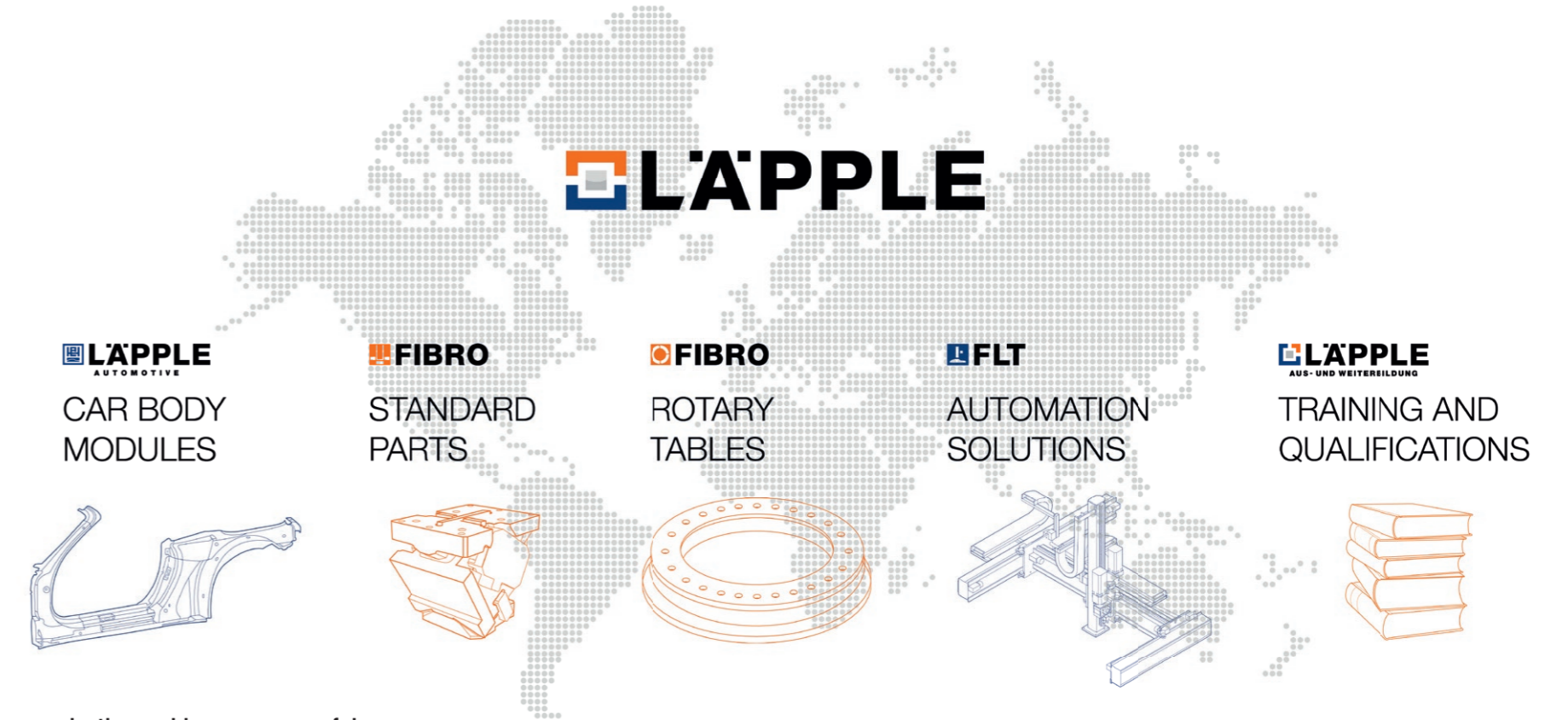


WE ARE YOUR SYSTEMS PARTNER FOR  
**ROTARY TABLES**



# FIBRO ROTARY TABLES MEMBER OF THE LÄPPLE GROUP



## Together we make the world more successful

As a family-run group of companies, LÄPPLE offers high-quality products and solutions in the industrial supply chain around the world. The high-performance and innovative range of products from these specialised companies includes forming and bodywork technology as well as automation plant, machine and tool construction.

With a wide range of expertise and many years of experience, LÄPPLE is a reliable partner in terms of its customers' interests and market developments. Around 2,700 employees develop, produce, sell and support a broad spectrum of innovative products in the world's industrial regions.

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## WE MAKE PRODUCTION PROCESSES **MORE EFFICIENT**

Whatever the application, FIBRO combines maximum precision with enormous processing strength as well as the shortest cycle times, thus making your production processes more efficient.

Our rotary tables are deployed as swivelling & positioning axes, as workpiece carriers in machine tools, and in the field of assembly work. Tens of thousands of rotary-table units around the globe are now integrated in high-productivity machines as major components. The quality, powerful technology and broad product range serve to satisfy our customers' requirements in the best possible way.

With its international position, FIBRO is your production partner, competent in resolving problems associated with rotary-table and NC applications across the globe. Our experts are available to assist you during and beyond the planning phase of your projects.





# ROTOCUTTING ROTARY TABLES FOR MACHINE TOOLS

## FIBROMOD®

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Modular series with worm drive, direct drive or twin drive

## FIBROMAX®

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Heavy-duty NC rotary tables with twin drive

## FIBROTAKT®

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Precision rotary tables with Hirth face gearing

## CUSTOM SOLUTIONS

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Customer-specific rotary tables

## FIBROTOR®

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Universal rotary tables with cam drive

## FIBROMAT®

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Heavy-load positioning tables

## APPLICATION SPECIALIST

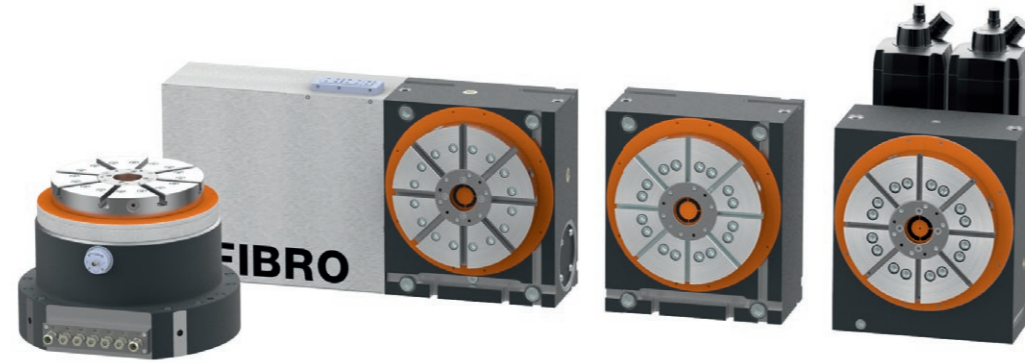
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Variety of options with great solution expertise



# ROTOMOTION ROTARY TABLES FOR AUTOMATION

# FOR USE IN MACHINE TOOLS ROTOCUTTING



## FIBROMOD®

### Modular series

- Modular design with clever interfaces
- Three available drive types
  - Worm drive:  
Combination of screw and gear drive with continuous, sliding contact; suitable for low speeds and short duty cycles
  - Direct drive:  
Synchronous internal rotor motors with integrated cooling jacket on the stator; wear-free and backlash-free
  - Twin-Drive:  
Preloaded gear transmission with two drives on one output gear; suitable for medium speeds and high duty cycles
- Optional sensor technology available

### Your benefits

- Service-friendly design allows easy accessibility and individual adjustments even after many years of industrial production
- Basic elements of the rotary table are standardized – allows optimum drive type to suit the application
- Problem-free conversion in case of application changes due to modular construction principle
- Innovative clamping concept with optional emergency stop function
- High dynamics, rigidity and precision



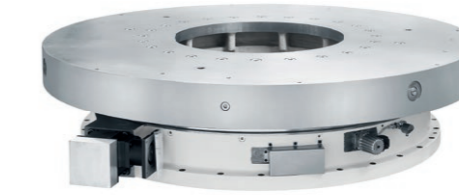
## FIBROMAX®

### Heavy-duty NC rotary tables with twin drive

- Transport loads over 55 tons
- Positioning as well as circular and simultaneous multi-axis machining
- Available in the modular system as a stand-alone rotary table and as a rotary-linear table

### Your benefits

- Roller bearing for highest cost-effectiveness and minimal energy consumption with lowest temperature rise
- Twin drive for highest precision and low backlash
- Design with force distribution optimisation for highest rigidity
- Pre-stressed, largely dimensioned axial/radial bearing for highest resistance to tilt and best axial runout accuracy and concentricity
- Highest geometric accuracy in the  $\mu$  range
- High-resolution encoder for excellent positioning accuracy (up to  $\pm 2''$ ) and repeat accuracy (up to  $\pm 0.25''$ )
- Hydraulic table top clamping for highest tangential rigidity without loading the drive components



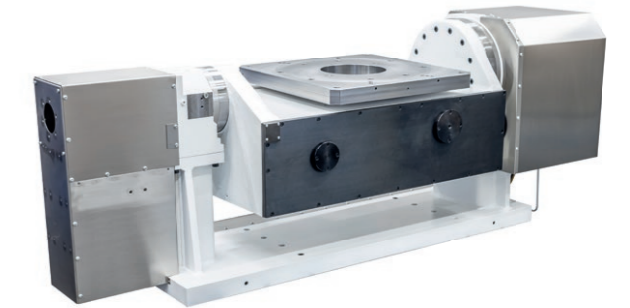
## FIBROTAKT®

### Precision rotary tables with Hirth face gearing

- For precision positioning applications up to  $\pm 1''$ , repeat accuracy up to  $\pm 0.1''$
- No NC controller required
- Driven and controlled hydraulically, electrically or pneumatically
- Also available as a built-in variant for integrated machine designs, e.g. custom rotary indexing table machines

### Your benefits

- Precision FIBRO face gearing for best geometric accuracies
- Hydraulic locking of the face gearing for highest resistance to tilt
- Flat design for maximum operating area
- Sturdy, wear-resistant design for long service life with low maintenance overhead
- Extremely broad spectrum of sizes, fittable with table top diameters up to 3,000 mm
- Transport loads up to 15 tons
- Tried and tested over decades: the pioneer amongst rotary tables for reliable process deployment in your production process



## CUSTOM SOLUTIONS

- Rotary-table solutions tailored to your applications, e.g.:
  - Rotary table multi-axis combinations
  - Planetary tables
  - Built-in rotary tables
  - Rotary-linear tables
  - Stand-alone rotary tables

### Your benefits

- Lowest tooling times with the most flexible positioning and machining capabilities
- The best of all our rotary tables combined into one solution
- From problem-solving to delivery – everything from a single source
- Many years of FIBRO expertise in the engineering and design of custom rotary-table solutions for highest flexibility and process reliability
- Highest level of production expertise in conjunction with a comprehensive range of machinery
- Alignment with interfaces and machine concepts required by the customer

# FOR USE IN AUTOMATION SYSTEMS ROTOMOTION



FIBROTOR®

### Universal rotary tables with cam drive

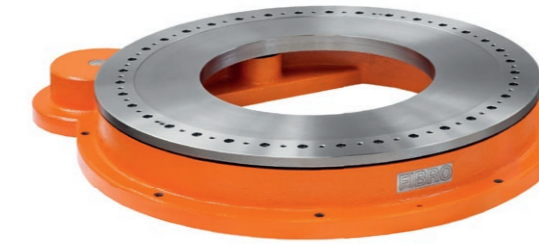
- Universal positioning applications, e.g. for assembly, packaging, printing, labelling or riveting applications
- Broad range of storage, transport and feed tasks
- General drive applications, e.g. as a drive of discontinuous belts or as a shift gearbox
- Available as an NC or indexing variant

### Four standard types – the right one for any task:

- FIBROTOR® EM – for precision, custom requirements
- FIBROTOR® ER – with the highest level of standardisation for the fastest possible delivery times
- FIBROTOR® EM.NC – for highly precise requirements with free programming
- FIBROTOR® VR.NC – for flexible motion tasks with high loads

### Your benefits

- Largely dimensioned axial needle bearing for highest transport loads
- Cam rollers with contact bearings for highest rigidity
- Hardened radial cams for optimal motion sequence and best power transmission
- Available with many additional options
- Mechanical interfaces for connection of customer-specific servo motors
- Horizontal and vertical mounting position



FIBROMAT®

### Heavy-load positioning tables

- For the dynamic and precise positioning of large and heavy fixtures and parts
- For superstructural parts up to 9,500 mm
- Ideal for shell and welded design applications
- Deployable as a setup station, large-format pallet exchanger and for general handling tasks
- Available as an NC or indexing variant

### Your benefits

- Heavy-duty positioning table with very large centre hole and extremely flat design
- Lubricated for life and maintenance-free for highest process reliability
- Perfect power cut and emergency stop behaviour through drive with spur gear toothings
- Available with many additional options



APPLICATION SPECIALIST

### Variety of available options

- Manifold
- Table top clamping
- Sealing air
- Special motors
- Position recognition
- Overflow protection
- Reinforced table top bearing
- And much more ...

### Great competence in the field of additional table tops

- Aluminum plates for every application
- Special manufacturing process for high axial runout accuracy
- High indexing accuracy at rotary tables with table top

### Large solution competence

- Large pool of already realized solutions
- Support in the development of system components

## FIBRO GMBH

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