

## The GP 16 spindle drive Feed forces of up to 400 N

**The spindle drive program will be extended with the new size 16 mm. This is also an easily configurable complete system with integrated axial bearing for high loads. Version with metric M6 spindle or Ø 5 mm ball screw.**

In mechanical engineering, it is often necessary to find a solution for converting rotary motion into powerful linear motion. Precision spindles combined with DC motors make it possible to transform rotary motion into axial motion. Gearheads, motors, encoders and controllers from maxon's standard program are used to drive the spindles. The individual components of the spindle drives are perfectly matched to each other, resulting in high-efficiency drive solutions. Contrary to the spindles of the larger GP 22 S and GP 32 S, the spindles of the GP 16 S are rolled. This results in a lower price. A central component is the axial bearing, which must withstand the high tractive and compressive forces of the spindle.

Important characteristics for the ball screw are high efficiency, high load capacity and no self-locking. Noteworthy features of the metric spindle are the self-locking function and the lower price.

The spindle drive program in the sizes 22 mm and 32 mm has now been extended to include the smaller GP 16 S version with a diameter of 16 mm. For the planetary gearhead, 14 different reduction ratios are available, from 4.4 up to 850:1. Depending on the reduction ratio and the type of spindle, this makes it possible to achieve feed forces between 35 and 370 N and even up to 400 N for short durations.

DC or brushless EC motors can be used to drive the system; in total, nine different motor types are available. These motors can also be equipped with compatible sensors (encoders), which are essential for precise positioning. EPOS positioning controllers are recommended for controlling the motor-sensor combination. These controllers feature a wide range of functions as well as CANopen or EtherCat. The controller can directly evaluate limit switches and other sensors. The programmable EPOS P version makes it possible to set up independent, standalone systems.

maxon motor's expertise in drive technology is reflected in the entire selection of components. The spindle drives feature robustness, flawless operation and a long service life.

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