

# Conventional Vertical Milling Machines

## Servomill® UWF 12

**SKU : 301257**

The versatile Servomill UWF 12 to 15 with servo-conventional feed technology and the universal milling head that can be swiveled on two planes is the top model of the UWF milling machines. The series has a particularly large work area and the most powerful main spindle drive. With electronic stops, electronic handwheels and additional milling functions, the Servomill makes the advantages of large-scale CNC technology accessible without programming. The machines are mainly used in toolmaking and in training and manufacturing departments.

- Large work area and high drive capacity
- Servo-conventional feed technology
- Preloaded ball screws on all axes
- Electronic hand-wheels
- Universal cutter head with 2 swivel axes



### TECHNICAL SPECS

#### WORKING AREA

Table dimensions	1600 mm x 500 mm
Table load capacity	1000 kg
Number of T-slots	5 positions
T-slots, width	18 mm
T-slots, spacing	80 mm

#### TRAVELS

Travel X-axis	1200 mm
Travel Y-axis	700 mm
Travel Z-axis	500 mm

#### MILLING HEAD

Speed range (2)	30-390 / 390-2050 1/min
Spindle mount	SK 50 DIN 2080
Swivel angle	360°
Spindle center-to-table distance	50 mm - 550 mm

#### RAPID FEED

Rapid feed X-axis	2200 mm/min
Rapid feed Y-axis	2200 mm/min
Rapid feed Z-axis	1100 mm/min

#### FEED

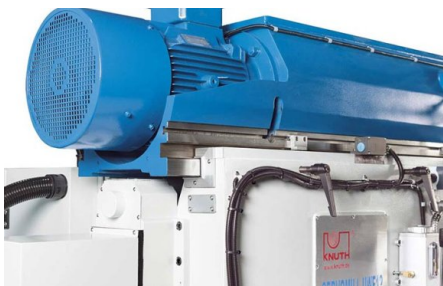
Feed speed X-axis	10 mm/min - 1000 mm/min
Feed speed Y-axis	10 mm/min - 1000 mm/min
Feed speed Z-axis	5 mm/min - 500 mm/min

#### DRIVE CAPACITY

Motor rating main drive	11 kW
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#### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	2.2 m x 2.5 m x 2.1 m
Weight	4500 kg



## PRODUCT DETAILS

### Conventional milling, now easier, more precise and more efficient due to integrated electronics

- The Servomill represents a new generation of advanced milling machines that are operated like a conventional machine
- This machine features a user-friendly design, significantly higher precision and increased machining capacity
- Very high reliability and long service life of all components ensure drastically reduced maintenance and increased availability
- Rigid, torsion-proof construction with dovetail guide on X-axis, and wide square guides on Y and Z
- Large work table and long travels on all axes
- All guides are hardened, ground, and supplied with oil by a central lubrication unit
- Universal swivel head swings easily to a horizontal position
- Infinitely variable feed speeds and rapid feeds can be synchronized to spindle speed by the push of a button
- Preloaded ball screw for easy and precise Feeds, and zero backlash
- Robust transmission with hardened and ground gears

### Servomill - Highlights

- Control developed and built in Germany
- Positioning control for traveling pre-selected paths on all axes
- Zero backlash preloaded ball screws
- Servo-motors on all axes, infinitely variable feed, rapid feed, and speed control
- Electronic spindle load indicator
- Electronic hand-wheels on all axes
- X, Y and Z axis movement via joystick technology
- Integrated position indicator with precision glass scale

### Your Advantages:

- Easy to use: intuitive operation - practical layout of control elements and streamlined function
- Automatic feed on all axes and infinitely variable rapid feed
- Set limit stops on any axis with the push of a button - 3 stop positions per axis can be stored
- More precise: operated via electronic hand-wheels - axes are powered by high-quality servo drives that translate your hand movements with the precision and dynamics of modern CNC machines
- More reliable: drives, spindles, and measuring systems are totally enclosed or mounted in protective enclosures and virtually maintenance-free
- Electronics - made in Germany
- More capacity: this machine only uses premium drive components that are designed for continuous operation
- Maintenance-free: no regular maintenance needed for the entire feed drive
- Advanced Feed Technology:
- Axes are powered by high-quality servo drives that translate your hand movements with the precision and dynamics of modern CNC machines
- Reliable, maintenance-free mass production technology
- High rapid feed rate for reduced machine down-times
- Ball screw drive on all axes:
- Considerably less errors due to looseness (backlash), resulting in significantly higher precision
- Significantly reduced friction, no stick-slip effect, reduced heat buildup, minimal wear
- Electronic hand-wheels:
- Micro-control via electronic hand-wheels offering the same handling and positioning as with a conventional machine, just smoother and more precise
- Joystick control:
- Maximum operator comfort for axis movements
- Easy handling during sequential processing
- Electronically controlled fixed stops:
- Set 2 limit stops at 3 positions on each axis by the push of a button - these buttons are grouped around the feed switch for intuitive control
- This ensures high repeatability during coordinate drilling or pocket cutting, and significantly more positions can be set up than on conventional machines
- Electronic spindle load indicator:
- Assists the operator in the most efficient utilization of machine and tool capacities
- Reliable indicator helps avoid damages caused by overloads

### X.pos Plus - You will gain productivity, quality and comfort

- Default coordinates

- Hole circle pattern calculation
- Vibration filter feature
- Mm/inch conversion
- 8 display languages
- Calculator function
- High-resolution display with excellent legibility
- State-of-the art electronics and a very robust, completely sealed enclosure ensure maximum safety and optimum production conditions
- A major focus during the development and selection of electronic components was the achievement of maximum resistance against external interferences and maintaining low temperature levels
- Background colors of the display can be changed as required or desired
- The keyboard membrane is highly resistant and yet very comfortable to touch
- The display also provides a key to toggle between radius and diameter
- The axis position is maintained when the display is turned off
- Graphical support with residual path display and sketch drawing
- Linear and non-linear length correction is possible
- Easy mounting, easy electric connection, and maintenance-free operation

## STANDARD EQUIPMENT

3-axis position indicator X.Pos 3.2  
 Electronic hand-wheels  
 LED work lamp  
 Central lubrication  
 Coolant system  
 Operating tools  
 Operator manual