Standard and custom designed precision positioners from Daedal.

Quality Products

This catalog includes a complete spectrum of bearing technologies, drive systems, and positioner designs that allow you to match table performance to your design requirements and your budget. If you need a customized design, our application engineering department can quickly and efficiently design a table tailored to your exact requirements.

Experience at Work for You

At Daedal, we work hard to keep pace with the demands of the positioning systems marketplace. For well over a quarter century, the ongoing evolution of our customers’ applications for smaller, faster, better performance tables has constantly defined what Daedal is all about:

We design and build positioning tables and positioning systems to meet our customers’ exact specifications.

Whether standard or custom built, every Daedal product represents the best value for excellent quality at a reasonable price.

Technical Support from the Technology Leaders

When you specify Parker, you select from the broadest product offering. You also receive the best technical application support through our factory trained ATCs (Automation Technology Centers) which are located near every major industrial center in North America.

We also support your application with factory-trained, college and university degreed application engineers across North America. These direct field engineers are prepared and ready to offer assistance in product selection, installation, and product system programming.

Worldclass Quality Products and Service

Parker Motion & Control
**Manual Positioning**
Ball Slides  
Cross Roller Slides  
Ball Bearing Stages  
Cross Roller Stages  
Rotary Stages  
Accessories

**Motorized Tables**

**Linear**
- 102000BN/402000LN  
- 105000BT/106000BT/106000CT  
- 300000AT  
- 400XR Series  
- 406000LN  
- 408000ST - 424000ST  
- 500000ST  
- 500000ET  
- 500000PD  
- 600000CT  
- 800000CT  

Linear Accessories

**Rotary**
- 200000RT  
- Rotary accessories

**Linear Drives**

HLE60 Series  
HLE60SR Series  
HLE80c Series  
HLE100c Series  
HLE100SR Series  
HLE150c Series  
HZR Vertical Axis Drives  
Planetary Reducers  
Accessories

© Copyright 1996 Parker Hannifin Corporation  
Parker Hannifin Corporation  
Daedal Division  
Harrison City, Pennsylvania
Daedal offers hundreds of standard linear and rotary tables, plus the manufacturing and engineering resources to custom design and build unique positioning systems.

- Comprehensive selection from positioning technologies including belt drives, ball bearings, precision ground and rolled thread ball screws, cross roller bearings, precision ground leadscrews, rotary bearings, precision ground and lapped worm gears
- Typical lead times for custom tables are less than ten weeks from concept to completion.
- Laser interferometer and autocollimator QC for stringent compliance to your specifications
- Tables, motors, drives and controllers can be integrated and tested as a complete system under simulated application conditions
- Daedal can build tables that accurately position 2.5 ton loads, tables with resolution of 2.5 millionths of an inch, and tables with speeds to 200 in/sec
- Daedal's custom products and systems include: bridge and gantry systems, vertical applications requiring brakes or counter balances, high-speed belt-drive tables, azimuth-elevation systems, miniature tables, clean room and vacuum prepared tables
- Custom systems are covered by our one-year guarantee

Daedal's 102000 and 402000 Series Miniature Positioners are the newest member to our family of motorized linear tables.
At Daedal, we understand the demands of the positioning systems marketplace. Throughout Europe, the Pacific Rim and North America, our products are delivered and supported through a comprehensive network of factory-trained Automation Technology Center engineers. In addition to the services offered by traditional distributors, these organizations specialize in the application of high technology automation equipment. They offer local product availability, product demonstrations, complementary products and services, programming assistance, and in-depth customer seminars.

Every company promises service, but Daedal has the people to assure timely expert support. For example, there are more than 200 college and university engineering graduates in North America with factory training. These field application engineers are ready and prepared to offer assistance in product selection, installation, and product/system programming.

And our field engineers are backed by our factory application engineering staff, who offer on-the-spot, over-the-phone assistance from 8 a.m. to 8 p.m. (EST) through our toll free phone line.

### Automation Technology Centers
- Australia
- Belgium
- Canada
- China
- Denmark
- Finland
- France
- Germany
- Holland
- Hong Kong
- India
- Indonesia
- Ireland
- Israel
- Italy
- Japan
- Korea
- Malaysia
- New Zealand
- Pakistan
- Philippines
- Puerto Rico
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- Taiwan
- Thailand
- United Kingdom
- United States
A surface scanning machine using both standard and custom products, measures surface characteristics at the sub-micron level. This system is an example of how Daedal products are meeting and surpassing today’s precision positioning needs.
Many of our customers take advantage of our engineering and manufacturing capabilities to build application-specific positioning systems that are tailor-made to their exact performance and design criteria. On the following pages are just a few of the hundreds of modified and custom concepts that we have developed for customers who required more than "the standard".

- Custom payload capacities up to several tons
- Machine bases, support hardware, counterbalances, brakes and all forms of special fixturing
- Integrated left/right lead screws and synchronized lead screw systems
- Waterproof and vacuum rating ($10^{-6}$ Torr)

Inverted azimuth-elevation positoner used in environmental scanning.

Miniature open frame table for use with a microscope workstation.

4-axis laser alignment positioner.

Open base gantry for ultrasonic scanning.
Custom design capabilities take your project where you want it to go...

Whatever the special application, Daedal can help you determine the best positioning system design, and then build the system to match your performance specification. We offer extensive engineering assistance and advanced technology design resources to ensure a quality design in the quickest manner possible. In fact, even the most complex designs are typically completed from concept to delivery in less than ten weeks. Use our convenient FAX proposal form (page 16) and send us your idea. We’ll call you back within 48 hours to confirm all specifications.

Custom tables include: open base gantry (above); left/right hand ball screw drive table (below); dual carriage table with independent carriage motion (bottom left).
Engineering talent and design resources that work for you

Daedal’s application staff are all degreed electrical or mechanical engineers. With expertise gained from evaluating thousands of demanding industrial applications worldwide, they will provide you with the best possible technical assistance.
To meet your special application requirements, Daedal will modify a standard product or custom build a positioning table or system from the ground up. Daedal’s engineers will design a linear/rotary system with the bearings, drive mechanisms, motors and controls, tailored to the cost, performance and accuracy requirements of your application. Concept drawings are followed by CAD-generated approval drawings, if required, prior to manufacturing. Typically, these custom systems require less than ten weeks from concept to completion. And custom systems are covered by our one-year guarantee.

Daedal application engineers provide technical data such as motor sizing, load analysis and test information for your application.

Daedal catalog products are available in DXF format drawings, enabling you to import them directly into your CAD design. Contact our application engineering department for more information.
Single source systems capability

Precision screw grinding, one part of Daedal’s extensive machining capability.
In house screw grinding enables us to manufacture high quality lead screws and ball screws for use in our precision positioning tables.

Daedal is your single source for complete system manufacturing capability and service responsibility. Our large scale manufacturing facility can quickly and cost-effectively build custom products. Quality is built into custom tables throughout the manufacturing process—during precision machining on our CNC mills and lathes, during assembly and inspection, and during testing as sub-assemblies as well as a finished system.

We build positioning systems for speeds ranging from 1 mm/hour to 120 in/sec, multiaxis tables that accurately position 2.5 tons, and tables with measured resolutions of 2.5 millionths of an inch. We have the technologies and the expertise; let our application engineering staff help you select the best bearing and drive components to meet your performance and cost needs.

All mounting surfaces are precision ground insuring flatness.
Daedal high speed automation systems are capable of speed to 200 in-sec. If you’re looking for high-speed automation equipment, call us for a copy of our new Automation Products catalog.
Precise assembly procedures are rigidly followed for unit-to-unit performance consistency.

Dimensional and relative measurements are an integral part of the assembly process.

Cell level SPC insures quality is built in throughout the manufacturing process.

Daedal is proud of the efficiency and attention to quality that our manufacturing staff puts in to every table they build.

We are confident of our quality, and support it with a 30-day customer satisfaction guarantee plus our standard warranty.
Quality, reliability and measured performance.
Products are inspected throughout the manufacturing and assembly process, and are tested using our laser interferometer and autocollimator upon completion.

Precision grade tables are tested for positional accuracy, repeatability and running torque. These test results are shipped with the product.
## Special products FAX proposal

<table>
<thead>
<tr>
<th>Prepared By:</th>
<th>Prepared For:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Company:</td>
<td></td>
</tr>
<tr>
<td>Company:</td>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Phone: ( )</td>
<td>Contact Name:</td>
<td></td>
</tr>
<tr>
<td>Fax: ( )</td>
<td>Phone: ( )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fax: ( )</td>
<td></td>
</tr>
</tbody>
</table>

### AXIS #1 | AXIS #2 | AXIS #3 | AXIS #4
---|---|---|---
LINEAR OR ROTARY
MANUAL OR MOTORIZED
TRAVEL
RESOLUTION
POSITIONAL ACCURACY
REPEATABILITY
STRAIGHT LINE (or concentricity)
FLATNESS ACCURACY (or runout)
PLANE OF OPERATION (horiz., vert.)
MAXIMUM VELOCITY
MAXIMUM ACCELERATION
DUTY CYCLE (give cycle details)
REQUIRED LIFE
LIMIT SWITCHES (type: LH, LHO)
MISCELLANEOUS INFORMATION
MISCELLANEOUS INFORMATION

### LOAD INFORMATION

<table>
<thead>
<tr>
<th>WEIGHT:</th>
<th>SIZE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C.G.:</th>
<th>THRUST FORCE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ENVIRONMENT

<table>
<thead>
<tr>
<th>TEMPERATURE:</th>
<th>AREA CONDITIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CONTROL INFORMATION

<table>
<thead>
<tr>
<th>REQUIRED</th>
<th>YES:____ NO:____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTROL TYPE:</th>
<th>OTHER:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRIVETYPE:</th>
<th>OTHER:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION DESCRIPTION: (please give details)

**PLEASE MAKE A SKETCH OF THE REQUIRED CONFIGURATION ON A SEPARATE SHEET OF PAPER AND SEND IT WITH THIS FORM.**
About Parker Hannifin Corporation

Parker Hannifin is a leading global motion-control company dedicated to delivering premier customer service. A Fortune 200 corporation, we are listed on the New York Stock Exchange with PH as our symbol. Our components and systems comprise over 1,000 product lines that control motion in a wide spectrum of essential uses in some 1,200 industrial and aerospace markets. Parker is the only manufacturer to offer its customers a choice of hydraulic, pneumatic, and electromechanical motion-control solutions. Our Company has the largest distribution network in its field, with over 6,000 distributors serving more than 300,000 customers worldwide.

Parker’s Charter

To be a leading worldwide manufacturer of components and systems for the builder and users of durable goods. More specifically, we will design, market and manufacture products controlling motion, flow and pressure. We will achieve profitable growth through premier customer service.

Product Information

Parker Hannifin’s North American customer seeking product information, the location of a nearby distributor, or repair services will receive prompt attention by calling the Parker Product Information Center at our toll-free number: 1-800-C-PARKER (1-800-272-7537). In the UK, a similar service is available by calling 0500-103-203.

The Fluid Connectors Group designs, manufacturers and markets hose, fittings, flexible connectors, instrumentation products and associated components used in fluid systems. It serves customer in the industrial, aerospace, marine, transportation, agriculture, and military markets.

The Motion & Control Group designs, manufacturers and markets the full spectrum of components and systems to provide force, motion & control for industrial, mobile, marine, and energy related machinery and equipment. Hydraulic, pneumatic, and electromechanical solutions are offered.

The Automotive & Refrigeration Group is a leading supplier of flow-control and fluid handling components, gerotors, and of systems support to worldwide refrigeration, air conditioning and automotive customers. Supplies high-pressure steam valves, general-purpose solenoids, and high-pressure cylinders.

The Seal Group designs, manufacturers and distributes industrial and commercial sealing devices and related products by providing superior quality and emphasizing total customer satisfaction in each of its markets.

The Filtration Group is a leading worldwide manufacturer and marketer of quality filtration and clarification products. Its goal is to provide customers with the best value, to quality, sound technical support, and global availability.

The Aerospace Group is a leader in the development, design, manufacture and servicing of hydraulic and fuel control systems and components for aerospace and related high-technology markets. It services both commercial and military aviation customers around the world.
At Daedal, Hauser, Automation Actuator, Compumotor and Digiplan, we understand the demands of the positioning systems marketplace. Throughout Europe, the Pacific Rim and North America, our products are delivered and supported through a comprehensive network of factory-trained Automation Technology Center engineers. In addition to the services offered by traditional distributors, these organizations specialize in the application of high technology automation equipment. They offer local product availability, product demonstrations, complementary products and services, programming assistance and in-depth customer seminars.

Every company promises service, but Daedal, Hauser, Automation Actuator, Compumotor and Digiplan have the people to assure timely, expert support. For example, there are more than 150 college and university engineering graduates in North America with factory training. These field application engineers are ready and prepared to offer assistance in product selection, installation and product/system programming.