

Table of Contents

O-Ring Face Seal Tube Fittings	Seal-Lok	A
37° Flare Tube Fittings and Adapters	Triple-Lok & Triple-Lok 2	B
Flareless Bite Type Fittings	Ferulok	C
	Intru-Lok	D
Metric Bite Type Fittings	EO and EO-2	E
Adapters	Pipe Fittings and Port Adapters	F
	Pipe Swivels	G
	JIS Fittings	H
	K4 BSP Adapters	I
	Komatsu Style Adapters	J
	Conversion Adapters	K
Code 61/62 Flange Connections	Hydraulic Flanges & Components	L
Diagnostic, Orifice, Bleed Adapters, Screen and Specialty Fittings		M
O-Rings and Seals		N
Tube Clamps	ParKlump Inch Tube Clamps	O
	Metric Clamps	P
Tube	Metric Tube	Q
Fabricating Equipment	Equipment	R
Assembly / Installation		S
General Technical		T
Appendix		U
Numeric Index, Fitting End Size Chart and Offer of Sale		V



Added Value

The Parker advantage you can count on

When our name is on the product or service, you can be sure it includes Parker innovations and exclusives developed to maximize the leak-free performance and service life of your hydraulic connections. Here are some of our industry-leading examples.



Competitor A



Parker

Fittings exposed for 240 hours to neutral salt spray test ASTM B117 (independent testing)

Superior Plating provides unrivaled protection against corrosion, even in the harshest conditions. Parker fittings and adapters with this valuable enhancement exceed SAE red rust requirements and competitors' performance by far.

www.ravagesofredrust.com



ACEsolutions™ including our unique Trap-Seal™ O-ring and Robust Port Stud™ virtually eliminate problems like O-ring pop-out and washer damage that cause potential leaks in standard SAE connections.

www.fittingsthatraisethebar.com



ToolSpec™ is the quick, easy online way to determine the right tube fitting tool and tooling information for your particular need, saving valuable time on the job. Just select

and enter your criteria, and this exclusive Parker system displays the appropriate product selection and details. Find it fast at www.tfdtoolspec.com.



Custom Products are an unsurpassed Parker advantage. Our dedicated facilities manufacture custom fittings, flanges and adapters precisely to your specifications or drawings – responsively and efficiently. For assistance, e-mail customfittings@Parker.com

Parker SAE Aluminum Fittings

save weight, resist corrosion and conserve energy resources

When your application requires corrosion-resistant, lighter weight components that perform reliably in a range of environments, specify Parker's SAE aluminum fittings.

Ideal for mobile hydraulic systems, their lightweight advantage reduces overall vehicle weight and costs, and their "green" eco-friendly anodized coating improves corrosion resistance. They make system conversion simple too, with no need for redesign.



Compare the weight of a **steel/ stainless steel** fitting (top) to that of an **aluminum** fitting (bottom). Aluminum fittings are approximately **65% lighter**.

Parker aluminum fittings are ideal for use in agricultural, military, marine, mining and transportation applications where lighter weight and corrosion resistance are required.



Get the substantial advantages:

- **Up to 65% lighter than comparable steel and stainless steel fittings**
- **Superior corrosion resistance over comparable steel fittings**
- **Meets SAE J1453 and J514 fittings' dimension standards, eliminating system redesign and minimizing conversion costs**
- **Leak-free seal reliability with Parker's patented Trap-Seal™ O-ring and Robust Port Stud™**
- **Available in most any size, configuration or color**



Parker Fittings with XTR Coating

for extreme resistance to corrosion



An outstanding advantage for equipment in highly caustic applications and environments, Parker fittings with XTR (Extreme-Resistance) Coating withstand corrosion more than seven times longer than the SAE standard of 96 hours. In fact, Parker's proprietary formulation has been **tested to resist corroding for more than 720 hours.**

In applications where connections come in contact with nitrogen-based fertilizers, salt spray and other aggressive chemicals, standard hose and tube fittings become severely corroded. In fact, corrosion can begin to occur in as few as 14 days, putting assemblies at increased risk of early failure, causing unnecessary and costly equipment downtime.

End users have been asking for an improvement to industry-standard hose and tube fittings to extend the life of their equipment. Parker's XTR Coating with unprecedented corrosion resistance is the answer.

Where systems are exposed to highly corrosive external conditions, Parker's XTR Coating is a valuable advantage. Ideal applications for Parker fittings and adapters with XTR Coating include construction, agriculture, utility, intermodal transportation, snow/ice removal equipment, above-ground mining, processing plants, car washes and other similar uses with high-corrosive conditions.

For manufacturers shipping vehicles, equipment and systems overseas, XTR Coated Parker components

provide the level of protection critical to maintaining the factory-new look of those products on arrival.

In addition, Parker XTR Coating is compliant with environmental restrictions worldwide, including RoHS, ELV, and REACH.*

Parker products with XTR Coating assure all the leak-free performance and installation advantages that our customers expect. Even the assembly torque remains the same. For unmatched quality, service and support, now with extreme corrosion resistance, specify Parker hose and tube fitting products with XTR Coating.

Parker steel fittings can be ordered with the XTR Coating, offering corrosion protection above the standard zinc trivalent chromium. The most common configurations can be ordered, including Seal-Lok, Triple-Lok and Pipe Fittings.

*European Union restrictions for electronics products (Directive 2002/95/EG of European Union), Restrictions of Hazardous Substances Directive" – RoHS – 1st July 2006), automobile products (Directive 2000/53/EG of European Union – "End of Life Vehicle Directive" – ELV – 1st July 2007), and chemical products ("Registration, Evaluation, and Authorization of Chemicals Directive" – REACH – in preparation).



Universal Push-to-Connect (UPTC) Assembly

for unprecedented savings, from product design to maintenance



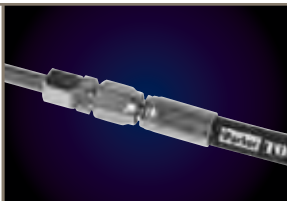
Push.



Click.



Done.



“Push, click, done” literally describes how simple it is to achieve reliable leak-free assemblies with Parker’s UPTC hose and tube assembly. That alone yields direct savings in time, equipment costs, rework and warranties. Unlike other push-to-connect assemblies, it’s also universally compatible.

Parker UPTC delivers:

- Substantial assembly efficiencies – no special tools
- Assured proper connections – with both tactile and visual indicators
- Leak-free performance – rigorously tested and field proven
- Wide-range availability and easy design implementation
- Excellent field serviceability – standard wrench disassembly

And it’s truly “universal” for compatibility worldwide:

- Utilizes standard Seal-Lok™ ORFS or EO fittings
- Suited for inch or metric tube, rubber or thermoplastic hose assemblies



UPTC assembly consists of a standard Seal-Lok™ (ORFS) or EO bite-type fitting, factory-assembled UPTC nut with internal sealing and retaining elements, and hydraulic hose or rigid tube.



Complete Piping Solutions

providing Parflange® F37 technology – and its implementation



More than a superior component supplier, Parker is positioned globally as a system partner for non-welded piping systems. We have combined the innovative Parflange F37 non-welded piping system with a broad array of piping services in Parker’s Complete Piping Solutions (CPS). For industries ranging from energy and mining to metals processing, testing systems and more, Parker CPS tailors piping solutions to maximize our customers’ profitability.

Moving the technology forward
Parker is the worldwide leader in tube fitting and adapter technology. Numerous connector innovations and advancements are attributed to our engineering and customer-centric collaborations. Our Parflange® F37 system is the proven alternative to time-consuming and costly welding, and we continue to expand this product range to solve new customer challenges.

The complete services advantage
By coupling the best non-welded piping system with a complete engineered piping services package, CPS offers incomparable assurance, efficiency and value for our customers. Our Parflange F37 technology is supported with engineering consultation, design, state-of-the art piping fabrication facilities and on-site installation. Currently, Parker operates five CPS centers located worldwide with additional centers opening soon.

Parker’s CPS team is on the jobsite providing the necessary expertise throughout the entire piping project.

Consultation and Design
The Parker CPS team of engineers offers expert consultation and design services.

During consultation, the customer’s project requirements are reviewed with the CPS engineering team to determine the best-suited services. Technical and commercial requirements are reviewed. Line sizing, clamping requirements, routing, and environmental and safety concerns are considered during this early stage, as well as early commercial options.

Parker’s CPS team provides a tailored proposal to match the customer’s technical and commercial requirements whether the project is a line expansion, retrofit of existing piping



system or for OEM piping assemblies. This key collaborative planning provides a solid foundation for subsequent design work, as well as for fabrication of piping assemblies at a CPS center or on site.

As the project enters the design stage, Parker's engineer-to-engineer collaboration with the customer ensures that all technical requirements are met. Depending on the scope of work, piping assemblies are designed either on the jobsite or at the CPS center. Our piping designers are experts in on-site measurement/surveying, development or modification of detailed piping drawings, and steadfast review of customer technical specifications and applicable standards.

Prefabricated Assemblies and Installations

Parker's CPS team migrates the upfront piping engineering to factory prefabricated pipe assemblies with several installation options.



With state-of-the-art CNC large- and small-capacity bending equipment, as well as all complementary pipe end finishing equipment, the CPS team expertly manufactures prefabricated piping assemblies.

By using cold drawn seamless tubes, the non-welded Parflange F37 system is inherently cleaner than welded piping systems, providing the benefit of reduced system flushing time. The CPS center employs Parker filtration and condition monitoring technologies to bring piping cleanliness to documented customer requirements. On-site leak-proof testing services can also be specified.

Parker delivers fabricated pipe assemblies to the worksite. These pipe assemblies will be protected, labeled and ready for installation by the customer or Parker.

With the largest CNC cold bending capabilities in the industry, Parker's CPS team specializes in the factory fabrication of pre-bent piping assemblies. These assemblies reduce much of the on-site design and fabrication and allow for the most efficient installation on the jobsite. When the project does not allow for prefabrication of assemblies, Parker's CPS technicians dispatch these capabilities to the job.

Parker is fully engaged in the on-site installation of piping assemblies. A Parker CPS project manager leads the team of trained installers to maximize installation throughput and quality of installation work. Parker's lead role in overseeing the project from start to finish, and in ensuring that the installed piping system meets all requirements, instills a high degree of customer confidence.

The on-site piping installation service also enables quick reaction to unforeseen project obstacles or design changes. Costly project delays and downtime are dramatically minimized.

Parker provides best-in-class non-welded piping systems. Whether the scope of the project requires the complete redesign of a welded piping system or the fabrication and delivery of a pre-engineered non-welded piping assembly, Parker CPS will engineer a solution to maximize customer value.



Flare Flange



Retaining Ring



Light Duty

Robust technology is the foundation of Parker Complete Piping Solutions (CPS). Parflange F37 non-welded piping systems utilize standard SAE Code 61/62, ISO 6162 and ISO 6164 flange interfaces. Parflange F37 is fully complemented with Parker's fabrication equipment and a broad range of interconnect components, valves, clamps and seamless tubes.

Application Specific Piping Solutions

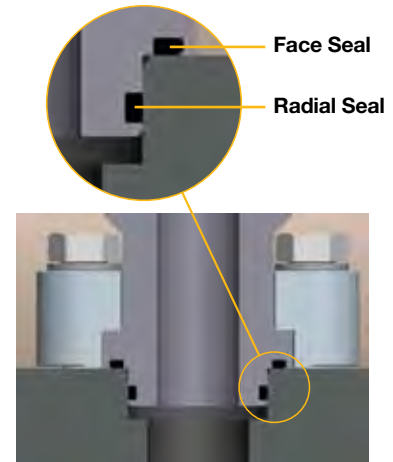
Some projects may require significant consultation and design services, while others may only need prefabricated pipe assemblies from a customer supplied print. Customers have the ability to choose from the breadth of services provided through the Parker CPS center – whether this is prefabricated piping assemblies delivered to the jobsite, on-site piping fabrication or a more turnkey approach including installation.

Parker Dual Seal Flange Adapters

for safer, more reliable flange connections in subsea applications



Dual Seal Flange Adapters use both a radial seal and face seal to achieve a leak-free port connection, eliminating traditional SAE flange connection problems.



Parker's Dual Seal Flange Adapters improve the reliability of high-vibration, high-shock hydraulic four-bolt connections in critical oil and gas applications.

Dual Seal Flange Adapters incorporate both radial and face seal technologies, reducing the potential for system leakage and air or water ingress caused by side loading of traditional flange face seal connections.

This Parker innovation is offered as an alternative to traditional SAE Code 62 Flange connections for improved port retention, increased sealing capability and elimination of costly field replacement due to failure.

Key benefits include:

- **Incorporates both radial and face sealing methods for improved sealing and port retention**
- **Available in standard Code 62 footprint sizes: ½", 1" and 1 ½"**
- **7500 psi / 515 bar working pressure rating with 4:1 design factor**
- **NACE MR0175 Compliant**
- **SAE 316/316L stainless steel construction**
- **Heat Code Traceable**
- **Tested to 1 million impulse cycles for proven reliability**
- **Face seal design includes captive O-ring for superior retention**
- **SAE Code 62 bolt pattern enables use of standard flange hardware**
- **Seal-Lok™, Triple-Lok® and socket weld configurations offered**

Illustrated above, the primary radial seal improves this adapter's pressure capabilities to 7500 psi while affording additional system integrity. The face seal provides resistance of external pressures introduced by the application environment.



Phastite® Pipe Connectors

deliver permanent, highly efficient non-welded piping solutions



A breakthrough in pipe connection systems, Phastite connectors bring the proven technology of mechanically attached fittings to fluid and gas systems in a wide range of sizes.



Phastite non-welded piping connections provide permanent, leak-free connections quickly and efficiently. OEM or repair applications can be completed in less than three minutes as costly, time-consuming and hazardous welding can be eliminated. Parker has adapted the tube-sized Phastite technology to medium and heavy schedule nominal pipe size (NPS) range of 3/4" to 2".



Key benefits include:

- **Reduces install time for piping systems in NPS sizes 1" and 1-1/2" (complete selection of 3/4" to 2" available soon)**
- **Reduces dye penetrant testing**
- **Reduces post welding RT/X-Ray expenditures**
- **Reduces requirements for special pipe sizing or beveling**
- **All 316/316L SS construction**
- **HCT – Heat Code Traceable**
- **6000 psi / 415 bar pressure rating at 4:1 design factor**
- **Inherently safe and clean process**
- **No post-weld clean up or cool down period required**
- **No post-weld chemical cleaning or passivation required**
- **No hot works permits required**
- **Simple hydraulic assembly tool**

Mechanical Crimp Connection

for piping or tube systems saves the time and costs of welding



For today's piping or tube assemblies, Parker's Mechanical Crimp Connection (MCC) eliminates time-consuming, costly welding - and ensures reliable, leak-free performance.

MCC consists of a simple hydraulic assembly tool, specially designed bite ring and adapters. The bite ring attaches to the pipe or tube and secures the adapter. Internal seals in the MCC adapter ensure a leak-free connection and protect against ingress.

Assembly welding processes, from pre-cleaning to x-rays to post-cleaning, reduce valuable equipment uptime and require more labor. By comparison, MCC enables remarkably quick, easy

mechanical crimping of adapters to tube or piping. A 1" heavy-scheduled stainless steel pipe, for example, can take more than 30 minutes to weld and clean if all the steps are followed. An MCC assembly can be crimped within five minutes!

In the shop or the field, MCC also eliminates a key failure mode of welding: weld cracks, which can form while the weld is hot or while it is cooling, or due to fatigue or corrosion.

Key Features and Advantages

- **Eliminates time and costs of welding and post-weld processes**
- **Quicker, easier assembly promotes increased equipment uptime**
- **An inherently safe, clean process**
- **Simple hydraulic assembly tool**
- **Specially engineered bite ring for maximum retention**
- **Internal sealing components ensure leak-free performance**
- **Achieves "weld-less" NPS and tube connections from 1" to 2"**
- **Reduces requirements for special pipe sizing or beveling**
- **6000 psi/415 bar pressure rating at 4:1 design factor**

- **12L14 steel/ 316L stainless construction**
- **HTC – Heat Code Traceable**

Sizes and Configurations

Parker MCC achieves NPS and tube assemblies in the most common welded sizes, ranging from 1" to 2". Whether your system is transferring fluid at lower pressures or operating at high dynamic hydraulic pressures, MCC offers a working pressure capability up to 6000 psi for many applications.

MCC adapters are offered in steel (Chrome 6 Free plated) and 316 stainless steel. Multiple end configurations including code 61/62, male and female O-ring face seal, male and female 37° flare, and male and female NPT are available to ensure system compliance with SAE and/or ISO standards. MCC also offers full-range interchangeability with Parker Tube Fittings Division's extensive product lines, covering SAE and ISO specifications such as SAE J514, SAE J1453, and ISO 6162.

Ideal for a wide range of applications in industrial processing, construction, large mobile, oil and gas operations, and more, MCC gets equipment up and running sooner - and potentially much longer, thanks to Parker's decades of global leadership in Dry Technology. For all of the advantages that can improve your bottom line, contact your Parker representative about MCC now.

TH8-450 Production Crimper

for fast and accurate crimping

With Parker's horizontal crimper, anyone can make factory quality assemblies quickly, easily and cost effectively. An MCC assembly can be crimped within five minutes!

