

Linear drives that lift 200 t - is that possible?

GROB GmbH has been manufacturing with a great deal of know-how in mechanical engineering for over 70 years now and has accumulated many years of experience in the field of linear drives. The portfolio ranges from custom special drives to mass-produced screw jacks. Linear drives for large-scale applications are rare, but that is precisely the reason why a high degree of experience is necessary.

The MC200 is one of the very largest linear drives. With a maximum static **load of 2000 kN**, this drive plays in the Champion's League.

The challenges facing the material and design engineer are extraordinary.



Technical data:

- > Spindle diameter 220mm
- > Worm shaft diameter 70 mm
- > Unscrewing protection via square tube
- > Worm gear transmission ratio 17.5:1
- > Worm gear made of wear-resistant bronze alloy

GROB

Assembly and preparation

On account of the size of the linear drive, it is no longer sufficient to use a ready-cast housing. Therefore, the two-part housing consists of a cast body and a base plate. All internal parts are prepared in the ready-cast body and the base plate is then fitted.



Through the use of a buttress-threaded spindle a higher lifting force can be achieved compared to a trapezoidal spindle. The thread profile is not even as with a trapezoidal thread, but reinforced in one direction. The loadability in one direction is thus increased.

In order to ensure that there is always a film of lubricant between the friction points, liquid grease is used and special lubricating channels have been integrated. According to the customer the linear drive is rarely moved and even then only in small lifting movements. If normal grease were to be used here, it would not flow quickly enough to the lubrication point.

Our **MC200** for loads up to **2000 kN**.

Ask our GROB team for further information.



Lineare Antriebstechnik