

## Product e-Catalogue

**Product Name :** PIC Motion position product  
**Main Category :** Machinery & Industrial Supplier  
**Sub Category :** Power Generating Machinery & Parts  
**Last Modified :** 2006-03-01

## Product Description



PIC Design manufactures standard catalog and special build to print precision mechanical components in metric and inch sizes including Positioning Tables, Linear Slides, Acme Lead Screws, Modular Framing Elements, Gears, Racks, Shafts, Bearings, Precision Hardware and Hardware Kits, Clamps, Clutches, Brakes, Couplings, Timing Belts, Pulleys and Precision Tools. Quantities supplied range from prototype through production.

## Motion/Positioning Products

### Linear Motion System



PIC Design offers a comprehensive line of linear motion systems, either pre-assembled or as complete components sets for user assembly. These can be configured to be motor ready with a NEMA mount. The catalog has a step by step guide to help insure that the designer gets the system that is best for the application.

PIC Design offers a comprehensive line of linear motion systems, either pre-assembled or as complete components sets for user assembly. These can be configured to be motor ready with a NEMA mount. The catalog has a step by step guide to help insure that the designer gets the system that is best for the application.

---

## Linear Slides and Geneva Mechanisms



PIC Design has a complete line of linear slides.

**Ball Slides** generally are used in reciprocating applications requiring 12 inches or less of travel and loads below 200 pounds. The Ball slides are capable of high speeds and long life with excellent straight line accuracy and repeatability. For those applications where repeatability is less stringent, an economy ball slide is available. PIC also offers a line of Recirculating Ball Slide Guides with travels up to 32 inches.

**Crossed Roller Slides** perform the same function as ball slides but are capable of higher accuracy and loads. The steel base and carriage crossed roller version has 10 times the load capacity of a similar size ball slide. PIC also has two styles of aluminum crossed roller slides which are lighter and more economical.

**Positioners with micrometers** are used in applications which are static or the motion is intermittent with repeatability being most significant. Available in several load and travel sizes, the positioners can be provided in the X, X-Y or X-Y-Z versions.

---



## Lead Screws

Lead Screws provide an economical solution for the transfer of rotary motion to linear motion. All PIC Design lead screws are precision rolled from stainless steel with a lead accuracy of 0.0006 in/in (mm/mm). They are stocked in both inch and metric sizes with diameters that range from 3/16 to 3/4 in lengths up to 6 feet. Lengths to 12 feet and cold rolled steel material are available via special order as well as custom lengths and journals to your drawing.

The lead screw section of the catalog has a technical section that will assist the designer in picking the best lead screw and nut for the application. Also included in this section are suggested journal sizes, radial bearings, and bearing housings.

---

## Linear Motion Components



PIC Design has a comprehensive selection of precision components for linear motion applications.

**Precision Shafting** ranging from 1/4" to 1-1/2" and 5 to 40mm in case hardened and ground C-1060 carbon, 440C and 303 stainless steel. Inch sizes are stocked "S" and "L" tolerance classes, and both inch and metric are stocked in standard and with drilled and tapped mounting holes to match our **shaft support rails**.

**Shaft Support Rails** - Used in conjunction with open bearings to keep shafts from deflecting under heavy loads or when long travels are needed.

**Linear Bearings** offer unlimited travel distance with minimum frictional resistance. PIC offers many styles of linear bearings from 1/4" to 1 1/2" and 5mm to 40mm bore diameters.

**Flanged Type** - round or square flange. This type of bearing incorporates recirculating balls and a perpendicular mounting surface. It does not require a housing--which makes this style of bearing cost effective. Part of this design is a finely machined flange and outer diameter with exact perpendicularity and excellent flange interchangeability to simplify replacement.

**Standard Recirculating Ball Linear Bearings** - This precision line is available in closed, adjustable and open type bearing with a high strength resin retainer for reduced noise.

**Self-Aligning** bearings not only allow for some shaft misalignment but they also carry higher loads with increased travel life, are lighter in weight and allow for clearance adjustability for a more precise system. Bearings are stocked in closed, adjustable and open series.

**Ceramic Coated** linear bearings do not have recirculating balls which makes this series more economical and since there are no balls to damage or jam the mechanism, the chance for a catastrophic failure is eliminated. This series of bearings can be used for linear and rotary motion and is excellent for vacuum applications. These bearings are interchangeable dimensionally with recirculating ball types. Bearings are stocked in closed, open and adjustable styles.

**Self-Lubricating Plastic** - This series of bearings, as the name indicates, does not need to be lubricated, but the real value of this line is that they can run on 303 stainless steel which is less costly than hardened shafting. These bearings are also very economical and will not be subject to catastrophic failure. This series is also available in closed, open and adjustable styles and are dimensionally interchangeable with the recirculating ball type. Excellent in applications where water is present.

**Linear Bearing Housings** - PIC has a complete line of housings (Pillow Blocks) for all of the linear bearings.

**Precision Rubber Rollers** - Both idler and drive rollers are stocked with O.D.'s ranging from 1/2" to 2". The idler rollers have a hub with two set screws.

The standard rollers are made of Neoprene with a .55 durometer and an anodized aluminum hub. Bore size ranges from 3/16" to 3/8".

## Belts and Pulleys



PIC Design's belt and pulley products offers a full line for motion control and light power transmission.

**The No-Slip(TM)** style allows the drive system to function as a precise positioning device by locating the drive pins on the belt pinch line, allowing them to mesh smoothly with the pulleys without the clearance required for standard belts and pulleys. The elimination of the clearance makes the drive system "backlash free". These belts are made of polyurethane with either a stainless steel or kevlar core. This series of belts have excellent chemical and abrasion resistance. Pulleys/sprockets are available in either aluminum or stainless steel. Belts range in pitch from .0982" to .25"

**The No-Slide(TM)** style allows a trapezoidal style timing belt system to operate using pulleys without flanges, allowing for a more compact drive. The belt stays on the center of the pulley due to an encapsulated stainless steel or kevlar cable in the center of the belt with a matching groove in the pulley.

These polyurethane belts have inherent chemical and abrasion resistance that allow operation in applications where carbon dusting encountered with neoprene belts cannot be tolerated. Belts are available in 40DP (.0816"), 1/5", and 3/8" pitch.

**E\*P\*S\* Synchronous Timing Belts** provide an economic means of positive power transmission. They are basically flat belts with teeth on the inside circumference resulting in high efficiencies and the capability to carry heavy loads at high speeds. The belts will maintain the relative rotational position (timing) of pulleys. Required clearance between belt and pulley teeth (.003 to .012) can result in a slight backlash. Belts are available in neoprene and urethane in MXL (.080), 40DP (.0816), XL (1/5"), L (3/8), 3mm & 5 mm HTD pitches.

**Round Belts** or O-ring belts are manufactured from a polyurethane seal compound that is resistant to petroleum and many chemical products. These belts are excellent for vibration dampening and provide overload protection acting as a clutch by slipping. In a crossed belt drive, the direction of rotation of the driver pulley is reversed which is helpful in some systems. Belt sizes run from 1/16" diameter to 1/4" diameter. Aluminum or stainless steel pulleys are available.

**Chains** are made of non-magnetic stainless steel. The large joint bearing area construction permits high loads and speeds. Precision control of chain length allows for positioning accuracy between the drive and driver sprockets. Lubrication is recommended for maximum life and efficiency. Miniature pitch (.1475") and #25 (.250") pitch chains are standard with aluminum or stainless steel sprockets

We also deal with other PIC product, for further information [contact us for professional total solution.](#)

## Contact Information

Company : EXCLUSIVE MASTER (M) SDN BHD  
Contact Person : Mr. Cheah K.C  
Job Title : Sales Manager  
Address : NO. 34-B JALAN TUN DR. AWANG  
Zipcode : 11900  
City : BAYAN LEPAS  
State/Province : PULAU PINANG  
Country : Malaysia  
Telephone : 6-4-6422595  
Fax : 6-4-6415596  
Website : <http://www.exclusive-master.com>