ATLANTA ball-screw gripping nut with cut-off

Variants

1. Ball-screw gripping nut without ball-screw supporting nut
2. Ball-screw gripping nut with ball-screw supporting nut
3. Ball-screw gripping nut with ball-screw supporting nut and safety sleeves

Functional description

The gripping nut must be located in load direction behind the supporting nut. It features the counter profile of the ball-screw spindle. During normal operation it is centred on the ball-screw supporting nut and moves along without contact. It becomes engaged only when the balls get lost out of the ball-screw nut. Then the spindle is pulled through the ball-screw nut and the gripping nut is pressed against the supporting nut thus triggering the limit switch and cutting off the drive.
The sleeves in the bores of the ball-screw nut are safety elements especially for set-up purposes. During normal operation the drive is cut off by means of limit switches provided at the lifting table or at the respective plant before the table or the plant reaches its mechanical end position. When during set-up operation these limit switches are inoperative it is possible to move up to the mechanical end position, i.e. until it blocks, which may cause damage to the drive mechanism. Due to the sleeves in the ball-screw nut the nut can continue to move on the driven spindle for a short distance when the mechanical end position of the table or the plant is reached. After approx. 5 mm the table/plant is switched off by the limit switch. Furthermore it is also possible to recognise optically that the nut is still moving.

Mounting

Variant 1:

The gripping nut is supplied preassembled. For mounting the ball-screw nut the gripping nut must be screwed upon the spindle. Push the clamping ring over the supporting nut until the dimension L is reached. Then fix the clamping ring with the clamping screw on the nut. Make sure that the gripping nut and the spindle move without contact.
Quality of clamping screw: 10.9 or 12.9
Stud torque: 14 Nm with torque spanner
Secure the screw with Loctite 243.
Mount the limit switch with support as shown on the drawing on the next page observing the dimension 1 mm, and check whether the roller is positioned in the middle of the groove. If necessary, loosen the clamping ring and adjust the position of the supporting nut.

Order code	Size of ball-screw	Dyn. capacity	Dimension L	Dimension L1
63 25 720	50x10	78 kN	60	97
63 25 725	50x20	82 kN	58	95
63 25 727	50x20	96 kN	87	122
63 25 726	50x20	160 kN	84	132
63 25 730	60x10	86 kN	60	99
63 25 735	63x20	85 kN	60	99
63 25 736	63x20	248 kN	141	180
63 25 748	80X20	359 kN	141	185

Variant 2:

The ball-screw nut and the gripping nut are supplied preassembled as a single unit. For installation mount the nut as shown in the drawing. Mount the limit switch with support as shown on the drawing observing the dimension 1 mm.

Variant 3:

The ball-screw nut and the gripping nut are supplied preassembled as a single unit. For installation mount the nut with the sleeves as shown in the drawing. Mount the limit switch with support as shown in the drawing on the next page observing the dimension 1 mm.

Mounting ball-screw gripping nut

Funktionsmaß = dimension necessary for function
bei Montage einstellen = adjust during mounting process