Flexible Components brand liquid cylinder hose is considered the highest quality liquid cylinder hose on the market. It effectively transfers cryogenic liquids for bulk transfilling, home care, food, biological preservation, laboratories, electronics and more. The liquid cylinder hose is perfect for filling and dispensing from home healthcare vans.

**Features & Benefits**
- Ultra flexible.
- 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 and 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 psi relief valve. For hose use only; not intended for tanks or other equipment.
- **90° Elbow Extension** – Connects to liquid cylinder. Prevents cylinder abrasion and overbending of hose.
- **T Handle Spinner** – Allows quick and easy connection of hose to liquid cylinder without the use of tools.
- **Phase Separator** – Provides safe, efficient filling of dewars from liquid cylinders (3/8" female NPT).
- **Adapter** – Allows easy connection of CGA 295, 440 and all female flares to male or female NPT.
Flare fittings are machined from bar stock, not flared tubing, eliminating cracking and distortion (304 and 316 SS); accepts either 37° or 45° male

Argon purged TIG weld reduces contaminants

Innovative bellows configuration provides extreme flexibility (304 and 316 SS)

Flexible SS armor casing protects hose from kinks and abrasions

Cross sections are for illustration purposes only. Actual fitting length, dimensions and scale may vary from what is shown.

| Ultimate Liquid Cylinder Hose Specifications – Part 1 of 2 |
|---------------------------------|---------|---------|---------|---------|---------|---------|
| Style Prefix Available          | Nominal Size I.D. Without Armor | Size O.D. Without Armor | Size O.D. With Armor | Maximum Working Pressure | Minimum Burst Pressure |
|                                | in.     | mm      | in.     | mm      | psi     | bar     | psi     | bar     |
| CF04                           | 1/2     | 12.70   | 0.79    | 20.07   | 0.96    | 24.38   | 1,160   | 80.00   | 5,500   | 379.30 |
| CF16                           | 1/2     | 12.70   | 0.79    | 20.07   | 0.96    | 24.38   | 1,160   | 80.00   | 5,500   | 379.30 |
| CF04                           | 3/4     | 19.05   | 1.18    | 29.97   | 1.47    | 37.34   | 725     | 50.00   | 3,509   | 241.99 |
| CF16                           | 3/4     | 19.05   | 1.18    | 29.97   | 1.47    | 37.34   | 725     | 50.00   | 3,509   | 241.99 |
| CF04                           | 1       | 25.40   | 1.43    | 36.32   | 1.67    | 42.42   | 580     | 40.00   | 2,755   | 190.00 |
| CF04                           | 1       | 25.40   | 1.43    | 36.32   | 1.67    | 42.42   | 580     | 40.00   | 2,755   | 190.00 |
| CF04                           | 2       | 32.18   | 1.60    | 43.78   | 2.04    | 56.45   | 925     | 60.00   | 4,742   | 324.95 |
| CF04                           | 2       | 32.18   | 1.60    | 43.78   | 2.04    | 56.45   | 925     | 60.00   | 4,742   | 324.95 |

| Ultimate Liquid Cylinder Hose Specifications – Part 2 of 2 |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Style Prefix Available          | Minimum Bend Radius Without Armor | Minimum Bend Radius With Armor | Weight Without Armor | Weight With Armor | Temperature Range |
|                                | in.     | mm      | lb./ft.  kg/m | lb./ft.  kg/m | °F     | °C     |
| CF04                           | 1.3     | 33.02   | 3.0  76.20 0.24 0.16 0.64 0.95 | Cryo to 1500 | Cryo to 815 |
| CF16                           | 1.3     | 33.02   | 3.0  76.20 0.24 0.16 0.64 0.95 | Cryo to 1500 | Cryo to 815 |
| CF04                           | 2.1     | 53.34   | 6.0  152.40 0.36 0.54 0.98 1.46 | Cryo to 1500 | Cryo to 815 |
| CF16                           | 2.1     | 53.34   | 6.0  152.40 0.36 0.54 0.98 1.46 | Cryo to 1500 | Cryo to 815 |
| CF04                           | 2.5     | 63.50   | 6.5  165.10 0.44 0.65 1.24 1.85 | Cryo to 1500 | Cryo to 815 |
| CF16                           | 2.5     | 63.50   | 6.5  165.10 0.44 0.65 1.24 1.85 | Cryo to 1500 | Cryo to 815 |

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

**Female Flare 37° or 45° – Style 02**
Sizes: 1/4"-1"
For hose styles: CF04, CF16
Available in: S4, S6

**Hex Male NPT – Style 03**
Sizes: 1/4"-1"
For hose styles: CF04, CF16
Available in: S4, S6

**Hex Female NPT – Style 06**
Sizes: 1/4"-1"
For hose styles: CF04, CF16
Available in: S4, S6

**Female Flare with Male NPT Adapter – Style 07**
Sizes: 1/4"-1"
For hose styles: CF04, CF16
Available in: S4

**Female Flare with Male NPT Adapter – Style 08**
Sizes: 1/4"-1"
For hose styles: CF04, CF16
Available in: S4

**CGA 295 1/2", 45° Flare Female – Style 21**
Size: 1/2" only
For hose styles: CF04, CF16
Available in: S4, S6
Brass relief

**CGA 295 1/2", 45° Flare Female with Safety Relief – Style 21T**
Size: 1/2" only
For hose styles: CF04, CF16
Available in: S4, S6

**CGA 440, 5/8" 45° Flare Female – Style 22**
Size: 5/8" only
For hose styles: CF04, CF16
Available in: S4, S6

**CGA 440 with Safety Relief – Style 22T**
Size: 5/8" only
For hose styles: CF04, CF16
Available in: S4, S6
Brass relief

Fitting material designator:
S4 = 304 Stainless Steel
S6 = 316 Stainless Steel
Step-up and step-down fittings available.
CGA 295 Elbow 1/2", 45° Flare – Style 26  
Size: 1/2" only  
For hose styles: CF04, CF16  
Available in: S4, S6

CGA 440, Elbow 5/8", 45° Flare – Style 27  
Size: 5/8" only  
For hose styles: CF04, CF16  
Available in: S4, S6

Male Flare 45° – Style 37  
Sizes: 1/4"-1"  
For hose styles: CF04, CF16  
Available in: S4, S6

Accessories

Safety Tees – 8T-295  
CGA 295 male x female with 235 psi relief valve  
10T-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 – 7706PSSOO  
Equipped with 3/8" female NPT  
Available in: S4

T Handle Spinners – 8L-295T  
CGA 295 male x female with built-in elbow  
10L-440T  
CGA 440 male x female with 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

Liquid Cylinder Handwheels – 770821S4H  
1/2" CGA 295 handwheel swivel adapter with male SAE  
Available in: S4  
771022S4H0  
5/8" CGA 440 handwheel swivel adapter with male SAE  
Available in: S4

Fitting material designator:  
S4 = 304 Stainless Steel  
S6 = 316 Stainless Steel  
Step-up and step-down fittings available.
Cryogenic Liquid – Ultimate Liquid Cylinder Hose Adapters

**Male Flare x Male NPT Adapters**
- 4448-8BB0 – Male 295 x 1/4” Male NPT (Brass)
- 4448-8B60 – Male 295 x 1/4” Male NPT (SS)
- 4448-8CB0 – Male 295 x 3/8” Male NPT (Brass)
- 4448-8C60 – Male 295 x 3/8” Male NPT (SS)
- 4448-8DB0 – Male 295 x 1/2” Male NPT (Brass)
- 4448-8D60 – 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)
- 4448-10D6 – Male 440 x 1/2” Male NPT (SS)
- 4448-12D6 – 3/4” Male Flare x 1/2” Male NPT (SS)
- 4448-12E6 – 3/4” Male Flare x 3/4” Male NPT (SS)
- 4448-16E6 – 1” Male Flare x 3/4” Male NPT (SS)
- 4448-16H6 – 1” Male Flare x 1” Male NPT (SS)
- 4448-16J6 – 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)
- 4446-8B60 – Male 295 x 1/4” Female NPT (SS)
- 4446-8CB0 – Male 295 x 3/8” Female NPT (Brass)
- 4446-8C60 – Male 295 x 3/8” Female NPT (SS)
- 4446-8DB0 – Male 295 x 1/2” Female NPT (Brass)
- 4446-8D60 – 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)
- 4446-10D6 – Male 440 x 1/2” Female NPT (SS)
- 4446-10EB – Male 440 x 3/4” Female NPT (Brass)
- 4446-12E6 – 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**
- 77082138S4 – CGA 295 Male x Female (SS)
- 77102238S4O – 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.
Cryogenic Liquid – How to Order Ultimate Liquid Cylinder Hose

How to Order Ultimate Liquid Cylinder Hose
Part Number Example: 8CF0403D27S4AO-120"

Description: 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.

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 = D
   (Leave blank if fitting size is same as hose size )
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 = None
   (Leave blank if fitting size is same as hose size)
7. Select the fitting material = S4
8. Select A for armor = A
   (Leave blank for no armor)
9. Select O for oxygen clean = O
   (Leave blank for no oxygen clean)
10. Select length in inches = 120

Hose I.D. Size (in 1/16") | Hose Style | Fitting Style 1st End | 1st Fitting Step Up/Down From Hose Size | Fitting Style 2nd End | 2nd Fitting Step Up/Down From Hose Size | Fitting Material – Both Ends | Armor Casing | Oxygen Clean | Length (Inches)
---|---|---|---|---|---|---|---|---|---
8 (1/2) | CF04 | 02 | D = Step Down | 02 | D = Step Down | S4 = 304 SS | A | O | 120
12 (3/4) | CF16 | 03 | DD = Step Down x2 | 03 | DD = Step Down x2 | S6 = 316 SS | 16 (1) | 07 | 08 | 21 | 21T | 22 | 22T | 26 | 27 | 37