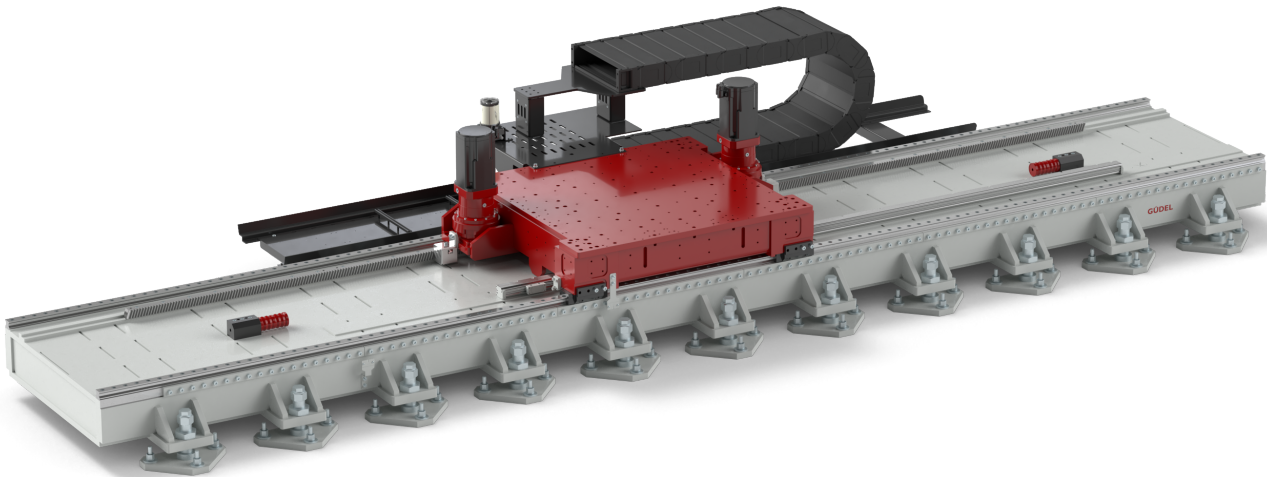


TrackMotion Precision TMP

The process axis for maximum precision, rigidity, and path accuracy



High-precision linear axis for Machine Tool Robot (MTR) applications

The TrackMotion Precision TMP process axis is based on Güdel's proven linear axis technology and has been further developed specifically for high-precision machining processes. Conventional linear axes quickly reach their limits in demanding machining applications, as deflection and insufficient rigidity can affect precision and process quality. The TMP is one of the most rigid linear axes on the market and combines high-precision planetary gearboxes developed and manufactured in-house with an especially rigid design. Together, these features provide the basis for exceptional precision and maximum process stability.

With up to ten times higher stiffness than a standard Güdel linear axis and a dual-motor drive, the TMP ensures maximum torsional and drive stiffness. This enables machining across a wide range of materials, from lightweight materials to steel, with manufacturing tolerances down to 0.1 mm. The TMP is ideal for MTR applications in the medium to high payload range.

Repeatability

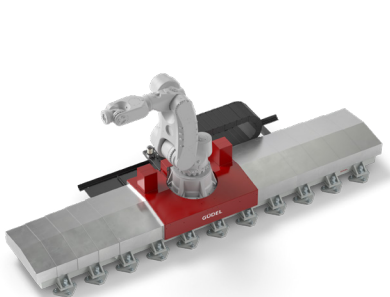
±0.005 mm

Robot weight (incl. payload)

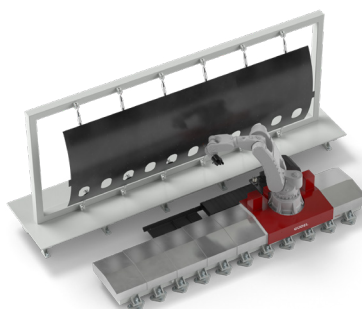
4 500 kg

Single segment up to

10 m



TrackMotion Precision TMP with telescopic cover and Machine Tool Robot (MTR)



Machining an aircraft fuselage with TMP, equipped with telescopic cover and MTR

Compatibility

Autonox Machine Tool Robots

Danobat dBot

Mabi MAX

Other manufacturers on request

Options

Telescopic cover to protect the linear kinematics

Application areas

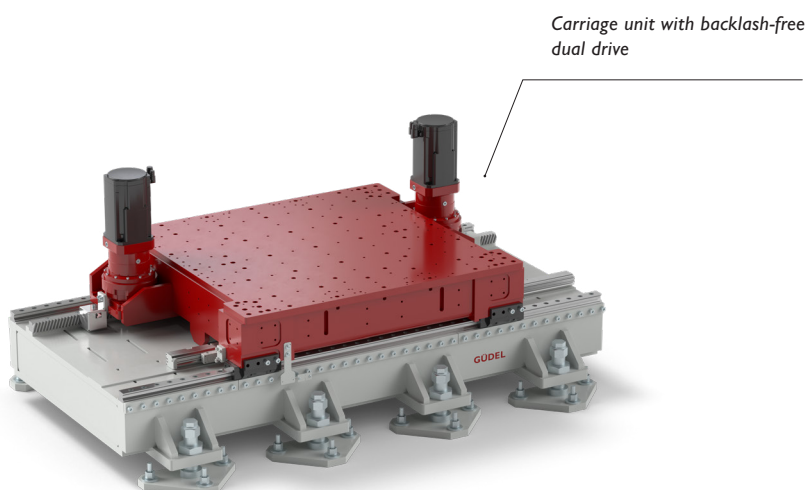
Large-part manufacturing

Aerospace

Metalworking



Find TrackMotion
Precision TMP



Technical data

Robot weight	4 500 kg (incl. payload)
Number of carriages	up to 2
Base height	up to 500 mm
Speed	up to 1 m/s
Acceleration	up to 2 m/s²
Repeatability	±0.005 mm
Stroke	1.5 m to 48.5 m, in 1 m increments
Floor mounting	Floor leveling kit with anchor rods
Guide system	Linear profile guideways
Drive system	Backlash-free drive with 2 high-precision Güdel NRH180 planetary gearboxes, hardened and ground helical rack and pinion
Noise emission	≤ 75 dB(A)
Direct measuring system	secondary absolute linear encoder

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automation on track

Güdel is an internationally active Swiss industrial company founded in 1954. As one of the world's leading suppliers of industrial automation solutions, Güdel offers its customers everything from a single source: from high-precision machine components to customized automation solutions for use in markets such as automotive, aerospace, railway, logistics, composites and machine tools.

Güdel technology is characterized by innovation, modularity, and quality. Worldwide, Güdel employs around 1 000 people at over 20 locations. Since its foundation, the company group has been owned by the founding family.