aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Fluid System Connectors

Joining innovation and
opportunity around the globe

Parker

ENGINEERING YOUR SUCCESS.

In Pneumatic Automation: **Increased productivity.**

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, brass, and stainless steel, 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

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 increasing efficiencies and productivity

CHOOSE PARKER FUNCTION FITTINGS FOR GREATER PRODUCTIVITY AND HIGHER OUTPUT.

Polymer and metal flow controls –

Compact, precise, and reliable, our flow controls provide better, more consistent air flow regulation for both standard and severe environment pneumatic applications. Their faster actuator retraction decreases cycle time and increases machine throughput.

Polymer controls of Nylon 6/6 can withstand higher temperatures and offer better chemical resistance and improved mechanical properties. Metal flow controls are the choice for severe duty environments that include extreme temperatures, spark exposure, and mechanical constraints.

Piloted function fittings –

Robust and reliable push-to-connect lockout valves are optimized for maximum flow capacity and minimum footprint.

With excellent resistance to aggressive environments, Parker lockout valves offer superior performance due to their pilot/depilot capability. In addition, the valves can be oriented in any direction to facilitate system design.

Sensor fittings –

With pneumatic or electronic signaling mechanisms, our compact sensor fittings are designed to detect the end of cylinder travel. Their low exhaust back-pressure makes them very easy to use.

How Parker Connects:

- Prestolok
- Function fittings
- PrestoWeld

Air Power: Automating operations at Elzinga Greenhouses

Mark Elzinga of Elzinga Greenhouses, Portage, Michigan, relies on Parker to make sure his Fresh Flavors organic herb and vegetable plants deliver on time.

"When you invest in building an organic greenhouse from the ground up, you don't compromise the quality of your automation equipment or the key components that operate it.

Our growing season can't afford downtime. That's why we use Parker composite Prestolok fittings, flow controls, valves, and tubing. They resist corrosion and provide reliable service even during crunch time. From seeders, watering stations, and conveyors, to our worm tea production, we count on Parker to keep our operation growing."

In Water and Beverage: **Keeping it clean, keeping it**

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 lead-free 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 the need for a flexible and agile approach to manufacturing. The ability to manage manufacturing of several customized products on one production line will pressure manufacturers to reduce changeover time from one product to another.

THE APPLICATION ENVIRONMENT

- Exposure to aggressive agents used for water treatment, including chlorine, chloramines, ultraviolet light, and ozone
- 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

NEW CHLORAMINE-RESISTANT SEAL MATERIALS

As more water treatment facilities change to chloramine disinfection, many NSF-approved elastomeric seals are degrading from exposure to this aggressive chemical, causing performance issues and warranty claims. Parker's new chloramine-resistant EPDM seals are engineered to offer significantly longer seal life in potable water equipment.

Innovation in Action: New Parker LIQUIfit™

LIQUIfit™ is a revolutionary fitting for water systems that solves a number of problems associated with push-to-connect fittings used for water treatment, reverse osmosis, and filtration applications. Its full-flow profile delivers maximum capability, while its compact, push-to-connect design facilitates the tightest tube bends in the industry. In addition, this new range of fittings offers these critical advantages:

- **Patented sealing technology,** with a D-shaped EPDM seal providing greater surface contact area for better sealing.
- **Full, stainless steel gripping ring,** eliminates locking clips while helping to facilitate the tightest possible tube bends. Once the tubing is inserted, the fitting handles side load pressure and minimizes tube movement.
- **High performance,** sustainable nylon body, manufactured from renewable castor seeds, offers superior mechanical strength and chemical resistance.
- **1/5th the CO_2 emissions** of an acetyl fitting over the life cycle of the product, verified by third party testing.
- **Advanced quality controls,** utilizing air testing, visual inspection and a four-digit batch stamp for individual product traceability.

How Parker Connects:

- LIQUIfit™
- TrueSeal™ fittings
- Ball valves
- Water supply valves
- Fast & Tite® fittings
- Par-barb fittings
- ParFlex PE and PP tubing

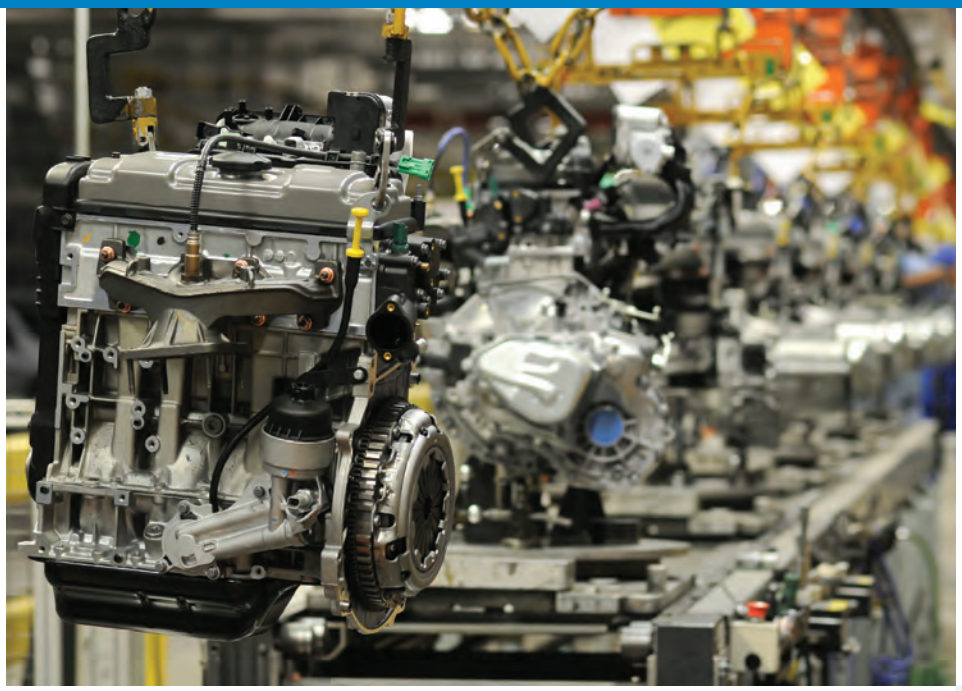
Innovation in Action: New Parker Green Brass

Fluid System Connectors is introducing a new line of lead-free brass fittings and valves for use on equipment that dispenses or conveys water for human consumption.

The new cost-effective unleaded products meet California AB 1953 standards for Potable Water Use; an important advantage, as both California and Vermont have passed legislation mandating lead-free plumbing fixtures in all water applications for human consumption, and 20 other states are considering similar measures. The durable brass fittings and valves are available in compression, pipe, push-to-connect, and flare styles, and are:

- **Suitable for high-pressure brewing and dispensing at temperatures up to 400°F**
- **Flavor-neutral**
- **Designed for harsh commercial environments**
- **More cost effective than other metals, including stainless steel**
- **American-made**

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.

Photo courtesy of U.S. Army

THE APPLICATION ENVIRONMENT

- Aggressive chemical exposure, including de-icing agents, calcium, and magnesium chloride
- Exposure to the elements
- Vibrations and shock
- Pressures up to 600 psi (special products only)
- Temperatures from -40°F to more than 200°F

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 and pricing pressure

PNEUMATIC MANIFOLDS

Our pneumatic manifolds save space, cut assembly time, and maintain critical firewall protection. Uniquely engineered for each customer's requirements, they can be color-coded for easier/quicker routings, aluminized or molded with fire-retardant polymers, configured with multiple ports that can share a common air pressure, and designed to incorporate passive to logic-driven transducers and controls. In addition, date codes and DOT markings can be added to the body of the manifold for identification.

DOT AIR BRAKE FITTINGS

Prestomatic and PTC push-to-connect fittings can be assembled in a fraction of the time required by standard compression fittings. Just bottom the tubing in the fitting body for a positive seal.

Parker and Clean Diesel:

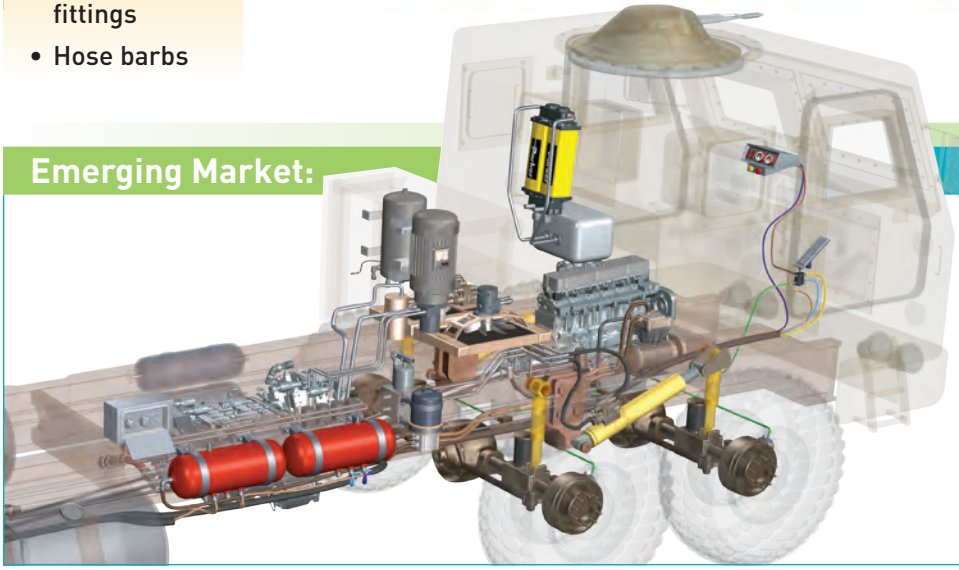
Taking the NO_X out of obnoxious emissions

Beginning January 1, 2010, all Class-8 trucks, transit buses, shuttles, and coach manufacturers must meet EPA mandates for drastically reduced nitrogen oxide (NO_X) emissions.

How will they do it? Most will meet the new stringent standards with a Selective Catalytic Reduction (SCR) system equipped with Parker parts, including our SAE J-2044 fittings.

How Parker Connects:

- Air brake fittings
- Air brake hose
- NTA fittings
- Prestomatic fittings
- PTC fittings
- SAE cartridges
- Transmission fittings
- Vibra-Lok fittings
- Hose barbs



Emerging Market:

Tactical and Combat Vehicles

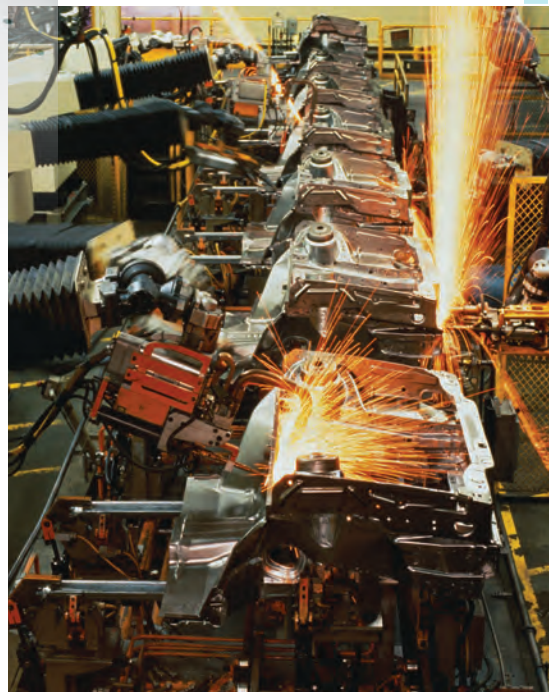
Nobody offers more fittings, valves, and manifolds for ground support vehicle applications than Fluid System Connectors. Whether for the engine, brake, coolant, hydraulic fan drive, or fuel systems, we've got the materials, designs, shapes, sizes, and capabilities needed for specific leak-free requirements.

In Industrial: Increased efficiency, greater producti

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 fluidic 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.

THE APPLICATION ENVIRONMENT

- Exposure to a wide variety of chemicals, lubricants, fuels, and gases
- Dynamic, static, and rotary applications
- Vibration and shock
- Pressures up to 2800 psi
- Temperatures from -65°F to 250°F



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

MORE COMPRESSION FITTINGS

From Compress-Align® and Metru-Lok™ to Poly-Tite and Hi-Duty, we offer compression fittings for every possible application. Our wide range of fittings are engineered for pressures ranging from 250 to 4,800 psi and designed to work equally well with copper, polypropylene, polyurethane, or nylon tubing.

How Parker Connects:

- Pipe fittings
- Flare fittings
- Compression fittings
- Hose barb fittings
- Ball valves
- Needle valves

The Parker BINS Program: Balanced Inventory. Never Short.

Running lean? Our BINS program is designed to manage your inventory so you don't have to, eliminating downtime due to parts out of stock.

BINS
Balanced Inventory. Never Short.

You decide on part numbers and quantities, and we'll do the rest. We'll furnish the appropriate types of bins and cabinets that will be stocked with the fittings, valves, and connectors you need. We'll make sure you always have a sufficient number of parts, without tying up capital in overstocks, and schedule your orders to arrive when and where you need them – to your dock, stock, or right to your assembly line.

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.

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.

Compatibility and Pressure Range:

PARKER

Tubing/Hose Capability with Parker FSC fittings

Consult catalog for specific tubing and application information

Fluid System Connectors Application Matrix

	Product Line	Working Temp	Pressure Rating Listed By Tube Size — Maximum Working Pressure (psi) by Tube Size at 73°F																Economy	Ease of Assembly	Confined Area Assembly	Seal Integrity
			1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	4mm	6mm	8mm	10mm	12mm	14mm	Scale: 1 Poor - 5 High			
Compression and Flare	**Compression**	-65°F to 250°F	400	—	400	300	300	200	200	150	100	75	—	—	—	—	—	—	5	3	3	3
	Compress-Align Range to 1" Tube Size	-65°F to 250°F	2800	—	1900	1400	1200	1000	750	650	550	450	—	—	—	—	—	—	4	4	3	5
	Metru-Lok Range to 22mm Tube Size	-65°F to 250°F	—	—	—	—	—	—	—	—	—	—	2600	2600	1800	1500	1300	1000	2	4	3	4
	Poly-Tite	0°F to 175°F	150	—	150	150	150	150	150	—	—	—	—	—	—	—	—	—	3	4	3	4
	Hi-Duty	-65°F to 250°F	4300	—	2850	2100	1800	1500	1150	1000	—	—	—	—	—	—	—	—	2	3	3	3
	45 Degree Flare	-65°F to 250°F	2800	—	1900	1400	1200	1000	750	650	550	450	—	—	—	—	—	—	4	2	3	3
	Inverted Flare	-65°F to 250°F	2800	—	1900	1400	1200	1000	750	650	550	—	—	—	—	—	—	—	4	2	3	3
	Fast & Tite	0°F to 212°F	—	—	—	300	300	250	200	150	—	—	—	—	—	—	—	—	4	4	3	4
Push-to-Connect	**Flow Controls**	30°F to 160°F	145	145	—	145	145	145	145	—	—	—	—	145	145	145	145	—	3	5	5	3
	Prestolok Brass	0°F to 200°F	300	300	300	300	300	300	300	—	—	—	300	300	300	300	300	300	3	5	5	4
	Prestolok Composite	-4°F to 175°F	290	290	260	290	290	290	290	—	—	—	290	290	290	290	290	290	4	5	5	4
	Prestoweld	0°F to 200°F	300	300	300	300	300	300	300	—	—	—	—	—	—	—	—	—	3	5	5	4
	Global Connect	32°F to 140°F	150	150	150	150	150	150	150	—	—	—	150	150	150	150	150	—	5	4	4	3
	LIQUIfit	35°F to 200°F	—	—	—	150	—	100	100	—	—	—	—	—	—	—	—	—	4	5	5	4
	TrueSeal	-20°F to 180°F	—	—	—	300	300	300	250	—	—	—	—	—	—	—	—	—	4	5	5	4
Barb	**Par-Barb**	-40°F to 200°F	125	—	125	125	125	125	125	125	—	—	—	—	—	—	—	—	5	3	3	4
	Dubl-Barb	-65°F to 90°F	—	150	—	150	—	150	100	—	—	—	—	—	—	—	—	—	5	4	3	4
	Hose Barb Hose Size Based on ID	-40°F to 160°F	—	—	150	150	150	150	150	150	150	—	—	—	—	—	—	—	5	3	3	3
	Garden Hose Hose Size Based on ID	35°F to 100°F	—	—	150	150	—	150	150	150	150	—	—	—	—	—	—	—	3	4	2	3
DOT Transportation	**NTA**	-40°F to 200°F	—	—	150	150	—	150	150	150	150	—	—	—	—	—	—	—	5	3	3	4
	Transmission Fittings	-40°F to 220°F	150	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	3	3	4
	Air Brake	-65°F to 250°F	—	—	—	400	—	400	400	400	400	—	—	—	—	—	—	—	4	3	3	4
	Air Brake Hose	-50°F to 212°F	—	—	—	—	—	225	225	—	—	—	—	—	—	—	—	—	3	3	3	4
	Vibra-Lok	-30°F to 275°F	—	—	1000	1000	900	700	500	400	—	—	—	—	—	—	—	—	3	4	3	5
	Prestomatic	-40°F to 200°F	—	250	—	250	—	250	250	250	250	—	—	250	250	250	250	—	3	5	5	4
	PTC	-40°F to 200°F	—	—	—	250	—	250	250	250	250	—	—	—	—	—	—	—	4	5	5	4
	SAE Cartridges	-40°F to 200°F	—	250	—	250	—	250	250	250	250	—	—	—	—	—	—	—	4	5	5	4
	Manifolds	-65°F to 250°F	Pressure and Temperature Dependent Upon Manifold Configuration																NA	NA	NA	NA

Parker Fluid System Connectors
North American Divisions & Distribution Service Centers

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...

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Industrial Hose Division
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Parflex Division
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