

Ball Screws

for Linear Actuators, Electric Cylinders,
Machine Slides, Motion Platforms



Steinmeyer Precision Ball Screws

Optimize Performance in Linear Actuators

We offer Precision Ball Screws in both rolled and ground executions to serve a wide range of linear actuation applications. All of our screws provide long life, high reliability, and minimal maintenance in the smallest possible envelope.

Precision Performance

At Steinmeyer, performance is never compromised.

We offer both rolled and ground ball screws, and each uses the same high-quality nuts. All of our nuts are hard-turned in a single setup to ensure optimum alignment of the threads and outer body. You can feel the difference in our smooth running behavior and consistent friction torques.

We never use tube returns. Rather, we rely on highly-engineered deflectors to ensure the smallest package and the smoothest running.

For ground execution we offer diameters down to 3mm and pitch down to 0.5mm. We also offer PO precision, the highest grade possible in the DIN standard. For rolled execution we offer diameters down to 8mm and pitch 1mm up to 80mm and pitch 20mm.

Product Quality

At Steinmeyer, quality is never compromised. It's in our blood. Our products are built on 100 years of craftsmanship in thread grinding, plus today's most advanced manufacturing systems. Our first product was a micrometer, and the original workshop, now converted to meeting space, still stands.

That same site is now vastly expanded to 140,000 sq-ft of modern industrial space. We recently completed a major reorganization that segmented our production lines. The result is better alignment between product engineering and production, plus streamlined manufacturing processes. We are ISO:9001 certified and can provide certificates of compliance and other traceability documents at your request.

Every ball screw is assembled and checked by hand by a highly-trained technician. Because, in the end, our quality is all about our people.

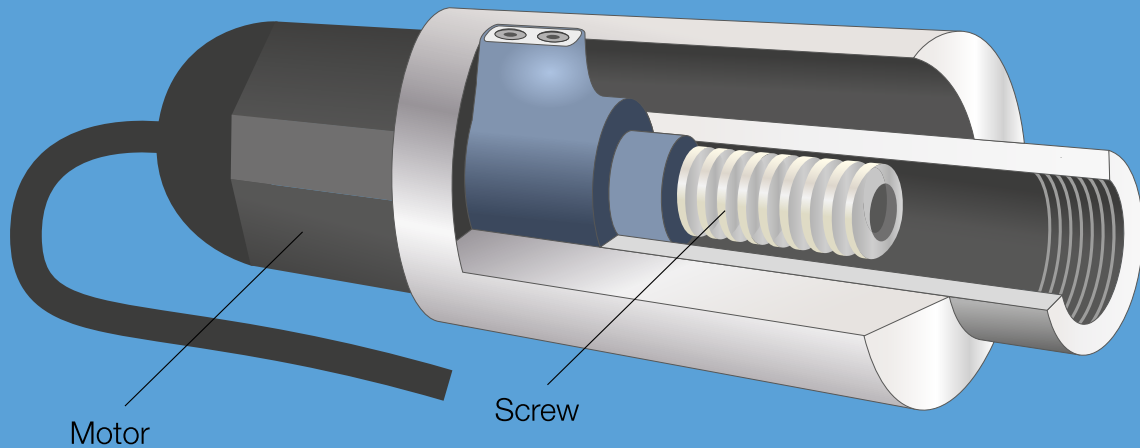


Features:

- Compact, simple design allows for downsizing, less weight.
- Optimized ball nut design for maximizing load capacity.
- Multiple preloading options available.
- Smooth, quiet motion.



Overview of Applications



Electrical Linear Actuators

Steinmeyer ball screws provide the ideal link between the motor and load for applications ranging from general industrial automation to high precision.

Screws can be customized to suite any bearing and drive configuration including specialized ball returns with ratio 1:1 or more (dia./pitch) for high speed applications.



Hexapods & Motion Platforms

Steinmeyer ball screws are suited to highly compact and complex configurations. Benefits include superior positioning dynamics and responsiveness. Robust wipers offer outstanding protection and lube retention.



Heavy Duty Applications like Roll Forming

Steinmeyer heavy-duty Ultra Thrust® ball screws have been specially developed as a robust and economic alternative to hydraulic cylinders in high load applications. Our innovative Z-deflector enables easy assembly and smooth motion for balls up to 19 mm diameter. This pushes the maximum load capacity to 150 tons (1,500 kN).

Steinmeyer offers the industry largest selection of standard size ball screws

Pitch	0.5	1	1.5	2	2.5	3	4	5	6	8	10	12	15	16	20	25	30	32	35	40	50	60	
Diam.																							
3	•	•																					
5	•			•		•																	
6		•	•	•		•			•														
8	•	•	•	•	•	•	•	•		•													
12		•		•		•	•	•			•												
16				•			•	•			•												
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32				•			•	•	•	•	•	•	•		•	•	•	•	•			•	
40							•	•	•	•	•	•	•	•	•	•	•	•			•		
50								•	•	•	•	•	•	•	•	•	•	•			•	•	•
60																•	•			•	•	•	
63											•	•	•	•	•		•				•		
80								•			•		•		•	•	•				•	•	
100											•				•	•	•				•		



Miniature Ground Ball Screws

- 3-16 mm diameter
- All sizes available in three nut styles: flanged, threaded, and cylindrical
- Nut body (pilot) diameters as small as 7 mm

Miniature Rolled Ball Screws

- 8-16 mm diameter
- Same nut quality and style selection as our ground screws!
- Choose fully assembled or stock lengths



Large Ground Ball Screws

- 16-100 mm diameter
- Flanged nut
- UltraThrust line delivers load capacity up to 1400 kN (150 tons)!

Large Rolled Ball Screws

- 16-80 mm diameter
- Available nut styles: flanged, threaded, and multiliner
- Choose fully assembled or stock lengths

Ground Ball Screws

Maximum performance for the most demanding applications



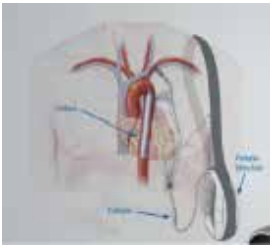
Steinmeyer supports many of the world's leading manufacturers of medical devices, instruments and inspection systems.

These applications often operate in specialized environments requiring micron-level accuracies.

Ground Ball Screws

Maximum performance for the most demanding applications

See below for examples of how Steinmeyer ground ball screws deliver outstanding performance in applications demanding precision positioning.



Medical Devices

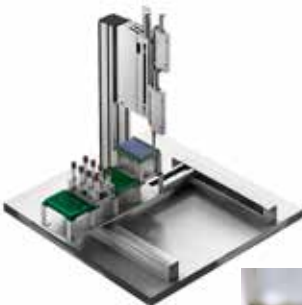
Wearable Pump for Cardiovascular Assist

Precision ground ball screws are well suited for a wide variety of critical medical applications. Our smooth and quiet running behavior has proven ideal for driving innovative, wearable pumps and respiratory devices.



Surgical Automation

Compact nut package can be customized with integral shapes and features to minimize weight and reduce the number of components in your assembly. Special attention to corrosion resistance, lube and clean room requirements.



Lab Equipment / Pipetting / Micro-Dispensing Medical Research

In laboratory automation servo-controlled axes are a key component of high-throughput systems. Ground ball screw can support a wider range of speeds and higher accuracies.

Steinmeyer screws deliver outstanding performance and longer life with potentially little or no maintenance.



Semiconductor / MEMS / Metrology / Beam Manipulation / Adv. Sciences

Such applications demand critically smooth and precise motion while operating in vacuum, radiation or magnetically influenced environments.

Steinmeyer's precision ground ball screws excel in meeting this challenge in both single and multi-axis systems.

Rolled Ball Screws

Cost-effective solutions for general automation

Packaging

Steinmeyer's Rolled Ball Screw products include high quality ball nuts at a fraction of the cost.

Steinmeyer delivers for a wide range of applications in general automation. These applications demand cost-effective and reliable performance.

Our product offering includes the industry's largest range of standard sizes in both standard and stainless materials.



Rolled Ball Screws

Cost-effective solutions for general automation

See below for examples of how Steinmeyer rolled ball screws deliver cost-effective solutions for general automation applications.



Laboratory / Medical Equipment

When extreme precision is not required rolled ball screws can be a technically excellent and sound economic alternative to ground.

Steinmeyer rolled screws offer exceptional value while holding to our reputation for superior quality, performance and reliability.

Examples:

- Patient Transport / Mobility
- Fluid Handling / Dispensing / Pipetting Automation
- 3D Printing



Ball Screws For Linear Actuators

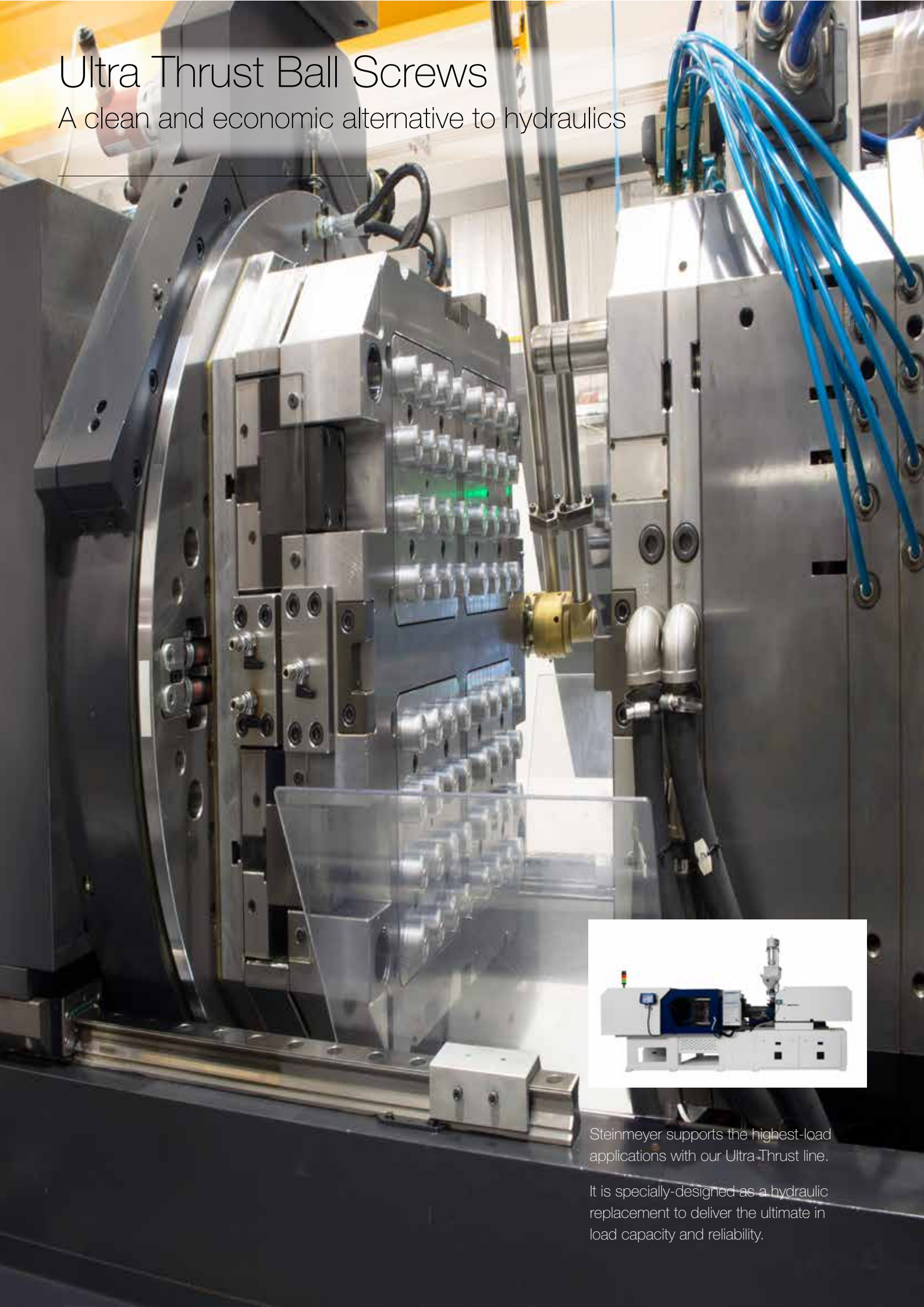
Material Handling / Routers / Assembly / Packaging Automation / Printing

Rolled ball screws are a great solution for many industrial applications such as: robotics, gantries, assembly / packaging automation, servo presses, laser / water jet routers and other CNC Machines.

- Stainless steel
- Specialty lube / handling / packaging
- Available in stock, unfinished lengths ready for you to finish and assemble.
- Back up inventory can be held / stocked in USA

Ultra Thrust Ball Screws

A clean and economic alternative to hydraulics



Steinmeyer supports the highest-load applications with our Ultra-Thrust line.

It is specially-designed as a hydraulic replacement to deliver the ultimate in load capacity and reliability.

Ultra-Thrust Ball Screws

A clean and economic alternative to hydraulics

See below for examples of how Steinmeyer Ultra-Thrust ball screws are not merely larger sizes of conventional ball screws.



Designed for extreme loads

Ultra-Thrust ® Ball Screws have been specifically designed as an economical and clean alternative to hydraulics for transmitting very high loads.

Key considerations include:

- Ball path and recirculation systems specially designed and optimized for larger ball sizes.
- Nut flange and related mounting features specifically sized to accommodate the increased loads.
- Reliability under high accelerations, repetitive travel and harsh abrasive conditions.
- In house engineering support, analysis and testing available for evaluation of extreme loads and cycle demands.



Steinmeyer



About Steinmeyer:

With more than 440 employees, Steinmeyer is the leading competence center in Europe in the fully integrated manufacturing of ball screws.

Steinmeyer has reliable customer service representatives available at your disposal, before and after your purchase, whether it's for a comprehensive initial consultation or for a quick and simple repair after a purchase.

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German Craftsmanship and Quality

Innovation, precision, quality, reliability, and durability have distinguished our ball screws for decades. We use sophisticated manufacturing technology and hand select only first-class materials.

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