SmoothFlex™ Series
PTFE Smooth-Bore Hoses

DEMAND PUREFLEX QUALITY

PureFlex™ INC.
www.pureflex.com
SmoothFlex™ Hose

SmoothFlex™ is a flexible smooth bore PTFE hose with stainless steel braid reinforcement that is designed for long trouble free service in a wide range of applications that may involve pressure, temperature and chemical extremes. The hose is available in virgin PTFE for high purity applications and anti-static conductive black PTFE where electrostatic dissipation is required. SmoothFlex™ is an excellent choice for pharmaceuticals, food and beverage applications, the transfer of viscous media such as paints and adhesives, fluid transfer of corrosive chemicals, and high temperature hydraulic applications.

Zero Corrosion Rate
Non-Stick Properties
FDA Approved
Meets Pharmacopoeia Class VI
SIP & CIP
-65°F to 450°F Temp. Range
Long Life Cycles

SmoothFlex™ Nominal Bore (SN) Dash Size

<table>
<thead>
<tr>
<th>DASH SIZE</th>
<th>NOMINAL I.D. (inch)</th>
<th>NOMINAL O.D. (inch)</th>
<th>WORKING PRESSURE (psi)</th>
<th>MINIMUM BURST (psi)</th>
<th>MINIMUM BEND RADIUS (in)</th>
<th>WEIGHT (lbs / ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 3</td>
<td>.125</td>
<td>.250</td>
<td>3,000</td>
<td>12,000</td>
<td>2.0</td>
<td>.047</td>
</tr>
<tr>
<td>- 4</td>
<td>.187</td>
<td>.312</td>
<td>3,000</td>
<td>12,000</td>
<td>2.0</td>
<td>.077</td>
</tr>
<tr>
<td>- 5</td>
<td>.250</td>
<td>.375</td>
<td>3,000</td>
<td>12,000</td>
<td>3.0</td>
<td>.098</td>
</tr>
<tr>
<td>- 6</td>
<td>.312</td>
<td>.445</td>
<td>2,500</td>
<td>10,000</td>
<td>4.0</td>
<td>.110</td>
</tr>
<tr>
<td>- 7</td>
<td>.375</td>
<td>.503</td>
<td>2,250</td>
<td>9,000</td>
<td>4.5</td>
<td>.124</td>
</tr>
<tr>
<td>- 8</td>
<td>.405</td>
<td>.549</td>
<td>2,000</td>
<td>8,000</td>
<td>5.0</td>
<td>.124</td>
</tr>
<tr>
<td>- 10</td>
<td>.500</td>
<td>.648</td>
<td>1,500</td>
<td>6,000</td>
<td>6.5</td>
<td>.154</td>
</tr>
<tr>
<td>- 12</td>
<td>.625</td>
<td>.778</td>
<td>1,200</td>
<td>4,800</td>
<td>8.0</td>
<td>.170</td>
</tr>
<tr>
<td>- 14</td>
<td>.750</td>
<td>.885</td>
<td>1,100</td>
<td>4,400</td>
<td>8.0</td>
<td>.198</td>
</tr>
<tr>
<td>- 16</td>
<td>.875</td>
<td>1.030</td>
<td>1,000</td>
<td>4,000</td>
<td>9.0</td>
<td>.273</td>
</tr>
<tr>
<td>- 18</td>
<td>1.000</td>
<td>1.135</td>
<td>900</td>
<td>3,600</td>
<td>10.0</td>
<td>.305</td>
</tr>
<tr>
<td>- 20</td>
<td>1.125</td>
<td>1.290</td>
<td>750</td>
<td>3,000</td>
<td>16.0</td>
<td>.350</td>
</tr>
</tbody>
</table>

Ratings are based at 70°F (21°C)
Temperature range -65°F (-54°C) to 450°F (232°C)

SmoothFlex™ True Bore (ST) Full I.D. Size

<table>
<thead>
<tr>
<th>ACTUAL I.D. (inch)</th>
<th>NOMINAL O.D. (inch)</th>
<th>WORKING PRESSURE (psi)</th>
<th>MINIMUM BURST (psi)</th>
<th>VACUUM RATING (In Hg)</th>
<th>MINIMUM BEND RADIUS (in)</th>
<th>WEIGHT (lbs / ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.375</td>
<td>3,000</td>
<td>12,000</td>
<td>29.9</td>
<td>3.0</td>
<td>.098</td>
</tr>
<tr>
<td>3/8</td>
<td>.503</td>
<td>2,250</td>
<td>9,000</td>
<td>29.9</td>
<td>4.5</td>
<td>.124</td>
</tr>
<tr>
<td>1/2</td>
<td>.648</td>
<td>1,500</td>
<td>6,000</td>
<td>29.9</td>
<td>6.5</td>
<td>.154</td>
</tr>
<tr>
<td>3/4</td>
<td>.885</td>
<td>1,100</td>
<td>4,400</td>
<td>20.0</td>
<td>8.2</td>
<td>.198</td>
</tr>
<tr>
<td>1</td>
<td>1.135</td>
<td>900</td>
<td>3,600</td>
<td>14.0</td>
<td>10.0</td>
<td>.305</td>
</tr>
</tbody>
</table>

Ratings are based at 70°F (21°C)
Temperature range -65°F (-54°C) to 450°F (232°C)
### SmoothFlex™ High Pressure (SH)

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NOMINAL I.D. (inch)</th>
<th>NOMINAL O.D. (inch)</th>
<th>WORKING PRESSURE (psi)</th>
<th>MINIMUM BURST (psi)</th>
<th>MINIMUM BEND RADIUS (in)</th>
<th>WEIGHT (lbs / ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.222</td>
<td>.375</td>
<td>5,000</td>
<td>16,000</td>
<td>1.5</td>
<td>.108</td>
</tr>
<tr>
<td>3/8</td>
<td>.308</td>
<td>.473</td>
<td>5,000</td>
<td>16,000</td>
<td>2.5</td>
<td>.180</td>
</tr>
<tr>
<td>1/2</td>
<td>.401</td>
<td>.600</td>
<td>5,000</td>
<td>16,000</td>
<td>2.9</td>
<td>.240</td>
</tr>
<tr>
<td>5/8</td>
<td>.495</td>
<td>.710</td>
<td>5,000</td>
<td>16,000</td>
<td>3.3</td>
<td>.324</td>
</tr>
<tr>
<td>3/4</td>
<td>.617</td>
<td>.970</td>
<td>5,000</td>
<td>16,000</td>
<td>4.0</td>
<td>.660</td>
</tr>
<tr>
<td>1</td>
<td>.867</td>
<td>1.250</td>
<td>5,000</td>
<td>16,000</td>
<td>5.0</td>
<td>1.020</td>
</tr>
<tr>
<td>1 1/4</td>
<td>1.125</td>
<td>1.600</td>
<td>4,000</td>
<td>16,000</td>
<td>12.0</td>
<td>1.680</td>
</tr>
<tr>
<td>1 1/2</td>
<td>1.375</td>
<td>1.920</td>
<td>4,000</td>
<td>12,000</td>
<td>14.0</td>
<td>2.280</td>
</tr>
</tbody>
</table>

Ratings are based at 70°F (21°C)
Temperature range -65°F (-54°C) to 400°F (204°C)
Reduce working pressure on all sizes to maximum of 3,000psi @ 400°F (204°C)
For impulse services reduce working pressures by 1,000psi

### SmoothFlex™ Ultra-High Pressure (SU)

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NOMINAL I.D. (inch)</th>
<th>NOMINAL O.D. (inch)</th>
<th>WORKING PRESSURE (psi)</th>
<th>MINIMUM BURST (psi)</th>
<th>MINIMUM BEND RADIUS (in)</th>
<th>WEIGHT (lbs / ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.229</td>
<td>.495</td>
<td>6,000</td>
<td>24,000</td>
<td>3.00</td>
<td>.24</td>
</tr>
<tr>
<td>3/8</td>
<td>.300</td>
<td>.615</td>
<td>6,000</td>
<td>24,000</td>
<td>5.00</td>
<td>.40</td>
</tr>
<tr>
<td>1/2</td>
<td>.395</td>
<td>.725</td>
<td>6,000</td>
<td>24,000</td>
<td>5.75</td>
<td>.49</td>
</tr>
<tr>
<td>5/8</td>
<td>.525</td>
<td>.885</td>
<td>4,000*</td>
<td>12,000</td>
<td>6.25</td>
<td>.67</td>
</tr>
<tr>
<td>3/4</td>
<td>.650</td>
<td>1.060</td>
<td>4,000*</td>
<td>12,000</td>
<td>7.75</td>
<td>.93</td>
</tr>
<tr>
<td>1</td>
<td>.875</td>
<td>1.370</td>
<td>4,000*</td>
<td>12,000</td>
<td>9.63</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Ratings are based at 70°F (21°C)
Temperature range -65°F (-54°C) to 400°F (204°C)
*Reduce working pressure to maximum of 3,000psi @ 400°F (204°C)
FITTINGS

PureFlex 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, 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 Kyne®, (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.
HOW TO ORDER

Assembly End to End Length
Assembly Length

PUREFLEX™ INC. HOSE ASSEMBLY NUMBERING SYSTEM
Steps to order a 1" SmoothFlex High Pressure assembly with a length of 12", 316SS Male NPT one end, 316SS JIC other end. No options.

Sample part number: SH16036306001200

<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>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>H</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STEP 1**
**Determine Product Code**
- SN = Nominal Bore (Dash Size)
- ST = True Bore
- SH = High Pressure
- SU = Ultra High Pressure

**STEP 2**
**Determine size**

**SmoothFlex SH**
Nominal Dash Size Only

<table>
<thead>
<tr>
<th>Dash Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03 = ~3</td>
<td></td>
</tr>
<tr>
<td>04 = ~4</td>
<td></td>
</tr>
<tr>
<td>05 = ~5</td>
<td></td>
</tr>
<tr>
<td>06 = ~6</td>
<td></td>
</tr>
<tr>
<td>07 = ~7</td>
<td></td>
</tr>
<tr>
<td>08 = ~8</td>
<td></td>
</tr>
<tr>
<td>10 = ~10</td>
<td></td>
</tr>
<tr>
<td>12 = ~12</td>
<td></td>
</tr>
<tr>
<td>14 = ~14</td>
<td></td>
</tr>
<tr>
<td>16 = ~16</td>
<td></td>
</tr>
<tr>
<td>18 = ~18</td>
<td></td>
</tr>
<tr>
<td>20 = ~20</td>
<td></td>
</tr>
<tr>
<td>SmoothFlex ST, SH, SU</td>
<td></td>
</tr>
<tr>
<td>04 = 1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>06 = 3/8&quot;</td>
<td></td>
</tr>
<tr>
<td>08 = 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>10 = 5/8&quot;</td>
<td></td>
</tr>
<tr>
<td>12 = 3/4&quot;</td>
<td></td>
</tr>
<tr>
<td>16 = 1&quot;</td>
<td></td>
</tr>
<tr>
<td>20 = 1 1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>24 = 1 1/2&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Actual I.D. may vary check specifications on pages 2 & 3 for your hose choice.

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

**STEP 4**
**Determine fitting material:**
- 6 = 316SS

**STEP 5**
**Determine fitting style of 2nd end:**
- 30 = JIC

**STEP 6**
**Determine fitting material:**
- 6 = 316SS

**STEP 7**
**Determine flange material:**
- 0 = None
- 8 = 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
- 6 = Size
- 7 = Conductive
- Z = 3000° Fip
- L = Locking female cam
- S = Spring guard
- A = Armor guard
- F = Fire sleeve
- P = Polyethylene
- H = Hyalon
- N = Nylon scuff guard

---

**Ordering Information**

PureFlex  616.554-1100  Fax 616.554-3633  www.pureflex.com
ONE SOURCE FOR ALL YOUR NEEDS

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 manufac-
turing, fitting manufacturing,
assembly and testing
from a single company.

UltraFlex™
Ultra-flexible heavy
duty convoluted
hose.

MultiFlex™
Superior flexibility
for higher pres-
sure 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-dissi-
pating 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
Hydraulics

PureFlex™ Inc. information is based on technical data and testing that PureFlex™, Inc. believes to be reliable and is subject to change without notice. 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™ and SmoothFlex™ are trademarks of PureFlex™ Inc. Kyvair™ is a registered trademark of Elf Atomeum. Monel® is a registered trademark of Huntington Alloys. Hastelloy® is a registered trademark of Cobalt Corporation. All products are made in U.S.A.