# **Customer Support**

# **Product Services**

- Equipment Repair and Refurbishment
- Installation and Startup
- Technical Support



# **Equipment Repair and Refurbishment**

Research laboratories, pilot plant operations and oil/gas production facilities all have a common need...to maximize equipment productivity while minimizing/eliminating equipment downtime. Parker Autoclave Engineers Technical Specialists are ready to help. Our staff of thoroughly trained and experienced service professionals is prepared to upgrade or refurbish your existing equipment to meet higher standards of accuracy and productivity, as well as respond immediately to service equipment in need of repair. We're ready to become partners in increasing your efficiency and profit levels.

## **Factory Trained Specialist**

Parker Autoclave's network of Technical Specialists represents a worldwide source for qualified, timely, on-site equipment repair. Our representatives are prepared to get your equipment and/or system operational with the least amount of downtime, thereby increasing productivity.

Parker Autoclave Technical Specialists receive extensive factory training on mechanical, electrical and computer interface operations. This diversified exposure enables Parker Autoclave Specialists to service products as varied as stirred autoclaves and reaction systems, MagneDrive® mixers, high pressure valves, and system control packages.

An important factor in minimizing equipment downtime is performing regularly scheduled preventive maintenance. Parker Autoclave service contracts are an economical way to insure such maintenance occurs. Parker Autoclave service contracts are tailored to meet specific needs including all scheduled maintenance, as well as equipment inspection and calibration.

### Refurbish Existing Equipment

The high cost of new capital purchases has made equipment refurbishment an increasingly attractive option for more and more companies. Parker Autoclave will completely refurbish or remanufacture equipment such

as valves and fittings, reaction systems, production size pressure vessels and complete control and automation systems. All equipment is refurbished to like-new condition and backed by standard Parker Autoclave warranties and support services.

To enhance the feasibility of certain projects, Parker Autoclave will perform some operations at your facility. For large items such as production size pressure vessels, on-site machining and refurbishment reduces both the cost and downtime.

### Upgrade to New Standards

Announcements of technological improvements and new product innovations have become common-place events. Despite the benefits of such advancements, many companies are unable to allot the necessary budget dollars to keep pace with these product introductions. Parker Autoclave offers an economical alternative...upgrading existing equipment to meet new standards for efficiency and accuracy.

Parker Autoclave will make mechanical, electrical and instrumentation system modifications enabling current performance standards to be achieved. As part of an upgrade, our engineering department can customize the operation and equipment control to better meet your needs.





## Complete Retesting and Recertification

Pressure vessels which operate under high pressure and cyclic conditions are susceptible to fatigue-related failure. Many insurance companies and corporate safety directors agree that annual inspections, including a liquid penetrant examination, are necessary to evaluate the integrity of a vessel. To assure continued safe operation of your high pressure vessels, and as a standard component in vessel refurbishment Parker Autoclave offers vessel inspection, analysis and testing services. In addition to vessel inspection, Parker Autoclave will recalibrate and recertify all system mechanical and electrical instrumentation. Testing and recertification can be conducted on-site or at our facility and involves only the use of test equipment traceable to the National Bureau of Standards.



**Laboratory Stirred Reactors** 

# Start-Up/Training

Maximizing the efficiency and accuracy of research and production operations begins with proper installation. An important element in the safety and efficiency of any procedure is an educated workforce. As part of all installations, Parker Autoclave will train and qualify your staff in correct operating and maintenance procedures.

No equipment sale or installation is complete until all operational personnel are fully educated in correct procedures. The Technical Specialists at Parker Autoclave are ready to assist in equipment start-up and personnel training. Our staff understands the operation of your equipment or system and is able to explain its proper and safe use.

Parker Autoclave also provides complete operator qualification programs to help you maintain high levels of employee education. Qualification initially involves a hands-on program designed to familiarize your staff with new equipment and its applications. A follow-up final qualification program is available for an additional charge, and is conducted on-site to ensure complete understanding of all aspects of equipment function and operation.

# Training and Educational Resources

Realizing the importance of an informed and educated workforce, Parker Autoclave offers training programs related to all of our products. Subject matter for these programs can be customized to include only a few individuals for a hands-on in-service update or entire operating departments for topical seminars. Parker Autoclave's education department will properly train your personnel to help them safely achieve greater productivity and efficiency.



# **Technical Support**

The sophisticated environment in which Parker Autoclave products commonly are used creates the need for timely and accurate technical support. Whether your requirement involves engineering services, educational seminars, technical questions or prompt shipment of emergency repair parts, our engineering and technical staff is available to provide solutions to your process problems.

#### **Technical Assistance**

The use of high pressure in research and production applications mandates correct procedures be followed to ensure the safety of personnel and accuracy of the process. Parker Autoclave makes available an experienced technical staff prepared to answer questions ranging from catalog or drawing interpretation to equipment operation or parts recommendations. These service professionals are accessible by phone or email and remain a cost-free support option for all Parker Autoclave customers.

## **Engineering Services**

All Parker Autoclave equipment, new and refurbished, is backed by our Engineering and Quality Control Departments. Product such as pressure vessels and reaction systems are shipped complete with a drawing package, material certification and test information. For refurbished products, all rebuilt and modified materials are recorded, drawings updated and related information incorporated into a data book supplied with the equipment. Engineering calculations can be completed for pressure vs. temperature differentials based upon your operating conditions.

The Parker Autoclave engineering team can play an integral role in the design of a customized system. Our staff will work hand-in-hand with your technical personnel to provide integrated solutions that meet your process requirements.

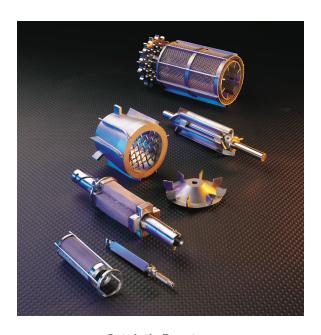
# Replacement/Spare Parts Availability

Inoperable equipment costs money. Parker Autoclave understands this and stocks a complete line of replacement and spare parts for all standard equipment. Our manufacturing and shipping policy also enables us to fill your occasional emergency requirements with sameday shipments, as well as produce nonstandard and special parts with minimal delay.

Parker Autoclave encourages all customers to review the recommended spare parts list supplied with your new equipment. These lists are based on actual user experience. Maintaining an inventory of all or some of these parts can help minimize downtime should a problem occur.



BTRS-JR® PC - Bench Top Reaction System



Catalytic Reactors

# **Related Product**

Valves, Fittings, and Tubing



### WARNING

#### FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

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#### **Instrumentation Products Division**

Autoclave Engineers Operation 8325 Hessinger Drive Erie, PA 16509-4679 Tel: 814 860 5700 • Fax: 814 860 5718 www.AutoclaveEngineers.com 06-0012BE June2015

**Caution!** Do not mix or interchange component parts or tubing with those of other manufacturers. Doing so is unsafe and will void warranty.

Caution! Parker Autoclave Engineers Valves, Fittings, and Tools are not designed to interface with common commercial instrument tubing and are designed to only connect with tubing manufactured to Parker Autoclave Engineers AES specifications. Failure to do so is unsale and will void warranty.

Bulletin 3400

ENGINEERING YOUR SUCCESS.