

## | PRODUCTS

Components

Robotics

## | INDUSTRIAL AUTOMATION

Factory Automation

Press Automation

Renewable Energies

Intralogistics

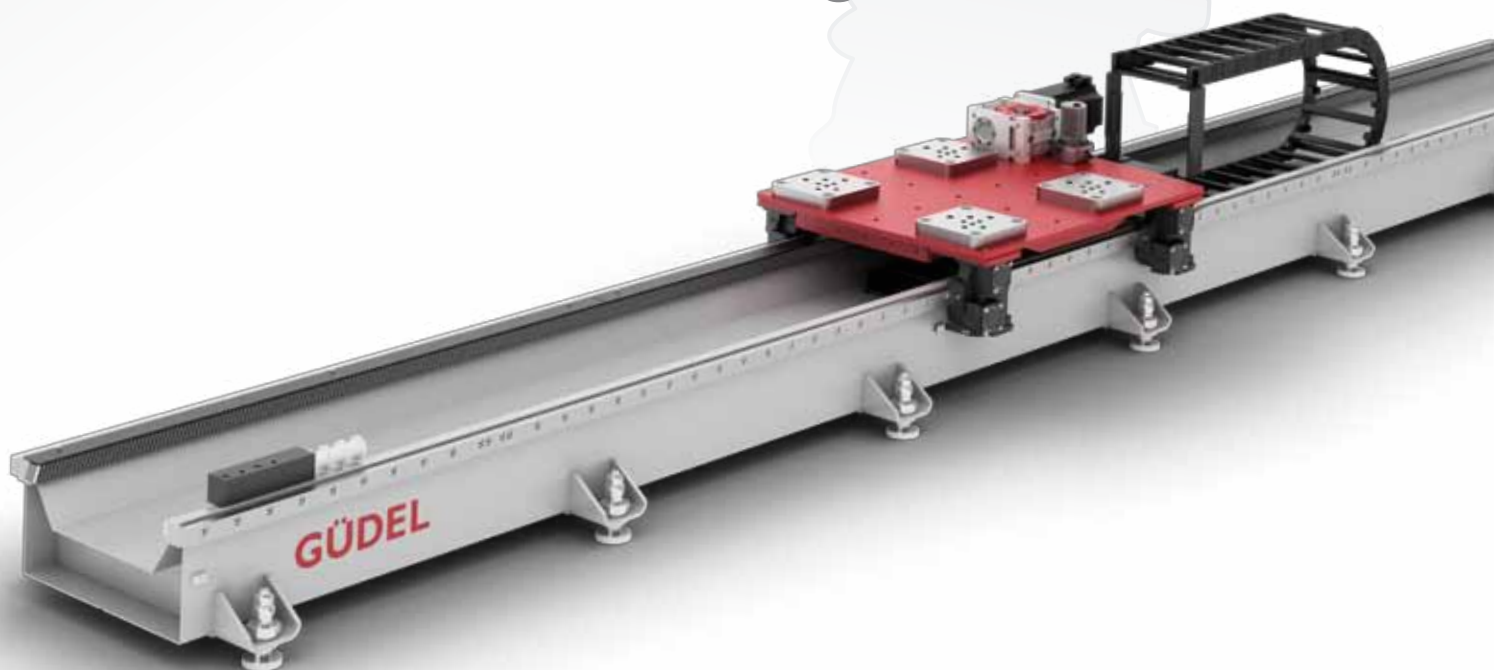
## GÜDEL Trackmotion TMF – a linear axis for robots

Positioning

Assembling

Painting

Welding



The new TMF adds precision and efficiency to your manufacturing processes

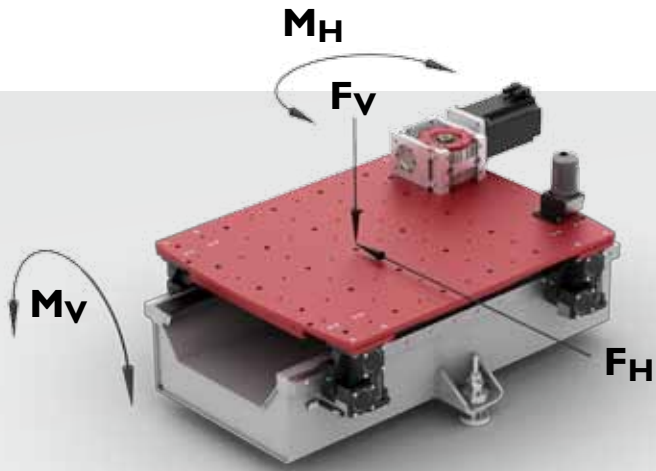
GÜDEL's expertise is in the development and manufacture of linear and drive components, and in the associated advisory services.

The Trackmotion TMF can move robots weighing up to five tons. The system is distinguished by its excellent stability and resistance to contamination. Due to the high degree of rigidity, the Trackmotion runs quietly and spreads the loads well, even when an emergency stop is performed. The guides have been precisely fitted into the closed, welded beam module. Another advantage is that the rollers can easily be adjusted from the outside.

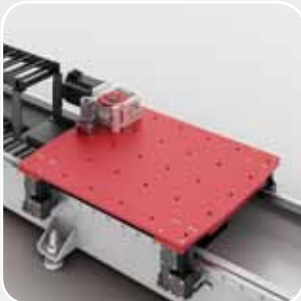
GÜDEL has also developed an online configuration programme, called the TMF Sizing Tool, for the new Trackmotion TMF. By selecting the manufacturer and the type of robot, the user can easily and quickly find the most suitable Trackmotion for his requirements.

Very dynamic, but capable of moving large payloads

Due to the high degree of rigidity of the carriage unit, GÜDEL's Trackmotion TMF easily absorbs the dynamic fundamental loads of articulated robots in every direction. The guide rollers, placed laterally and orthogonally, permit the greatest possible dynamics for the smallest frame size.



Easy to fit by means of adaptor plates matched to the robot.  
Versatile adaptor plates for over six hundred different types of robot.



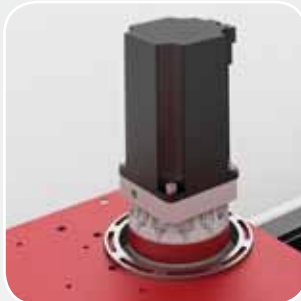
Standard layout of fixing points.



Full protection cover, safe to walk on, for special environments.



Baseplate with adaptor plates.



Planetary gears with hardened and ground racks for accurate applications.

Drive specifications

Axis		Y	
Max. speed	[m/min]		
TMF-1		240	240
TMF-2		240	240
TMF-3		210	210
TMF-4		210	210
Max. acceleration	[m/s²]		
TMF-1		12	5
TMF-2		7	3
TMF-3		7	4
TMF-4		5	3

Articulated robot   Static load

For full technical specifications, drawings, design tools and robot selection tables, visit our website: [www.gudel.com/Trackmotion](http://www.gudel.com/Trackmotion)



Trackmotion TMF used in composites processing

Large structures of composites (fibre-reinforced polymers), such as those used for fuselages, wing skins and rotor blades, are processed on a development platform. The processes involve the milling and drilling of carbon-fibre-reinforced plastics (CFRP) and glass-fibre-reinforced plastics (GRP). Two articulated robots mounted on a Trackmotion TMF with a full protection cover are in use.

Trackmotion TMF links up the conveyor tracks

Two parallel conveyor tracks are linked with a shuttle axis. The tracks collect the assembly pallets from the surrounding conveyor system and deliver them to various workstations. The payload for each conveyor track is approximately 1000 kg, while the maximum movement of the shuttle axis is about 16000 mm. The main axis should not exceed a height of 300 mm. The cycle time for a single shuttle run is about 20 seconds.

Legend: «Development platform for processing CFRP and GRP large structures, Fraunhofer Institute's research centre in Stade, Germany».

Reference value for applications with articulated robots and static load

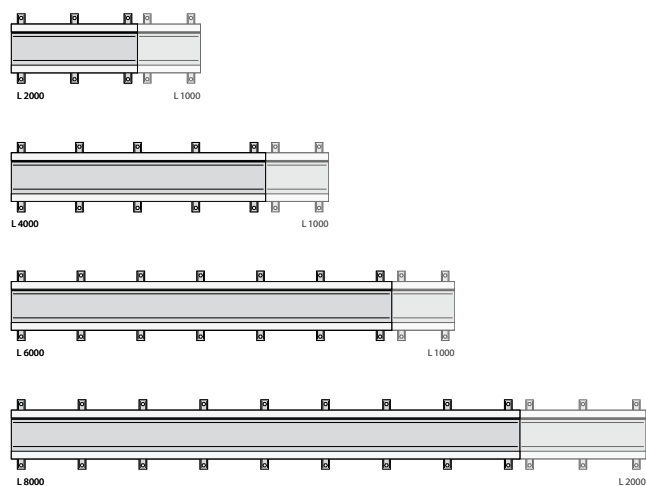




## Extend the working range – improve the margins

The Trackmotion TMF is available in modules of 1, 2, 4, 6 and 8 metres in length, so they can be combined to obtain any effective track length.

- Length 1 1000 mm
- Length 2 2000 mm
- Length 4 4000 mm
- Length 6 6000 mm
- Length 8 8000 mm

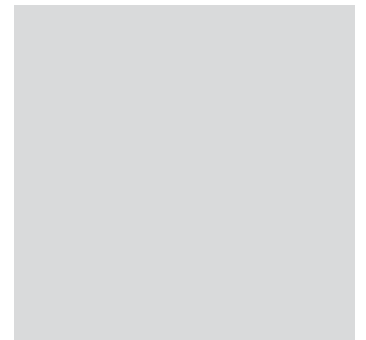


### GÜDEL's advantages:

### How you benefit:

1.	Advisory services, development and manufacture in its own factories	► One contact partner
2.	Enlarge the working range, improve the margins	► Reduces costs
3.	Very dynamic, large payloads, excellent precision	► Wide range of potential uses
4.	Products that are modularly extendable	► Can be easily matched to your production needs
5.	Customised solutions based on proven, standardised components	► Reliable solutions
6.	Wide range of options and versions	► Optimum solution for all industries
7.	Fifty years of experience in linear and drive systems	► Proven technology
8.	Swiss quality, worldwide manufacture	► Quality and precision
9.	Global presence in the key markets	► Local expertise
10.	Maintain productivity and reduce system downtimes	► GÜDEL service 24/7

we move you



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