



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



# Drive Systems

Solutions for Industrial Automation



ENGINEERING YOUR SUCCESS.

# Parker Hannifin

Providing quality systems and services

## The Systems Approach...

Parker SSD's AC and DC drive product lines are known for being user friendly and intuitive, but we also understand that some customers prefer the convenience of more support in the design and implementation of their control systems. For this reason, Parker SSD Drives and our network of authorized integrators offer a complete in-house design and build service, enabling you to focus on your core competencies.

Based on the fundamental principles of safety, application expertise, quality, and reliability, Parker's systems team is able to undertake all aspects of an electrical control system project, from pre-design specification to on-site commissioning and programming services. Our system design engineers are well versed in PLCs from all major manufacturers, and in SCADA communications, including Parker InteractX HMI software and programmable automation control products (PAC).

By partnering with Parker to undertake the design, build, programming and commissioning of your motor control system, you can be assured that every aspect of the design, from environmental considerations through component selection to mounting of products has been carefully considered and allowed for.

Fully documenting a complete control system can be a daunting task for many equipment manufacturers. Parker engineers are on hand to help by providing complete electrical schematic and single line drawings as

well as installation, maintenance and operating instructions.

As a UL508A accredited systems builder, Parker SSD Drives are also able to undertake the certification process required to enable systems to be put into service in any number of industrial markets.

## Sales and Application Engineering

The first step in the creation and implementation of a successful system is arguably the most important...a discussion of the application, including the desired performance of the system and features required. Parker provides technical sales assistance and local support through a dedicated team of territory managers and authorized Parker distributors and integrators throughout North America. For contact information, please call our customer service team at (704) 588-3246, visit our website, or email:

**[www.parker.com/ssdusa](http://www.parker.com/ssdusa)**  
**[info.us.ssd@parker.com](mailto:info.us.ssd@parker.com)**



## Technical Support

Parker SSD offers realtime telephone support through our team of product support engineers. When you call us, you will not reach a contracted call center, but you will be speaking with an experienced support team member located at our facility in Charlotte, NC. If telephone support is not enough, our field service team can be called into action.





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## Manufacturing to Meet Our Customers' Needs

Parker is committed to meeting the increasing service demands that our customers require to succeed in the global industrial market. Parker's highly trained manufacturing teams seek continuous improvement through the implementation of lean manufacturing methods throughout the process. We measure ourselves on meeting our customers' expectations of quality and delivery, not just our own. In order to meet these expectations, Parker operates and continues to invest in our manufacturing facilities in Europe, North America and Asia. Holding certification to the latest quality standards (ISO 9001:2008) means that as a customer, you can be assured of reliable, repeatable quality of design, construction, and documentation. Before you invest in a system from Parker, we urge you to visit and tour our systems manufacturing facility in Charlotte, NC. Contact your local territory manager to arrange.

## Dedicated Field Service Team

In addition to our network of territory managers and trained integrators, Parker SSD Drives maintains a team of direct field service engineers strategically located throughout North America. Field service engineers are available when you need them for commissioning assistance, drive tuning and programming, system optimization, and operator training in your facility. These valuable services are typically quoted in the system proposal and can be scheduled at your convenience once the system is completed.

Already have a system in place? Avoid future downtime and loss of production by taking a proactive approach with preventative maintenance. Our service technicians can ensure that your drives are operating at peak performance and efficiency, and have the latest software updates and product improvements installed. To schedule a visit, call (704) 583-8134.

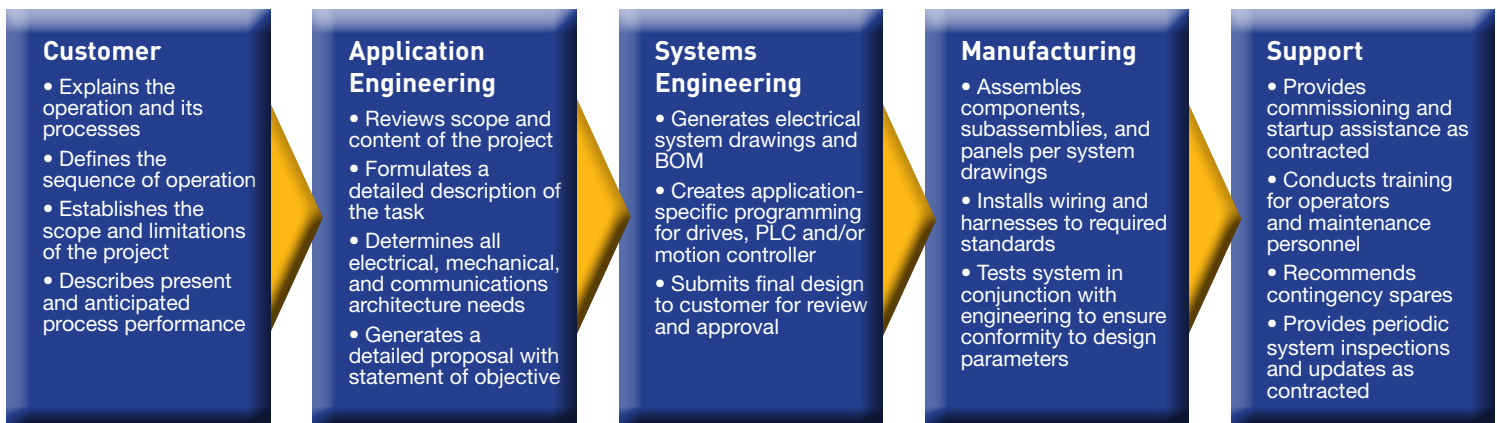
## Technical Training

Scheduled technical drive training classes are offered to help you get the most out of your drives and systems. These classes, conducted by a Parker trainer, cover all aspects of drive hardware, software, programming, and performance tuning. For a list of available classes, prerequisites, and registration information, visit our website, or contact your local territory manager for details. In addition to our regular scheduled classes at our Charlotte NC facility, we can also provide customized training for technicians and operators on your equipment at your location.



## The Systems Process

From concept to installation and beyond, Parker SSD Drives has a full range of complementary capabilities to provide as much or as little support to your own team as you need. With a team of highly qualified and experienced design, build and service engineers, we take the risk out of any capital project by ensuring that all stages of the project are managed and executed precisely to your requirements.



# Systems Applications

With over 30 years of experience in the industrial drives market, Parker has the confidence and know-how to design and build a system for virtually any process. From a single axis position control system using Parker servo and actuator components to a megawatt class hoist, or anything in between, we can provide the best systems solutions for your specific needs. Here are just a few examples...



## Web Handling

Some of the biggest challenges of system design lie in processes that require accurate tension and speed control across multiple axes. Applications like this are found in printing, converting, textiles, pulp and paper, and wire and cable, to name a few. With the range and variety of drive components, communication protocols, and supervisory systems available through Parker, we are up to the challenge. Where there's a web, there's a way.

## Test Stand/Dynamometer

Whether for a new design or a retrofit, Parker has advanced regenerative drive solutions to optimize energy efficiency in test cell applications. An active front end design insures unity power factor and minimal harmonics. Component choices include a full range of AC and DC drives, along with servo systems and high speed motors. Parker HMI units offer extensive data logging and communications options, and are web enabled for remote access. Stop wasting energy and maintenance costs on devices like water brakes or eddy current drives and let Parker provide an estimated payback analysis for your application.



## Extruders and Plastics

Parker knows that an extrusion line requires more than a main screw drive... the coordination of mixers, tension zones, heat controls, pumps, and fans is a key requirement. We have extensive experience in total line control systems, and with Parker direct drive torque motor solutions, can provide the best in energy efficiency, both for new installations and retrofits.



# Systems Applications



## Hoists and Cranes

Parker has a large installed base of systems used to control single and multiple axis cranes and hoists, with capacity through 2000 HP. Safety, reliability, and overload tolerance are at the forefront of every system design. In addition to new installations, Parker is experienced in crane drive retrofits, either AC or DC motor-based.

## Power Generation

Applications run the gamut from motor drives in conventional generating stations to grid tie systems used in renewable energy. Some application examples include redundant synchronous generator field supplies, gas turbine electric starting systems, solid state black start solutions, adjustable speed ID/FD fan drives, grid tie inverters for PV solar, wind turbine, or wave power applications, and utility scale battery energy storage systems. We offer containerized solutions and custom outdoor enclosures with Parker precision liquid cooling. (Visit [www.parker.com/gridtie](http://www.parker.com/gridtie) for more information on grid tie technology)



## Ski Lifts

Parker offers customized systems for new installations and modernization of all major brands. Many retrofit options are available, including digital DC drive systems to replace obsolete analog systems and AC drives - including line regenerative versions - to give your lift the latest technology. Energy efficient pump and aftercooler drive systems for snow making equipment are another offering in this market.



## About Parker Hannifin Corporation

With annual sales of \$13 billion in fiscal year 2013, Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets. The company employs approximately 58,000 people in 49 countries around the world. Parker has increased its annual dividends paid to shareholders for 57 consecutive years, among the top five longest-running dividend-increase records in the S&P 500 index. For more information, visit the company's web site at <http://www.parker.com>, or its investor information site at <http://www.phstock.com>

# Variable Speed Drives

## Range Overview - Fractional to 2000 HP

Parker understands that good systems start with good components, and offers an up-to-date and comprehensive range of AC and DC drives, servo systems, and HMI. Parker drive products are sold, supported and serviced worldwide. They are easy to configure and commission, with simple but flexible function block-based configuration tools, “cloning” capability, intuitive keypad/display, and connectivity with all of the major industrial fieldbus networks.

### Drives for Induction or PMAC Control: AC30V Series

AC30V has been designed to provide exceptional control in pump, fan and general purpose applications. Its modular construction enables communications and I/O modules to be easily added. Integrated macros for a range of applications are included as standard.

### High Performance Drives for Integrators: AC690+ Series

The AC690+ Integrator series provides high performance motor control for more complex or demanding applications up to 1500 HP. Available with multiple communications and control options for flexibility. The DC590+ uses the same programming structure for systems using DC motors.

### Modular AC Systems Drives: AC890 Series

The AC890 Series is a range of modular AC drives, designed to minimize space and maximize performance in multiple axis applications. AC890 can provide torque, speed and position control and can be configured to control permanent magnet servo or induction motors. Available as stand-alone or common bus DC modules.

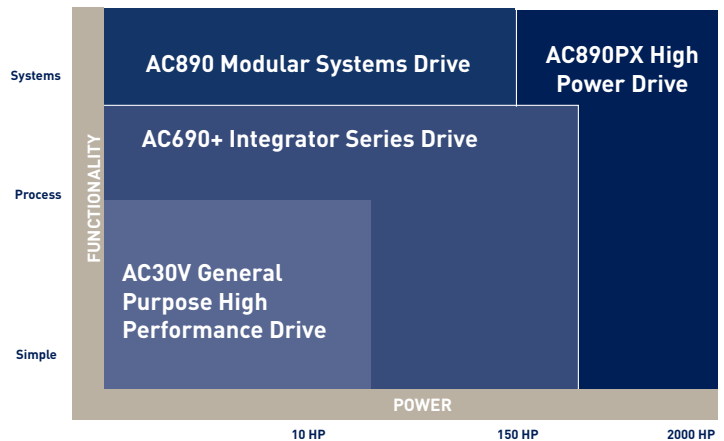
### High Power AC Drives: AC890PX

The AC890PX is a high power modular systems drive. Available as a standalone drive or as part of a system, the AC890PX features removable phase and control modules, which allow for simple servicing and flexible system design. Power output to 1800 HP, air cooled or liquid cooled variants available.

### Digital DC Drives

Although AC drive technology has grown to be the dominant method of motor speed control, Parker recognizes that there is a large population of DC motors in industrial applications, many of which are connected to aging “SCR Drives”. To accommodate retrofits and modernization, the digital DC590+ is available. This “sister series” to the AC690+ lends itself readily to system integration.

### AC Drives Product Range Overview



# Variable Speed Drives

## Range Overview - Fractional to 2000 HP

### Servo Drives

Parker offers brushless servo drives with matching motors. Servo axes may be integrated into any system, either alone or combined with AC and DC drives. Regardless of size, you are guaranteed seamless integration, both in the system or when it comes to communicating with the outside world. Motors range from the compact NX/EX to the efficient and customizable MPP to high power liquid cooled TMW series.

### Hydraulic Technology

As a part of Parker Hannifin, Parker SSD has extensive experience in the speed control of hydraulic systems. Working with a certified Parker Hydraulic Technology Center, we can provide energy efficient solutions to hydraulic power systems.

### Motion Controllers and HMI

Many systems include a central motion controller, and Parker offers a comprehensive line of Programmable Automation Controllers. Similarly, we offer choices in the HMI, including Parker touchscreen displays with InteractX software.

### Accessories

Most systems include operator interface devices, control logic, and electro-magnetic equipment, and Parker is flexible in the specification of same. If your plant has a standard for a certain brand of PLC, for example, Parker is able to offer that choice. Items like AC and DC motors, power transformers, and line reactors can be offered at competitive prices through Parker, and with the convenience of a single source.



### Standards and Certifications

Parker's manufacturing facility in Charlotte NC has been assessed and registered to the requirements of ISO 9001:2008, and is a UL 508A certified panel shop. Please inquire regarding specific standards or approvals required for your system.



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