United Flexible Fluoropolymer Gas Hoses

We manufacture assembled fluoropolymer hoses for the gas industry and for other companies which provide gas equipment world wide. Hoses and fittings are optimized to fulfill the various quality standards which are necessary to meet the security levels within the gas industry. We have a long history and experience of manufacturing fluoropolymer gas filling hoses since we invented the fluoropolymer gas filling hose back in the late 1950’s. We serve all the gas filling companies globally.

Advantages with Fluoropolymer gas hoses

- **Extremely chemical resistant** - can withstand close to all known gases
- **Superior flex life** - compared to metallic gas hoses, gives longer service life
- **Excellent temperature range** - -60°C to +260°C (-76°F to +500°F)
- **Minimal diffusion** - compared to other polymeric materials
- **Light construction**
- **Cost effective assembly** - no welding required

We design and produce from inner tubing to assembled hose in-house which means that we have full control of the entire process. We use PTFE, PFA and ETFE (Tefzel) to meet application requirements and customer demands. We have a wide fitting program both in design and material in order to meet different market demands and standards.

We have many different accessories for our gas filling hoses. See next side for further examples.

Temperature Range: -60°C to +260°C (-76°F to +500°F)

Chemical Resistance: Refer to separate data pages or website (URL)

Compliance: We have many designs approved according to ISO 14113 for Oxygen, acetylene and many other gases.

The raw material grades used for the inner tubing are compliant to FDA 21 CFR 177.1550 and/or USP Class VI, EU 10/2011 or WRAS. Contact the factory for more information.

### COMPRESSED GAS CYLINDER FILL HOSE GUIDE

<table>
<thead>
<tr>
<th>Working Pressure PSI</th>
<th>3000</th>
<th>4000</th>
<th>6000</th>
<th>3000</th>
<th>4350</th>
<th>6000</th>
<th>6000</th>
<th>4000</th>
<th>5300</th>
<th>3000</th>
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<tbody>
<tr>
<td>Working Pressure BAR</td>
<td>207</td>
<td>276</td>
<td>414</td>
<td>207</td>
<td>300</td>
<td>414</td>
<td>414</td>
<td>276</td>
<td>366</td>
<td>207</td>
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<tr>
<td>Innercore Type</td>
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<td>PTFE</td>
<td>PTFE</td>
<td>ETFE</td>
<td>PTFE</td>
<td>ETFE</td>
<td>PFA</td>
<td>ETFE</td>
<td>PFA</td>
<td>ETFE</td>
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<tr>
<td>Hose Part # Imperial</td>
<td>HDS90.2N</td>
<td>DPS1.22C</td>
<td>ULPIMO.2C</td>
<td>HDSTF10.24N</td>
<td>HDDPF10.25N</td>
<td>ULEIO.2N</td>
<td>ULPID0.2N</td>
<td>402H</td>
<td>402X</td>
<td>A400-2</td>
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<td>Hose Part # Metric</td>
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<td>DPSM5.6C</td>
<td>ULPIMMS.8C</td>
<td>HDSTFM6.2N</td>
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<td>402H</td>
<td>402X</td>
<td>A400-2</td>
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**Gas**

- Acetylene** 510 1 1 1 3 2 3 2 3 3 3
- Argon 580 1 1 3 3 2 3 2 3 3 3
- Arsenic** 510 5 5 5 5 5 5 5 5 5 5 5
- Carbon Dioxide 320 1 1 3 5 5 5 5 3 3 3
- Carbon Monoxide** 350 2 2 2 2 2 2 2 1 1 3
- Chlorine** 660 5 5 5 5 5 5 5 5 5 5 2
- Fluorine** 679 5 5 5 5 5 5 5 5 5 5 2
- Helium 580 5 5 5 1 5 5 1 1 2
- Hydrogen 350 5 5 5 5 2 5 5 2 2 3
- Natural Gas** 350 2 2 3 3 1 3 1 1 3 3
- Nitrogen 580 1 1 2 3 1 3 1 3 3 3
- Nitrous Oxide 326 2 2 3 3 1 3 1 3 3 3
- Oxygen 540 1* 1* 3** 5* 1* 5 1* 3 3 3
- Silane** 350 OR 510 5 5 5 5 5 5 5 5 5 2

**Compatibility Rating:**

- Excellent = 1: Very Good =2: Good = 3: Acceptable = 4: Not Recommended =5: CF= Consult Factory

* Distance piece/flash arrestor should be used with Fluoropolymer assemblies in case of adiabatic compression.

** Combustible and toxic gasses should be transferred in a well ventilated environment.
Standard fittings - Male

Type A
Male fixed (Cylindrical)
Flat faced (Thread type BSP, UNF, ISO 228/1 or Metric)

Type B
Male fixed (Taper)
Flat faced (Thread type NPT, BSTP, ISO 7/1)

Type J
Male fixed (Cylindrical)
Cone seat 60°

Type K
Male fixed (Cylindrical)
Cone seat 24°

Type M
Stand pipe, straight

Type N
Male fixed (UNF)
Cone seat 74° JIC

Materials:
A = Carbon steel
R = Stainless steel
S = Acid proof steel
M = Brass
Standard fittings - Female

Type C
Female (Swivel)
Cone seat
EX. 90° 60°

Type D
Female (Swivel)
Cone seat
EX. 90° 60° JIC 74°

Type E
Female (Swivel)
Flat faced

Type F
Female (Swivel)
Flat faced (Tap)

Type H
Female fixed
(Cylindrical)
Flat faced

Type I
Female fixed (Taper)

Type L
Female (Swivel)
Cone seat 24° with O-ring

Type S
Female (Swivel)
Multi seal (Spherical)

Materials:
A = Carbon steel
R = Stainless steel
S = Acid proof steel
M = Brass
**O2 Hose:**
Gas hose assembly for Oxygen filling  
(Example with heat sink, safety wire and finger-tight hand swivel nut)

**C2H2 Hose:**
Gas hose assembly for Acetylene filling  
(Example with safety wire, spring guard and loop with wire lock)

Besides these examples, we manufacture many different configurations.  
Hoses for O2 and C2H2 can be designed to pass the decomposition (O2) or ignition (C2H2) tests acc. to. ISO 14113  
Please ask the factory for details.