



# Vertical Machining Centers X.mill 450



## SKU : 181366

The X.mill 450 is a reliable, compact Machining Center with extensive equipment for lean and cost-effective production. This model is very popular among customers who are looking for a quick and compact solution for small workshops, while enjoying the advantages of a powerful CNC.

- Compact design
- High-quality components and extensive equipment
- Siemens 828D control
- Robust 12-station tool changer

## TECHNICAL SPECS

### WORKING AREA

Table dimensions	700 mm x 260 mm
Table load capacity	200 kg
Spindle nose-to-table surface distance	80 mm - 500 mm
Spindle center - column	330 mm
Number of T-slots	3 positions

### TRAVELS

Travel X-axis	450 mm
Travel Y-axis	260 mm
Travel Z-axis	420 mm

### HEADSTOCK

Spindle speed	10000 1/min
Spindle mount	SK 40 ISO 7388-1 (DIN 69871)
Torque, constant	24 Nm

### FEED

Rapid feed	12000 mm/min
Work feed	10000 mm/min

### TOOLING

Number of tool stations	12 positions
Tool Ø	90 (150) mm
Tool length (max.)	250 mm
Tool weight max.	8 kg
Tool-change time tool/tool	1.8 sec

### ACCURACIES

Repeatability	0.008 mm
Positioning accuracy	0.006 mm

### DRIVE CAPACITY

Main drive, continuous load	3,7/5,5 kW
Total power consumption	10 kVA

### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	2.11 m x 1.78 m x 2.25 m
Weight	1800 kg



## PRODUCT DETAILS

### The proven X.mill series for streamlined and cost-effective machining

#### Machine Design

- Solid cast-iron machine body integrates many years of experience and state-of-the-art technology
- All axes run on premium, totally enclosed linear guideways and precision preloaded ball screws for high accuracy and low friction
- The wide machine table features 3 T-slots and 200 kg load capacity
- The work area is easily accessible through wide opening doors

#### Spindle

- The spindle is supported by multiple bearings to ensure excellent absorption and dissipation of forces during machining
- An ST 40 spindle mount provides maximum rigidity and allows a wide selection of tools
- Includes a high-quality belt-driven spindle unit with speeds up to 10,000 rpm

#### Tool Changer

- A 12-station tool changer provides for increased productivity, flexibility and safety during machining
- The horizontal design does not require additional grippers, is very robust, and can handle very heavy tools

#### Control

- The Siemens 828D control with Siemens drives is the optimum solution for demanding milling jobs

#### Equipment

- An electronic hand-wheel simplifies machine set-up
- Electronics are protected within a fully enclosed control cabinet, and a powerful heat exchanger manages the temperature
- Work space is totally enclosed and can be equipped with an exhaust system
- Spray guns for coolant and compressed air are available for cleaning workpieces and workspaces
- An automatic central lubrication system reliably supplies all lubrication points and simplifies maintenance

## STANDARD EQUIPMENT

Siemens 828D control  
 Carousel-type 12-station tool changer  
 Enclosed work area (without top cover)  
 Automatic central lubrication  
 Coolant System  
 Manual coolant spray gun  
 Air gun  
 Heat exchanger for electric control cabinet  
 Electronic hand-wheel  
 Work lamp  
 3-color signal lamp  
 Operating tools  
 Operator instructions

## OPTIONAL EQUIPMENT

- Spindle oil cooler, SKU : 254265
- Chip flush-out system, SKU : 254266
- Oil skimmer, SKU : 254267
- Top cover, SKU : 254268
- Siemens Function: Shopmill, SKU : 254269
- Chain-type chip conveyor, SKU : 254270



## **KNUTH on YouTube**

### Information to the point

On our YouTube channel you can find videos for nearly all machines from our program. We show the machines from current deliveries and you get an impression of the handling, the processing quality and the machining performance.

**Are you interested in a machine for which you cannot find a current video?  
Please feel free to contact us!**