

Vertical Machining Centers X.mill T 1000 FA



SKU:181438

The X.mill T series is the newest generation of our vertical machining centers, with modern high-performance compact CNC controls. Whether equipped with Siemens or Fanuc controls, this series offers an excellent price-performance ratio. Wide range of accessories for easy adaptation to meet your specific requirements. Using state-of-the-art FEM Analysis Software, we were able to achieve the highest machine frame rigidity in this machine class

- Optimized frame design using FEM analysis
- Extra wide Y-shaped column for increased rigidity
- Ø32 mm C3 preloaded ball screws for high accuracy
- Available with Siemens or Fanuc control
- High customization and automation possibilities

TECHNICAL SPECS

WORKING AREA

Table dimensions	1100 mm x 550 mm		
Table load capacity	800 kg		
Spindle nose-to-table surface distance	150 mm - 700 mm		
Spindle center-to-stand distance	520 mm		
Number of T-slots	5 positions		
T-slot (width x spacing)	18 mm x 100 mm		

TRAVELS

Travel X-axis	1000 mm
Travel Y-axis	550 mm
Travel Z-axis	550 mm

HEADSTOCK

Spindle speed	10000 1/min SK 40 ISO 7388-1 (DIN 69871)		
Spindle mount			
Spindle torque (max.)	63.7 Nm		

RAPID FEED

Rapid feed X-, Y-, Z- axis	36000 mm/min

FEED

Work feed X / Y / Z axis	10 m/min x 10 m/min

TOOLING

Number of tool stations	20 positions	
Tool Ø	100 (130) mm	
Tool weight max.	8 kg	
Tool-change time tool/tool	10 sec	

ACCURACIES

Positioning accuracies	± 0,005 mm
Repeatabilities	± 0,003 mm

DRIVE CAPACITY

Motor rating main drive	11 kW		
Motor rating X-axis	1.8 kW		
Motor rating Y-axis	1.8 kW		
Motor rating Z-axis	3 kW		
Total power consumption	15 kVA - 20 kVA		

CONTROL

Control Fanuc

MEASURES AND WEIGHTS

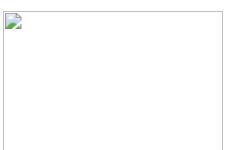
Overall dimensions (length x width x height)	2.62 m x 2.2 m x 2.7 m		
Weight	4600 kg		



Solid machine table with 5 slots

Cast iron body with large span

Delta column design for excellent cutting stability



High quality roller guides



PRODUCT DETAILS

- The new X.mill series is ideally suited for streamlined and cost-effective series production
- The entire series is optionally available with modern compact CNC controls from Siemens or Fanuc and thus offers the right control solution for many companies.

Machine Design

- The X.mill series machine frame was developed using the most advanced FEM analysis software on the market
- The thorough analysis of the entire machine bed construction and wide column base resulted in a design that is optimized for all load conditions
- All axes move on premium, fully enclosed linear guideways and precision ball screws and are driven by dynamic servo-motors

Spindle

- The main spindle is supported by multiple bearings to ensure excellent absorption and dissipation of forces during machining
- The advanced design of our spindles ensure low heat accumulation under load
- Large pre-loaded bearings ensure radial stability during heavy-duty machining
 operations
- High-temperature lubricants ensure optimum lubrication at any operating temperature and a long tool life

Tool Changer

- The robust armless 20-station tool changer brings flexibility to everyday production operations
- An optional 30-station tool changer with dual-arm gripper is also available

Handling

- The totally enclosed workspace features a large door and side doors for easy access, safety and cleanliness
- An electronic hand-wheel simplifies machine set-up
- Electrical equipment is divided into separate control cabinets for high and low voltage systems, which results in a significant reduction of heat accumulation and noise
- The automatic central lubrication system ensures proper lubrication of all lube points

CONTROLS & SOFTWARE

Fanuc Oi-MF (5) control

Fanuc Oi MF control

- Easy programming and operation, short learning curve
- User-friendly graphics display for visual verification of parts programs
- Use of existing programs without reprogramming requirements
 - High-speed machining and standard nano-interpolation
 - Fixed cycles and custom macro B for simplified parts programming
- State-of-the-Art functionality, like jerk limitation, nano smoothing, and Al Contour Control II - compatibile with previous version series 0 and series 0 imodels A, B, C and
- Series 0i Model F are the successor models of the Series 0 and Series 0i, which are the most popular CNC controls worldwide with over 700,000 installations.
- With up to 4 simultaneously controlled axes, the CNC Series 0i provides the best controls for highly demanding machine tools.

STANDARD EQUIPMENT

Fanuc Oi-MF (5) control Shield-type 20-station tool changer Screw-type chip conveyor with bucket Ridgid tapping Autom. power off Manual coolant spray gun Coolant system Spindle air system Heat Exchanger for electric control cabinet Fully enclosed work space (without top cover) Electronic hand-wheel USB port Automatic central lubrication Work lamp 3-color signal lamp Operating tools Leveling bolts and blocks Preparation for Renishaw TS 27 R

OPTIONAL EQUIPMENT

- Top cover for X.Mill/Vector 650-1000, SKU : 252819
- Renishaw OMP 40 Workpiece Measuring, SKU : 252820
- Upg from Fanuc Oi-MF (package 5) to (package 1), SKU : 252888
- Manual guide 0i, SKU : 252889
- Connection for 4th axis (wiring only and axis chart), SKU : 253019
- CTS 30 bar system with dual filter system, SKU : 253369
- Disc Type Oil Skimmer, SKU : 253383 Chip Wash System, SKU : 253384
- Renishaw Tool Setter TS27R, SKU : 253386
- Arm Type BT-40/SK 40 24-Tool-Changer, SKU : 253436
- Spindle Oil Cooler, SKU : 253440
- Renishaw OTS wireless tool setter (OTS), SKU : 253598
- Spindle speed upgrade to 12.000 rpm direct drive no CTS, SKU : 253610
- Arm type ATC upgrade from 24 to 30 tools (BT40) for X.Mill T, SKU : 253611
- preparation for Renishaw OMP40, SKU : 253613
- manual tailstock ST-125T for rotary table for X.mill, SKU : 253617
- manual tailstock ST-170T for rotary table for X.mill, SKU: 253618
- manual tailstock ST-255T for rotary table for X.mill, SKU : 253620
- manual 5" chuck for rotary table for X.mill, SKU : 253621 manual 6" chuck for rotary table for X.mill, SKU : 253622 manual 9" chuck for rotary table for X.mill, SKU : 253624

- Z axis travel upgrade from 550 to 800 mm for X.mill, SKU : 253625
- Z axis travel upgrade from 550 to 800 mm for X.mill, SKU : 253626
 - CTS 20 bar system with dual filter system, SKU : 253627
 - Manual guide i (requires Fanuc Package 1), SKU : 253631
- 125 mm diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253639
 - 170 mm diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253640
- 210 mm diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253641
- 250 mm diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253642

- Renishaw OMP 60 workpiece measuring system (BT40), SKU : 253681
 Spindle speed upgrade to 12000 rpm, belt-type, SKU : 253781
 Air through spindle for Vector, SKU : 253782
 Upgrade from worm-gear to chain-type chip conveyor for X.Mill T 1000, SKU : 253837
 Upgrade Spindle Taper from SK40 to BBT 40, SKU : 253951