

## Ball screws



Ball screws convert rotary motion into linear motion. They are particularly suitable for control tasks and positionings:

- Excellent Repeatability and accuracy
- High moving speed
- Reduced abrasion
- Because of punctual contact of the balls the required power is appr. 60% lower

### Categories of precision

- *Grinded version:* Tolerance class C3, C5 and C7;  
C3 and C5 are determined according to the path deviation and the tolerance of the path variation; C3 allows the smallest deviations
- *Rolled precision version:* Tolerance class C7 and C10;  
C7 and C10 are defined through the mean path deviation measured at 300mm; C10 allows the highest deviations

### Configuration options:

- The shaft diameter can be selected in combination with different leads
- Compact- and standard-nuts
- Shaft ends configurable

### Materials

- Material matching - rolled Version: Shaft 1.1203/C55E and ball nut 1.7264; carburized and hardened
- *Material matching – grinded version:* Shaft 1.7242 and nut 1.7264; carburized and hardened
- Without surface treatment, phosphate conversion coating and LTBC (Low Temperature Black Chrome Plating) available

### Options

- The eligibility of special lubricants allows the using in special environments such as clean room
- The „TAS“ option makes the reversal of nut possible. This means that a matching sleeve may be ordered in order to prevent the dropping out of the balls and to allow the unproblematic reversal of the nut

Due to a wide range of accessories, such as flanged bracket, holders, stoppers and joining units, is it possible to configure and provide complete units “out of one hand”.

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Ball Screws

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011400000/>



Support Units - Round Type ,

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011900000/>



Support Units - Fixed Side

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011500000/M0115060000/>

## Trapezoidal threads

Trapezoidal threads convert rotary motion into linear motion. They have a greater friction and are self-locking regarding the area of coarse threads i.e. they do not have to be backed up in the rest position. They are used, among others, in the following applications:

- Feedmotion of machine tools
- Adjustment for handling devices
- Stroke movement for press machines
- Closing movement for injection molding machines
- Transport movement on assembly lines Montagebändern

## Ball screws

MISUMI offers the following sizes, designs and materials:

- Right hand and left hand screw or right-left hand screw
- Spindle end freely configurable
- Ready to install configuration
- Available materials:
  - 1.1191 without surface treatment
  - 1.1191 black oxidized or LTBC (Low Temperature Black Chrome Plating)
  - 1.4305
- Precision right- and left hand screw

The precision thread determines that the unthreaded area is adapted to the spindle diameter precision (30mm long with ToleranzH7). In contrast, the standard spindles have a 80mm long, not usable area.
- Wide range of accessories, such as spindle nut, bronze and plastic material, bearing housings, brackets, digital position indicators, clamps etc.



Trapezoidal Screws

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011500000/M0115010000/>



Nuts

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011500000/M0115050000/>



Lead Screw Support Units with Position Indicator

<http://www.misumi-europe.com/en/e-catalog/vona2/mech/M010000000/M011500000/M0115030000/>