

### THE SEVERE SERVICE STANDARD



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



### **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.

### 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.

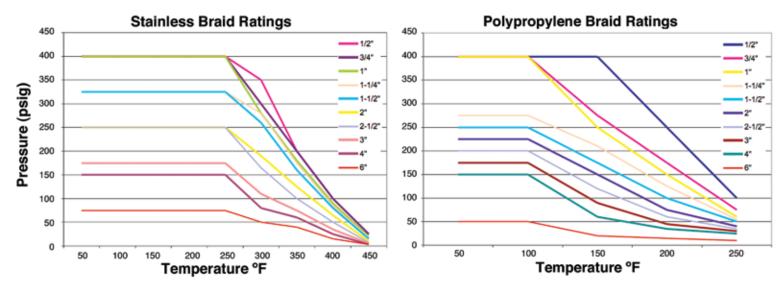
#### Flexible

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.

## Largest Size Range In The Industry 1/2"- 6"



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)

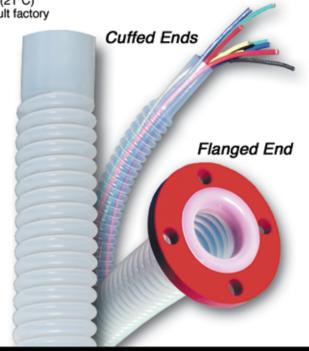
I.D Nominal (inch)	OPERATING PRESSURE (psi)			Minimum	Vacuum	Weight
	S.S. Braid	Polypro Braid	Bare Hose	Bend Radius (inch)	Rating (in-Hg)	Per Foot (lbs.)
1/2"	400	400	40	1.75	29.9	0.20
3/4"	400	400	30	2.25	29.9	0.35
1"	400	400	30	2.50	29.9	0.50
1-1/4"	325	275	20	3.00	29.9	0.70
1-1/2"	325	250	20	3.25	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



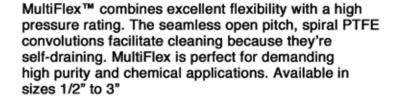
Ultraflex heavy wall PTFE makes it ideal for vent tubing or flanged hose assemblies where line pressures are relatively low. UltraFlex Spiral Vent Tubing assemblies provide excellent flexibility, are light weight and have superior chemical resistance. Available in sizes 1/2" to 6" with cuffed, flanged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



# MULTIFLEX

## "PTFE" Hose

### **Higher Pressure Applications**





316 Stainless Steel Braid Pure PTFE



Polypropylene Braid Static - Dissipating PTFE



Polypropylene Braid Pure PTFE



316 Stainless Steel Braid Static - Dissipating PTFE

### 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

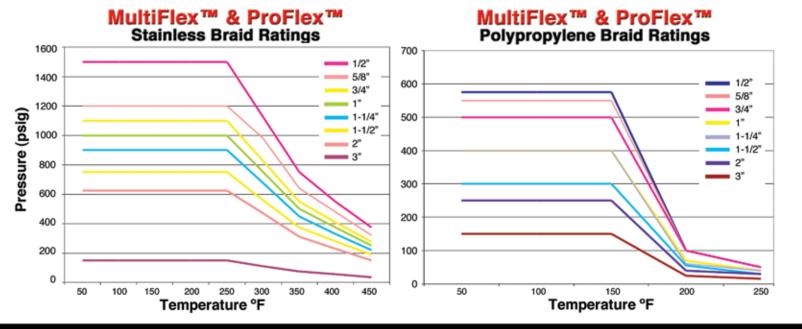
Will not contaminate or impart a taste, color or odor to any media.

### 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.

#### 316 Stainless Steel Braid PFA



Polypropylene Braid PFA

Note: ProFlex is not available with Static - Dissipating PFA

### 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	OPERATING PRESSURE (psi)		Minimum	Vacuum	Weight
Nominal (inch)	S.S. Braid	Polypro Braid	Bend Radius (inch)	Rating (in-Hg)	Per Foot (lbs.)
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)

<sup>5/8&</sup>quot; size is only available in ProFlex series hose

# PUREFLEX FITTINGS

### COMPRESSION, SPLICE, BUTTWELD **THREADED FITTINGS CAM LOCK** SANITARY **FLANGES** STYLE 05 Flange Retainer STYLE 15 P Series Flange STYLE 31 O-Ring Female Swivel 'D' Sanitary [Tri-Clam STYLE 45 Bevel Seat STYLE 03 Male Pipe [NPT] Hex STYLE 04 Male Pipe CAM Lock 'D' CAM Lock 'D' (NPT) (Tri-Clamp) Female Reducer Retainer STYLE 06 Female Pipe (NPT) STYLE 08 Male CAM Lock 'E' STYLE 30 JIC Female STYLE 27 Female CAM STYLE 38 Compression STYLE 400 Sanitary Flare STYLE 46 Bevel Seat STYLE 25 Flange Retainer Swive Lock 'D' (PFA Encapsulated) Adapter Thru (ÚltraFlex hose only) Encapsulated) STYLE 20 Male Flange Adapter (PFA Encapsulated) STYLE 28 Male CAM Lock 'E' (PFA Encapsulated) STYLE 33 Male Union (NPT) STYLE 36 Female Union (NPT) STYLE 39 Compression STYLE 41 Sanitary Step-Up STYLE 48 I-Line Male STYLE 29 Flare Thru Flange (UltraFlex Connector with Nut and Ferrule STYLE 37 Female Swivel JIC/NPT Adapter with PTFE Seal STYLE 21 Female Flange Adapter (PTFE STYLE 02 CAM Spool STYLE 18 Tube STYLE 42 Sanitary Mini STYLE 49 I-Line Female Buttweld Adapter Encapsulated) STYLE 19 Pipe Buttweld STYLE 22 CAM Spool STYLE 44 Sanitary X Male Cam Adapter (PFA Encapsulated)

### **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.



STYLE 11 Splice



# OPTIONS

### **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

### **6** SPRING GUARD

Provides kink resistance and protects hose from damage when dragged over rough surfaces

### **6** 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.





### **Custom Fabricated Assemblies**

MultiFlex hose with integral FEP sight gauge shown





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



### Durcor-62™ Composite Flanges

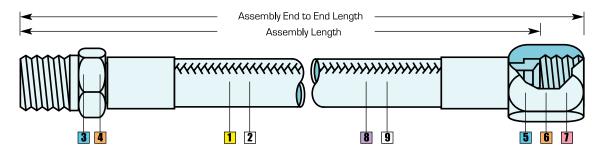


- Class 150 Rated
- ANSI B16.5
- (-)60°F to (+)300°F
- Lower Cost Then 316s.s.
- Lower Transportation Cost
- Lower Installed Cost
- Lower Life Cycle Cost
- **-Zero Corrosion Rate**
- 10 Year Warranty





### 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

PureFlex®, Inc. information is based on technical data and testing that PureFlex®, Inc. believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. Since conditions of product are outside PureFlex®, Inc. control, PureFlex®, Inc. makes no warranties, express or implied, and assumes no liability in connection with any use of this information. PureFlex®  $\text{MultiFlex}^{\text{\tiny{TM}}}, \text{ProFlex}^{\text{\tiny{TM}}}, \text{are trademarks of PureFlex}^{\text{\tiny{8}}}, \text{Inc.}$ Kynar® is a registered trademark of ELF Atochem. All products are made in U.S.A. Monel® is a registered trademark of Huntington Alloys. Hastelloy® is a registered trademark of Cabot Corporation.

4855 Broadmoor Ave. Kentwood, MI 49512 Phone: (616) 554-1100 (616) 554-3633 Web: www.pureflex.com



### 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 = Hine male 49 = Hine female

45 = Bevel seat female

46 = Bevel seat male

### STEP 4

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

4 = 304SS

6 = 316SS

C = Carbon steel

T = TFF encapsulated

H = Hastelloy

M = Monel

A = Alloy 20

K = Kynar

P = Polypropylene

### STEP 5

### **Determine fitting** style of 2nd end: 30 = IIC

#### 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 = Hine male 49 = Hine 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 20K = Kynar

P = Polypropylene

#### STEP 7

### **Determine flange** material: 0 = None

O = None

D = Ductile iron

C = Carbon steel

4 = 30455 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

O = 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