

### SKU : 301254

The servo-conventional universal milling machine has the latest CNC technology, but can be operated conventionally. In addition to the universal milling head, which can be swiveled in two planes, the machine is also equipped with a horizontal spindle and a more powerful main spindle drive. The servomotor feed with electronic handwheels and the additional milling functions make the advantages of CNC technology accessible without programming. With its extensive equipment, this model is ideal for repair workshops as well as training and fabrication departments.

- Servo-conventional feed technology
- Preloaded ball screws on all axes
- Electronic hand-wheels
- Universal cutter head with 2 swivel axes
- Horizontal spindle with its own drive



## TECHNICAL SPECS

### WORKING AREA

Table dimensions	1600 mm x 320 mm
Table load capacity	300 kg
Number of T-slots	3 positions
T-slots, width	18 mm
T-slots, spacing	80 mm

### TRAVELS

Travel X-axis	1300 mm
Travel Y-axis	290 mm
Travel Z-axis	450 mm

### MILLING HEAD

Speed range (2)	60-360 / 360-1800 1/min
Spindle mount	ISO 50
Swivel angle	360°
Upper beam travel	550 mm
Spindle center-to-table distance	186 mm - 636 mm

### RAPID FEED

Rapid feed X-axis	5000 mm/min
Rapid feed Y-axis	3000 mm/min
Rapid feed Z-axis	1500 mm/min

### HORIZONTAL MILLING SPINDLE

Speed range (2)	60-360 / 360-1800 1/min
Spindle mount (horizontal)	50 SK
Spindle center-to-table distance	10 mm - 460 mm

### FEED

Feed speed X-axis	0 mm/min - 1000 mm/min
Feed speed Y-axis	0 mm/min - 1000 mm/min
Feed speed Z-axis	0 mm/min - 1000 mm/min

### DRIVE CAPACITY

Motor rating main drive	7.5 kW
-------------------------	--------

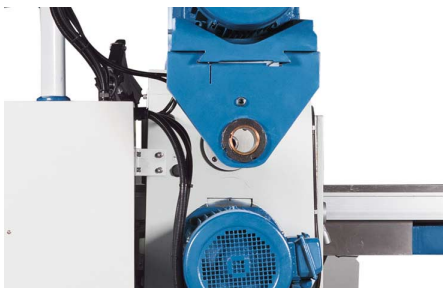
### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	2.52 m x 2.1 m x 2 m
Weight	2800 kg

## PRODUCT DETAILS



*Universal swivel head and horizontal spindle*



*Powerful drives for vertical and horizontal spindles*

### 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
- Extremely rigid machine bed made of high-strength HT-200 cast-iron with heavy ribbing
- Precision-ground guideways with hardened surfaces for long-term accuracy and wear-resistance
- Quiet precision spindle gears with hardened and ground gears
- Powerful 7.5 kW horizontal spindle and heavy-duty top beam with outer arbor ensure excellent machining results when working with long cutter arbors
- Servo-conventional drives on all axes, infinitely variable with fast rapid feeds
- Preloaded ball screws on all axes ensure superior precision and long-term wear-resistance

### 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
- With speeds up to 5000 mm/min
- 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  
Reducing sleeve (ISO 50 / MK4)  
Milling arbors (27, 32 mm)  
ISO 50 collet chucks incl. collets up to 16 mm (8 pieces)  
Coolant system  
Work lamp  
Chip tray  
Draw bar  
Operating tools  
Operator instructions