

4.4 Special screw

The special ball screw category includes e.g. these variants:

Telescopic ball screw:

- Used in applications where small housing dimensions and large pitches are required (e.g. handling platforms, hexapods, etc.).
- It is a telescopic set of several ball screws screwed in one assembly. The ball nuts work as bearings supporting the inner ball screw assembly.
- The telescopic ball screws replace hydraulic cylinders with the advantage of easy control and positioning.



Telescopic ball screw

Threadless ball screw:

- The threadless ball screw is intended especially for motion mechanisms of manipulators and transport equipment, which require efficient transmission of the rotary to linear motion without emphasis on the rigidity and load capacity, but with requirements on simplicity, easy maintenance, and undemanding manufacturability.



Threadless ball screw

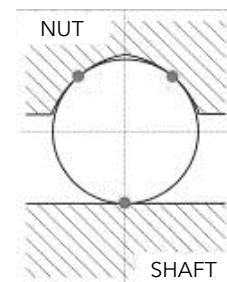
Linear actuator:

- The linear actuator ensures motor controlled linear movement within the operating range; it replaces the hydraulic cylinders. It uses the transmission of the rotary to linear motion using the ball screw with minimum efficiency of 95 %.
- The movement speed can be controlled or adjusted by a suitable selection of the used.



Linear actuator

- The profiled thread is used only for the ball nut and the forces are transmitted via the balls inserted between this profile and the smooth cylindrical profile of the shaft. To transmit the forces, this solution uses elastic deformation of the hardened and ground cylindrical shaft, on which the preloaded balls in the profiled inner thread of the nut are rolling.



Threadless ball screw operation

If you are interested in any of the above mentioned designs, we will be pleased to provide you with our technical support.