Conventional Milling Machines

VHF 3



SKU : 301410

The VHF 3 is a universal milling machine that can keep pace with the growing demands of our customers even after a good 20 years in the KNUTH catalog. Equipped with a horizontal spindle, a swiveling vertical milling head and a large clamping table, this model serves a wide range of applications. The entire VHF series is ideal for repair shops, as well as training and production departments. The complete configuration with automatic feed and digital position display enables precise production and short non-productive times.

- Solid construction for precision machining
- Automated work feeds on all axes to ensure best surface finish
- Swiveling vertical head (± 45°) for angle machining
- Automated quill feed for fast and accurate drilling
- New generation DRO with milling functions

TECHNICAL SPECS

WORKING AREA

Table set up area	1320 mm x 320 mm
Number of T-slots	5 positions
T-slot (width x spacing)	14 mm x 63 mm
Table load capacity	300 kg

TRAVELS

Travel X-axis	1000 mm
Travel Y-axis	245 mm
Travel Z-axis	430 mm

VERTICAL MILLING HEAD

Spindle mount	SK 40 DIN 2080
Spindle speeds	90 1/min - 2000 1/min
Quill stroke	120 mm
Throat	200 mm - 540 mm
Spindle nose-to-table surface distance	140 mm - 540 mm
Head swivel range	± 45°

RAPID FEED

Rapid feed X-axis	1024 mm/min
Rapid feed Y-axis	1024 mm/min
Rapid feed Z-axis	670 mm/min

HORIZONTAL MILLING HEADA

Spindle mount	SK 40 DIN 2080
Spindle speeds	40 1/min - 1300 1/min
Horizontal spindle-to-table surface distance	0 mm - 430 mm

FEED

Feed speed X / Y axis	20 mm/min - 360 mm/min
Quill feeds	(3) 0,08; 0,15; 0,25 mm/R

DRIVE CAPACITY

Motor rating horiz./ vert.	2.2 kW
Motor rating feed	0.55 kW
Motor rating coolant pump	0.09 kW

MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	1.71 m x 1.72 m x 2.33 m
Weight	1900 kg

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Horizontal milling spindle with outer arbor support for long milling arbors



Cutter head swivels ± 45°



Automatic 3-step quill feed

PRODUCT DETAILS

- All 3 axes with automatic feed and rapid feeds
- Vertical head swivels ± 45°
- Spindle speeds for horizontal and vertical spindle controlled by separate switch gears with oil-bath lubrication
- Capstan-controlled quill feed for drilling, manual micro-feed for milling
- For horizontal spindle operations, the top beam including head can be completely rotated on the stand
- 3 automatic quill feeds
- Adjustable ground dovetail guideways on the X-axis and wide square guideways on Y and Z-axis
- Clamping device in all 3 axes
- Adjustable stops for drilling depth and table adjustment

3-axis position indicator

- More accuracy
- Lower error rate
- Increased productivity
- Resulting in valuable time savings
- For increased productivity
- Easy to read display
- Operator-specific features
- Convenient keyboard layout
- Resolution: 0.01/ 0.005 mm
- Default coordinates
- Axis position is maintained when display is turned off
- Hole circle pattern calculation
- Calculator function
- Storage for 10 tools
- Radius / diameter toggle
- Mm/inch conversion
- Easy expansion and maintenance-free operation

STANDARD EQUIPMENT

3-axis position indicator X.Pos 3.2
Drill chuck 16 mm
Cutter arbor Ø 27 mm
Cutter arbor Ø 40 mm
Collet chuck ISO 40 with collets Ø 4,5,6,8,10,12,14,16 mm
Reducing sleeve ISO 40 / MT3 and ISO 40 / MT2
Coolant system
Chip tray
Work lamp
Operating tools
Operator instructions

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!

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