GÜDEL

FP-5-HP

Area gantry with long stroke, high dynamics and high payload

The high-performance area gantry FP-5-HP features a powerful Y-axis for automating extremely large working areas with high dynamics. The rigid bridge design with an exceptionally long stroke of up to 14 m enables short cycle times even under heavy payloads and increases overall system performance. Configurable X-axes and modular supports extend the three-dimensional workspace and allow flexible adaptation to different system layouts. The FP-5-HP is suitable for tire and wheel handling, crate handling, wooden components handling and large parts handling, as well as for layer picking, pick-and-place and process applications.

The Y-axis carriage serves as the central interface for grippers and Z-axes and is designed for a total load of up to 1.1 tons including the workpiece. The drive system, based on hardened Güdel rack-and-pinion systems combined with high-stiffness Güdel planetary gearboxes, ensures precise movements, high feed forces and a long service life. The compact anchoring system allows floor mounting with a minimum concrete thickness of 220 mm.

Performance data – Y-axis bridge

14 m

Max. payload Y-axis carriage up to

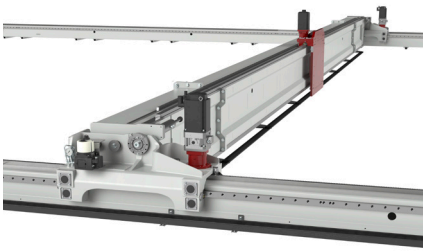
1,100 kg

Y-axis speed

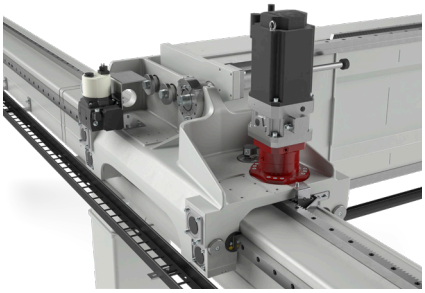
3.75 m/s

Y-axis acceleration

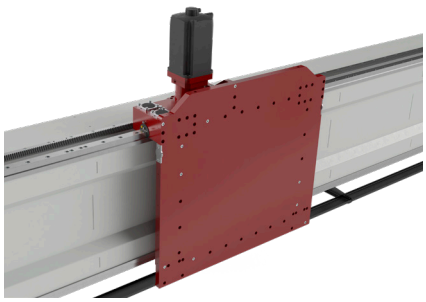
5 m/s²



Y-axis (bridge)



X-carriage unit



Y-carriage unit

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Compatibility / options

- Configurable X-axes
- Z-axes and customer-specific grippers
- Extendable supports and gantry lengths
- Integration into Güdel control systems

Application areas

- Tire and wheel handling
- Layer picking
- Handling of large components
- Pick-and-place applications
- Process applications
- Intralogistics

FP-5-HP area gantry with rigid bridge, modular design and flexible interface for grippers and Z-axis

Find the FP-5-HP

Technical data

Load capacity Y-axis carriage	**1,100 kg**
Payload Z-axis	**500 kg (vertical axis)**
Dynamics X-axis	**Speed up to 3 m/s, acceleration up to 3.5 m/s²**
Dynamics Y-axis	**Speed up to 3.75 m/s, acceleration up to 5 m/s²**
Dynamics Z-axis	**Speed up to 3 m/s, acceleration up to 6 m/s²**
Y-axis stroke	**up to 14 m (bridge)**
Z-axis stroke	**Standard stroke up to 2 m or application-specific (vertical axis)**
Leveling	**Vertical leveling via floor leveling kit on support legs, lateral leveling via beam leveling kit**
Drive system	**Rack-and-pinion drive with hardened helical gearing, Güdel planetary gearbox NGHP140**
Noise emission	**max. ≤ 75 dB(A)**

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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.

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