

Linear Ball Bushing® Bearings and 60 Case™ Shafting

Thomson invented the ball bushing bearing over 60 years ago and has since been the recognized leader in this field. Our linear products provide low friction, smooth, accurate, straight-line motion. Offering the widest range of bearings and accessories, we easily satisfy the widest range of requirements with the best performing product for the application.

RoundRail™ Linear Ball Bushing® Bearings

- Most extensive product offering in the industry
- Cutting-edge segmented technology
- Over 60 years of product innovation & unparalleled service

60 Case™ Shafting

- 60 Case™ Shafting service life extends as much as 50% over the competition, when used with Thomson Ball Bushing Bearings
- Available in a number of proprietary materials and coatings
- Diameters from 1/8 inch to 4 inches and 5 mm to 80 mm
- Lengths to 25 feet (7.6 m)
- Custom machining capabilities – drive shafts, spindles, guide rods, rolls, etc.

Profile Rail Linear Guides

We are a “one-stop shop” for all your profile rail needs with our high-performance profile rail linear guides, ranging from the ultra-lightweight T-Series (Transport Profile Rail) and compact stainless steel MicroGuide to the ultra-rigid 500 Series Roller (machine tool grade). These guides provide long life and are produced from high quality bearing steel.

- Metric sizes ranging from 5 to 65mm (.2 to 2.5 inch)
- Load capacities up to 530 kN (119,000 lb)
- Exceptional straightness and high rigidity
- High dynamic, static and moment load capacities
- Simple installation and greater accuracy with joint-free rails up to 6 m (20 ft)
- Smooth, quiet movement & on site field modifications



* The most popular Thomson Ball Bushing Bearings and 60 Case Shafting are in stock and ready for same and next day shipment. Contact Danaher Motion or your local distributor for more information.



Industrial Ball Screws

Thomson offers the most complete line of industrial ball screws in the industry - offering rolled and ground assemblies in both inch and metric diameters and leads. Our broad product offering combined with years of application expertise allows us to provide the right solution to meet your unique application requirements.

Inch Series Ball Screws:

- Diameters from 0.187" to 4.000"
- Leads from 0.050" to 2.0"
- Rolled screw accuracy to +/- 0.004"/ft
- Ground screw accuracy to +/- 0.0005"/ft

Metric Series Ball Screws:

- Diameters from 4mm to 200mm
- Leads from 1mm to 50mm
- Rolled screw accuracy to +/- 23 microns / 300mm
- Ground screw accuracy to +/- 12 microns / 300mm

Worm Gear Screw Jacks:

- Lifting capacities from 1,100 to 110,000 lb (5 kN to 500 kN)
- Ball screw or lead screw driven; up to 57% efficiency



NEW Thomson NEFF now available in North America

Aerospace and Defense Ball Screws and Components

Thomson ball screw products for the aerospace and defense industry benefit from 70+ years of research and development and over 100 ball screw technology patents. Core strengths in ball screw design are energized with our global infrastructure and systematic excellence in manufacturing. Application history and expertise stretches from the first ball screw in an aviation application, Boeing B29, to seeker gimbal stabilization in modern missiles.

- Unmatched engineering capabilities available for your specific application
- Redundant load systems and patented wiper designs promote maximum reliability
- Certified manufacturing, inspection, and testing procedures ensure the highest levels of quality



Lead Screws

The “just right” solution for many linear positioning applications, our lead screws are available in standard and precision grades to meet your requirements. Patented zero-backlash nut technology provides excellent repeatability with high stiffness and extremely low drag torque.

- Polymer anti-backlash nut technology
- Precision stainless steel screws, Imperial diameters from 0.1875 to 3 inch (5 to 76mm), Metric diameter from 6 to 24mm (0.25 to 0.75 inch)
- Leads from .01 to 2 inch (0.25 to 50mm)
- Load ratings from 5 to 400 lb (22 to 1,800N) for polymer nuts
- Lead accuracies to 0.003”/ft (76 micron/300mm)



Linear Units

Linear Units are the best choice for material handling and other factory automation applications that require high speed and/or long stroke capabilities. Modular, self-contained and self-supporting, they are easily assembled into X-Y and gantry configurations. Numerous combinations of linear actuator, motor and control are available to enhance the versatility of these actuators.

- Designed for machining, packaging, assembly and material handling applications
- Ball screw or belt driven with ball guide, wheel guide and prism guide linear bearing
- Speed up to 10m/s (33 ft/s)
- Load up to 40kN (9,000 lb)
- Stroke up to 12m (39 ft)
- Available with stepper, servo, AC or DC motor and control packages
- Complete turnkey systems available



**Linear MOTIONEERING
Sizing and Selection Tool**

www.linearmotioneering.com

Positioning Slides

Our positioning slides can be used virtually anywhere. They can support and move a range of loads and provide high precision and tight tolerances.

- Pre-engineered, pre-assembled, ready to install
- Load bearing support with either RoundRail or ProfileRail linear guides
- Actuation with either ball screw, lead screw or belt drive
- Support 2D or 3D move profiles with multi-axis configurations
- Loads from 20N to 30kN (5 to 6,700 lb)
- Speeds up to 3m/s (10 ft/s)
- Both inch and metric dimensions
- Available with stepper or servo motor and control packages
- Complete turnkey systems available
- RediMount System allows Thomson slides to be easily mounted to a variety of motors, not just NEMA standards.



Precision Linear Actuators

The compact design and higher load capacities of our precision linear actuators make them ideal for flexible integration in tight areas. These programmable precision linear actuators are available in a wide range of voltage, thrust, stroke and mounting configurations.

- Designed for high speed, high load, continuous operation
- Stroke up to 2m (6.5 ft)
- Load up to 40 kN (9,000 lb)
- Speed up to 2 m/s (6.5 ft/s)
- Compact design for small envelope
- Available with stepper, servo or DC motor
- Controls available for all units
- Complete turnkey systems available



Linear Actuators

Our linear actuators are designed for rugged, reliable linear motion applications. Numerous choices in stroke, load, motor type, feedback, limits, and control options make these linear actuators very versatile.

And if you can't find the actuator to meet your application needs, call us for an actuator built to your needs. We build more custom actuators than anyone.

- Strokes from 25 to 1500 mm (1 to 59 inch)
- Loads from 110 to 9000 N (25 to 2,000 lb)
- Speeds from 5 to 75 mm/s (0.2 to 3 in/s)
- Voltages - 12, 24, 36 Vdc and 1 × 230 / 3 × 400 Va
- More power in a smaller envelope
- Outdoor and indoor applications, IP67
- Maintenance free
- Holds load with power off
- Available with overload clutches, limit switches, feedback and a whole range of other options and features



True Planetary™ Gearheads

We offer a complete line of True Planetary™ gearheads to complement all of our servo and step motor products.

- UltraTRUE Helical Crowned True Planetary Gearheads, smoothest operating on the market
- ValueTRUE Helical Crowned True Planetary Gearhead, High performance at a low cost
- DuraTRUE Planetary Gearheads, ideal alternative to hybrid parallel-shaft spur gearheads
- NemaTRUE Planetary Gearheads, optional front faces
- EverTRUE continuous duty, higher speeds and lower temperature



Clutches & Brakes

Our friction brakes and clutches are available for a wide range of applications from specialty automotive power closure actuators to integrated servo motor brakes. Power on and power off models are offered in a variety of mechanical and electrical configurations.

- Spring set brakes for static holding and dynamic stopping are available for a variety of applications including motors, actuators, and Z axis applications
- Product families include power on and power off friction, multiple disc, tooth, spring set, and other electro-mechanical technologies.
- Torque ranges from less than 0.1 Nm to over 500 Nm (1 in-lb to 370 ft-lb)
- ISO9000:2001 and AS9100 certified



Precision Balls

Our precision balls offer sphericity within 5 millionths of an inch, 100% quality inspection and are guaranteed to meet or exceed the standards of the American Bearing Manufacturing Association.

- Most complete variety of materials & technologies
- Over 27 high performance materials
- Ceramic, hollow and specialty balls
- ISO9001:2000 registered
- A2LA Certified measuring Lab

