Ultimate Liquid Cylinder Hose

Introduction
Considered the highest quality liquid cylinder hose on the market. Efficient cryogenic liquid transfer for bulk transfilling, home care, food, biological preservation, laboratories, electronics and more. Perfect for filling and dispensing from home healthcare vans.

Ultimate Flexibility
- Easy connection, coils up for storage, no broken wires
- Full armor casing protects hose from abrasion
- Design protects flare end from damage
- All stainless steel construction for longer life, faster cool-down, high durability
- Low profile corrugations for faster filling, lower pressure drop and less product loss
- Hoses and adapters can be provided cleaned, capped and bagged for oxygen service
- Available in 304 SS (Style CF04) or 316 SS (Style CF16)

Accessories
- **Safety Tee Assembly** — Prevents over-pressurization of hose assembly due to trapped liquid. Complete with 235 psig relief valve. For hose use only; not intended for tanks or other equipment.
- **90° Elbow Extension** — Connects to liquid cylinder. Prevents cylinder abrasion, overbending of hose.
- **T Handle Spinner** — Allows quick and easy connection of hose to liquid cylinder without the use of tools.
- **Phase Separator** — Provide safe, efficient filling of Dewars from liquid cylinders. (3/8" female NPT)
- **Adapters** — Allow easy connection of CGA 295, 440 and all female flares to male or female NPT.
**Ultimate Liquid Cylinder Hose Cross Section**

- 304 SS nut lasts longer than conventional brass
- Argon purged TIG weld reduces contaminants
- Smooth transition from hose to fitting increases flow rate, decreases contamination
- Flexible SS armor casing protects hose from kinks and abrasions. Backed by the only 3 year warranty in the industry
- Innovative bellows configuration provides extreme flexibility (304 and 316 SS)
- Flare fittings are machined from bar stock, not flared tubing, eliminating cracking and distortion (304 and 316 SS). Accepts either 37° or 45° male
- Heavy-duty ferrule eliminates excessive stress, extending hose life
- Full coverage SS braided reinforcement achieves 1,375 psig MAWP and 5,500 psig burst pressure. 4X stronger than industry standard

### ULTIMATE LIQUID CYLINDER HOSE SPECIFICATIONS

<table>
<thead>
<tr>
<th>NOMINAL SIZE (IN)</th>
<th>STYLE PREFIX AVAILABLE</th>
<th>OD.MAX W/O ARMOR (IN)</th>
<th>OD.MAX W/ARMOR (IN)</th>
<th>MAWP (PSIG)</th>
<th>MINIMUM BURST PRESSURE (PSIG)</th>
<th>MIN. STATIC BEND RADIUS W/O ARMOR (IN)</th>
<th>MIN. STATIC BEND RADIUS W/ARMOR (IN)</th>
<th>WEIGHT PER FOOT W/O ARMOR (LBS)</th>
<th>WEIGHT PER FOOT W/ARMOR (LBS)</th>
<th>TEMPERATURE RANGE (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>CF04</td>
<td>0.79</td>
<td>0.96</td>
<td>1375</td>
<td>5,500</td>
<td>1.3</td>
<td>3.0</td>
<td>0.24</td>
<td>0.64</td>
<td>Cryo to 1500°</td>
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<tr>
<td>1/2&quot;</td>
<td>CF16</td>
<td>0.79</td>
<td>0.96</td>
<td>1375</td>
<td>5,500</td>
<td>1.3</td>
<td>3.0</td>
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<td>0.64</td>
<td>Cryo to 1500°</td>
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<tr>
<td>3/4&quot;</td>
<td>CF04</td>
<td>1.18</td>
<td>1.47</td>
<td>850</td>
<td>3,400</td>
<td>2.1</td>
<td>6.0</td>
<td>0.36</td>
<td>0.98</td>
<td>Cryo to 1500°</td>
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<td>0.98</td>
<td>Cryo to 1500°</td>
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<tr>
<td>1&quot;</td>
<td>CF04</td>
<td>1.43</td>
<td>1.67</td>
<td>600</td>
<td>2,400</td>
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<td>6.5</td>
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<td>1&quot;</td>
<td>CF16</td>
<td>1.43</td>
<td>1.67</td>
<td>600</td>
<td>2,400</td>
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<td>6.5</td>
<td>0.44</td>
<td>1.24</td>
<td>Cryo to 1500°</td>
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</table>

CF16 = 316 SS inner
CF04 = 304 SS inner
All of the above hoses are available with double braid for increased working pressure.
Ultimate Liquid Cylinder Hose End Fittings

Female Flare other than CGA 295 or 440
Fits either 37° or 45° Male
STYLE 02
Sizes: 1/4"-1"
Available in S4, S6

Hex Male NPT
STYLE 03
Sizes: 1/4"-1"
Available in S4, S6

Hex Female NPT
STYLE 06
Sizes: 1/4"-1"
Available in S4, S6

CGA 295 1/2"
45° Flare Female w/ Safety Relief
STYLE 21T
Sizes: 1/2" only
Available in S4, S6
Brass relief

CGA 295 1/2"
45° Flare Female
STYLE 21
Sizes: 1/2" only
Available in S4, S6

CGA 440
5/8" 45° Flare Female
STYLE 22
Sizes: 5/8" only
Available in S4, S6

S4 = 304 Stainless Steel
S6 = 316 Stainless Steel
B = Brass
M = Monel
C = Carbon Steel
Ultimate Liquid Cylinder Hose End Fittings

CGA 440 w/Safety Relief
STYLE 221
Sizes: 5/8" only
Available in S4, S6
Brass relief

CGA 295
Elbow 1/2"
45° Flare
STYLE 26
Sizes: 1/2" only
Available in S4, S6

CGA 440
Elbow 5/8"
45° Flare
STYLE 27
Sizes: 5/8" only
Available in S4, S6

Male Flare 45°
STYLE 37
Sizes: 1/4"-1"
Available in S4, S6

Female Flare w/Female NPT Adapter
STYLE 07
Sizes: 1/4"-1"
Available in S4

Female Flare w/Male NPT Adapter
STYLE 08
Sizes: 1/4"-1"
Available in S4

S4 = 304 Stainless Steel
S6 = 316 Stainless Steel
B = Brass
M = Monel
C = Carbon Steel
### How to Order Ultimate Liquid Cylinder Hose

Create a part number using the codes below.

<table>
<thead>
<tr>
<th>HOSE (1/16&quot;)</th>
<th>HOSE SIZE</th>
<th>FITTING STYLE 1ST END</th>
<th>1ST FITTING FROM HOSE SIZE</th>
<th>FITTING STEP UP/DOWN 2ND END</th>
<th>2ND FITTING FROM HOSE SIZE</th>
<th>FITTING STEP UP/DOWN BOTH ENDS</th>
<th>ARMOR MATERIAL</th>
<th>OXYGEN CLEAN</th>
<th>LENGTH (IN)</th>
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<tbody>
<tr>
<td>EX:</td>
<td>8</td>
<td>CF04</td>
<td>03</td>
<td>D</td>
<td>27</td>
<td>S4</td>
<td>A</td>
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<td>12</td>
<td>CF16</td>
<td>03</td>
<td>DD-Step down x2</td>
<td>03</td>
<td>DD-Step down x2</td>
<td>S4</td>
<td>S6</td>
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<td></td>
<td>07</td>
<td>U-Step up</td>
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<td>U-Step up x2</td>
<td>A- Armor</td>
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</table>

### Follow These Simple Steps

Choose the code from each column that defines the part you want to order. Write the codes left to right, in column order, to create a part number.

**For Example:**
1. Select hose size in 16ths of an inch = 8
2. Select hose style = CF04
3. Select the fitting style for the first end = 03
4. Add the step up/down letter for off size fitting from the hose size for the first fitting.
   Leave blank if fitting size is same as hose size = D
5. Select the fitting style for the second end = 27
6. Add the step up/down letter for off size fitting from the hose size for the second fitting.
   Leave blank if fitting size is same as hose size = None
7. Select the fitting material = S4
8. Select A for armor or leave blank for no armor = A
9. Select O for oxygen clean or leave blank for no oxygen clean = O
10. Select length in inches = 120"

**Part Number - 8CF0403D27S4AO-120"**
1/2" I.D. 304 SS hose with 3/8" Male NPT one end and a CGA 440 elbow on the other end, armor casing full length, cleaned for oxygen service, 120" overall length.
How to Order Ultimate Liquid Cylinder Hose Accessories

**Safety Tees**
- **8T-295**
- CGA 295 male x female
- w/ 235 psi relief valve.
- **10F-440**
- CGA 440 male x female
- with 235 psi relief valve.
- (other end fitting combinations available. Consult factory for details)
- Available in S4 with brass relief

**Phase Separator**
- **7706P5SOO**
- Equipped with 3/8" female NPT
- Available in S4

**T Handle Spinners**
- **8L-29ST**
- CGA 295 male x female
- w/ built in elbow
- **10L-440T**
- CGA 440 male x female
- w/ built in elbow
- (other end fitting combinations available. Consult factory for details)
- Available in S4

**90° Elbow Extension**
- **8L-295**
- CGA 295 male x female
- **10L-440**
- CGA 440 male x female
- (other end fitting combinations available. Consult factory for details)
- Available in S4
How to Order Ultimate Liquid Cylinder Hose Adapters

**Male Flare x Male NPT Adapters**

4448-8BB0 — Male 295 x 1/4" Male NPT (Brass)
4448-8B40 — Male 295 x 1/4" Male NPT (SS)
4448-8CB0 — Male 295 x 3/8" Male NPT (Brass)
4448-8C40 — Male 295 x 3/8" Male NPT (SS)
4448-8DB0 — Male 295 x 1/2" Male NPT (Brass)
4448-8D40 — Male 295 x 1/2" Male NPT (SS)
4448-10BB — Male 440 x 1/4" Male NPT (Brass)
4448-10CB — Male 440 x 3/8" Male NPT (Brass)
4448-10DB — Male 440 x 1/2" Male NPT (Brass)
4448-10D4 — Male 440 x 1/2" Male NPT (SS)
4448-12D4 — 3/4" Male Flare x 1/2" Male NPT (SS)
4448-12E4 — 3/4" Male Flare x 3/4" Male NPT (SS)
4448-16E4 — 1" Male Flare x 3/4" Male NPT (SS)
4448-16H4 — 1" Male Flare x 1" Male NPT (SS)
4448-16J4 — 1" Male Flare x 1-1/2" Male NPT (SS)

**Male Flare x Female NPT Adapters**

4446-8BB0 — Male 295 x 1/4" Female NPT (Brass)
4446-8B40 — Male 295 x 1/4" Female NPT (SS)
4446-8CBO — Male 295 x 3/8" Female NPT (Brass)
4446-8C40 — Male 295 x 3/8" Female NPT (SS)
4446-8DB0 — Male 295 x 1/2" Female NPT (Brass)
4446-8D40 — Male 295 x 1/2" Female NPT (SS)
4446-10CB — Male 440 x 3/8" Female NPT (Brass)
4446-10DB — Male 440 x 1/2" Female NPT (Brass)
4446-10D4 — Male 440 x 1/2" Female NPT (SS)
4446-10EB — Male 440 x 3/4" Female NPT (Brass)
4446-12E4 — 3/4" Male Flare x 3/4" Male NPT (SS)
4446-16H6 — 1" Male Flare x 1" Female NPT (SS)

**Female Flare x Male Flare Adapters**

77082137S4 — CGA 295 Male x Female (SS)
77102237S4O — CGA 440 Male x Female (SS)
77102238UUS4O — 1" Male Flare x 440 Female (SS)

Many other Flare x NPT and Flare x Flare adapters available. Please consult factory for details.