

## Details

# FPS 630M-NC

## *Dualmaster*



### Heidenhain TNC 620 FS

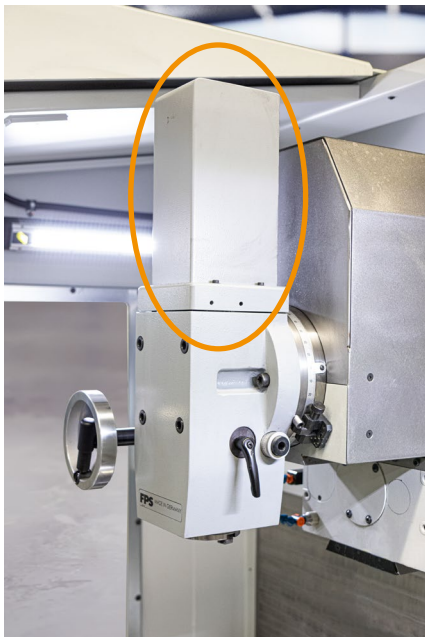
Comfortable to operate Heidenhain TNC 620 contouring control. TNCguide, TFT color flat-panel 19" multitouch screen.

HEIDENHAIN plain language, DIN/ISO

Block processing time: 1.50 ms

Optional:

Machine type switchover:  
manual, automatic



### 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**

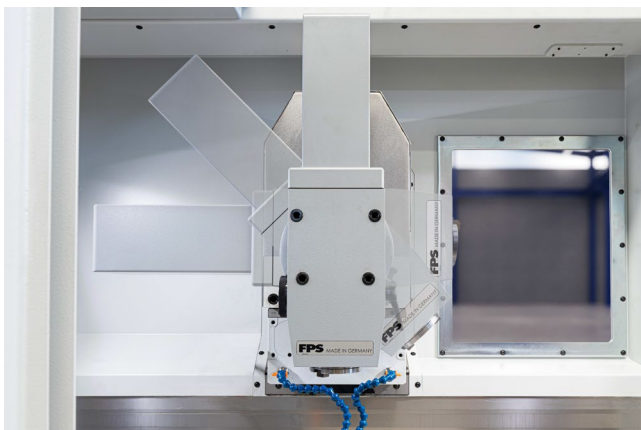
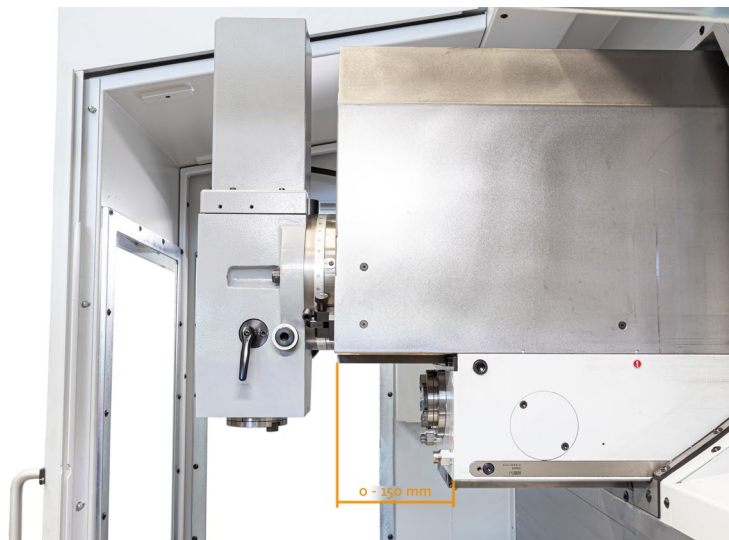
## Details



### 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 **630 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 swivelled **+/- 90°** and can be positioned in any number of degrees via a scale.

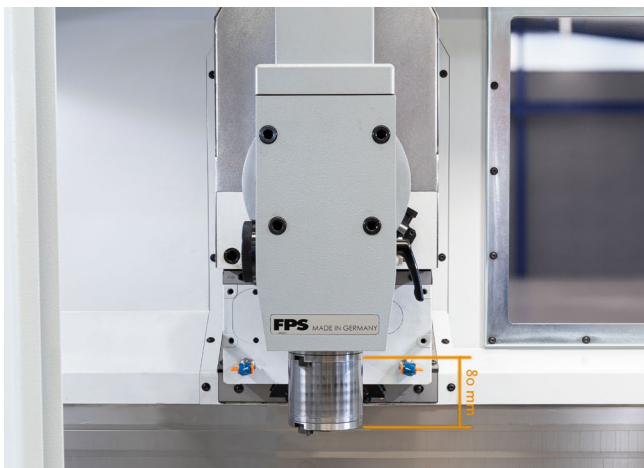
Optionally, a **digital angle encoder** can be used to align the vertical milling head with an accuracy of **+ / - 5" (angular seconds)**.

## Details



### 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.

## Details



### 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.

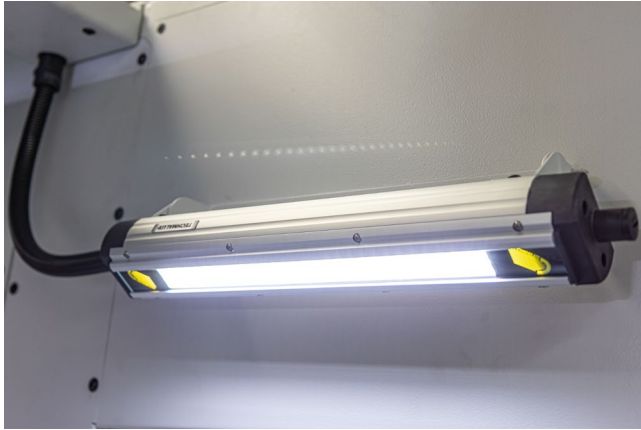


### Electronic handwheel (Option)

Portable, corded, electronic handwheel with machine - function keys.



## Details



### LED - workspace lighting

The working area of the cabin is illuminated by two **24V - LED light strips**.



### Coolant in spindle base

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



### Coolant tank

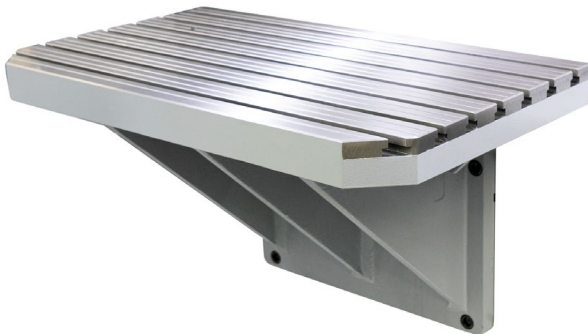
External, movable coolant tank with a capacity of **80 liters**.  
The coolant pump is integrated in the coolant tank.

## Details



### Automatic central lubrication

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

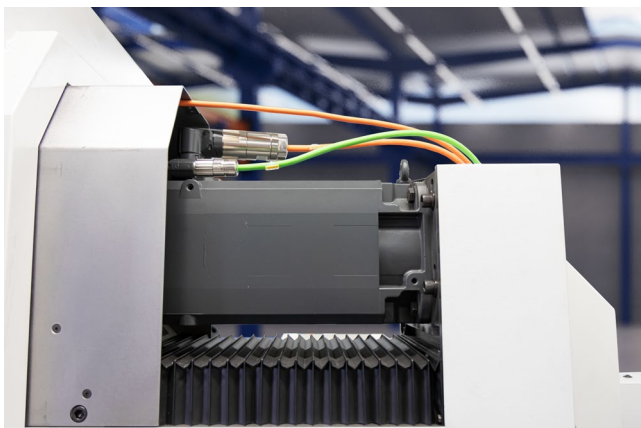


### Fixed table

The fixed table is included in the basic equipment of the machine.

It has a clamping surface of **800 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**.



### Main spindle drive

Main drive by a high-torque direct drive.

Speed range:

**20 - 5000 rpm infinitely variable**

Output power:

**6,3/12,0 kW (100%/25% DC)**

Torque:

**120/243 Nm (100%/25% DC)**

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### Feed drive

Internal, infinitely variable, digital feed in all axes.

Feed range:

**0 - 5000 rpm infinitely variable**

Rapid traverse:

**10 m/min**



### Full protection cabin

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



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### 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.



### Foot switch for tool clamping (Option)

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



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### 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<sup>3</sup>).



### External blowing air on spindle base (Option) Incl. Pneumatic maintenance unit

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<sup>3</sup>).



### Pneumatic maintenance unit

Pneumatic maintenance unit for preparing the external compressed air.  
(for external blowing air)

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### Machine type switchover (Option)

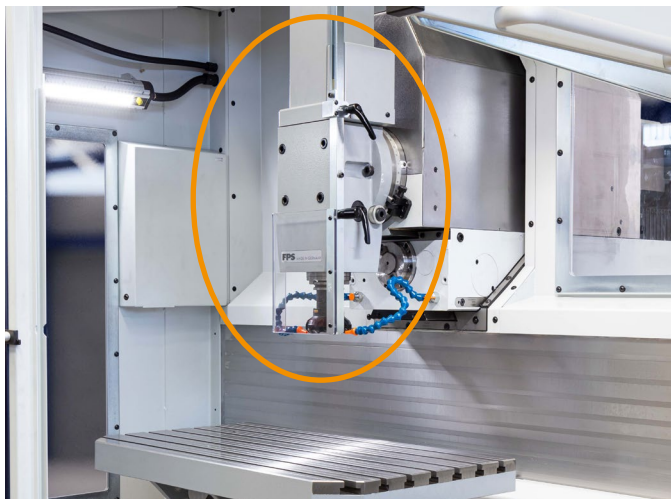
Switchover by key to the machine type  
"hand-controlled milling machine"

Switch between

**Manual mode** (only manually operable)

**NC - mode** (3 - safety operation modes\*)

\*Automatic operation, setup operation,  
process monitoring operation



### Milling splash protection (Option)

Electronically fused splash guard for manual  
operation.

Spindle operation is only possible in the  
working position of the cutter guard.



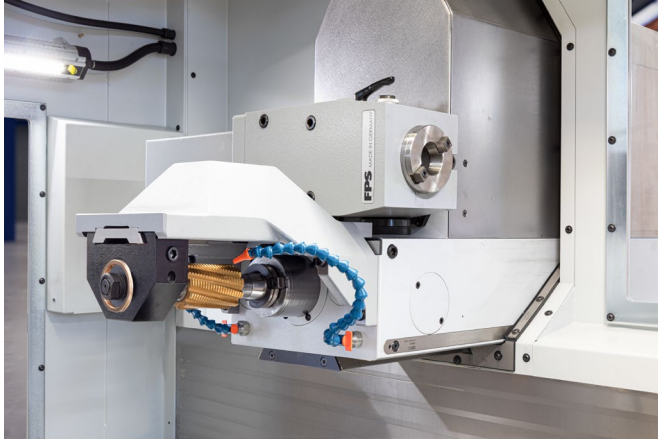
### NC – dividing Units (Option)

Single-axis dividing unit with hydraulic  
spindle clamping and interpolation.

Loading vertical:	340 kg
Loading horizontal:	95 kg
Loading horizontal with tailstock:	170 kg

Center height:	125 mm
Spindle passage:	Ø 30 mm
Dividing accuracy:	+/- 15 sec.
Repeating accuracy:	+/- 4 sec.
Torque on the dividing spindle	max. 100 Nm

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### Overarm with counterbearing (Option)

Overarm with counterbearing for horizontal working.



### Camera (Option)

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





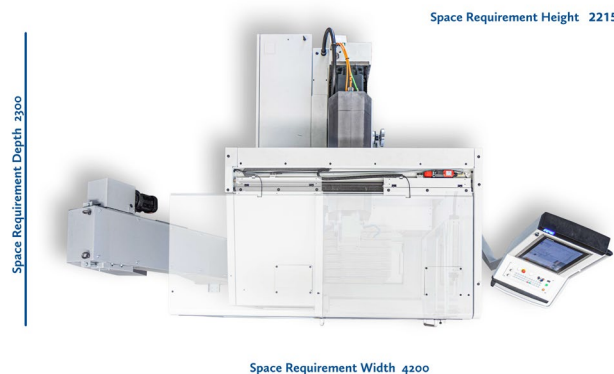
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### Swarf conveyor (Option)

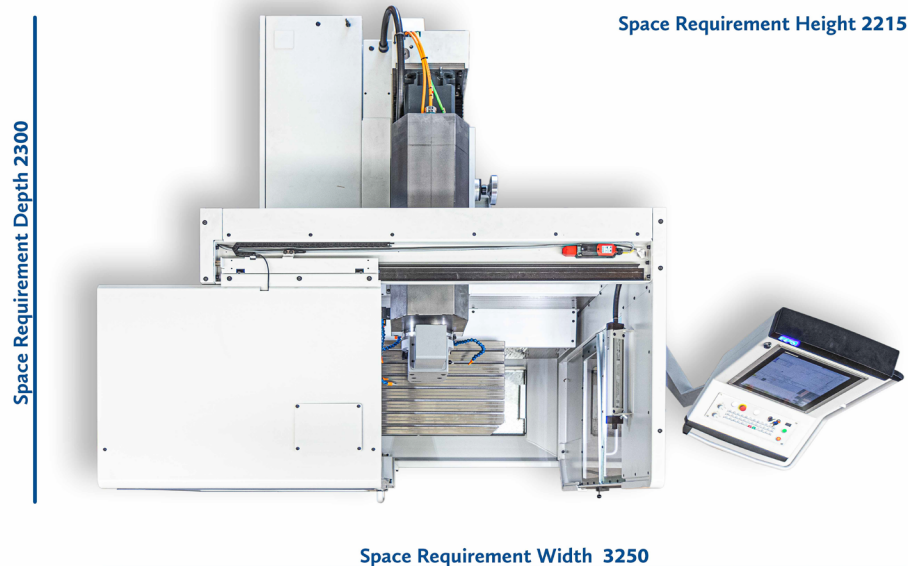
For facilitating the removal of swarf from the work area. Swarf conveyor suitable for wet and dry machining.

**Discharge height 800 mm.**



Space Requirement Height 2215

<sup>\*)</sup>Data without safety distances



Space Requirement Height 2215

<sup>\*)</sup>Data without safety distances