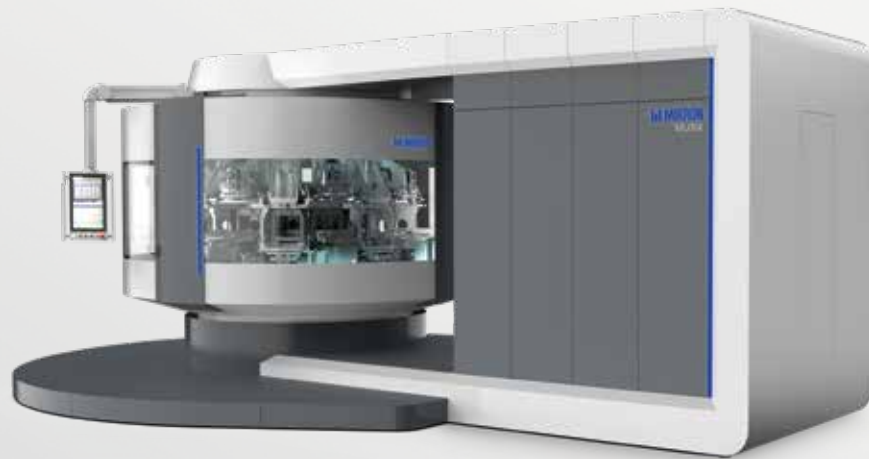


Mikron MultiX



Unrivalled possibilities - Dedicated configurable highly productive and flexible machining solutions

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Unrivalled possibilities - Dedicated configurable highly productive and flexible machining solutions

The platform

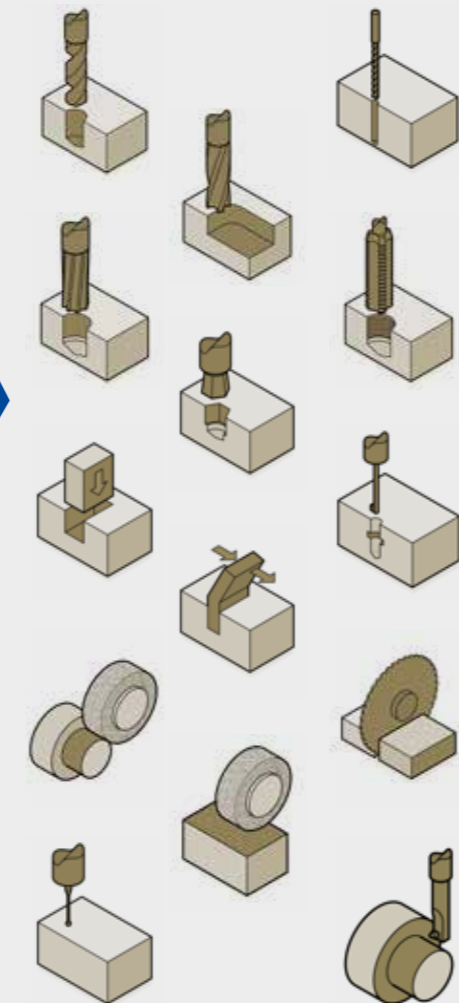
- » **Freely combine** the platform elements according to the Mikron MultiX rules and set up your machining solution. By choosing the optimal size and architecture for every unit and station you achieve superior productivity by less investment costs.
- » **Distinct technical features:** Direct machining from the bar (turning or milling), 3 machining units working simultaneously at each station, multispindle-lathe and transfer machine capabilities in one single machining system.
- » **A set of diverse machining units in different sizes** to serve all the requirements you might need. The machining units differ in size, number of axis, size of compatible spindles, strokes, stiffness, etc..
- » **Scalable:** Start producing with a single cycle Mikron MultiX configuration and add supplementary cycles according to volume growth.

We build your dedicated machining solution for the production of 50 up to 5'000'000 parts.

YOUR APPLICATIONS



HORIZONTAL AND VERTICAL (UPPER AND LOWER) MACHINING OPERATIONS



Configured for your specific needs such as: productivity, precision, stiffness, reconfigurability, size, cost, power... Freely combine the platform elements according to the Mikron MultiX rules and set up your machining solution.

MACHINE BASIS



TRANSFER TABLES

6 - up to 16 stations for different machine basis with optimized mass to reduce the transfer time.



Unique: Table with horizontal and vertical clamping combined

MACHINING UNITS

A set of diverse machining units in different sizes to serve all your requirements.

All standard machining-units are exchangeable they fit for any configuration you need.



FIXTURES

A full set of workpiece clamping and positioning systems for all requirements

- » 3-axis and 4-axis operations with vertical or horizontal clamping axis
- » 5-axis operations (swiveling axes)

Fix fixtures



Rotating and indexing fixtures



BC-axis



Unique: with very fast exchangeable clamping interface in workpiece-axis

SPINDLES

Diverse Spindle types like motorspindles, high-power electrospondles, doublespindles, U-axis.



ENCLOSURES



Ø 4.00m



Ø 4.00m

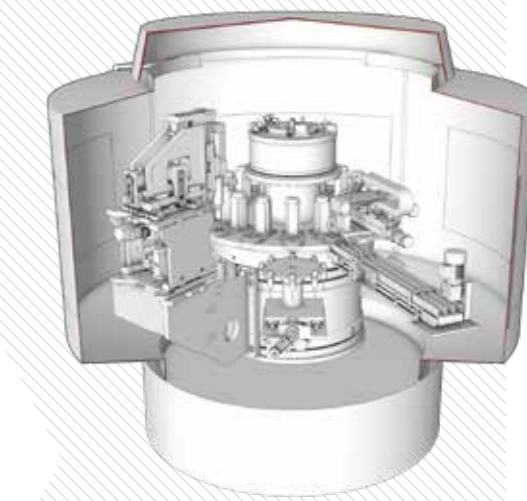
LOADING / UNLOADING



Standard: 3-axis pick and place

Up to 6-axis robot

YOUR DEDICATED MACHINING SOLUTION

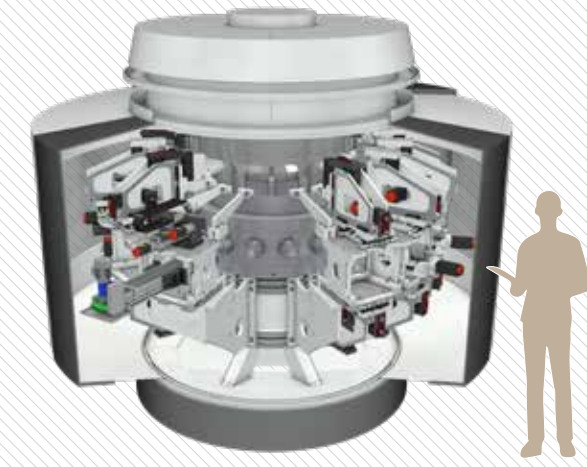


On request, easy reconfiguration
Remove the unit support box (with machining units) and reposition with highest repeatability due to a zero point clamping system (patented concept).

CONFIGURATION
EXAMPLES

MIKRON MULTIX-P
Available in 10-12-16 Stations

PRODUCTIVITY



Ø 4.00m
Working area from XxYxZ 50x80x150 mm up to 210x150x155 mm

GDI pump housing
in 4 different variants
Automotive industry

CONFIGURATION FOR HIGH VOLUME PRODUCTION OF FIST SIZE PARTS. INDEXING THROUGH VERY STIFF AND REPEATABLE HIRTH COUPLING.

- » 16 stations
- » 3-axis machining units
- » Spindle with HSK-63 / -40 / -32
- » Automatic tool changer

MIKRON MULTIX-C
Available in 6-8 Stations

FLEXIBILITY



Ø 4.00m
Working area XxYxZ up to 210x150x155 mm

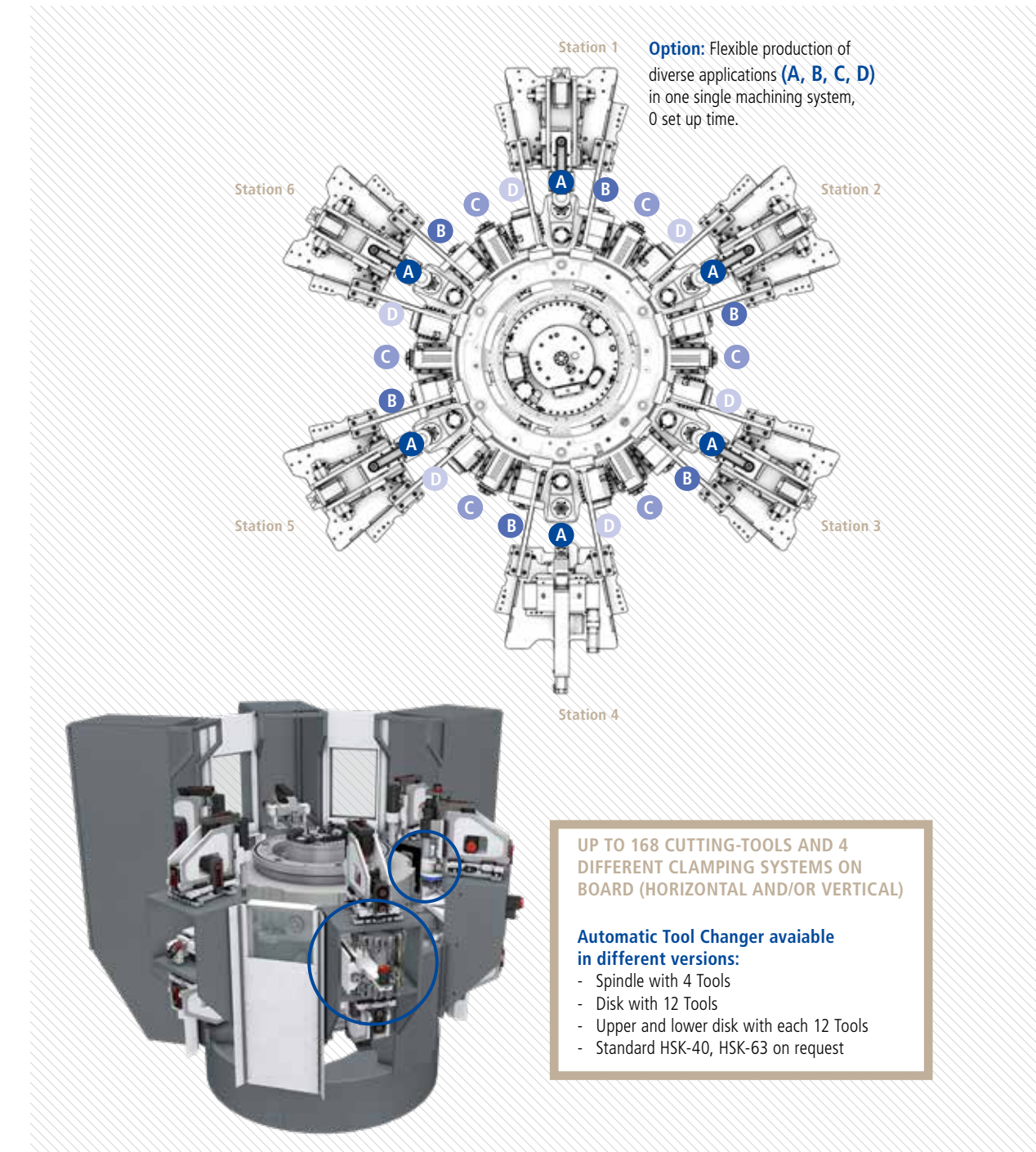
Part
Job shop

CONFIGURATION FOR HIGHEST FLEXIBILITY AND MASS PRODUCTION.

- » 8 Stations
- » 4 x horizontal clamping, turning
- » 4 x milling 5 axis
- » Spindle with HSK-63 / -40 / -32
- » Automatic tool changer



FLEXIBILITY:
LOT-SIZE ONE



APPLICATION
SAMPLES

MOBILITY – ELECTRO MOBILITY



MOBILITY - CO2 REDUCTION



HYDRAULIC/PNEUMATIC



CONSUMER/HOUSEHOLD



MEDICAL AND OTHERS





4.0 ready

CONTROL

FANUC Series 30i, ideally suited for complex high-speed, precision machining, equipped with multiple axis and multi-path functionalities.



MIKRON HMI - SOFTWARE

The modular Software and the Mikron HMI is designed to be extremely user-friendly and adaptable to every configuration – it makes operating, configuring and re-configuring your machine easy and efficient. Many Software options lead to a constant cycle time optimization and supports you in all different stages.

- » For best adaption: Standardization of mechatronic platform elements, customizable components
- » For best performance: Production scheduling, temperature monitoring, reduced inactivity
- » For best quality: SPC monitoring, automatic correctors management
- » For highest security: System data backups

miS 4.0 ready
Collect data, monitor machine performance as well as conditions and predict maintenance tasks.

The miS4.0 module is an IPC that collects, stores and normalizes data, allowing you to have complete overview and control of your production and machines.

- » Production Monitoring
- » Condition Monitoring
- » Failure Analysis
- » Mikron cloud and IoT platform (SAP Leonardo)

MIKRON miTool - THE NEXT LEVEL OF TOOL MONITORING

Mikron miTool monitoring becomes crucial to avoid unexpected machine downtime, machine breakage, tool damage, material scrap and the likely issues. Surface finish and tolerances can be improved with the detection of tool wear and damaged and expensive tools can be changed before any severe damage takes place.

- » Mikron miTool is easy to install and customers benefit greatly in terms of efficiency and expenditure.
- » Prevention of damage due to tool breakage or tool overload
- » Sensorless with automated learning of load limits (Option to integrate vibration and temperature sensors)
- » For turning, milling and drilling and smallest tool sizes (up to 1.5 mm diameter)
- » Powerful algorithm for efficient monitoring after the first workpiece.
- » It has a built-in learning function, allowing it to compensate for differences in processes.
- » The system maximizes the service lives of both the tools and Mikron high performance machines

Attractive pricing and fast return on invest

WHAT MAKES Mikron miTool SO SPECIAL FOR YOU

- » Highest sensibility and quality of data points deliver the finest and exact monitoring curves
- » Intuitive icon driven graphical interface for easiest use and monitoring by operators
- » Intelligent algorithm for advanced process optimization and cutting tool wear identification
- » Mikron miTool is able to storage data and history for each tool configuration and monitoring curve
- » Dashboard with statistical overview for each tool allows the optimization of the entire production process
- » Mikron miTool permits all modifications (set up, regulations...) without machine stop
- » Automatic actions programmable for each channel e.g. save data in database, send notification, preventively stop the machine
- » Perfectly integrated into Mikron high performance systems

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