic Changeover Manifold, with 36&quot; Pigtails for Inert</td>
</tr>
<tr>
<td>MAN-ACD-580-24</td>
<td>Automatic Changeover Manifold, with 24&quot; Pigtails for Carbon Dioxide</td>
</tr>
<tr>
<td>MAN-ACD-580-36</td>
<td>Automatic Changeover Manifold, with 36&quot; Pigtails for Inert</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABV-C14-SV-SSBS</td>
<td>1/4&quot; F NPT</td>
</tr>
<tr>
<td>ABV-C16-SV-SSBS</td>
<td>3/8&quot; F NPT</td>
</tr>
<tr>
<td>ABV-C12-SV-SSBS</td>
<td>1/2&quot; F NPT</td>
</tr>
<tr>
<td>ABV-C14-SV-SSBS</td>
<td>3/4&quot; F NPT</td>
</tr>
<tr>
<td>ABV-C1-SV-SSBS</td>
<td>1&quot; F NPT</td>
</tr>
</tbody>
</table>

Rev: 7/1/13

Ratermann Manufacturing, Inc.  Customer Service 1-800-264-7793  Email sales@rmimfg.com  Online at Web Store www.rmiorder.com
The Complete System to Track Cylinders From Plant to Customer

WE CARRY A WIDE RANGE OF CYLINDER I.D. COLLARS AND TAGS TO LABEL & IDENTIFY YOUR BOTTLES FOR EASY TRANSPORT.

Keep Your Cargo Safe

The Greatest Variety of OSHA Signs in the Industry

WE CARRY

- Cylinder Collars
- E-Track Sections for Truck Trailers and E-Track Restraints Strap
- NFPA Signs
- Placards

Keep Out

Authorized Personnel Only

Authorized Personnel Only

Caution