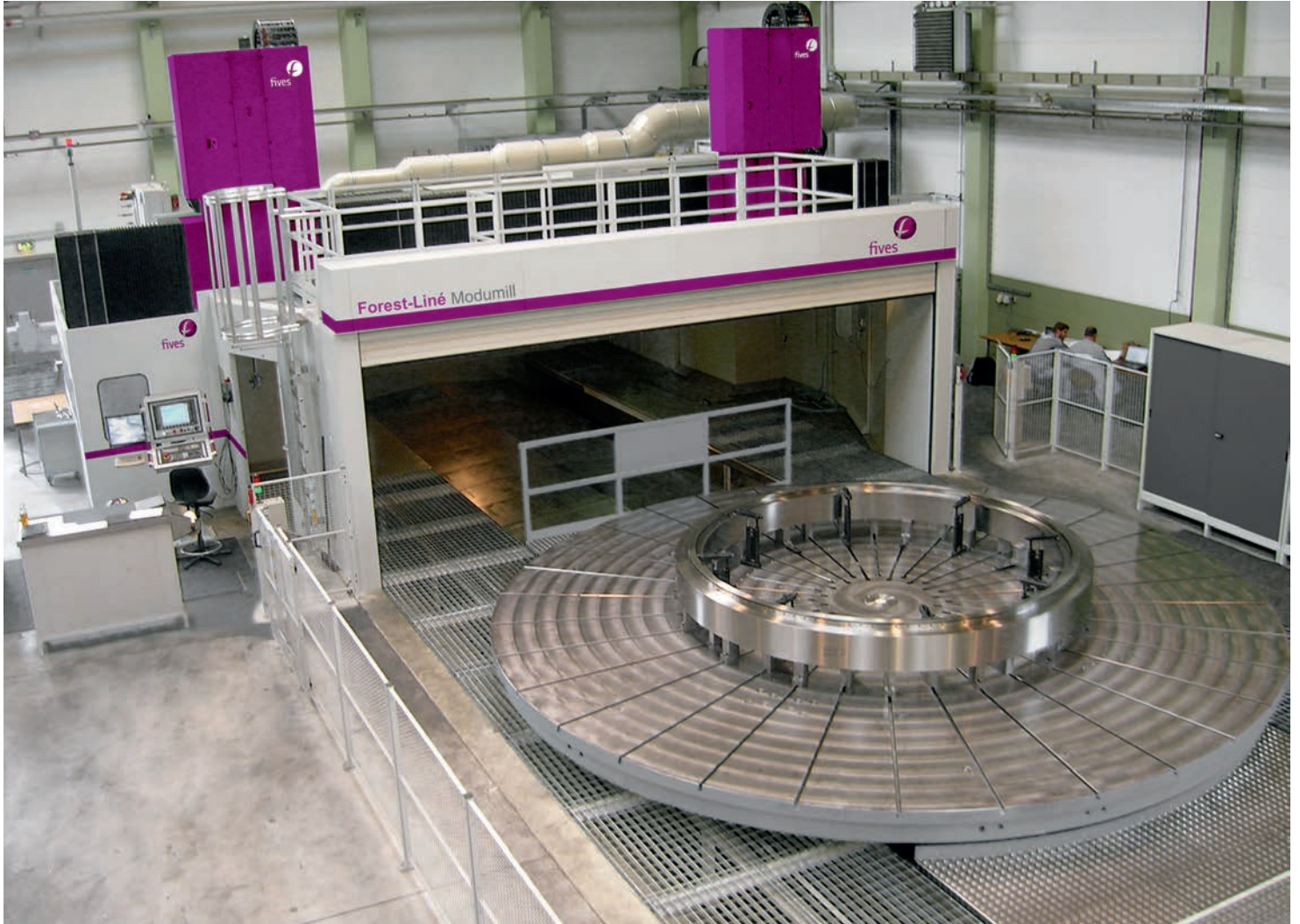


Focus on Mill-Turn solutions



Milling and Turning applications on a single machine

Forest-Liné Mill Turn solution : Medium to Large Rotary Plate together with Mill-Turn heads.

- In-house design & manufacturing
- Common drive system for milling and turning
- Sustainable performance level
- Availability to position the Rotary plate under either portal or gantry machine
- Capacity to process different materials: composites, soft metals, hard metals

Rotary Plate

The Mill-Turn rotary plate can be positioned under either portal or gantry machine to combine milling and turning operations.

The optimized hydrostatic support of the plate ensures, at the same time, an accurate positioning, a sustainable performance and a thermal mastering.

Direct measurements are provided through the high precision sensor included in the radial guidance bearing

The thermal regulation of the lubrication and coolant system ensures the flatness of the plate whatever load and rotary speed conditions.

The direct motorization without gearbox reduces maintenance and enhances reliability to its maximum.

Rotary plate specifications

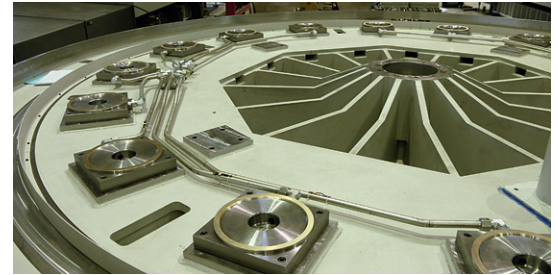
Work envelop	Up to 7 m (Up to 275 in)
Part Load	Up to 150 tons
Table Diameter	2.5 to 7 m (98 to 275 in)
Power	Up to 160 kW (218 hp)
Torque	Up to 100 000 Nm (73750 lbf.ft)
RPM	Up to 280 rpm

SECURE PROCESS:

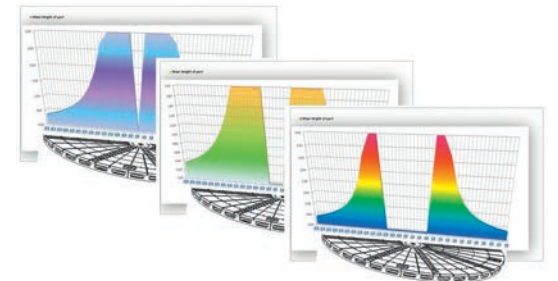
- Automatic imbalance detection
- Automatic calculation of the Inertia distribution
- Safety enclosure
- Video supervision



Rack and pinion drive



Hydrostatic guidance

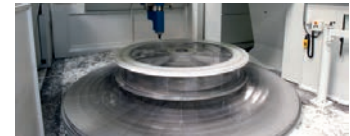


Calculations of the inertia distribution

Mill-Turn Head solutions

Automatic Accessories Changer AAC

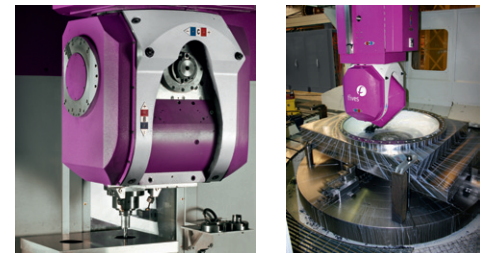
On all machining Fives systems, automatic accessories changer is able to receive turning and milling accessories.



Turning accessories

Dual head "Easymill"

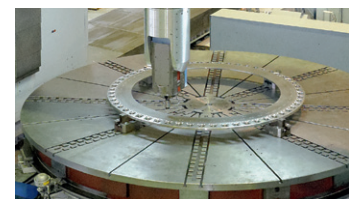
The dual head "Easymill" combines milling spindle and turning tool holder to ensure high productivity and work comfort => switching from turning to milling operations without having to change accessories.



Milling and turning process with the same head

5-axis high speed head

For machining soft materials, the HF spindle is configured to receive turning and milling tools by using the shaft lock system.



Possibilities to install milling and turning tools on the same HF spindle

Customized project on request

Some references in Mill-Turn solutions:
CASC - ITP - KRONES - VAI Clecim ...



fives ultimate machines
ultimate factory

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