



# Vertical Machining Centers X.mill T 700 FA

## SKU : 181441

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	35 in x 18 in
Table load capacity	1320 lbs
Spindle nose-to-table surface distance	4 in - 26 in
Spindle center-to-stand distance	20 in
Number of T-slots	5 positions
T-slot (width x spacing)	0.71 in x 3.15 in

### TRAVELS

Travel X-axis	27.6 in
Travel Y-axis	18 in
Travel Z-axis	22 in

### HEADSTOCK

Spindle speed	10000 rpm
Spindle mount	SK 40 ISO 7388-1 (DIN 69871)
Spindle torque (max.)	39 ft.lb.

### RAPID FEED

Rapid feed X-, Y-, Z- axis	1417 in/min
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### FEED

Work feed X / Y / Z axis	33 fpm x 33 fpm
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### TOOL HEAD

Number of tool stations	20 positions
Tool Ø	100 (130) in
Tool weight max.	18 lbs
Tool-change time tool/tool	10 sec

### ACCURACIES

Positioning accuracies	± 0,0002" in
Repeatabilities	± 0,00012" in

### DRIVE CAPACITY

Motor rating main drive	14.8 Hp
Motor rating X-axis	2.4 Hp
Motor rating Y-axis	2.4 Hp
Motor rating Z-axis	4.02 Hp
Total power consumption	15 kVA - 20 kVA

### CONTROL

Control	Fanuc
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### MEASURES AND WEIGHTS

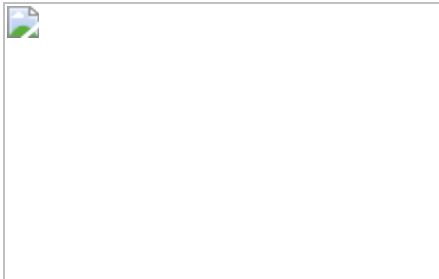
Overall dimensions (length x width x height)	98 in x 87 in x 100 in
Weight	9240 lbs



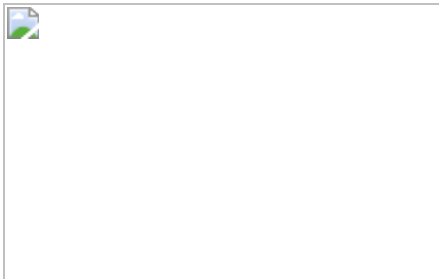
*Solid machine table with 5 slots*



*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 preloaded 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 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 AI Contour Control II - compatible with previous version series 0 and series Oi models A, B, C and D
- Series Oi Model F are the successor models of the Series 0 and Series Oi, which are the most popular CNC controls worldwide with over 700,000 installations.
- With up to 4 simultaneously controlled axes, the CNC Series Oi provides the best controls for highly demanding machine tools.

## STANDARD EQUIPMENT

Fanuc Oi-MF control  
Shield-type 20-station tool changer  
Screw-type chip conveyor with bucket  
Rigid 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  
Alignment bolts and alignment plates  
Prepared for Renishaw TS 27

## OPTIONAL EQUIPMENT

- Top cover for X.Mill/Vector 650-1000, SKU : 252819
- Renishaw OMP 40 workpiece measuring, SKU : 252820
- Upgrade Fanuc Oi-MF (package 5 to package 1), SKU : 252888
- Manual guide Oi, SKU : 252889
- Connection for 4th axis (wiring only and axis chart), SKU : 253019
- Coolant flow through spindle, 30 bar, with filter system, SKU : 253369
- Oil skimmer, SKU : 253383
- Chip flush-out system, SKU : 253384
- Renishaw TS27R tool measuring system, SKU : 253386
- Dual-arm gripper with 24 tool stations, BT40, SKU : 253436
- Spindle oil cooler, SKU : 253440
- Renishaw OTS wireless tool setter (OTS), SKU : 253598
- Spindle speed upgrade 10,000 to 12,000 rpm (belt type), SKU : 253609
- Spindle speed upgrade to 12,000 rpm direct drive without CTS, SKU : 253610
- Upgrade ATC from 24 to 30 tools (BT40) for X.Mill T, SKU : 253611
- Upgrade: from worm-gear chip conveyor to chain-drive chip conveyor, SKU : 253612
- Prepared for Renishaw OMP40, SKU : 253613
- Manual tailstock ST-125T for rotary table, SKU : 253617
- Manual tailstock ST-170T for rotary table, SKU : 253618
- Manual tailstock ST-255T for rotary table, SKU : 253620
- Manual chuck, 5", for rotary table, SKU : 253621
- Manual chuck, 6", for rotary table, SKU : 253622
- Manual chuck, 9", for rotary table, SKU : 253624
- Preparation for CTS Setup, SKU : 253626
- Coolant flow through spindle, 290 psi, with filter system, SKU : 253627
- Manual guide i (requires Fanuc Package 1), SKU : 253631
- 4.92" diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253639
- 6.69" diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253640
- 8.27" diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253641

- 9.84" diam. 4th axis (4th axis, servo motor, driver, air brakes)(Fa), SKU : 253642
- Renishaw OMP 60 workpiece measuring system (BT40), SKU : 253681
- Air through spindle for Vector, SKU : 253782
- Spindle upgrade from ST40 to BBT40 for X.Mill/Vector 650-1000, SKU : 253951