

Ball and roller screws

The high efficiency screws afford the opportunity to displace loads by transforming rotary action into linear motion. The high efficiency screws have rolling elements, balls or rollers, between the nut and the screw shaft.

How to orientate your choice?

In our wide range, you are sure to find the product which fits exactly your requirements:

- The miniature ball screws, either with ball recirculation by integrated tube or with inserts, are very compact. Back-driving makes them highly efficient.
- The large ball screws enable you to select the right level of requirement:
 - simple transport screws
 - very fast screws with long lead
 - preloaded screws for more precision.
- Ground ball screws for more rigidity and precision Roller screws which are far beyond the limits of any ball screws as for heavy loads, ultimate precision and rigidity high speed and acceleration and very difficult environments.

Ball screws

High quality

SKF ball screw assemblies are high-quality products, suitable for a wide range of applications where precision driving systems are needed.

Complete assemblies

For reduced quantities and for all types of nuts, SKF provides complete assemblies with customised screw shaft. A complete range of accessories is available and can be delivered completely assembled

DIN NUTS

SKF produce ball screws nuts according DIN standard 69051.

Most dimensions are using composite inserts, which can be replaced by steel inserts acting as a safety device for severe requirements or for vertical axis applications.

- Nominal diameter: 16 to 125 mm
- Lead: 2 to 40 mm

- Ground flanged nut for precise mounting
- Lubrication hole for nipple or automatic SKF SYSTEM 24
- Wipers available on request

- Axial play, backlash elimination or preload execution on request
- Screw shaft bearing support units: FLBU-FLRBU-PLBU and BUF off the shelves



Ball screws nuts with round flange
Click on image to enlarge

NUT with threaded attachment

SKF produce ball screws nuts with threaded attachment for easy mounting:

- Nominal diameter: 6 to 63 mm
- Lead: 2 to 12.7 mm
- Dimension over 16mm are with lubrication hole for nipple or automatic SKF SYSTEM 24
- Axial play, backlash elimination on request
- Options: Stainless steel for dimensions from 6 to 16mm



Ball screws nuts with threaded attachment
Click on image to enlarge

For severe requirements or for vertical axis applications:

- Safety device for dimensions from 12 to 16mm
- Steel inserts for dimensions from 16 to 63mm
- Wipers



SX type ball screw
Click on image to enlarge

See product data for more information and options

Long lead nut

SKF produce long lead ball screws nuts with round flange attachment for high linear speed. metrics

- Nominal diameter: 25 to 50 mm
- Lead: 20 to 50 mm
- Ground flanged nut for precise mounting



Long lead ball screws nuts
Click on image to enlarge

- Lubrication hole for nipple or automatic SKF SYSTEM 24
- Brush wipers available on request, polyamide wiper present at any case.
- Axial play or preload execution on request
- Screw shaft bearing support units: FLBU-FLRBU-PLBU and BUF off the shelves

Typical applications:

- Woodworking equipments
- cardboard machines pick and place

Customized design

SKF study and develop customized solutions for dedicated applications, please don't hesitate to ask us.

Some examples:



SX with trunions



Customised SD miniature screw



SL long lead screw with flange



Customised SD miniature screw in stainless steel



SN precision ball screw, customised



PN customised preloaded screw (rotary)

Flanges & Bearings unit

SKF has developed accessories to help customers in building their systems.

Our flanges ranges:

- FHRF



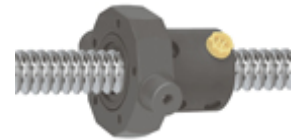
FHRF flange

- FHSF
- FHTF

helps to change thread nut attachment.

Our range of support bearing units has been specially develop for our screw in order to optimise life and stiffness:

- Flange bearing unit: FLBU and FLRBU
- Plumber units:
 - PLBU for axial load
 - BUF for radial support



SX3 with trunions



FHSF flange



Flange bearing unit
FLBU

Quick delivery ranges : Ball screws and roller screws

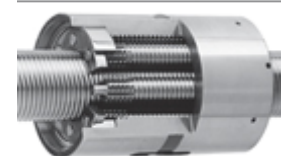
A dedicated workshop and administrative department allows a short delivery time in order to answer quickly the needs of customers according to customer drawings.

Deliveries of ball screws and roller screws are achieved in one or four weeks.

Delivery times are different concerning the roller screws and the ball screws.

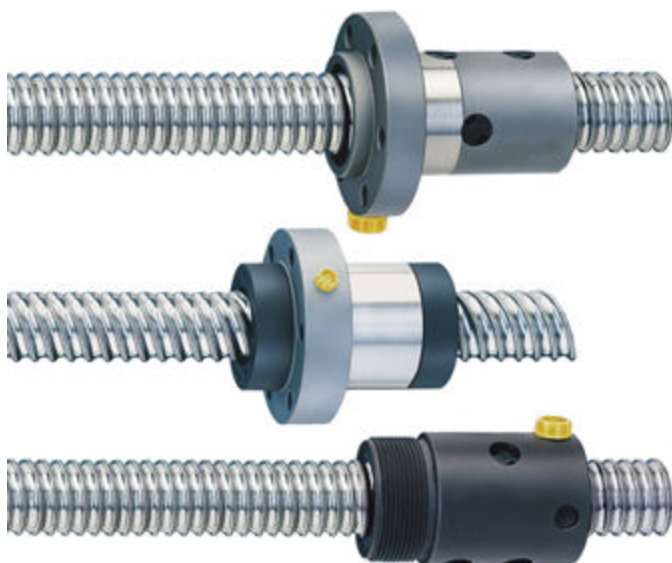


Ball screw



Roller screw

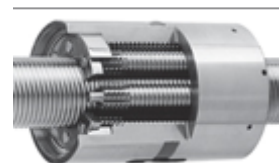
Ball screws



Ball screw

Roller screws

Planetary roller screws with bearing units



Roller screw

- **Delivery time**
 - 1 week: without end machining
 - 2 weeks: with machined ends
- **Nuts**
 - With backlash elimination by oversize rollers: BRC
- **Capabilities**
 - Machined ends: premachined shafts for machining by the customer to customer drawing
 - Suitable for FLRBU units

Planetary roller screws with bearing units

- **Delivery time**
 - 4 weeks : with machined ends to customer drawing
- **Nuts**
 - With axial play: SRC-SRF
 - With backlash elimination: TRU-TRK
 - Preloaded: PRU-PRK for optimum rigidity
- **Capabilities**
 - machined ends to customer drawing
 - screw dimensions:
 - up to 1500 mm maxi length
 - up to 900 mm threaded length

Recirculating roller screws with bearing units

- **Delivery time**
 - 1 week: without end machining
 - 2 weeks: with machined ends
- **Nuts**
 - with backlash elimination by oversize rollers: BVC
- **Capabilities**
 - Machined ends:
 - Premachined shafts for machining by the

customer

- To customer drawing
- Suitable for FLRBU units

Recirculating roller screws with bearing units

- **Delivery time**
 - 4 weeks: with machined ends to customer drawing
- **Nuts**
 - With axial play: SVC
 - Preloaded: PVU-PVK for optimum rigidity
- **Capabilities:**
 - Machined ends to customer drawing
 - Screw dimensions:
 - Up to 1500 mm maxi length
 - Up to 900 mm maxi length