



## Linear Motion Solutions by Thomson

Trusted provider of optimized motion solutions for 75 years



# Thomson – Your Trusted Partner

John B. Thomson Sr. invented anti-friction linear technology more than 75 years ago and Thomson has continued to lead the industry ever since. The Thomson brand is today recognized as the global leader in motion technology.

Talk to us early in the design process to see how Thomson can help identify the optimal balance of performance, life and cost for your next application. Visit [www.thomsonlinear.com](http://www.thomsonlinear.com) and find a wealth of product and application information as well as 3D models, software tools, our distributor locator and global contact information.

## Unmatched Product Range

Over the past several years, our family of motion products has grown significantly and now includes BSA, Neff and Tollo – all now part of Thomson.



**THOMSON BSA**   **THOMSON TOLLO**   **THOMSON NEFF**

## Worldwide Service and Support

Thomson field service engineers and support teams are available to assist wherever and whenever they are needed. The broadest product offering and unbiased technology expertise enable us to bring you the optimal balance of performance, life and cost. That's why design engineers turn most often to Thomson products to meet their motion control requirements.





**THOMSON**<sup>®</sup>  
Linear Motion. *Optimized.*<sup>™</sup>  
1946-2021

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[www.thomsonlinear.com](http://www.thomsonlinear.com)



## Ball Screws

We offer the most complete line of industrial ball screws. Our products range from standard to high-precision assemblies, as well as custom solutions.

### High Load Series

- Handles maximum dynamic loads up to 1440 kN

### Miniature Precision Rolled Series

- Efficient, cost-effective solution in a small envelope

### Precision Rolled Series

- The most comprehensive offering of low-cost, high-precision metric and inch ball screws in the industry

### Precision Plus Metric Ground Series

- High repeatability, accuracy and stiffness



## Lead Screws

Thomson offers the highest-quality, precision lead screw assemblies in the industry, providing an excellent economical solution for your linear motion requirements.

- Rolled precision stainless steel screws
- V-Threads available for fine positioning resolutions
- Lead nuts come in a standard threaded or flanged mounting configuration
- Anti-backlash nuts for the best positional repeatability
- Bronze nuts for heavy duty applications
- Custom lead screw machining and lead nuts available



## Ball Splines

Thomson precision ball spline systems feature high speed, anti-friction linear motion under high torsional loads, and have high reliability and predictable life expectancy. Ball splines resist radial displacements resulting from torque loads and require smaller forces to achieve axial displacement of the spline member while transmitting torque.

- Anti-friction linear travel by ball recirculation
- Resistance to radial displacement resulting from torque loads
- Minimal lash resulting from wear and elimination of stick-slip
- Minimized friction reduces heat, preventing seizure
- Custom machined keyways are available for both inner and outer race



## Glide Screws™

The Glide Screw combines the features of a linear bearing and a lead screw in one smooth operating package, thus creating something better than both. The patented Glide Screw delivers high performance, fast installation and less complexity in a small package.

- Easy and fast to install and maintenance free
- Reduced footprint, improved equipment uptime and lower cost of ownership
- Metric and inch options available
- Integrated lubrication block
- Optional configurations for harsh environments



## Linear Actuators

Our linear actuator range is one of the broadest on the market, and we can offer a suitable model for almost any imaginable application. Thomson also has a long experience in designing custom solutions and builds more custom actuators than anyone.

### Electrak® HD

- Industry-leading onboard electronics, including J1939
- Loads up to 16 kN and stroke lengths up to 1 m
- Unrivalled environmental protection (IP69K/IP67 static and IP66 dynamic)

### Electrak MD

- Compact sibling of the HD with outstanding power density, onboard controls and durability
- Loads up to 2 kN and speeds up to 52 mm/s

### H-Track

- Electrohydraulic actuator incorporates a patented fluid power design with unmatched impact resistance
- Completely sealed system with no hoses to leak



► [www.thomsonlinear.com/la](http://www.thomsonlinear.com/la)

## Precision Linear Actuators

The compact design and higher load capacities of our precision linear actuators make them ideal for the replacement of hydraulic and pneumatic cylinders.

### T Series

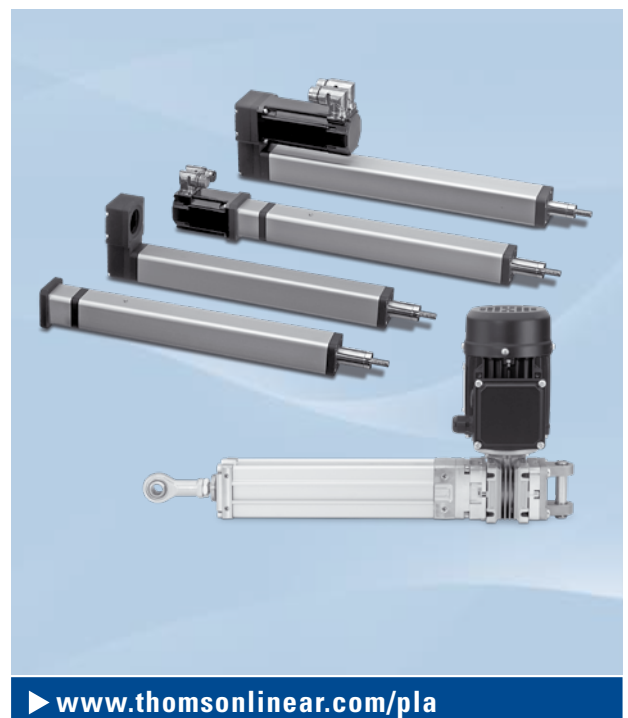
- Robust, precise-positioning, high-load actuators
- Three sizes and a multitude of accessories available
- Mounting kits according to hydraulic standards available

### ECT Series

- Fully motorized precision linear actuators
- Choose between a large number of motor, gear box and mounting alternatives

### PC Series

- Built to replace pneumatic cylinders
- High power density, accuracy and life expectancy
- Visit [www.thomsonlinear.com/conversion](http://www.thomsonlinear.com/conversion) to learn more about the PC Series



► [www.thomsonlinear.com/pla](http://www.thomsonlinear.com/pla)

## Linear Motion Systems

Thomson invented the linear motion system and offers the largest range in the industry. These systems are ideal for handling, packaging and other factory automation applications that require high speed and/or long stroke capabilities.

- Flexibly designed, self-supporting units
- Can easily be assembled into X-Y and gantry configurations using multi-axis mounting accessories
- Sizes ranging from the smallest to the biggest in the industry
- Ball screw or belt-driven models
- Ball-, wheel- or prism-guided models
- RediMount™ motor mounting adapter kit is available as standard on all models
- Large range of options and accessories
- Sealing and washdown options are available for harsh environments



## Lifting Columns

Thomson lifting columns are ideal for medical applications such as wheelchair lifts, x-ray machines, and surgical tables as well as ergonomic automation applications such as workstations and desk lifts.

### LC2000 Series

- Three-piece extrusion with 2000 N loading capacity
- Telescoping leadscrew mechanism to provide an ideal extension-to-retraction ratio

### LC3000 Series

- Three-piece extrusion with ballscrew drive to allow for 3000 N loading capacity and high moment loading



## Stepper Motor Linear Actuators

Stepper motor linear actuators combine a hybrid stepper motor and a precision lead screw together in one compact envelope. Patented Taper-Lock technology\* allows quick decoupling and secure, properly aligned connections. This combination offers several advantages over a traditional solution.

- Motors come in five standard NEMA frame sizes with various stack and motor winding combinations available
- Many lead screw diameters, leads, coatings and lead nut combinations available
- Achieves the highest torque density in the industry
- Taper-Lock design provides the ability to quickly decouple the lead screw from the stepper motor
- Comes in three standard configurations: rotating screw (MLS), rotating nut (MLN) or actuator (MLA)
- Custom assemblies available

\* Patent No. 9400047



## Worm Gear Screw Jacks

The Thomson worm gear screw jacks set new standards of precision and engineering and meet all of today's requirements for safety, cost-efficiency and durability.

### **MULI® and JUMBO® Series**

- Models for loads from 5 to 500 kN
- Designed for easy installation of motors, gears and shaft encoders
- All models designed for tensile and compressive loads
- Complete range of motors and accessories is available
- Synchronization of several jacks is easily accomplished



## Miniature Systems and Components

Thomson produces the widest selection of miniature linear components that are engineered to work together. They all benefit from our long experience in motion control engineering and have all the advantages and features offered for standard-size products.

- Smaller components enable designers to reduce the size and weight of their end product, resulting in products that are smaller, lighter and less expensive to manufacture
- Widest variety of miniature motion products on the market
- Products are designed to work together
- Thomson offers easy and fast customization



► [www.thomsonlinear.com/mini](http://www.thomsonlinear.com/mini)

## Precision Balls

For more than 75 years, our focus has been servicing precision industries with specialty and production runs of standard and non-standard balls. Our U.S.-based manufacturing, A2LA-accredited laboratory, technical center and warehouse are able to balance quality and delivery demands with competitive pricing and local service. We are your local, fast and flexible source for precision balls.

- Ideal for aerospace, automotive and industrial markets
- ISO 9001: 2015-registered
- ISO 17025 - A2LA-accredited laboratory



► [www.thomsonlinear.com/pb](http://www.thomsonlinear.com/pb)



## Innovation, Engineering and Customization Excellence

Often the ideal design solution is not about finding the fastest, sturdiest, most accurate or even the least expensive option. Rather, the ideal solution is the optimal balance of performance, life and cost.

Thomson continues to innovate, both in products and tools necessary for design engineers to select, size and specify the optimal component for any application – regardless of industry or market. From standard products to “white sheet” designs, Thomson has the engineering expertise and manufacturing capabilities to optimize the balance between performance and cost to suit your specific needs. Our engineered, custom designs, as well as our multitude of free, online tools, set us apart from other manufacturers and create a benchmark in the component industry.



► [www.thomsonlinear.com/materialhandling](http://www.thomsonlinear.com/materialhandling)

### Material Handling

Improve speed, accuracy and reliability by using the broad range of Thomson products in robots, manipulators, lifting aids and pick-and-place equipment.



► [www.thomsonlinear.com/medical](http://www.thomsonlinear.com/medical)

### Medical and Health

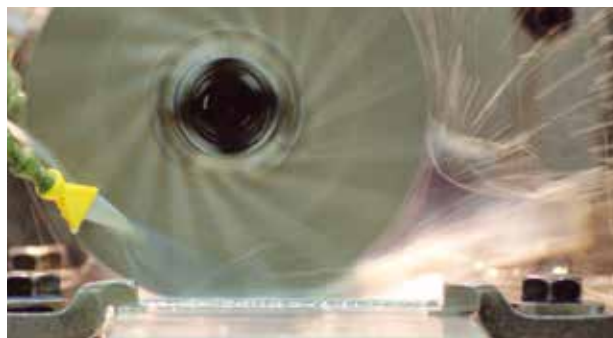
Both patients and caregivers will benefit from easier-to-use, safer, lighter, smaller and more precise machines made possible by Thomson products.



► [www.thomsonlinear.com/foodprocessing](http://www.thomsonlinear.com/foodprocessing)

### Food Processing

Our large range of washdown and non-contaminating components makes Thomson a perfect partner to the food processing industry.



► [www.thomsonlinear.com/machinetools](http://www.thomsonlinear.com/machinetools)

### Machine Tools

Thomson has supplied high-performance lead screws and linear guides to machine tool manufacturers for decades.

## Decades of Application Expertise

Thomson has since the company was founded been one of the forerunners in the motion technology industry. Our inventions and products have been supplying optimized motion solutions to a broad range of companies and application areas.

Thomson is the name you can trust for high-quality, innovation, on-time delivery, controlled costs and reduced risk regardless of your industry. With extensive experience in numerous industries, including mobile off-highway, medical and health, packaging, food processing, material handling, factory automation, clean energy, and machine tools, Thomson offers the widest selection of linear motion components designed to work together to provide the optimal solution for your specific application.



► [www.thomsonlinear.com/moh](http://www.thomsonlinear.com/moh)

### Mobile Off-Highway

Thousands of actuators – many of them customized – are delivered each year by Thomson to manufacturers of combines, tractors, bulldozers, trains and other vehicles.



► [www.thomsonlinear.com/packaging](http://www.thomsonlinear.com/packaging)

### Packaging

Packaging is a demanding market where Thomson can offer unique products that will improve quality and productivity while lowering manufacturing costs.



► [www.thomsonlinear.com/automation](http://www.thomsonlinear.com/automation)

### Factory Automation

Wherever you need to control a linear motion in a production process, Thomson has the broadest range of suitable products on the market.



► [www.thomsonlinear.com/energy](http://www.thomsonlinear.com/energy)

### Clean Energy

The clean energy market is a fast-growing industry to which Thomson has been supplying standard and customized, high-quality products for many years.

## 75 Years of Innovation, Quality and Trust in Motion Technology





