Werkzeugmaschinen GmbH

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Details

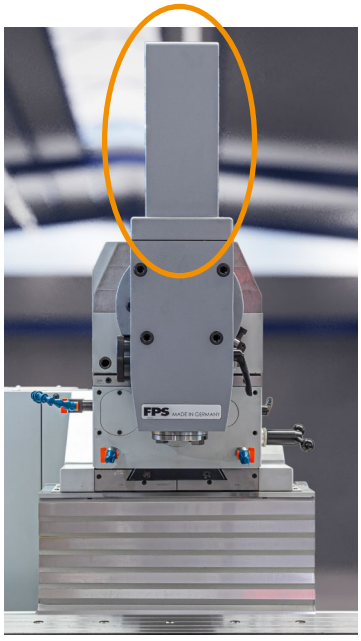
FPS 500M digital Dualmaster

Heidenhain Positip 8016 touch active – straight cut control

Comfortable to operate active – straight cut control with 12" touch screen for position value display, dialogs, inputs and graphic functions.

- - Recurring work sequences can be grouped into programs.
  - Programming of rectangular pockets with one cycle
  - Distance-to-go operation with input of the nominal position in absolute or incremental dimension
  - Probing functions for reference point determination (edge, centerline and circle center) also optionally possible with touch probe.
  - Definition of program parameters (speed, feed rate, etc.)

Hydromechanic clamping system



The spindles, vertical and horizontal, are equipped with a hydromechanic tool clamping system.

Tool holder **SK 40 / DIN 69872** or **DIN 2080**

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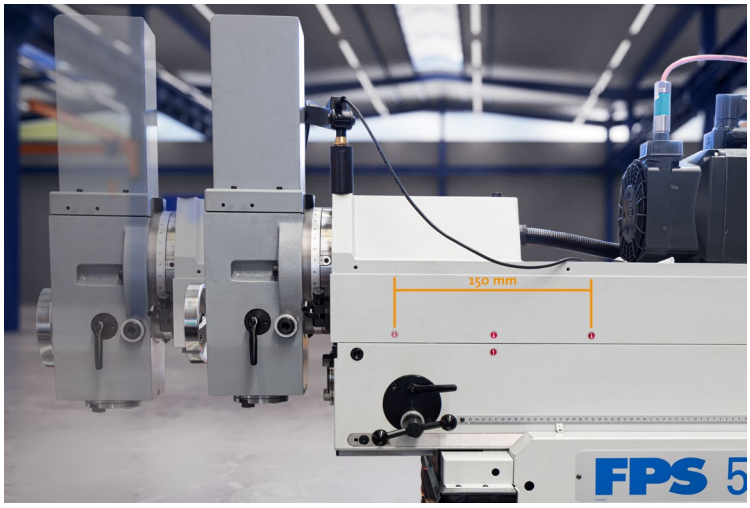
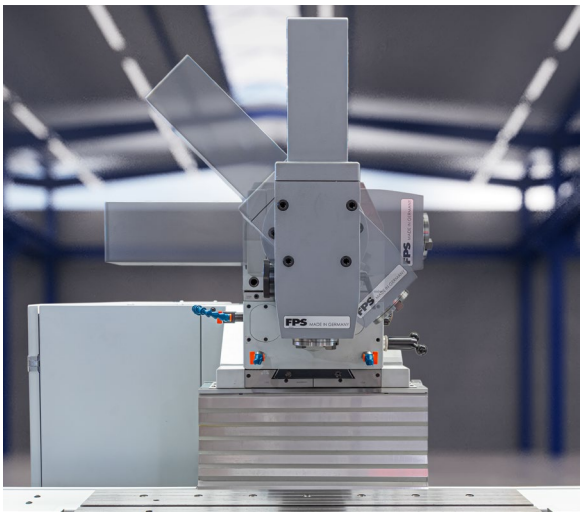
Slidable milling head

The vertical milling head can be additionally moved **150 mm** in the longitudinal axis for maximum working range, thus increasing the **X - Y** working area to **500 x 600 mm**.

To make the adjustment of the milling head arm in the longitudinal axis as comfortable as possible, an additional removable handwheel has been installed.





Vertical milling head

The milling head can be swilled **+/- 90°** and can be positioned in any number of degrees via a scale.

Optionally, a **digital angle encoder** can be used to align the vertical milling head with an accuracy of **+ / - 5" (angular seconds).**

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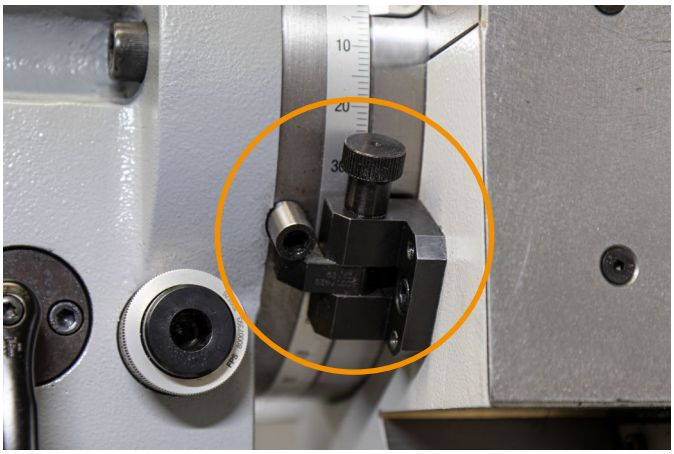
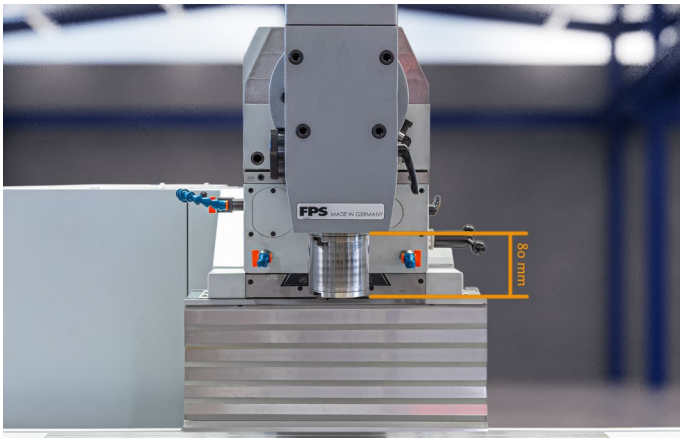


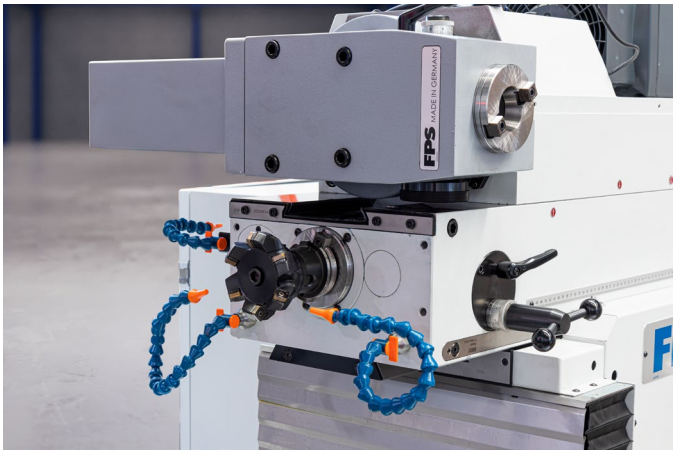
Locking at the milling head

After the horizontal working or swiveling of the milling head it can be quickly brought back again in the **vertical position** via a locking and can therefore be **immediately repositioned.**



Telescopic vertical quill

The vertical spindle is manually telescopic by **80 mm** and can be used as a drilling quill.
The telescopic quill has a clamping feature.



Horizontal working (Option)

For horizontal working the milling head must be swiveled by 90° and pushed backwards.

For horizontal machining, the vertical milling head does **NOT have to** be dismantled, it is pushed into the rest position.
This makes changing the machining levels quick and easy.

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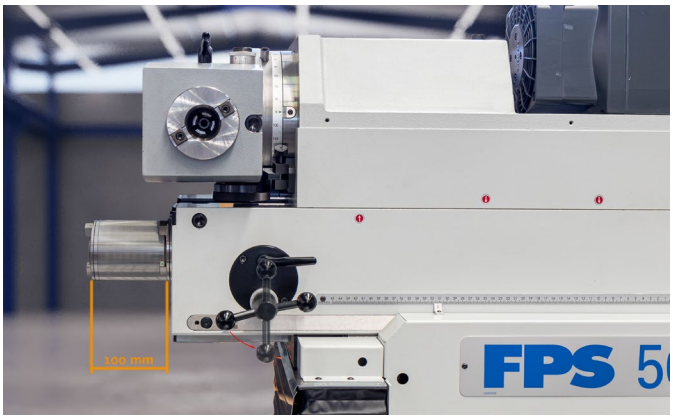
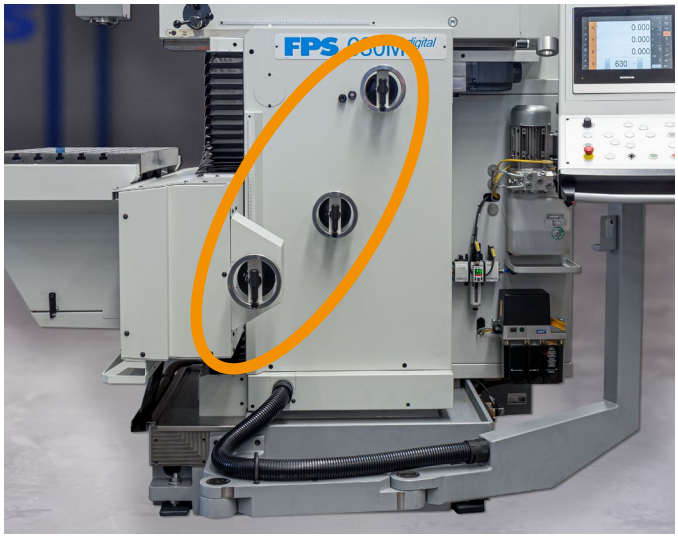


Telescopic horizontal quill (Option)

The horizontal spindle is manually telescopic by **100 mm** and can be used as a drilling quill. The telescopic quill has a clamping feature.



Handwheels

Mechanical manual safety handwheels with additional scale ring in all axes with sensitive response.
The handwheels are arranged ergonomically and user-friendly for maximum ease of operation.

Handwheel scale

In addition to the digital display, a scale on the handwheel allows easy positioning.

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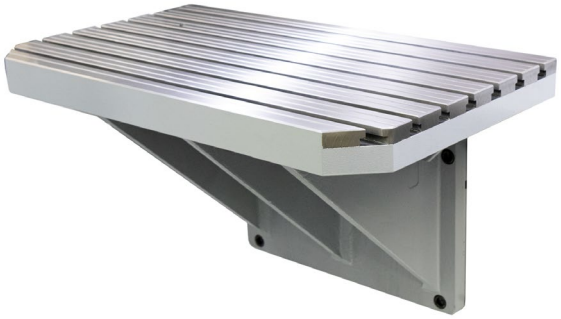

Fixed table

The fixed table is included in the basic equipment of the machine.
It has a clamping surface of **630 x 470 mm** and the max. load is **350 kg.**

The fixed table has **six 14H12** slots and a center slot **14H7**, with a distance of **63 mm.**

Automatic central lubrication

Lubrication of all guides and spindles due to a time interval.

Coolant in spindle base

Articulated hoses can be used to ensure that the tool is supplied with coolant in any position.

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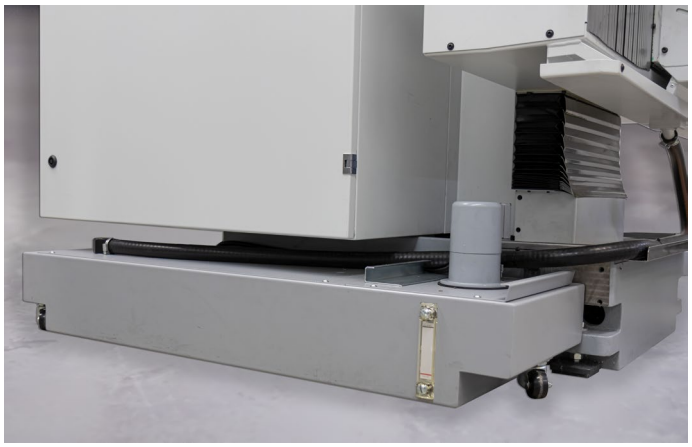
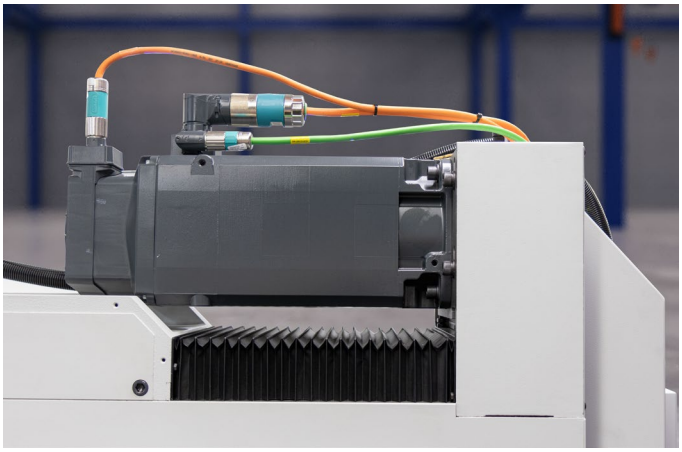


Coolant tank

External, movable coolant tank with a capacity of **80 liters**.
The coolant pump is integrated in the coolant tank.



Main spindle drive

Main drive by a high-torque direct drive.

Speed range:
20 - 5000 rpm infinitely variable
Output power:
7,2/14,1 (100%/25% DC)

Feed drive

Internal, infinitely variable, digital feed in all axes.

Feed range:
0 - 2000 rpm infinitely variable
Rapid traverse:
5 m/min

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Mobile swarf tray

Mobile swarf tray with swarf flap.

Mobile swarf tray (Option)

Generously sized swarf tray under the swivel table.

Optional swarf tray only in conjunction with swivel table. Standard swarf tray not required.

Milling splash protection (Option)

Electronically fused splash guard for manual operation.
Spindle operation is only possible in the working position of the cutter guard.

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Full protection cabin (option)

Full protection cabin to avoid emissions with optimal, user-friendly 2 side access.
Glazed on all sides, front with tempered glass

Extendable splash guard (Option)

Additional, laterally extendable splash guard in the lower cabin area, under the fixed table.

Protects the operator from coolant and swarf in the leg area, especially during manual operation.

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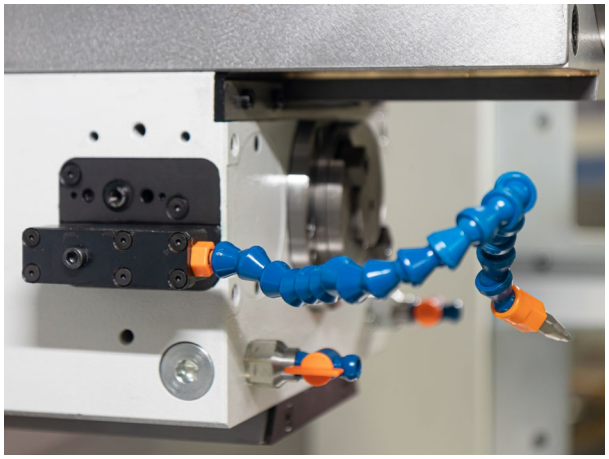
Foot switch for tool clamping (Option)

For convenient clamping of tools without additional pressing of a switch on the control panel.



Minimum quantity lubrication (Option)

Minimum quantity lubrication **UFS20** for coolant (oil mist lubrication) mounted on the spindle base.
The nozzle can be removed from the machine.
A compressed air supply to the machine is required (4-8 bar at 20 Nm^3).

External blowing air on spindle base (Option)

External blowing air on spindle base with removable nozzle.
Incl. articulated hose and pneumatic maintenance unit.
A compressed air supply to the machine is required (4-8 bar at 20 Nm^3).

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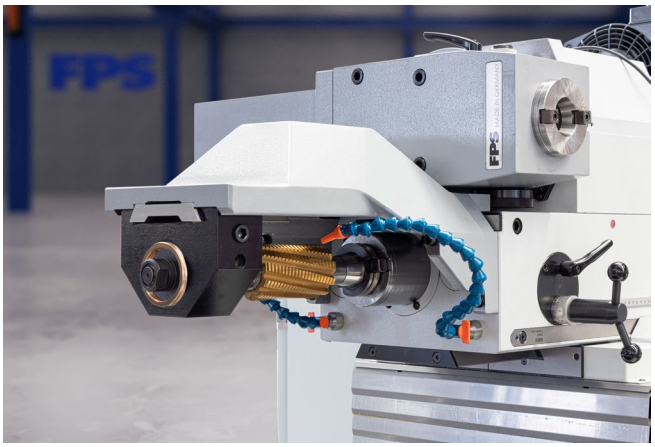
Pneumatic maintenance unit

Pneumatic maintenance unit for preparing the external compressed air.



Overarm with counterbearing (Option)

Overarm with counterbearing for horizontal working.

Swarf conveyor (Option)

For facilitating the removal of swarf from the work area. Swarf conveyor suitable for wet and dry machining.
Discharge height 800 mm.

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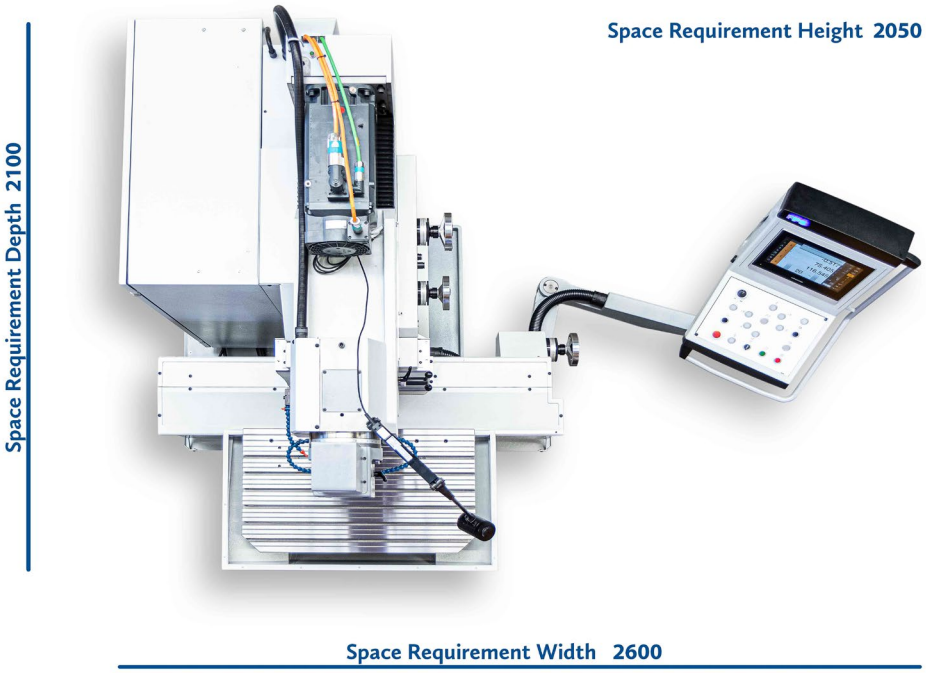
Camera (Option)

Camera for workspace monitoring.
The camera is protected against penetration of liquids and dust.
Video output via HDMI.



*Data without safety distances