









Custom Brass & Composite Solutions

Creating Non-Standard Configurations to Meet the Unique Needs of Truck OEMs





Custom Machined Brass and Molded Composite Parts

Parker FSC has the capability to create custom brass and composite components for your heavy truck application.

Due to the ever-changing and increasingly unique needs of OEMs, standard brass and composite fittings may not always fulfill the requirements of heavy truck systems. While most trucks are designed with base plumbing, virtually every truck going down the typical assembly line is unique, built to some level of customer specification. For this reason, OEMs may find themselves needing custom configurations to achieve their desired routing.

In situations where standard fittings aren't suitable, Parker can create custom machined brass or molded composite parts. Our team of highly skilled, US-based engineers can design a part based on your requirements, develop a prototype, and complete testing based on designated criteria or specific specifications.

Custom-made composite parts can make sense for truck OEMs requiring high volumes of a specific part. This option requires some amount of lead time and upfront tooling costs because of the need for custom injection molds, but can lead to a wide variety of shapes in multiple dimensions.

For applications requiring a small number of special shapes or fittings with a specific thread patterns, Parker can design and manufacture custom brass configurations. This option involves no up-front tooling costs and can be completed in just a few weeks.

The Process

1. Customer Input & Objectives

Parker's team of engineers will work with you to understand the requirements for your application, including specifications for temperature and pressure.



Based on your objectives and the specifications, our engineers then define the part attributes including type of end connections and material selection.

3. Design Non-Standard Fitting or Modify Existing Fitting

Our team of engineers will either modify a standard fitting or create an entirely new design. Prints and CAD models will be provided for your review.

Create Prototype

After the design has been agreed upon, a prototype is created. This may involve the creation of a new forging for shaped brass bodies or a new mold for composite bodies.

5. Approval & Testing

Upon your approval, we will complete any necessary testing. Testing will always depend on the specific fitting designed; this may be as part of a specification or due to your own internal requirements.







Custom Solutions

Here are just a few examples of the custom configurations we've designed and manufactured for our customers:



Multi-Port Manifold

A multi-port manifold allows a reduction in the number of ports needed on air tanks. Compressed air is distributed through a single air tank connection to multiple connections in the system that require compressed air. This reduces the number of potential leak points, reduced costs associated with additional ports, and helps manufacturers move configurability further up into the assembly process.



Integrated Check Valve Fitting

An integrated check valve fitting is designed to eliminate connections and reduce leak paths within the air brake system. By incorporating the check valve into the actual fitting, connections are reduced from four to two. This custom configuration allows OEMs to not only reduce their spend, but also to design a more compact system.





Firewall Manifold

A firewall manifold is designed for placement between the truck engine and the cab. It contains built-in fittings so that tubing can be routed in and out of the firewall. This replaces the need for a high quantity of individually installed bulkhead fittings. This custom firewall manifold also can allow truck OEMs to further speed up and simplify assembly time, reduce the bill of materials, and compress the area on the firewall needed for connections.



High Temperature Push-To-Connect Fitting

This DOT certified push-to-connect fitting features proprietary O-ring seals that are rated to temperatures of 250° F. OEMs will find that this high temperature fitting is more robust and better at withstanding high temperatures in the engine compartment without experiencing compression set.

Parker can create a custom design to help you achieve your objectives in the most cost-effective manner. For more information regarding Parker's custom capabilities or to request a quote for a custom part, contact customer support at (269) 692-6555.

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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.

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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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Mexico Toluca, MEX

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Otsego, MI 49078 Phone: 269 692 6555 Fax: 269 694 4614 www.parker.com/dot www.parker.com/fsc