

**PFA / PTFE Hose & Spiral Tubing**

***Convolutated***



**PureFlex<sup>®</sup>**

an ANDRONACO INDUSTRIES company



### THE SEVERE SERVICE STANDARD

### HEAVY DUTY APPLICATIONS

UltraFlex heavy duty hose is made with the thickest, seamless PTFE liner in the industry and offers the largest size range (1/2" - 6") which makes it ideal for nearly all demanding high purity and chemical 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 cuffed and flared through for a continuous fluid conduit.



316 Stainless Steel Braid  
Pure PTFE



316 Stainless Steel Braid  
Static - Dissipating PTFE



Polypropylene Braid  
Pure PTFE



Polypropylene Braid  
Static - Dissipating PTFE

OTHER BRAID OPTIONS AVAILABLE

### ULTRAFLEX ADVANTAGES

#### Corrosion Resistant

PTFE is fully resistant to the broadest range of industrial chemicals and has a zero corrosion rate with lower life cycle costs.

#### Cleanable

Non-Stick, low porosity tube is self cleaning and does not trap bacteria and can be cleaned with steam, detergents, caustics or solvents.

#### Sanitary

FDA- approved materials meet or exceed Pharmacopoeia Class VI and 3A standards.

#### Compatible

Will not contaminate or impart a taste, color, or odor to any media.

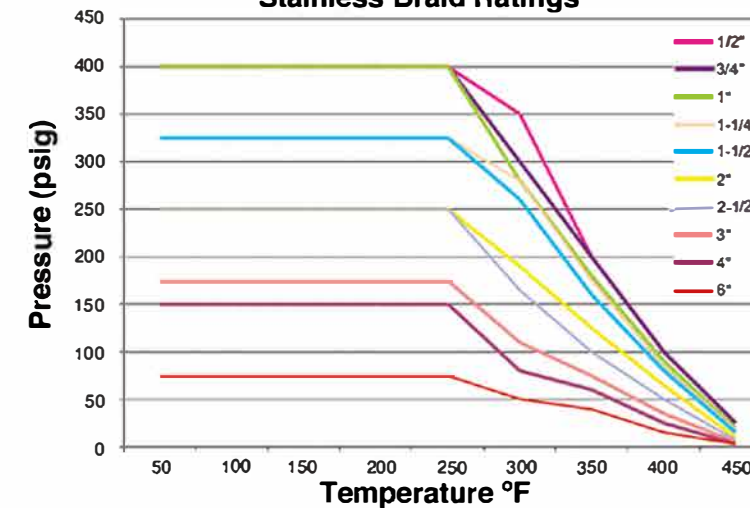
#### Flexible

Ultra flexible engineered design that resists cracking and stress corroding.

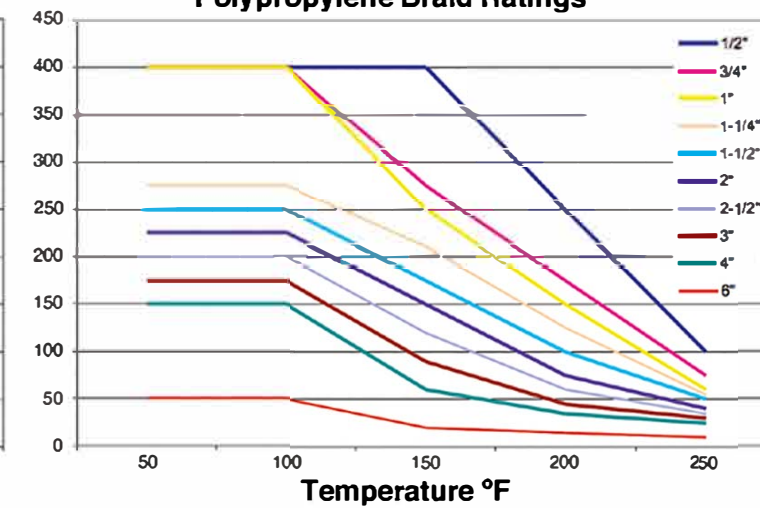
#### Durable

Engineered for extended use in hostile environments involving severe chemical, thermal, and mechanical stresses. Does not suffer from aging or embrittlement like rubber even with extreme thermal cycling.

### Stainless Braid Ratings



### Polypropylene Braid Ratings



Stainless braid and bare hose temperature range: (-)65°F (-54°C) to (+)450°F (+232°C)  
Polypropylene braid temperature range: (-)20°F (-29°C) to (+)250°F (+121°C)

I.D Nominal (inch)	OPERATING PRESSURE (psi)			Minimum Bend Radius (inch)	Vacuum Rating (in-Hg)	Weight Per Foot (lbs.)
	S.S. Braid	Polypro Braid	Bare Hose			
1/2"	400	400	40	1.75	29.9	0.20
3/4"	400	400	30	2.25	29.9	0.35
1"	400	400	30	2.50	29.9	0.50
1-1/4"	325	275	20	3.00	29.9	0.70
1-1/2"	325	250	20	3.25	29.9	0.80
2"	250	225	15	5.25	29.9	0.95
2-1/2"	250	200	15	8.50	29.9	1.50
**3"	175	175	15	9.50	24.0	1.79
4"	150	150	15	11.95	20.0	2.25
6"	75	50	5	15.50	15.0	3.50

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)  
\*\* 3" is available for full vacuum applications - consult factory

Sanitary



### FLARE-THRU FITTINGS

UltraFlex thick PTFE liner can be passed through the end fitting and flared radially outward against the sealing face to provide a continuous PTFE fluid conduit.

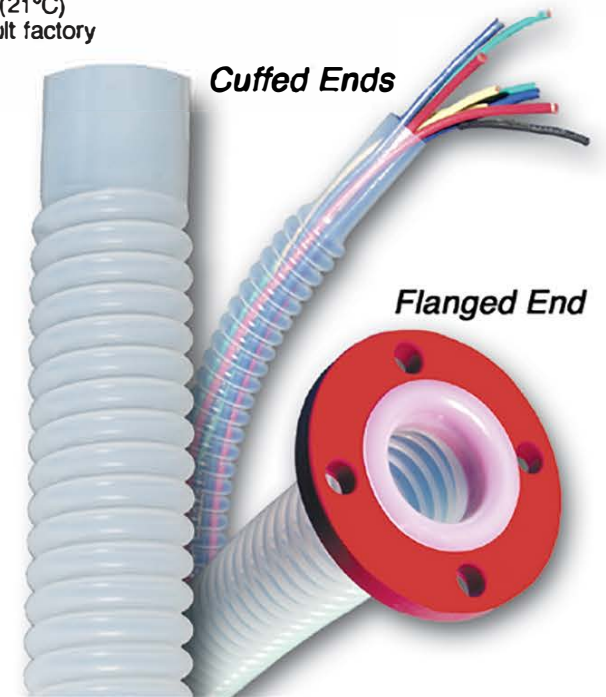


Cam lock

Flanges

## ULTRAFLEX™ Spiral Vent Tubing

Ultraflex heavy wall PTFE makes it ideal for vent tubing or flanged hose assemblies where line pressures are relatively low. UltraFlex Spiral Vent Tubing assemblies provide excellent flexibility, are light weight and have superior chemical resistance. Available in sizes 1/2" to 6" with cuffed, flanged or a variety of other end connections and materials.

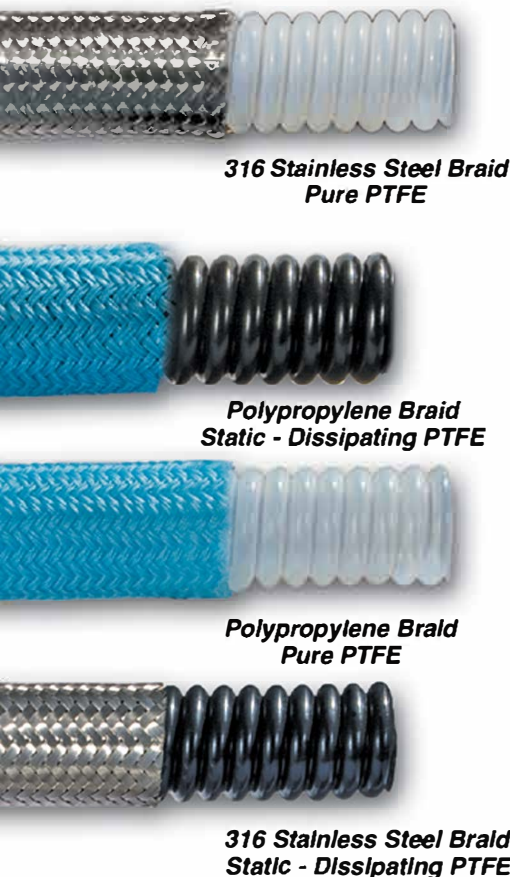


Cuffed Ends

Flanged End

## “PTFE” Hose Higher Pressure Applications

MultiFlex™ combines excellent flexibility with a high pressure rating. The seamless open pitch, spiral PTFE convolutions facilitate cleaning because they're self-draining. MultiFlex is perfect for demanding high purity and chemical applications. Available in sizes 1/2" to 3"



### MULTIFLEX™ ADVANTAGES

#### Corrosion Resistant

PTFE is fully resistant to the broadest range of industrial chemicals and has a zero corrosion rate with lower life cycle costs.

#### Cleanable

Non-Stick, low porosity tube is self cleaning and does not trap bacteria and can be cleaned with steam, detergents, caustics or solvents.

#### Sanitary

FDA- approved materials meet or exceed Pharmacopoeia class VI and 3A standards.

#### Compatible

Will not contaminate or impart a taste, color or odor to any media.

#### Flexible

Ultra flexible engineered design that resists cracking and stress corroding.

#### Durable

Engineered for extended use in hostile environments involving severe chemical, thermal, and mechanical stresses. Does not suffer from aging or embrittlement like rubber even with extreme thermal cycling.

## “PFA” Hose Super Long Lengths

ProFlex™ PFA offers super long lengths, excellent chemical resistance and flexibility. PFA has the same chemical and temperature resistance as PTFE and much better flex life than FEP. ProFlex PFA open pitch spiral convolutions aid in draining, flushing and cleaning of the hose. ProFlex industrial grade PFA was designed for customer applications that don't require or need Pharmaceutical grade hose. For Pharmacopoeia class VI or semi-conductor applications please request ProFlex “HP”.

### PROFLEX™ ADVANTAGES

#### Corrosion Resistant

PFA is fully resistant to the broadest range of industrial chemicals and has a zero corrosion rate with lower life cycle costs.

#### Long Continuous Lengths

Up to 1,000 feet long (size dependant) excellent for slip lining failed piping systems.

#### Ease of Fabrication

Fittings do not need PTFE tape wrap on fitting barb and insert does not require any tooling to be installed. Cut & crimp - reduced fabrication costs.

#### Cleanable

Non-Stick, low porosity tube is self cleaning and does not trap bacteria and can be cleaned with steam, detergents, caustics or solvents.

#### Flexible

Lower forces needed to bend or flex, aids in installation and operation.



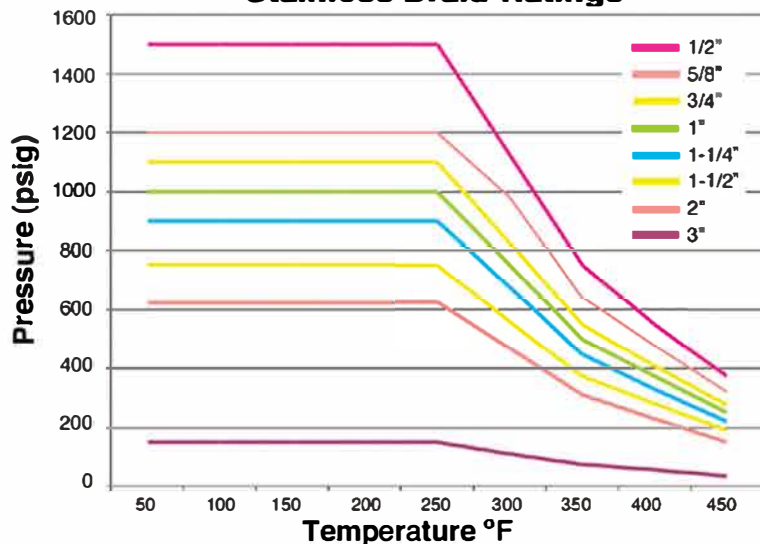
### MultiFlex™ & ProFlex™ Specification Data

Stainless braid and bare hose temperature range: (-)65°F (-54°C) to (+)450°F (+232°C)  
Polypropylene braid temperature range: (-)20°F (-29°C) to (+)250°F (+121°C)

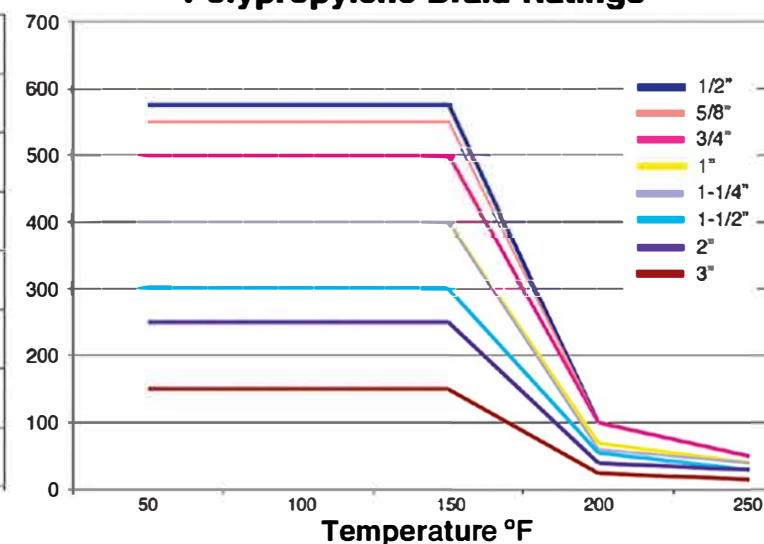
I.D. Nominal (inch)	OPERATING PRESSURE (psi)		Minimum Bend Radius (inch)	Vacuum Rating (in-Hg)	Weight Per Foot (lbs.)
	S.S. Braid	Polypro Braid			
1/2"	1500	575	1.50	29.9	0.20
** 5/8"	1200	550	1.50	29.9	0.24
3/4"	1100	500	2.00	29.9	0.28
1"	1000	400	2.50	29.9	0.35
1-1/4"	875	350	3.13	29.9	0.48
1-1/2"	750	300	3.75	29.9	0.60
2"	625	250	6.50	24.0	0.85
3"	150	150	9.50	20.0	1.79

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)  
\*\* 5/8" size is only available in ProFlex series hose

### MultiFlex™ & ProFlex™ Stainless Braid Ratings



### MultiFlex™ & ProFlex™ Polypropylene Braid Ratings



# PUREFLEX FITTINGS

# OPTIONS

THREADED FITTINGS		CAM LOCK		COMPRESSION, SPLICE, BUTTWELD	SANITARY		FLANGES
							
							
							
							
							
							

## CNC Machining

PureFlex has (24) CNC machining centers and manufactures the most diverse fitting and collar selection in the industry. Because of its machining expertise, PureFlex can also offer a wide range of materials including; Stainless steel, carbon steel, Monel, Hastelloy, titanium, solid PVDF, solid Polypropylene and any other plastic or alloy requested.



## Hose Cover Options

- SCUFF SLEEVE**  
Protects hose exterior from damage when dragged over rough surfaces
- FIRE SLEEVE**  
Protects hose from extreme exterior temperatures. Can be used as insulation and protects personnel from extreme interior temperatures
- POLYOLEFIN**  
Provides a smooth, cleanable covering over braided hose. Many colors available
- ARMOR GUARD**  
Protects hose from kinking by not allowing it to exceed its bend radius
- SPRING GUARD**  
Provides kink resistance and protects hose from damage when dragged over rough surfaces
- HDPE ARMOR**  
Provides kink and wear protection during rough handling. Available in (8) colors for color coding and is the only protective cover that can be installed on an existing assembly.



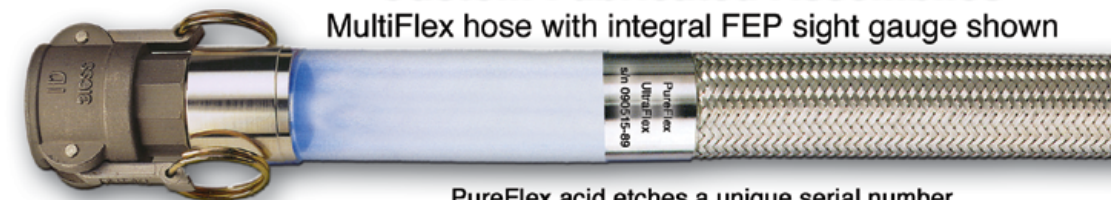
## Electrically Heated Hoses & Controls



Consult Factory for more information

## Custom Fabricated Assemblies

MultiFlex hose with integral FEP sight gauge shown



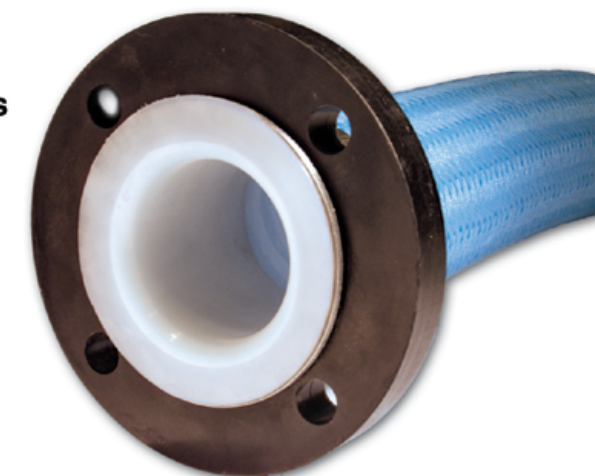
PureFlex acid etches a unique serial number on every assembly 3/4" and larger. Other special tagging available



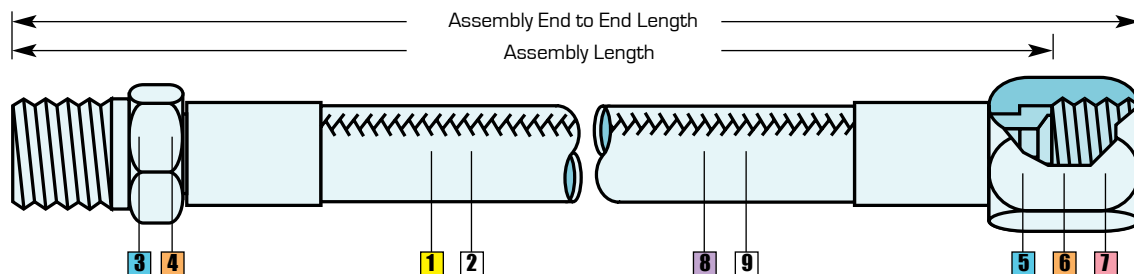
## Durcor-62™ Composite Flanges



- Strong As Steel
- 1/4 The Weight Of Stainless
- Class 150 Rated
- ANSI B16.5
- (-)60°F to (+)300°F
- Lower Cost Than 316s.s.
- Lower Transportation Cost
- Lower Installed Cost
- Lower Life Cycle Cost
- **Zero Corrosion Rate**
- 5 Year Warranty



# HOW TO ORDER



## ULTRAFLEX 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: U16J036306001200**



### STEP A1 Hose Series

U = UltraFlex  
M = MultiFlex  
P = ProFlex

### STEP 1 Determine I.D. of UltraFlex tube: 16 = 1"

08 = 1/2"  
12 = 3/4"  
16 = 1"  
24 = 1-1/2"  
32 = 2"  
48 = 3"  
64 = 4"

### STEP 2 Determine hose product code: J

U = Bare  
J = SS Braid  
P = PP Braid  
S = Special

### STEP 3 Determine fitting style of 1st end: 03 = Male NPT

**Threaded**  
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  
**Flanges**  
05 = Flange retainer  
15 = Flange retainer P-series  
25 = Enc. flange retainer  
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 = H-line male  
49 = H-line female  
45 = Bevel seat female  
46 = Bevel seat male

### STEP 4 Determine fitting material: 6 = 316SS

4 = 304SS  
6 = 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

**Threaded**  
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  
**Flanges**  
05 = Flange retainer  
15 = Flange retainer P-series  
25 = Enc. flange retainer  
29 = Flare thru flange  
**Camlock**  
07 = Female cam lock "D"  
27 = Enc. female cam lock "D"  
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w/ nut & ferrule  
**Buttweld**  
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41 = Sanitary step-up  
42 = Sanitary mini  
48 = H-line male  
49 = H-line female  
45 = Bevel seat female  
46 = Bevel seat male

### STEP 6 Determine fitting material: 6 = 316SS

4 = 304SS  
6 = 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

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  
D = HDPE Armor

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