

# TEFLON (PTFE) HOSE

## INDUSTRIAL FLUID MANAGEMENT SOLUTIONS



**RELIABLE**  
INDUSTRIAL PRODUCTS CO.

**CUT AND  
COUPLE**  
ANY HOSE | ANY LENGTH | ANY TIME

# TEFLON-PTFE

## STAINLESS STEEL BRAIDED TEFLON

Cut & Couple / Reliable Industrial Products's **Teflon Division** focuses on long-term solutions for the everyday application to the more demanding fluid management systems. Whether your setup requires the handling of corrosive media, extreme temperatures, constant pulsing & flexing, or is under pressure/vacuum, our Teflon (PTFE) products are sure to prove to be rugged, dependable and of quality craftsmanship.

**PTFE** (Polytetrafluoroethylene) is an engineered fluoropolymer whose unparalleled resistance to chemicals is but one of PTFE's exclusive attributes. Compared to its hydraulic, industrial rubber and metal hose counterparts, teflon has many advantages including:

- **CHEMICALLY INERT:** a virtually universal hose which handles the broadest range of media and will not break down or deteriorate in service.
- **TEMPERATURE RESISTANCE:** from steam down to cryogenic systems, one hose for all environments and easy to clean.
- **MOISTURE RESISTANCE:** inherently low dew-point for pneumatics and compressed air.
- **FLEXIBILITY:** no "flex-fatigue" from continuous pulsing and vibration.
- **SHELF-LIFE:** teflon inner-core will not degrade with time or weather exposure.



### INDUSTRIES SERVED

Teflon has assimilated itself into every market due to its "one-hose-for-all-situations" reputation. With a very low coefficient of friction, PTFE provides a non-stick surface that is excellent for both paint manufacturers and air compressor systems alike. Its broad temperature range makes this material ideal for Robotics and Reaction Injection Molding. The Food & Beverage industry relies heavily on teflon due not only to its ease of cleaning (inert to steam & caustic) but also because PTFE is FDA-approved. You simply won't find an application where our Stainless Steel Braided Teflon isn't found.

|                               |                                        |
|-------------------------------|----------------------------------------|
| AUTOCLAVES                    | HOT PRESSES / PLYWOOD / LAMINATES      |
| AUTOMOTIVE / BUSES / MARINE   | MACHINERY / PUMPS / TURBINES / ENGINES |
| BREWERY / WINERY / DISTILLERY | MEDICAL / PHARMACEUTICAL               |
| CHEMICALS / CHLORINE          | MOLTEN PLASTICS / RIM / EXTRUSION      |
| CIRCUITRY / ELECTRONICS       | PAPER / PULP / DEHYDRATORS             |
| CNG / LPG / COMPRESSED GAS    | WATER PURIFICATION / REVERSE OSMOSIS   |

# CONVOLUTED PTFE

A RELIABLE INDUSTRY WORKHORSE MADE OF AN EXTRUDED, SEAMLESS, VACUUM-FORMED TUBE OF OPEN PITCH CONVOLUTED PTFE REINFORCED BY A TOUGH STAINLESS STEEL BRAIDING FOR KINK AND ABRASION RESISTANCE.



**NON-CONDUCTIVE**



**CONDUCTIVE**

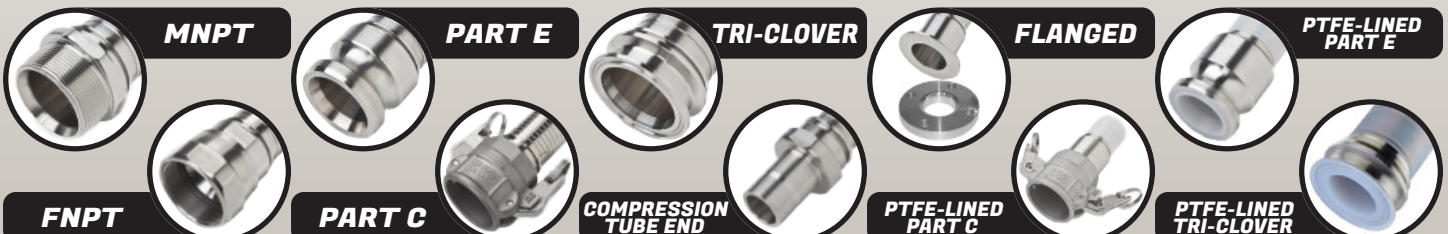
| PART NUMBER<br>(Non-Conductive) | PART NUMBER<br>(Conductive) | I.D.<br>(in) | O.D.<br>(in) | MAX WP<br>(psi) | BURST PSI<br>(psi) | BEND<br>RADIUS (in) | WEIGHT<br>(lbs/ft) |
|---------------------------------|-----------------------------|--------------|--------------|-----------------|--------------------|---------------------|--------------------|
| WC-04OP                         | BC-04OP                     | 0.28         | 0.484        | 2500            | 7500               | 0.709               | 0.12               |
| WC-06OP                         | BC-06OP                     | 0.374        | 0.6          | 2000            | 6000               | 0.787               | 0.23               |
| WC-08OP                         | BC-08OP                     | 0.505        | 0.74         | 1500            | 4500               | 0.984               | 0.27               |
| WC-10OP*                        | BC-10OP*                    | 0.625        | 0.87         | 1200            | 3600               | 2.008               | 0.35               |
| WC-12OP                         | BC-12OP                     | 0.75         | 0.97         | 1000            | 3000               | 2.52                | 0.43               |
| WC-16OP                         | BC-16OP                     | 1.0          | 1.29         | 667             | 2000               | 3.504               | 0.63               |
| WC-20OP                         | BC-20OP                     | 1.268        | 1.603        | 500             | 1500               | 5                   | 0.75               |
| WC-24OP                         | BC-24OP                     | 1.50         | 1.9          | 435             | 1305               | 5.984               | 0.88               |
| WC-32OP                         | BC-32OP                     | 2.024        | 2.421        | 333             | 1000               | 7.874               | 1.11               |

\*MADE TO ORDER - All pressures and vacuum ratings were calculated at 70°F

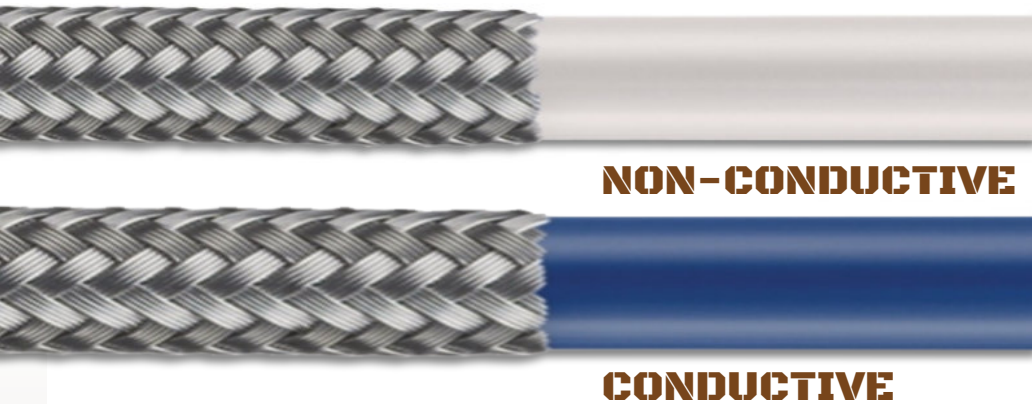
## FEATURES & FITTINGS

- Temperature Range: -65°F to 450°F (-54°C to 230°C)
- Black tube "BC" series is static dissipative
- Open pitch aids in cleaning & self-draining
- Inert to steam cleaning and thermal cycling; hose will not delaminate
- Excellent for acids transfer, caustic sodas & steam applications
- Extremely flexible and easy to handle
- Can be autoclaved: zero absorption of any moisture and zero leakage over entire length of assembly

We stock a full-line of standard and specialty fittings for your convoluted teflon assemblies. These include flange retainer with slip-on flange, teflon-lined camlock and tri-clover, male pipe, and JIC. Our fittings are permanently attached offering the customer a leak-proof assembly. Smaller, lighter in weight, and boasting the highest pull-off pressure rating in the market, U.S. Hose & Coupling's convoluted fittings will save you weight and space all while being more reliable and safer than their re-useable counterparts.



# SMOOTH BORE - MEDIUM PRESSURE



PRIZED FOR ITS EASE OF CLEANING, HIGH DEGREE OF FLEXIBILITY AND UNINTERRUPTED FLOW, OUR SMOOTH BORE HOSE IS IDEAL FOR THOSE APPLICATIONS WHERE THE UNIQUE QUALITIES OF PTFE ARE REQUIRED.

| PART NUMBER<br>(Non-Conductive) | PART NUMBER<br>(Conductive) | I.D.<br>(in) | O.D.<br>(in) | MAX WP<br>(psi) | BURST PSI<br>(psi) | MINIMUM<br>BEND (in) | WEIGHT<br>(lbs/ft) |
|---------------------------------|-----------------------------|--------------|--------------|-----------------|--------------------|----------------------|--------------------|
| SB-03*                          | SBB-03*                     | 3/16         | 0.234        | 3000            | 12,000             | 2.00                 | 0.048              |
| SB-04                           | SBB-04                      | 1/4          | 0.312        | 3000            | 12,000             | 2.00                 | 0.058              |
| SB-05*                          | SBB-05*                     | 5/16         | 0.375        | 3000            | 12,000             | 3.00                 | 0.078              |
| SB-06                           | SBB-06                      | 3/8          | 0.445        | 2500            | 10,000             | 4.00                 | 0.098              |
| SB-08                           | SBB-08                      | 1/2          | 0.549        | 2000            | 8000               | 5.20                 | 0.126              |
| SB-10                           | SBB-10                      | 5/8          | 0.648        | 1500            | 6000               | 6.50                 | 0.154              |
| SB-12                           | SBB-12                      | 3/4          | 0.778        | 1200            | 4800               | 7.70                 | 0.190              |
| SB-16                           | SBB-16                      | 1            | 1.030        | 1000            | 4000               | 9.00                 | 0.280              |
| SB-20                           | SBB-20                      | 1-1/4        | 1.135        | 800             | 3200               | 16.00                | 0.369              |

\*MADE TO ORDER - All pressures and vacuum ratings were calculated at 70°F

## FITTINGS & FEATURES

U.S. Hose & Coupling stocks a wide selection of brass and stainless steel couplings for your smooth bore hose assemblies. These include compression tube end, hex male pipe, and female JIC swivel with back up hex. Our crimped fittings are permanently attached offering the customer a leak proof assembly over its entire length. This is not only safer, but inherently has less maintenance than re-useable fittings and thus lower operating costs.

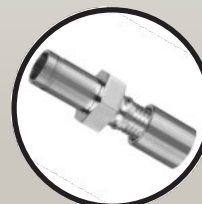
- Temperature Range: -85°F to 500°F (-65°C to 260°C)
- Blue tube "SBB" series is static dissipative
- SS304 wire braid reinforcement: -04 thru -10 are rated for full vacuum.
- Manufactured from fine powder Phthalate-free PTFE
- Inert to chlorine, acids and solvents
- Outstanding non-stick performance make this hose optimal for compressed air and engine compartment applications
- FDA-approved and steam cleanable



**FEMALE  
JIC SWIVEL**



**HEX  
MALE PIPE**



**COMPRESSION  
TUBE END**

# SMOOTH BORE - ULTRA HIGH PRESSURE

SMOOTH BORE ANTI-STATIC  
TRANSFER HOSE FOR HIGH  
PRESSURE AND HIGH  
TEMPERATURE SITUATIONS.  
RUGGED LAYERS OF HIGH  
TENSILE 304 STAINLESS  
STEEL BRAIDING MAKE THIS  
HOSE IDEAL FOR TOUGH GAS,  
CHEMICALS AND FLUIDS.



| PART<br>NUMBER | SIZE<br>(in) | I.D.<br>(in) | O.D.<br>(in) | MAX WP<br>(psi) | BURST PSI<br>(psi) | MIN BEND<br>RADIUS (in) | WEIGHT<br>(lbs/ft) |
|----------------|--------------|--------------|--------------|-----------------|--------------------|-------------------------|--------------------|
| SBHP-04        | 1/4          | 0.222        | 0.375        | 5000            | 15000              | 1.5                     | 0.10               |
| SBHP-06        | 3/8          | 0.308        | 0.475        | 5000            | 15000              | 2.5                     | 0.16               |
| SBHP-08        | 1/2          | 0.403        | 0.600        | 5000            | 15000              | 2.87                    | 0.23               |
| SBHP-10        | 5/8          | 0.505        | 0.715        | 5000            | 15000              | 3.25                    | 0.32               |
| SBHP-12        | 3/4          | 0.630        | 0.970        | 5000            | 15000              | 3.87                    | 0.66               |
| SBHP-16        | 1            | 0.867        | 1.250        | 5000            | 15000              | 5.00                    | 1.02               |

All pressures and vacuum ratings were calculated at 70°F

## FITTINGS & FEATURES

- Temperature Range: -65°F to 400°F (-54°C to 204°C)
- Conductive PTFE inner-core eliminates risk of static burn in high-flow applications
- SS braiding eliminates need for spiral wraps, thereby reducing weight and increasing flexibility
- Additional braid layer on sizes -12 and above
- Phthalate-free, non-stick and non-leaching make this hose excellent for demanding conditions

## INDUSTRIAL APPLICATIONS

**Compressed Air** - higher pressure and temperature rating, and greater resistance to system vibration when compared to rigid metal and rubber hose.

**Robotics** - superior chafe resistance and extreme flexibility make for reliable and accurate hydraulic lines when dealing with fluids and hot oils.

**Plastics** - zero "shot" material contamination in RIM and Extrusion processing systems.

**Aircraft / Aerospace** - no leakage and zero absorption of moisture in high pressure, high heat autoclaves.



**FEMALE  
JIC SWIVEL**

All high-pressure PTFE assemblies are crimped so that the inner-core and fitting stem form a permanent assembly. This positive braid locking ensures hose integrity such that any strain is absorbed by the braid itself and not the teflon inner-core.

## ***CHLORINE TRANSFER HOSE***



- Temperature Range: -40°F to 120°F (-40°C to 49°C)
- Meets or exceeds the Chlorine Institute guidelines
- Extremely flexible with shallow, helical convolutions for fast and easy draining and cleaning
- Inert to chlorine, acids and solvents compared to metal hose
- Suitable for all Chlorine / Bromine related applications: loading hose, transfer hose, and sniffer hose
- Multi-purpose hose for pulp & paper manufacturing: rated for steam, condensate, and black liquor.

Chlorine is an incredibly important chemical whose "dry" and "wet" organic and inorganic derivations are found virtually everywhere from the paper and pulp industry to the processing of food & drug additives. However, Chlorine is one of the most difficult and hazardous chemicals to handle. Our special transfer hose is made of a Chlorine-inert convoluted PTFE inner-core, wrapped in a protective PVDF layer and covered in a Chlorinated Polyethylene (CPE) braid. Robust and reliable, our Chlorine transfer hose will stand up to your most demanding applications.

**MADE TO ORDER - CALL FOR DETAILS**

## ***RUBBER COVERED HOSE***

Cut & Couple's "anti-stick" rubber covered hose is a lightweight and flexible Blue EPDM rubber transfer hose with a high-purity fluorinated ethylene propylene (FEP) Teflon liner. Helical wire reinforcement allows for full vacuum service. The cover consists of multiple plies of fabric reinforced rubber ending with the innermost layer bonded to the FEP inner-core.

**MADE TO ORDER - CALL FOR DETAILS**



- Inert to oils and cleaning agents
- Non-stick FDA approved inner-core provides for easy drainage and cleaning (SIP/CIP safe)
- Temperature Range: -65°F to 300°F (-54°C to 148°C)
- Rubber cover offers reduced effusion and friction rates
- Stainless Steel and PTFE-lined fitting options

## TEFLON SERVICES

### HOSE COVER OPTIONS

Sleeves and covers provide additional protection for your investment; a longer service-life translates to lower operating costs. **Armor Guard**'s metal wrap is as heavy duty as it is flexible. **Nylon**'s abrasion resistant weave strengthens as it is worn. **Heat Shrink** is ideal for situations that demand cleanliness. **Fire Sleeve** wraps the hose in fiberglass with a bonded silicon cover to protect against extreme temperatures. Reduce kinking from severe flexing, dragging and bending with **Spring Guard**. Even color-coding hoses for quick reference is an option with our deep range of **Expandable Sleeve** color choices.



### PRESSURE TESTING AND TAGGING

Cut and Couple's warehouses are equipped with custom-built pressure testing stations and we offer hydrostatic testing to 1.5 times the working pressure for all of our teflon hose assemblies as well as customizable stainless steel tagging. Tags are permanently attached and can contain any pertinent information such as fabrication date, hose ID, or working pressure. These services are available upon request and do not come standard.

### PACKAGING / SHIPPING

All teflon hose assemblies are built in their own cell to negate cross-contamination from other parts of the warehouse. Finished assemblies are wrapped, bagged and carefully packed to prevent kinking during shipment. Protection is a priority and our threaded ends are routinely capped.

### OEM HOSE SUPPLIER

As your OEM we help you solve key issues:

- Reduce your manpower
- Keep prices under control
- Keep inventory low with bi-monthly or monthly releases
- No wasted inventory (products received direct for resale)
- Product can be kitted to make easier for your staff
- All hoses assembled by certified hose technicians

We help you make your products better!



### BUILD YOUR OWN ASSEMBLY

We are proud to offer our end-users their very own **online assembly builder** with which to build custom assemblies for fast turnaround times. This value-added benefit is part of our extensive network of services that include stocking, fabricating, welding, engineering, and inventory management.

**BUILD  
YOUR OWN  
ASSEMBLY**

## OUR MISSION

*A team driven to  
provide quality  
hose solutions  
through ingenuity,  
passion and  
commitment.*

ANY HOSE | ANY LENGTH | ANY TIME

## OUR VISION

*The industry  
leader of quality  
hose assembly  
technology.*



P.O. Box 13180  
Dayton, OH 45413

[sales@cutandcouple.com](mailto:sales@cutandcouple.com)

PH: (866) 641-8851  
FAX: (937) 454-2086

**RELIABLE**  
INDUSTRIAL PRODUCTS CO.

2611 Thunderhawk Ct  
Dayton, OH 45414

[sales@reliableind.com](mailto:sales@reliableind.com)

PH: (937) 454-2080  
FAX: (937) 454-2086

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