

PureFlex Product Integration

DEMAND PUREFLEX™ QUALITY



FLEXCHEM™ SERIES

RUBBER COVERED, FEP & PTFE LINED TRANSFER HOSES



Phone: (616) 554-1100 • Fax: (616) 554-3633
Web site: www.pureflex.com

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.

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 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.** 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)

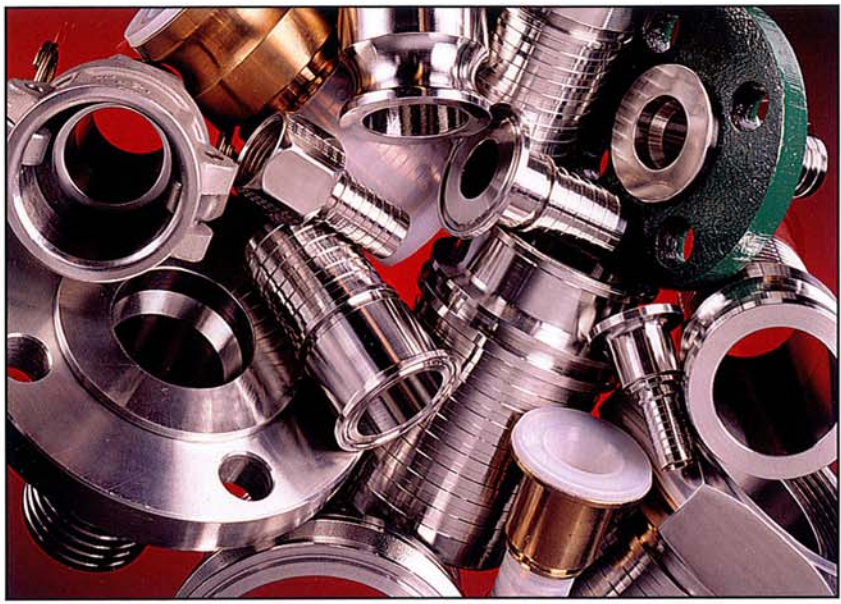
I.D. NOMINAL (in)	O.D. NOMINAL	WORKING PRESSURE (psi)	MIN. BURST PRESSURE (psi)	VACUUM RATING (In. Hg)	MIN. BEND RADIUS (in)	WEIGHT PER FOOT (lbs)
1/2	0.95	500	2000	29.9	2.65	0.34
3/4	1.25	500	2000	29.9	4.15	0.51
1	1.55	450	1800	29.9	5.75	0.72
1-1/4	1.75	375	1500	29.9	8.50	0.89
1-1/2	2.13	350	1400	29.9	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

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, FEP tube can be passed through the end fitting and flared radially outward against the sealing face of the following fittings:

- 6 Sanitary, 7 Flanged, 8 Female Cam, and Male Cam (not pictured).



FITTINGS

PureFlex fittings and collars are manufactured specifically for FEP 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. Advantages include zero corrosion rates and lower lifecycle costs.

THREADED FITTINGS



STYLE 03 Male Pipe (NPT) Hex



STYLE 04 Male Pipe (NPT)



STYLE 06 Female Pipe (NPT)



STYLE 30 JIC Female Swivel



STYLE 33 Male Union (NPT)



STYLE 36 Female Union (NPT)



STYLE 37 Female Swivel NPSH



JIC/NPT Adapter with PTFE Seal

CAM LOCK



STYLE 07 Female CAM Lock 'D'



STYLE 17 Female CAM Lock 'D' Reducer



STYLE 27 Female CAM Lock 'E' (PFA Encapsulated)



STYLE 08 Male CAM Lock 'E'



STYLE 28 Male CAM Lock 'E' (PFA Encapsulated)



STYLE 20 Male Flange Adapter (PFA Encapsulated)



STYLE 21 Female Flange Adapter (PFA Encapsulated)



STYLE 02 CAM Spool Adapter



STYLE 22 CAM Spool Adapter (PFA Encapsulated)

**COMPRESSION,
SPLICE,
BUTTWELD**

STYLE 31 O-Ring Female Swivel D

STYLE 38 Compression Adapter

STYLE 39 Compression Connector with Nut and Ferrule

STYLE 18 Tube Butt weld

STYLE 19 Pipe Butt weld

STYLE 11 Splice

SANITARY

STYLE 40 Sanitary (Tri-Clamp)

STYLE 40F Sanitary Flare Thru (FlexChem hose only)

STYLE 40U Sanitary Flare Thru (UltraFlex hose only)

STYLE 41 Sanitary Step-Up

STYLE 42 Sanitary Mini

STYLE 45 Bevel Seat Female

STYLE 46 Bevel Seat Male

STYLE 48 I-Line Male

STYLE 49 I-Line Female

STYLE 44 Sanitary X Male Cam

FLANGES

STYLE 05 Flange Retainer P Series Flange Retainer

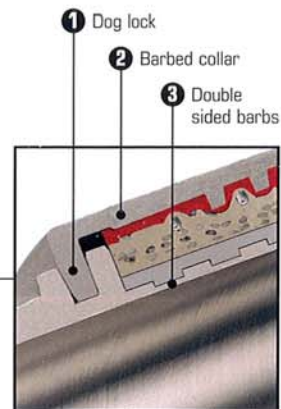
STYLE 25 Flange Retainer (PFA Encapsulated)

STYLE 29 Flare Thru Flange (UltraFlex hose only)

STYLE 29F Flare Thru Flange (FlexChem hose only)

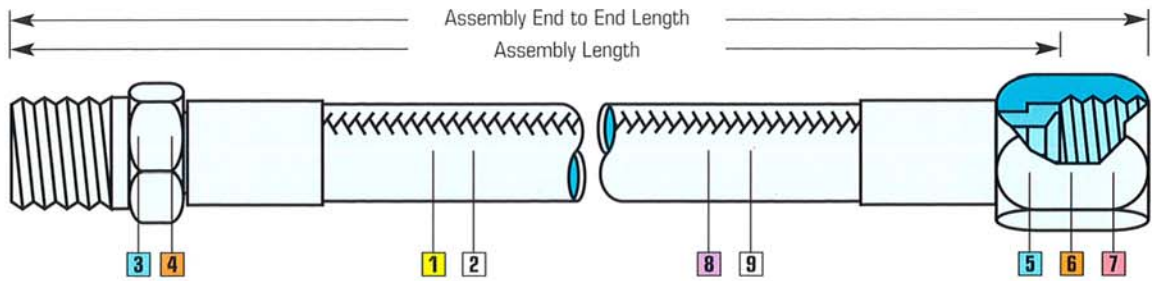
**PUREFLEX
"HIGH PERFORMANCE"
FITTING BARB DESIGN**

- 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 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**


FlexChem hose shown above.

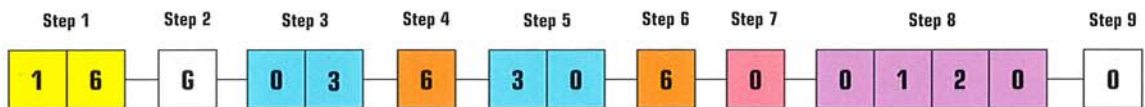
HOW TO ORDER



PUREFLEX,™ INC. HOSE ASSEMBLY NUMBERING SYSTEM

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

Sample part number: **16G036306001200**



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: **G**

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"
28 = 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 = 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

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49 = I-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
Z = 300# Fig
L = Locking female cam
S = Spring guard
A = Armor guard
F = Firesleeve
P = Polyolefin
T = TFE shrink
H = Hypalon
N = Nylon scuff guard



Silicone
Ultra-Pure
Validated
Platinum cured
Silicone hose &
tubing.



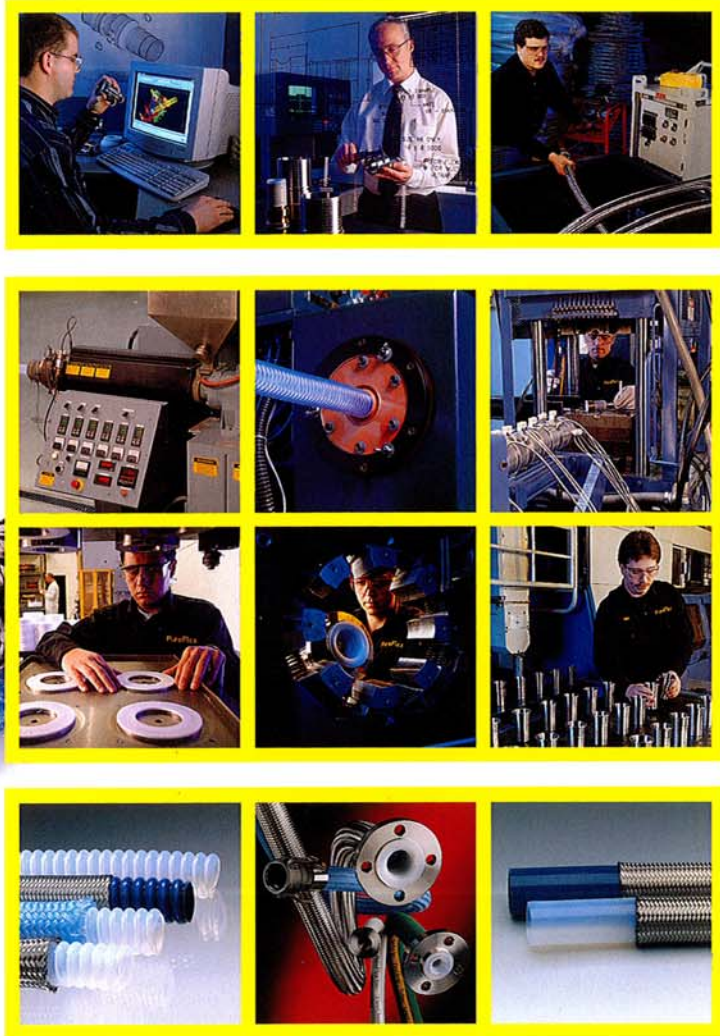
PVC
Crystal clear
FDA approved
hose and
tubing.



Heated Hoses
Electrically
heat any
PureFlex
hose up to
450°F

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

THE MOST ADVANCED FLUOROPOLYMER HOSE SYSTEM AVAILABLE



UltraFlex™
Ultra-flexible heavy
duty convoluted
hose.



MultiFlex™
Superior flexibility
for higher
pressure
applications.



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



FlexChem™
Rubber covered
smooth bore FEP
Lined hose.



ProFlex™
Industrial grade,
high quality, low
priced convoluted
PFA 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.



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



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