

HosecraftUSA Product Integration

DEMAND HOSECRAFTUSA QUALITY



FLEXCHEM[®]
RUBBER COVERED, FEP & PTFE
LINED TRANSFER HOSES



HOSE CRAFT USA INNOVATION

No other company in the industry rivals Hosecraft's product integration. Using the most advanced manufacturing techniques, Hosecraft 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 Hosecraft is the company of choice for those with demanding transfer processes.

FLEXCHEM HOSE

FlexChem is one of the industry's most versatile, rubber covered FEP-lined transfer hoses. It is designed for full flow applications that require maximum flexibility, minimum weight high purity.

This smooth bore FEP hose with its EPDM rubber cover is easy to handle and resists abrasion and chemical attack while it facilitates easy cleanability. The smooth, rubber cover makes it easy for operators to safely grip and handle the hose.

FlexChem hose incorporates a FEP, smooth bore design which gives it superior flexibility. Through a proprietary process, the FEP liner is bonded, covered and reinforced with multi-layered rubber, spiral-wound polyester cords and a double helix wire which gives it superior flexibility. Grounding is possible via its internal wires.

This wire helix "back bone" also supports full vacuum service. FlexChem series hose is available in white FEP or a PTFE conductive black liner where electrostatic dissipation is required. To ensure continuous fluid contact with FEP throughout the hose assembly, the FEP liner can be factory flared through: flanges; sanitary fittings; male and female cams.

FLEXCHEM ADVANTAGES

- **Corrosion Resistant.**
FEP & PTFE are fully resistant to the broadest range of industrial chemicals and have a zero corrosion rate and lower life cycle cost.
- **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.**
The most flexible rubber covered hose in the industry. Does not fatigue or stress corrode like metal hose.
- **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

Temperature Range: -40 °F (-40 °C) to 350 °F (177 °C)

I.D. NOMINAL (in)	O.D. NOMINAL	WORKING PRESSURE (psi)	MIN. BURST PRESSURE (psi)	VACUUM RATING (in. Hg)	MIN. BEND RADIUS (in)	WEIGHT PER FOOT (lbs)
1/2	0.95	350	1000	29.9	2.65	0.34
3/4	1.25	350	1000	29.9	3.50	0.51
1	1.55	450	1800	29.9	4.00	0.72
1-1/4	1.75	375	1500	29.9	8.50	0.89
1-1/2	2.13	350	1400	29.9	10.50	0.99
2	2.68	300	1200	29.9	13.00	1.38
3	3.88	250	1000	29.9	21.00	2.46
4	5.00	175	700	29.9	39.00	3.50
6	7.13	100	400	29.9	58.00	4.75



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.
- 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.



HOSE END CONNECTIONS

Over 40 standard fitting styles are manufactured including: flanged, sanitary, JIC, NPT and 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, FEP tube can be passed through the end fitting and flared radially outward against the sealing face of the following fittings:

- 7** Sanitary **8** Flanged **9** Female Cam, and Male Cam (not picture.)



FITTINGS

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

In addition, Hosecraft 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. Advantages include zero corrosion rates and lower lifecycle costs.

THREADED FITTINGS		CAM LOCK	
			
STYLE 03 Male Pipe NPT Hex	STYLE 04 Male Pipe NPT	STYLE 07 Female CAM Lock 'D'	STYLE 17 Female CAM Lock 'D' Reducer
			
STYLE 06 Female Pipe NPT	STYLE 30 JIC Female Swivel	STYLE 27 Female CAM Lock 'D' (PFA Encapsulated)	STYLE 08 Male CAM Lock 'E'
			
STYLE 33 Male Union (NPT)	STYLE 36 Female Union (NPT)	STYLE 28 Male CAM Lock 'E' (PFA Encapsulated)	STYLE 20 Male Flange Adapter (PFA Encapsulated)
			
STYLE 37 Female Swivel NPSH	JIC Adapter with PTFE Seal	STYLE 21 Female Flange Adapter (PFA Encapsulated)	STYLE 02 CAM Spool Adapter
			
		STYLE 22 CAM Spool Adapter (PFA Encapsulated)	

**COMPRESSION,
SPLICE, BUTTWELD**

SANITARY

FLANGES



STYLE 31 O-Ring Female Swivel 'D'



STYLE 40 Sanitary (Tri-Clamp)



STYLE 45 Bevel Seat Female



STYLE 05 Flange Retainer
STYLE 15 P Series Flange Retainer



STYLE 38 Compression Adapter



STYLE 40F Sanitary Flare Thru (FlexChem hose only)



STYLE 46 Bevel Seat Male



STYLE 25 Flange Retainer (PFA Encapsulated)



STYLE 39 Compression Connector with Nut and Ferrule



STYLE 40U Sanitary Flare Thru (UltraFlex hose only)



STYLE 48 I-Line Male



STYLE 29 Flare Thru Flange (UltraFlex hose only)



STYLE 18 Tube Butt weld



STYLE 41 Sanitary Step-up



STYLE 49 I-Line Female



STYLE 29F Flare Thru Flange (FlexChem hose only)



STYLE 19 Pipe Butt weld



STYLE 42 Sanitary Mini



STYLE 44 Sanitary X Male CAM Adapter



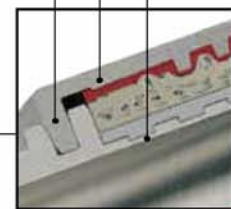
STYLE 11 Splice

**HOSECRAFTUSA
"HIGH PERFORMANCE"
FITTING BARB DESIGN**

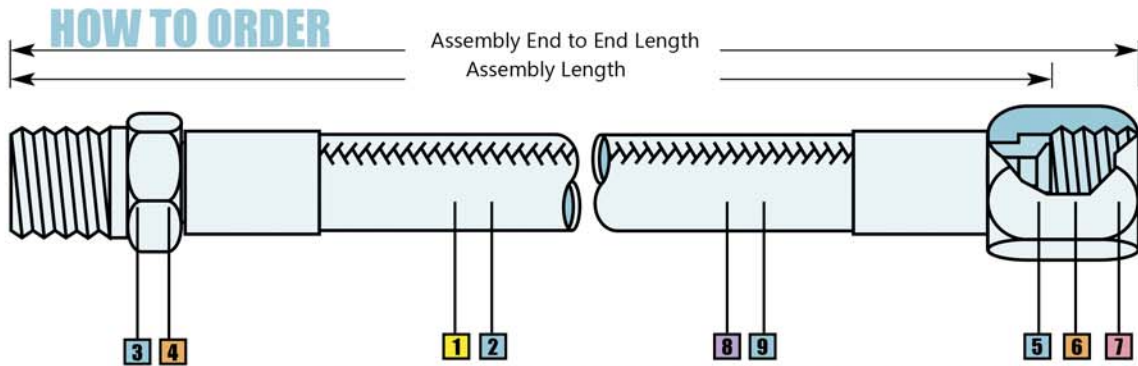
- Double-sided, patent pending barb design locks fittings securely into hose.
- Fitting barb height and angles are tightly controlled to eliminate tearing and splitting of plastic hose during assembly, fabrication, and operation.
- Optimizes pressure and sealing capabilities.
- Eliminates: cold flowing of the 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.

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

- 1 Dog Lock
- 2 Barbed Collar
- 3 Double Sided Barbs



FlexChem hose shown above.



HOSE CRAFT USA HOSE ASSEMBLY NUMBERING SYSTEM

Steps to order a 1" FlexChem Assembly with a length of 12", 316 S.S. Male NPT one end, 316 S.S. JIC other end. No options.

Sample part number: 16G036309001200



Step 1
Determine Size
16 = 1"

- 08 = 1/2"
- 12 = 3/4"
- 16 = 1"
- 20 = 1-1/4"
- 24 = 1-1/2"
- 32 = 2"
- 48 = 3"
- 64 = 4"
- 96 = 6"

Step 2
Determine hose product code: **6**

FlexChem Color Code
G = Green (standard)
Y = Gray
W = Yellow
B = Black
L = Blue
A = Purple

Other colors available upon request.

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
- 29F = 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
- 40F = 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 = 316 S.S.**

- 4 = 304 S.S.
- 6 = 316 S.S.
- 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

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

Step 6
Determine Fitting Material: **6 = 316 S.S.**

- 4 = 304 S.S.
- 6 = 316 S.S.
- 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 = 304 S.S.
- 6 = 316 S.S.
- K = Kynar
- P = Polypropylene

Step 8
Determine Overall Length of SmoothFlex hose in inches:
0120 = 12"

Last digit in 1/8th in. increments.

Step 9
Determine Options:
0 = None

- 0 = None
- B = Conductive
- Z = 300# Flg
- L = Locking female cam
- S = Spring guard
- A = Armor guard
- F = Firesleeve
- P = Polyolefin
- T = TFE shrink
- H = Hypalon
- N = Nylon scuff guard



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Silicone hose &
tubing.



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FDA approved
hose and
tubing.



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heat any
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flexibility for
higher pressure
applications.



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voluted hose.



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Rubber
covered smooth
bore FEP lined
hose.



ProFlex™
Industrial
grade, high
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priced
convoluted PFA
hose.



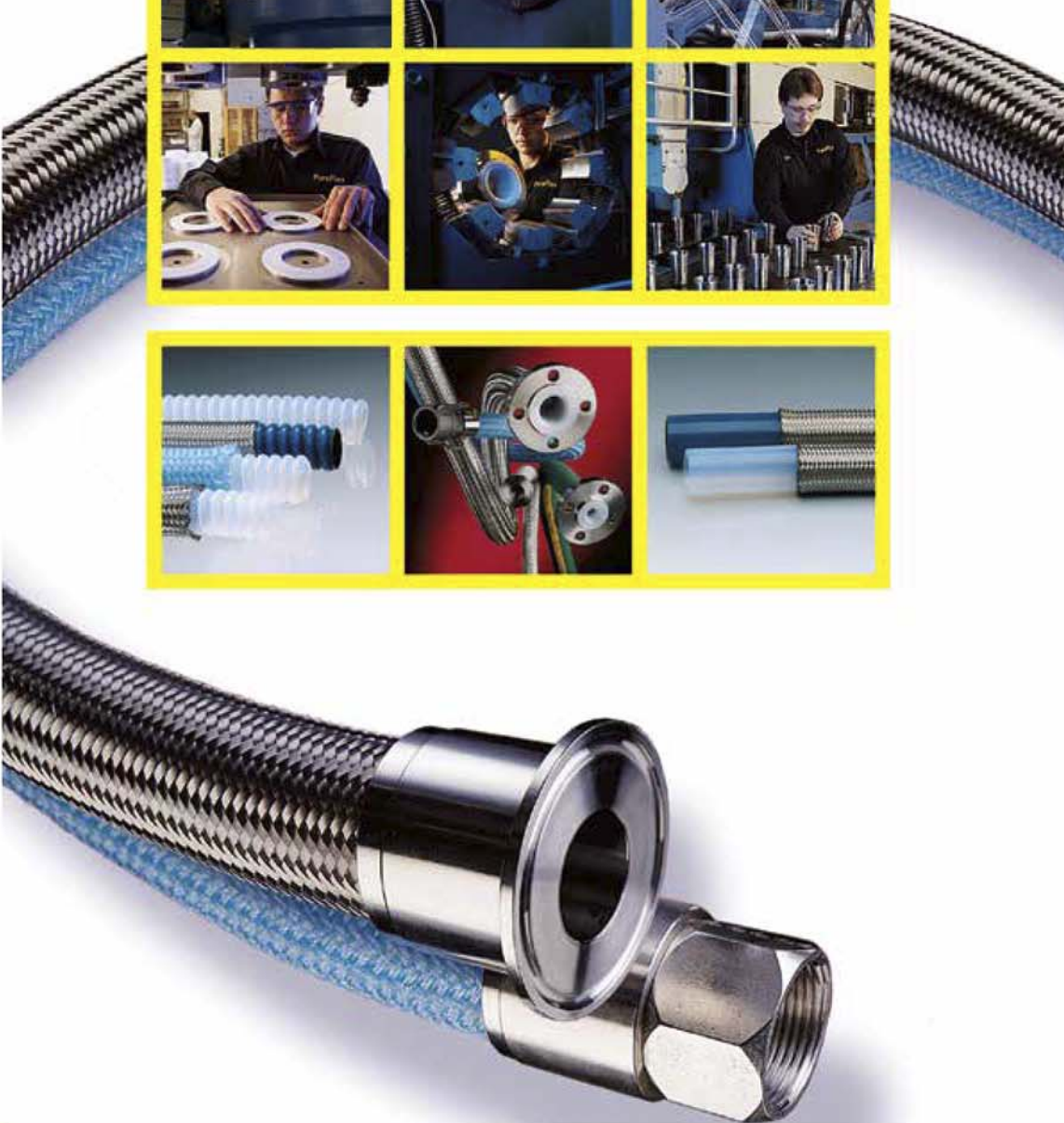
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MARKETS

**Chemical Process
Pharmaceutical
Steel
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Petroleum
Mining
Railroad
Dairy
Textile
Semiconductor**

APPLICATIONS

**Acid Transfer
Pickling
Reverse Osmosis
Steam Transfer
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Adhesives
Air Actuation
Sanitary Transfer
Purification Systems
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