ULTRAFLEX™ SERIES

ULTRA-FLEXIBLE CONVOLUTED HOSE OF PTFE
FOR HEAVY DUTY APPLICATIONS
**PUREFLEX INNOVATION**

No other company in the industry rivals PureFlex’s product integration. Using the most advanced manufacturing techniques, PureFlex integrates design, hose and fitting manufacturing, testing and assembly—all under one roof. Add the largest selection of end fittings and it’s easy to see why PureFlex is the company of choice for those with demanding transfer processes.

**ULTRAFLEX HOSE**

UltraFlex heavy duty hose is made with the thickest, seamless PTFE liner in the industry which makes it ideal for nearly all demanding chemical and high purity applications. The open pitch, spiral convolutions facilitate cleaning because they’re self-draining, and the tight bend radius of UltraFlex hose is perfect for space-constrained locations. To ensure continuous fluid contact with PTFE throughout the hose assembly, the PTFE liner can be factory cuffed and flared through: flanges; sanitary fittings; male and female cams.

**ULTRAFLEX ADVANTAGES**

- **Corrosion resistant.** PTFE is fully resistant to the broadest range of industrial chemicals and has a zero corrosion rate and lower life cycle costs.
- **Cleanable.** Non-stick, low porosity tube does not trap bacteria and can be cleaned with steam, detergents, caustics or solvents.
- **Sanitary.** FDA-approved materials meet or exceed 3A requirements.
- **Compatible.** Will not contaminate or impart a taste, color or odor to any media.
- **Flexible.** Ultra flexible design that resists flex cracking and stress corroding.
- **Durable.** Designed for extended use in hostile environments involving severe chemical, thermal, and mechanical stresses. Does not suffer aging or embrittlement, even with extreme thermal cycling.

**SPECIFICATIONS**

Stainless and No Braid Temperature Range: -65°F (-54°C) to +450°F (232°C)
Polypropylene Braid Temperature Range: -20°F (-29°C) to +250°F (121°C)

<table>
<thead>
<tr>
<th>I.D. Nominal (in)</th>
<th>Operating Pressure (PSI)</th>
<th>Minimum Bend Radius (in)</th>
<th>Vacuum Rating (in-Hg)</th>
<th>Weight per Foot (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S.S. Braid</td>
<td>Polypropylene Braid</td>
<td>Bare Hose</td>
<td></td>
</tr>
<tr>
<td>1/2</td>
<td>400</td>
<td>400</td>
<td>40</td>
<td>1.75</td>
</tr>
<tr>
<td>3/4</td>
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<td>30</td>
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<td>275</td>
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<tr>
<td>1-1/2</td>
<td>325</td>
<td>250</td>
<td>20</td>
<td>3.25</td>
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<td>2</td>
<td>275</td>
<td>225</td>
<td>15</td>
<td>5.25</td>
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<tr>
<td>2-1/2</td>
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<tr>
<td>4</td>
<td>125</td>
<td>125</td>
<td>15</td>
<td>11.95</td>
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</tbody>
</table>

Operating pressure ratings are one-fourth the minimum burst pressure at +70°F (21°C).
Pressure and vacuum ratings are based at +70°F (21°C).
HOSE COVER OPTIONS

1. SCUFF SLEEVE
   Protects hose exterior from damage when dragged over rough surfaces.

2. FIRE SLEEVE
   Protects hose from extreme exterior temperatures. Used for insulating hose. Protects personnel who handle the hose from extreme interior temperatures.

3. POLYOLEFIN
   Provides a smooth, cleanable covering over braided hose.

4. ARMOR GUARD
   Protects hose from kinking by not allowing handler to exceed the bend radius.

5. SPRING GUARD
   Provides kink resistance and protects hose exterior from scuffing and damage when dragged over rough surfaces.

HOSE END CONNECTIONS
Over 40 standard fitting styles are manufactured including: flanged, sanitary, JIC, NPT, cam lock. All fittings feature PureFlex’s exclusive high performance barb design (see page 5).

SURFACE FINISHES
Ultra smooth internal surface finishes meet or exceed Pharmacopoeia Class VI, FDA, USDA and 3A standards.

FLARE-THRU
The thick, PTFE tube can be passed through the end fitting and flared radially outward against the sealing face of the following fittings:

- Sanitary
- Flanged
- Female Cam, and Male Cam (not pictured).
Fittings

PureFlex fittings and collars are manufactured specifically for PFA and plastic-lined hoses. Applying the highest quality standards, they are designed for compatibility with most manufacturers’ true-bore plastic hoses including smooth bore, convoluted, cuffed, and rubber-covered plastic lined.

In addition, PureFlex has designed and manufactured the most diverse fitting and collar selection in the industry.

All fitting styles may not be available for all hose types.

Fitting Materials

A wide range of fitting materials include carbon steel, 304 S.S., 316 S.S., Monel®, Hastelloy®, solid Kynar® (PVDF), or solid polypropylene. Other materials available upon request.

To achieve maximum plastic hose performance, specify PureFlex encapsulated fittings available in PFA and polypropylene. Advantages include zero corrosion rates and lower lifecycle costs.
**PUREFLEX**

**“HIGH PERFORMANCE” FITTING BARB DESIGN**

- Double-sided, patent-pending barb design locks fittings securely into hose.
- Fitting barb height and angles are tightly controlled to eliminate tearing and splitting of plastic hose during assembly, fabrication, and operation.
- Optimizes pressure and sealing capabilities.
- Eliminates: cold flowing of liner around fittings; hose shifting in both directions; fitting blow off.
- Smooth transition between fitting and hose eliminates product entrapment.
- Easy-to-assemble collar and fitting “dog lock” design.

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**TRI-LOC™ ULTIMATE BLOW OFF PREVENTION**

1. Dog lock
2. Barbed collar
3. Double sided barbs

RexChem hose shown above.
HOW TO ORDER

ULTRA FLEX HOSE ASSEMBLY NUMBERING SYSTEM
Steps to order a 1” UltraFlex assembly with a length of 12”, 316SS Male NPT one end, 316SS JIC other end. No options.
Sample part number: 16J036306001200

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
<th>Step 7</th>
<th>Step 8</th>
<th>Step 9</th>
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<tbody>
<tr>
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<td>6</td>
<td>J</td>
<td>0</td>
<td>3</td>
<td>6</td>
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</tbody>
</table>

STEP 1
Determine I.D. of UltraFlex tube:
16 = 1”
08 = 1/2”
12 = 3/4”
24 = 1-1/2”
32 = 2”
48 = 3”
64 = 4”

STEP 2
Determine hose product code: J
UltraFlex
U = Bare
J = SS Braid
P = PP Braid
K = Kynar Braid

STEP 3
Determine fitting style of 1st end:
03 = Male NPT
04 = Male pipe NPT
05 = Female pipe NPT
30 = JIC female swivel
33 = Male union (NPT)
36 = Female union (NPT)
37 = Female swivel NPSH

Flanges
05 = Flange retainer
15 = Flange retainer P-series
29 = Flare thru flange

Camlock
07 = Female cam lock “D”
27 = Enc. female cam lock “D”
08 = Male cam lock “E”
28 = Enc. male cam lock “E”

Compression
31 = O-ring female swivel “D”
38 = Compression adapter
39 = Compression connector w/ Nut & Ferrule

Buttweld
18 = Tube buttweld
19 = Pipe buttweld

Sanitary
40 = Sanitary tri-clamp
40U = Sanitary flare thru
41 = Sanitary step-up
42 = Sanitary mini
48 = I-line male
49 = I-line female
45 = Bevel seat female
46 = Bevel seat male

STEP 4
Determine fitting material: 6 = 316SS
4 = 304SS
G = 316SS
C = Carbon steel
T = TFE encapsulated
H = Hastelloy
M = Monel
A = Alloy 20
K = Kynar
P = Polypropylene

STEP 5
Determine fitting style of 2nd end:
30 = JIC
03 = Male pipe hex NPT
04 = Male pipe NPT
06 = Female pipe NPT
30 = JIC female swivel
33 = Male union (NPT)
36 = Female union (NPT)
37 = Female swivel NPSH

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48 = I-line male
49 = I-line female
45 = Bevel seat female
46 = Bevel seat male

STEP 6
Determine fitting material: 6 = 316SS
4 = 304SS
G = 316SS
C = Carbon steel
T = TFE encapsulated
H = Hastelloy
M = Monel
A = Alloy 20
K = Kynar
P = Polypropylene

STEP 7
Determine flange material: 0 = None
0 = None
D = Ductile iron
C = Carbon steel
4 = 304SS
6 = 316SS
K = Kynar
P = Polypropylene

STEP 8
Determine overall length of UltraFlex hose in inches:
0120 = 12”
Last digit in 1/8th increments.

STEP 9
Determine options:
0 = None
B = Conductive hose liner
Z = 300# Flg
L = Locking female cam
S = Spring guard
A = Armor guard
F = Firesleeve
P = Polyolefin cover
T = TFE shrink cover
H = Hypalon cover
N = Nylon scuff guard
THE MOST ADVANCED FLUOROPOLYMER HOSE SYSTEM AVAILABLE

In-house integration of design, hose manufacturing, fitting manufacturing, assembly and testing from a single company.

**UltraFlex™**
Ultra-flexible heavy duty convoluted hose.

**MultiFlex™**
Superior flexibility for higher pressure applications.

**MTH™ (Metal PTFE Hose)**
Flexible metal hose with smooth bore PTFE liner.

**FlexChem™**
Rubber covered smooth bore FEP & PTFE hose.

**ProFlex™**
Industrial grade, high quality, low priced convoluted hose.

**SmoothFlex™**
Smooth bore PTFE hose with stainless steel braid.

**PureSite™**
Unbreakable translucent FEP sight gages.

**Task-Line® Gaskets**
PTFE gaskets with encapsulated stainless steel insert.

**Task-Line® Grounding Paddles**
Pipe static-dissipating paddles.

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MARKETS
Chemical Process
Pharmaceutical
Steel
Food Processing
Automotive
Agriculture
Pulp and Paper
Petroleum
Mining
Railroad
Dairy
Textile
Semiconductor

APPLICATIONS
Acid Transfer
Pickling
Reverse Osmosis
Steam Transfer
Molding Equipment
Adhesives
Air Actuation
Sanitary Transfer
Purification Systems
Centrifuges
Extrusion Presses
Caustic Wash
High Purity

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