

Further information regarding the performance overview

All specifications refer to the standard configuration. The values given for special designs may deviate considerably. The loads specified are the maximum single loads possible for the entire system. If there are different loads (several different forces or moments), the single permissible loads are lower. There may be elastic deformations which will influence the level of accuracy. For mechanical linear drives with roller guides, the static load rating (C_{stat}) applies for static loads.

Repeat accuracy is defined as the ability of the mechanical linear drive to once again return to the same actual position under the same conditions. Conditions such as temperature, load, speed, deceleration and direction of travel may influence the repeat accuracy.

Mechanical Linear Drives with Screw Drive

For calculating service life, the guide and screw drive load ratings are used. Please contact us for further information. The idle torques refer to the respective standard configurations (not double nut or low-backlash single nut) and are measured at a very low speed ($\approx 0 \text{ min}^{-1}$). Production and assembly tolerances vary by $\pm 20 \%$.

The permissible deflection of the linear axis is 0.2 mm/m (1 mm maximum).

For special applications trapezoidal screw drives optional stand for disposal. When used, please ask our technical sales specialists and clarify the exact use.

Mechanical Linear Drives with Toothed Belt Drive

For calculating service life, the guide load ratings are used. Please contact us for further information.

The idle torques refer to the respective standard configurations and are measured at a very low speed ($\approx 0 \text{ min}^{-1}$). Production and assembly tolerances vary by $\pm 20\%$.

The specification for load F_x is the maximum value permitted for low speeds. Please contact us for the maximum value at higher speeds.

The permissible deflection of the linear axis is 0.5 mm/m (2.5 mm maximum).

It is generally recommended to change the toothed belt after 5 to 7 years, as the base material (PU) ages. A theoretical service life calculation is not possible.

Running performance and noise

Contingent on the production tolerances in the used components (e.g. screw or toothed belt drive, guide, mounting, etc.), the running behaviour and noise development for linear drives and linear tables can vary enormously even with the same units. Using customised solutions, such as for example longer spindle supports or damping, the running behaviour can be changed for the better.

Straightness and torsion

All aluminium profiles used for the linear devices and the linear tables are extruded profiles.

The straightness and torsion of these profiles may deviate as a result of the manufacturing process.

The permissible deviations in accordance with DIN 17615 are, however, generally far from exceeded.

However, it may be necessary to align the linear drives using suitable levelling elements or

fix them to a mounting surface machined with sufficient accuracy in order to achieve the desired guiding accuracy.

Better tolerances of 0.1 mm / 1000 mm can thus be achieved.

Stroke length

The stroke length specified in the ordering code refers to the maximum permissible stroke.

Acceleration-, braking distances or possible overrun must be taken into consideration here.

We reserve the right to make technical changes to all products!