

Why SKF?

SKF roller screws



Roller screws displace loads by transforming rotary action into linear motion.

With SKF roller screws, the load is transmitted from the nut to the shaft through rollers located between the nut and the screw shaft for more reliable operation.

In addition, the contact area that carries the load is optimized by the number and length of the rolling elements, and by the barreled profile of the threads. Both help to provide a much higher load carrying capacity and longer life than ball screws of similar size.

Product features

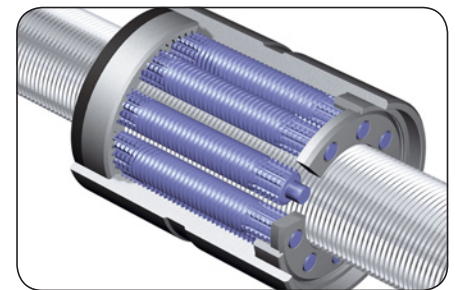
- High load ratings
- Very high rotational speed
- High acceleration and deceleration rates
- Long life at high cycling rate
- High reliability
- Resistance to hostile surroundings
- Ability to survive shock loads
- Small displacements with very good repeatability

User benefits

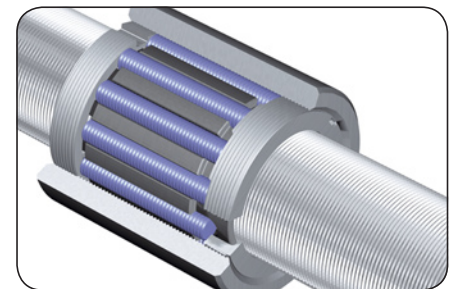
- Accommodates extremely heavy load conditions
- Low cost of use
- Extended life
- Minimum maintenance costs
- More reliable operation

Common industries/ applications

- Steel
- Tyre
- Printing
- Oil and gas
- Aerospace
- Machine tools
- Factory automation
- Laboratory/hospital equipment
- Plastic molding
- Broaching machines
- Grinding machines
- Presses
- Telescopes



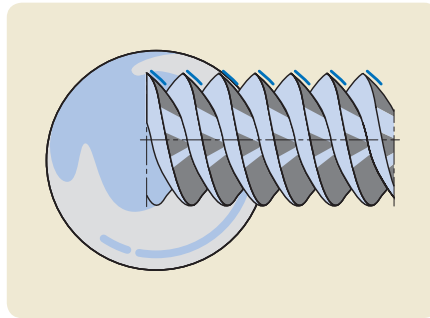
Planetary roller screw



Recirculating roller screw

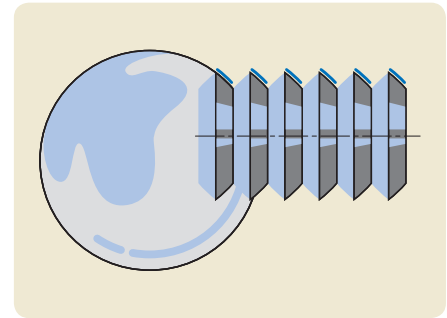
2 types of SKF Roller screws enable higher loads and longer life

From harsh environments to high precision, the two different designs of SKF roller screws, fulfill requirements beyond ball screw capabilities. This makes roller screws an excellent solution for a variety of applications.



Planetary roller screw

Non-recirculating rollers yield high speed and acceleration capabilities, exceptional reliability and resistance to adverse environments.



Recirculating roller screw

Very fine lead of thread (0,6 mm) allows high positioning accuracy, repeatability and exceptional rigidity.

Planetary roller screws

The capacity to carry heavy loads at high speed for thousands of hours in the most arduous conditions makes SR/BR/TR/PR planetary roller screws suitable for the most demanding applications. The robust nut can withstand shock loads and the timing mechanism helps to ensure reliability even in harsh environments and at high accelerations; the long lead and the symmetrical design of the nut permit high linear speeds.

Features

- Many strong contact surfaces
- No recirculation and no contact between rolling elements
- Guided rollers
- Timing mechanism
- Adaptable tooling

Benefits

- High load carrying capacity and long life
- No weak points in the nut
- High rotation speed
- Less fatigue
- Robust & shock resistant
- No loss in preload torque when changing direction
- Smooth running
- Exceptional reliability
- Ability to work with ice, dirt or poor lubrication
- Non standard and left hand leads available
- Customized solutions, in addition to wide standard range

Recirculating roller screws

Ultimate positioning accuracy can be obtained using the fine lead of SV/BV/PV recirculating roller screws. Their great mechanical advantage minimizes input torque and increases resolution. They can simplify a complete transmission, such as a direct drive, and improve its rigidity. They are often used in applications of advancing technology where reliable optimum performance is vital.

Features

- Very small leads (0,6 mm)
- No miniature parts
- Many strong contact points

Benefits

- Fine resolution
- Minimum drive torque
- Simple
- Robust
- Reliable
- Heavy load carrying capacity
- High rigidity
- Long life
- Low reversibility
- No reversibility for size 50x1



An SKF Documented Solution specialist can show you the approximate return on investment (ROI) you can expect to receive by using this product in your application. Ask your SKF Authorized Distributor or SKF representative for more details.

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PUB MT/S7 10081 EN · November 2010

Printed in Italy on environmentally friendly paper.

