Fluid System Connectors
Quick reference guide

We’re a company built to partner with our customers in an effort to be attentive to market needs. The automation market includes a wide variety of applications ranging from packaging and conveying to robotics. By designing products in composite and brass, we offer customers a product range as varied as the market applications.

The Application Environment
- Dynamic, static, and rotary applications
- Fast assembly and disassembly of systems
- Controlled pneumatic installations
- Pressures up to 300 psi

We are involved in a wide array of configurations and sizes.

Market Trends:
- Smaller footprint for tighter spaces
- Robotics use will increase, with the adoption of intelligent robotics providing significant new strategic options
- The focus of automation will be expanded to embrace process quality and flexibility
- Machine-to-machine communications will generate increased efficiencies and productivity

**Prestolok Composite Fittings**
- Compact, light-weight, composite fittings commonly used in pneumatic automation applications. Available in a wide array of configurations and sizes.

**Prestolok PLM Fittings**
- Compact push-to-connect fittings with a high phosphorus FDA nickel-plate allowing these fittings to be used in applications where exposure to aggressive environments is present.

**Prestolok Metal Fittings**
- Compact push-to-connect nickel-plated brass fittings, commonly used in pneumatic automation applications. Specially designed for low-pressure circuits where fast assembly, disassembly and reassembly are important. Featuring an ergonomic positioning swivel, Prestolok fittings are compatible with a wide array of tubing choices.

**Prestolok PLS Fittings**
- The all stainless steel construction with FKM seals offers excellent resistance to aggressive environments and fluids. The smooth surface design is aimed at reducing retention zones for safe and easy cleaning. Suitable for applications in markets such as chemical, food, packaging, and medical.

**Integrated Fittings**
- **Compact Flow Control**
  - Excellent performance of flow and suited for reduced spaces due to their small size.
- **Miniature Flow Control**
  - Especially adapted for very small-sized pneumatic applications.
- **Swivel Outlet Flow Control**
  - Designed to allow a vertical or angled tube exit where access is restricted.
- **Plug-in Flow Control**
  - Can be directly mounted into existing fittings and allow very compact installations.
- **In-Line Flow Control**
  - Easily added to existing circuitry simply splice it into the cylinder port line.
- **Compact Metal Flow Control**
  - For use in severe conditions (temperatures, sparks, abrasion, etc.)

**Check Valve**
- Allows air to pass in one direction while blocking flow in the other direction.

**Blocking Valve**
- Prevents damage to work and equipment in the event of a loss of pressure.

**Slow Start Valve**
- Enables you to control the rate of fluid flow, pressure, and suited for reduced spaces due to their small size.

**Threshold Sensor**
- Detects the absence of pressure and translates it to a high-pressure pneumatic output.

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<table>
<thead>
<tr>
<th>Prestolok Brass</th>
<th>Temperature (°F to °C)</th>
<th>1/4”</th>
<th>5/32”</th>
<th>3/16”</th>
<th>1/8”</th>
<th>7/32”</th>
<th>5/32”</th>
<th>1/4”</th>
<th>5/16”</th>
<th>3/8”</th>
<th>1/2”</th>
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<td>Prestolok PLS</td>
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Maximum working pressure (psi) by tube size at 73°F

**Polyurethane Tubing**
- A flexible, kink-resistant, and abrasion-resistant material commonly used in pneumatic applications.
- Available in multiple transparent and opaque colors for system color-coding
- Available in the following durometers (measurement of material hardness):
  - Medium durometer (90 = less flexible)
  - High durometer (±95 = least flexible, highest pressures)

**Nylon Tubing**
- Flexible Nylon tubing uses high-grade resins for strength and flexibility for routing in tight spaces.
- Semi-rigid, high-strength Nylon uses high-grade resins without the addition of plasticizers for higher-pressure tubing applications.
- Pure Air Tubing (PAT) is the tubing choice for pure air systems (semi-conductor) due to its cleanliness in addition to excellent chemical and UV light resistance.

**Swivel Tubing**
- A flexible, kink-resistant, and abrasion-resistant material commonly used in pneumatic automation applications.
- Due to its cleanliness in addition to excellent chemical and UV light resistance.
**In Water and Beverage: Keeping it clean, keeping it safe.**

Increased awareness of volatile organic compounds, microorganisms, chemicals, and pesticides in the world’s potable water supply has intensified public concern about water quality. By identifying these trends, Parker’s capability to address water quality concerns has kept pace with environmental and regulatory shifts in federal and state laws. From our new low-lead brass fittings and valves which meet the strictest standards for potable water use... to our sustainable, high-performance push-to-connect fittings that limit the development of biofilm... Parker engineers are leading the way by developing innovative products for emerging applications that will keep water and beverages cleaner and safer.

### Market Trends:
- **Pressure to lower costs will continue in the face of a difficult global economy**
- **Spurred by the need to differentiate and expand into new markets, OEMs will look to their supplier partners for new and innovative products**
- **Concerns over water and beverage safety will cause the adoption of new regulatory requirements and safeguards for equipment and components which handle potable water**
- **In food and beverage, increasing consumer demand for variety, choice, and customization will mean more flexible and agile manufacturing with faster changeover time**

### THE APPLICATION ENVIRONMENT
- Exposure to aggressive agents used for water treatment, including chlorine, chloramines, ultraviolet light, ozone, and UV.
- Sustained, high-temperature and high-pressure conditions for fittings used in hot beverage dispensers.
- 24/7 demand.
- Increasingly stringent sanitary and aseptic standards for food and beverage applications, as well as for the transport of ultra pure water.

### LIQUIfit™ Fittings
- **Compact, push-to-connect, full-flow profile fittings for water applications.**
- LIQUIfit™ is suitable for water, potable liquids, and neutral gas applications. It offers high chemical resistance to such things as chloramines, cleaning agents, and UV. It also limits biofilm development.
- Additionally, LIQUIfit™ meets all key food quality contact standards and regulations, including FDA and NSF 61 and 51.

### Fast & Tite® Fittings
- **A great solution for water applications.**
- Fittings are NSF 51 and FDA compliant and assembled by hand. Use with nylon, polypropylene, soft metal, or plastic tubing.

### TrueSeal™ Ball Valves
- **Robust push-to-connect fittings ideal for water treatment and harsh chemical environments.**
- Available in acetyl, polypropylene, and kynar, TrueSeal™ fittings offer FDA and NSF 51 compliance; NSF 61 compliance in gray acetyl. Widely accepted in water conditioning, filtration, and reverse osmosis applications, and on water, soft drink, beer, wine, and condiment dispensing systems.

### Low-Lead Fittings
- **These cost-effective low-lead fittings are designed for use on equipment that dispenses or conveys water for human consumption, which includes drinking and cooking.**
- These fittings meet California AB 1953 standards for potable water use. Suitable for high-pressure beverage brewing and dispensing at temperatures up to 600°F and will not adversely affect product flavor.

### Par-Barb® Fittings
- **Specially engineered with a four-barb design that generates maximum gripping and sealing power when combined with a hose clamp. Use with clear vinyl tubing, urethane, and a variety of rubber tubing and hoses.**
- Polyethylene tubing, as well as irrigation, instrumentation, reverse osmosis, and deionized water systems.

### Polyethylene Tubing
- **Meets FDA, NSF Standard 51 for all food contact applications, and NSF 61 for potable water applications**
- **E-Series tubing is made of 100 percent virgin resin material.**
- **Meets ASTM D-1693 for stress crack resistance.**
- **We also offer special PE tubing: FRPE (flame retardant & plenum rated) as well as HPDE (high density).**

### Polypropylene Tubing
- **Meets FDA, NSF Standard 51 for all food contact applications.**
- **Exhibits excellent chemical resistance to chlorinated water applications.**
- **Commonly used in outdoor applications where UV light stabilization is required.**
In Transportation:

**Expert advice.**

At Parker, partnership is more than a word. It’s the way we think, the way we work, and the way we succeed. For us, innovation begins with new ways of collaborating. We routinely create integrated product development teams with our customers, collocating at customer facilities in order to work directly on site with customer design and business teams. Working together unleashes a free flow of ideas and information that promotes creativity, maximizes quality, and dramatically reduces time to market.

### Market Trends:

- Concern over environmental issues will produce a move towards biofuels and hybrid vehicles
- Increased demand for worldwide product availability will spur global logistics and vendor partnerships
- The need for system solution partners will consolidate market suppliers and increase competition
- Pressures up to 600 psi (special products only)
- Temperatures from -40°F to more than 200°F

#### Transmission Fittings

<table>
<thead>
<tr>
<th>Product Spec</th>
<th>Temperature</th>
<th>Lanthanum</th>
<th>Gallium</th>
<th>Tin</th>
<th>Lead</th>
<th>Antimony</th>
<th>Copper</th>
<th>Pressure and temperature dependent upon manifold configuration</th>
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<tr>
<td>Drain Cocks</td>
<td>-50°F to 250°F</td>
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**Prestomatic Fittings**

These robust, all-brass push-to-connect fittings meet SAE J2494 and D.O.T. specifications. Designed for all D.O.T. truck and trailer applications, Parker Prestomatic fittings reduce assembly time versus compression style fittings by 90%. Ideal for tight applications with difficult wrench clearance. Use with Parflex SAE J844 type A and B tubing.

**PTC Fittings**

These lightweight, composite push-to-connect fittings meet SAE J2494 and D.O.T. specifications. Designed for all D.O.T. truck and trailer applications, Parker PTC fittings reduce assembly time versus compression style fittings by 90%. Use with Parflex SAE J844 type A and B tubing.

**Prestomatic SAE Encapsulated Cartridges**

A compact, economical design for simplified port machining. Weight reduction and pipe thread elimination are achieved in this O-ring seal push-to-connect port and tube end. Commonly used in D.O.T. applications.

**Manifolds**

Manifolds provide multiple tube junction connections in truck air applications. Bodies are produced from light-weight polyacetal material. Please contact us for custom designs.

**NTA Fittings**

The most economical air brake solution. Ideal for air brake and diesel fuel applications. NTA fittings meet D.O.T. air brake specifications. Pre-applied with Loctite® Vibra-Seal® thread sealant on all male pipe threads.

**Air Brake Fittings**

Economical compression-style fittings for copper-air brake lines. Pre-applied with Loctite® Vibra-Seal® thread sealant on all male pipe threads. Air brake bodies (with the addition of NTA tube support) are interchangeable with NTA bodies for use with SAE J844 Nylon tubing.

**Transmission Fittings**

Ideal for pressure-protected pneumatic transmission applications. Offer a specially designed slotted sleeve to help eliminate notch stress related to over-torque. Use with SAE J844 type A Nylon tubing.

**Vibra-Lok Fittings**

Excellent in tough applications such as high vibration, high heat, mechanical shock, or tube movement conditions. The sleeve cushions the tubing, permitting the tubing to flex back and forth in the fitting. The seal design compensates for tube misalignment and surface defects. For use with seamless or stainless steel tubing, copper, aluminum, steel (Bundy), stainless steel, and glass.

**Air Brake Hose Fittings**

Field-attachable fittings for use with Parker 271 air brake hose. Easy to assemble and disassemble, these fittings meet D.O.T. standards when used with SAE J1402 air brake hose.

**Lanyard Valve**

Compact brass valve designed for releasing condensate from air tanks. Specially formulated low-temperature seal remains elastic down to -40°F.

**Drain Cocks**

Economical, high-quality brass drain cocks are available with either external or internal seats.

**Air Brake Nylon Tubing**

For use in tractor, trailer and other mobile air brake, instrumentation and air accessory systems. Meets SAE specification J844 Type A or B, D.O.T. FMVSS106, and performance requirements as specified in SAE specification J131.
Market Trends:

- Globalization will increase the burden on companies to ensure product quality, sustainability, and universality.
- Economics will motivate companies to become leaner and more single-source purchasing.
- Vendors will spur vendor partnerships and compress-align® fittings to perform.

**Market Trends:**

- Globalization will increase the burden on companies to ensure product quality, sustainability, and universality.
- Economics will motivate companies to become leaner and more single-source purchasing.
- Vendors will spur vendor partnerships and compress-align® fittings to perform.

**The Application Environment**

- Exposure to a wide variety of chemicals, lubricants, fuels, and gases.
- Dynamic, static, and rotary applications.
- Vibration and shock.
- Pressure up to 3,200 psi.
- Temperatures from -40°F to 160°F.

**Product Specifications**

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<tr>
<th>Material</th>
<th>Temperature</th>
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<td>1,900</td>
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**Product Specifications**

- **Compression Fittings**
- An economical choice for a metal-to-metal seal, ideal for refrigerant applications. Use with copper, brass, aluminum, and welded steel hydraulic tubing that can be flared.

- **Inverted Flare Fittings**
- Offer similar performance to 45° Flared fittings, except the metal-to-metal seal is internal to the fitting for tighter tube bends.

- **Poly-Tite Fittings**
- Compact, pre-assembled compression fittings designed for fast assembly. These high-quality, compact fittings are commonly used in hydraulic and plumbing applications.

- **High-Duty Fittings**
- Ideal for "high-duty" oils, coolant, or lubrication system applications. Rated to a much higher pressure than standard compression fittings, will work with seamless steel tubing, as well as copper, brass, and thermoplastic tubing.

- **Hose Barb Fittings**
- An economical choice for general-purpose fluid handling and pneumatics. Commonly used with water, coolant, and compressed air.

**Market Trends:**

- Growing demand for global logistics will spur vendor partnerships and single-source purchasing.
- Economics will motivate companies to become leaner and more globally competitive.
- Globalization will increase the burden on companies to ensure product quality, sustainability, and universality.

From a complete range of standard, SAE off-the-shelf products to our innovative new BINS program, Parker Fluid System Connectors division is there for you in ways that make your business better. Our fluids and pneumatic fittings, tubing, couplings, manifolds, and valves have been engineered to outperform, working together with a systems approach that streamlines development and speeds manufacturing.
Applying custom to appliances.

Working in conjunction with a major appliance manufacturer, we created a custom assembly that improved their manufacturing process as well as their product reliability. Developed from a custom brass forging, the Parker solution included a specially machined thread and barb configuration as well as a tamper-proof tube assembly. The end result? A reliable, leak-free, error-proof connection. Not to mention one happy customer.

Custom Solutions: Fittings, manifolds, and valves.

DESIGNED TO MEET YOUR NEEDS

Don’t be boxed in by conventional thinking, or the conventional parts that go with it. Let Parker Fluid System Connectors create exactly what you need, when you need it. Whether it’s a valve, a fitting, or a manifold, we can produce it. In any size, quantity, or configuration, with any connector end. For prototypes, one-of-a-kind pieces, and emergency repair parts to small or large production runs, our ability to make the unusual usual has not only reduced lead times, but the price of lower-volume components as well. Designed to your specifications, drawings, or CAD files, our custom valves, fittings, and manifolds not only comply with SAE, ISO, DIN, JIS, ASTM, and MIL standards, they meet our own unwavering requirements for the highest possible quality.
Your complete source for quality tube fittings, hose & hose fittings, brass & composite fittings, quick-disconnect couplings, valves and assembly tools, locally available from a worldwide network of authorized distributors.

Fittings:
Available in inch and metric sizes covering SAE, BSP, DIN, GAZ, JIS and ISO thread configurations, manufactured from steel, stainless steel, brass, aluminum, nylon and thermoplastic.

Hose, Tubing and Bundles:
Available in a wide variety of sizes and materials including rubber, wire-reinforced, thermoplastic, hybrid and custom compounds.

Worldwide Availability:
Parker operates Fluid Connectors manufacturing locations and sales offices throughout North America, South America, Europe and Asia-Pacific.

For information, call toll free...
1-800-C-PARKER (1-800-272-7537)

North American Divisions

Energy Products Division
Stafford, TX
phone 281 566 4500
fax 281 530 5353

Fluid System Connectors Division
Otsego, MI
phone 269 694 9411
fax 269 694 4614

Hose Products Division
Wickliffe, OH
phone 440 943 5700
fax 440 943 3129

Industrial Hose Division
Strongsville, OH
phone 440 268 2120
fax 440 268 2230

Parflex Division
Ravenna, OH
phone 330 296 2871
fax 330 296 8433

Quick Coupling Division
Minneapolis, MN
phone 763 544 7781
fax 763 544 3418

Tube Fittings Division
Columbus, OH
phone 614 279 7070
fax 614 279 7685

Distribution Service Centers

Buena Park, CA
phone 714 522 8840
fax 714 994 1183

Conyers, GA
phone 770 929 0330
fax 770 929 0230

Louisville, KY
phone 502 937 1322
fax 502 937 4180

Portland, OR
phone 503 283 1020
fax 503 283 2201

Toledo, OH
phone 419 878 7000
fax 419 878 7001

Canada
Grimsby, ONT
phone 905 945 2274
fax 905 945 3945

(FCG Kit Operations)

(Contact Grimsby for other Service Center locations.)