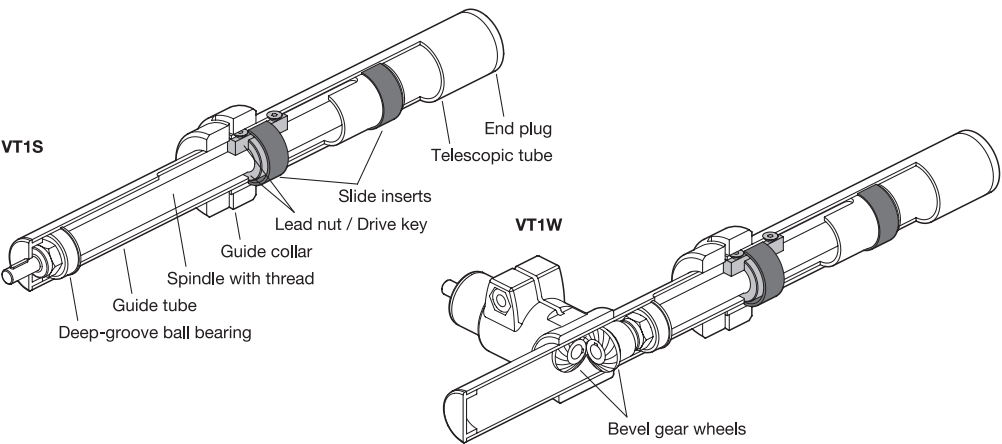


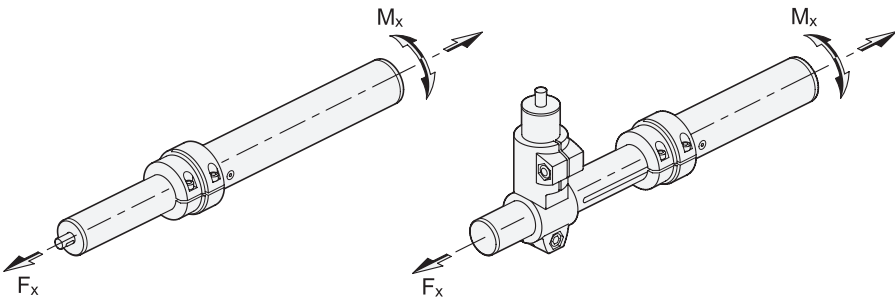
# Configurable Telescopic Linear Actuators

## Technical Description

The linear actuators have a guide nut that is moved axially by means of the threaded spindle with ball bearings. The follower prevents twisting and forms the connection to the outer tube. Tube clamps are available in a wide variety of different designs for fastening the linear actuators.



## Load Data



Ø Linear Actuator	$F_x$ in N	$M_x$ in Nm
18	400	1,5
30	850	6,5
40	1100	15
50	1750	29

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## Positioning Precision

The positioning precision indicates the amount of deviation with which a specific position can be reached. The table indicates the maximum occurring deviation.

	Trapezoidal thread drive	Fine thread drive
Max. deviation g	$\pm 0,1 \text{ mm}$ / 300 mm Stroke	$\pm 0,1 \text{ mm}$ / 300 mm Stroke

## Repeatability

The repeatability indicates how precisely a position can be reached multiple times under identical conditions. In general, the repeatability is higher than the positioning precision because manufacturing tolerances have no influence on the repeatability. With the trapezoidal and fine thread drives used, the repeatability is  $\pm 0.05 \text{ mm}$ .

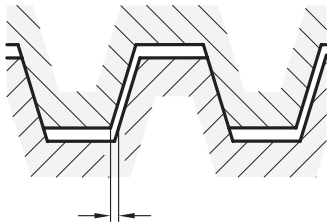
## Guidance Accuracy

The precision guide tubes of the linear actuators are made of steel as per DIN EN 10305-4 and are also chrome plated. The stainless steel design makes use of stainless steel precision tubes as per EN 10216-5.

## Backlash on Reversal

The play between the thread flanks of the spindle and the spindle nut results in idling when the drive direction is changed. Before the connector moves in the opposite direction, this play must first be overcome.

This backlash on reversal prevents the spindle nut and spindle from jamming up. For linear actuators with trapezoidal and fine thread spindles, the backlash on reversal is 0.2 mm.



## Self-Braking

Because the pitch angle of trapezoidal and fine thread spindles is smaller than the angle of friction, these spindles are self-braking. It is not possible to push the linear actuator connector. The spindle can also be additionally secured with an external spindle lock by means of clamping plates.

## Lifespan

The lifespan of linear actuators in a given application depends on the expected environmental conditions.

The following factors come into play:

- Installation position
- Load moved
- Movement speed
- Movement frequency
- Ambient temperature
- Compliance with maintenance intervals

## Environmental Conditions

The linear actuators are designed for ambient temperatures from  $-20 \text{ }^{\circ}\text{C}$  to  $+100 \text{ }^{\circ}\text{C}$ . In general, large temperature fluctuations and condensing humidity should be avoided.

