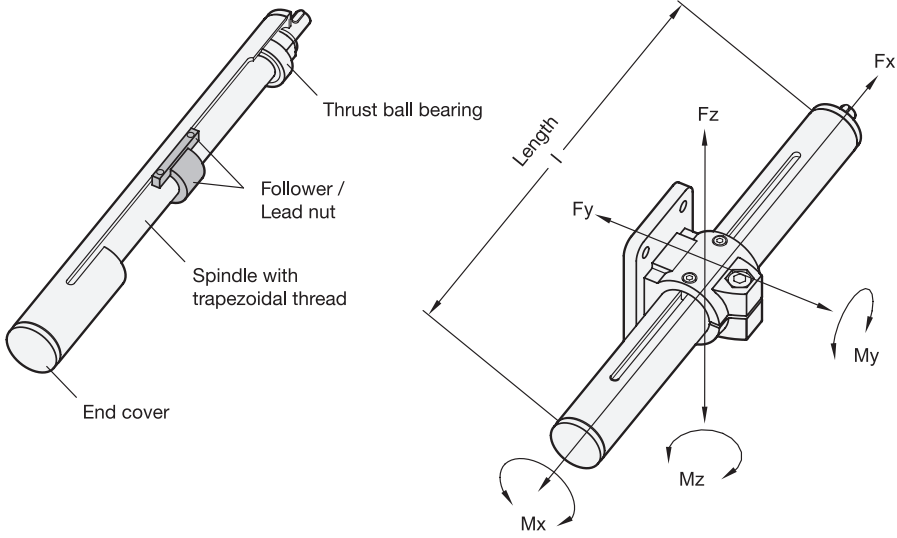


Linear actuators

Technical description



Ø Linear actuator	Fx in N	Fy in N			Fz in N			Mx in Nm	My in Nm	Mz in Nm
		l = 500	l = 1000	l = 1500	l = 500	l = 1000	l = 1500			
18	400	80	-	-	65	-	-	1.5	4.5	4.5
30	850	500	70	15	550	55	10	6.5	15	15
40	1100	2150	250	65	1900	150	50	15	42	42
50	1750	3100	650	150	3100	650	150	29	69	69
60	2600	4550	1500	400	4550	1400	350	45	125	125

The load data are applicable to linear actuators GN 291 (see page 1912), GN 292 (see page 1914), GN 293 (see page 1915) made of Steel (SCR) or Stainless Steel (NI).
The specified forces Fy and Fz cause a flexure of the guide tube of approx. 0.5 mm.

A lead nut moves in axial direction over the ball bearing trapezoidal thread spindle of the linear actuator. The follower ensures the anti-rotation and makes the link to the different linear actuator connectors. The linear actuators have been designed for manual operation (handwheel).

The positioning accuracy is 0.2 mm / 300 mm stroke, the maximum reverse play is 0.1 mm.

Guide tubes are available in chromed Steel (SCR) or Stainless Steel (NI) non-rusting. They are made with the tolerance range of precision steel tubes DIN 2391 or DIN 2462.

A wide variety of different components are available in the tube clamp connector program to fix the linear actuators in place and to upgrade these into linear actuator connectors.

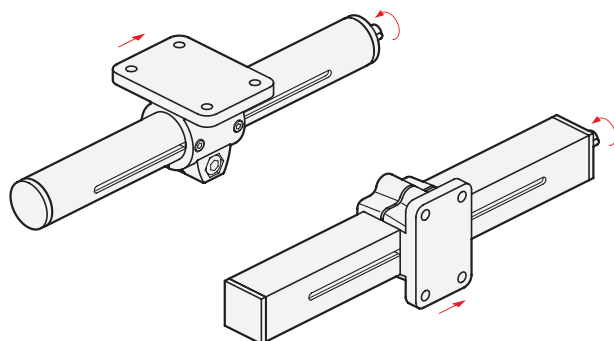
Also, digital position indicators (DD52, see page 721 / DD51, see page 718 / DD52R-E, see page 726 / DD51-E, see page 724) may be attached to measure the displacement or the positioning.

In applications where high torsion forces Mx occur, linear actuators with square tubing or double tube linear actuators should be given preference.

A wide variety of different components from the tube clamp connector program is also available for the square tubings. The linear actuator connectors are composed of two-part elements, with the effect that the precision of the square tubes involves no special requirements.

Linear actuators

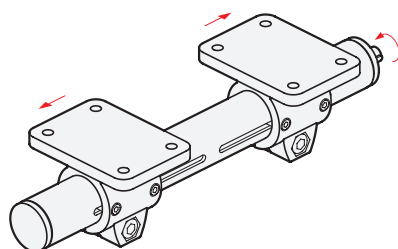
Types



DESCRIPTION

Linear actuator **GN 291** (see page 1912) with right **or** left hand thread, with shaft journal at either one or both ends, with a linear actuator connector **GN 146.1** (see page 1923).

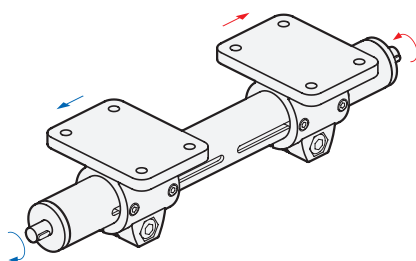
Square linear actuator GN 291.1 (see page 1930) with right **or** left hand thread, shaft journal at either one or both ends, with a linear actuator connector **GN 147.1** (see page 1933).



DESCRIPTION

Linear actuator **GN 292** (see page 1914) with left **and** right hand thread, shaft journal at either one or both ends, with two linear actuator connectors **GN 146.1** (see page 1923), the two connectors move symmetrically.

Square linear actuators **GN 292.1** on request.



DESCRIPTION

Linear actuator **GN 293** (see page 1915) with two separate threaded spindles, each with right **or** left hand thread with two linear actuator connectors **GN 146.1** (see page 1923), the two connectors move independently of one another.

Square linear actuators **GN 293.1** on request.

