

Conventional Vertical Milling Machines

VHF 3.2



SKU : 301411

The versatile universal milling machine complements the proven top model of the VHF series. The combination of horizontal spindle, swiveling vertical milling head and large clamping table, with an increased speed range and the infinitely variable servo feed, extend the wide range of applications of the VHF series. Together with the extensive equipment, this model is also ideally suited for milling in repair workshops as well as training and production departments.

- Swiveling cutter head with automated quill feed
- Horizontal spindle with its own drive
- Swiveling milling table
- Servo-motor for infinitely variable feed on all axes
- Extensive standard equipment

TECHNICAL SPECS

WORKING AREA

Table set up area	1370 mm x 320 mm
Table load capacity (max.)	300 kg
Table swivel range r/l	45 deg
Number of T-slots	3 positions
T-slot (width x spacing)	14 mm x 80 mm

TRAVELS

Travel X-axis	1000 mm
Travel Y-axis	360 mm
Travel Z-axis	400 mm

VERTICAL MILLING HEAD

Spindle mount (vertical)	SK 40 DIN 2080
Throat	178 mm - 868 mm
Vertical spindle-to-table surface distance	160 mm - 560 mm
Milling head swivel range	90 deg
Cutter head tilt angle	45 deg
Spindle speed (infinitely variable) (L)	70 1/min - 450 1/min
Spindle speed (infinitely variable) (H)	450 1/min - 3600 1/min

RAPID FEED

Rapid feed X-/ Y-axis	1335 mm/min
Rapid feed Z-axis	1000 mm/min

HORIZONTAL MILLING HEAD

Spindle speeds	35 1/min - 1500 1/min
Spindle mount	SK 40 DIN 2080
Horizontal spindle-to-table surface distance	75 mm - 475 mm

FEED

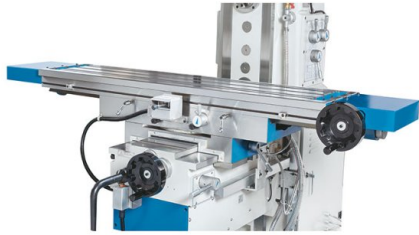
Feed speed X-axis	30 mm/min - 830 mm/min
Feed speed Y-axis	30 mm/min - 830 mm/min
Feed speed Z-axis	23 mm/min - 625 mm/min

DRIVE CAPACITY

Main drive motor rating (vertical)	3.7 kW
Main drive motor rating (horizontal)	3 kW

MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	1.9 m x 1.75 m x 2.35 m
Weight	1950 kg



Precision-ground guideways with hardened surfaces for long-term accuracy and wear-resistance



PRODUCT DETAILS

- Extremely rigid machine bed made of high-strength HT-200 cast-iron with heavy ribbing
- Quiet, precision-made headstock gears with hardened and ground gears
- The milling table features a large setup area and can be rotated in linear direction
- The cutter head quill features a 3-step automatic feed and automatic depth shut-off, but can also be moved manually
- For angular bores, the vertical cutter head swivels in two directions: $r + l \pm 90^\circ$; tilt fwd + rev $\pm 45^\circ$
- Spindle speed of vertical cutter head is infinitely variable over a wide speed range; an auxiliary gearbox ensures powerful torque
- Vertical and horizontal spindle each have their separate drive
- Standard outer arbor support with bronze plain bearings accommodates long milling arbors in the horizontal spindle
- Powerful servo-motor allows infinite variation of feeds on all 3 axes
- Minimum downtime due to rapid positioning of work table and rapid feeds in all axes
- Control panel swivels for comfortable operation
- Coolant system and chip tray are included

STANDARD EQUIPMENT

Chip tray
Coolant system
Central lubrication
3-axis position indicator X.Pos 3.2
Operator instructions
M16 draw bar
Operating tools
Cutter arbor $\varnothing 27 \text{ mm}$



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!**