

Milling and drilling machine

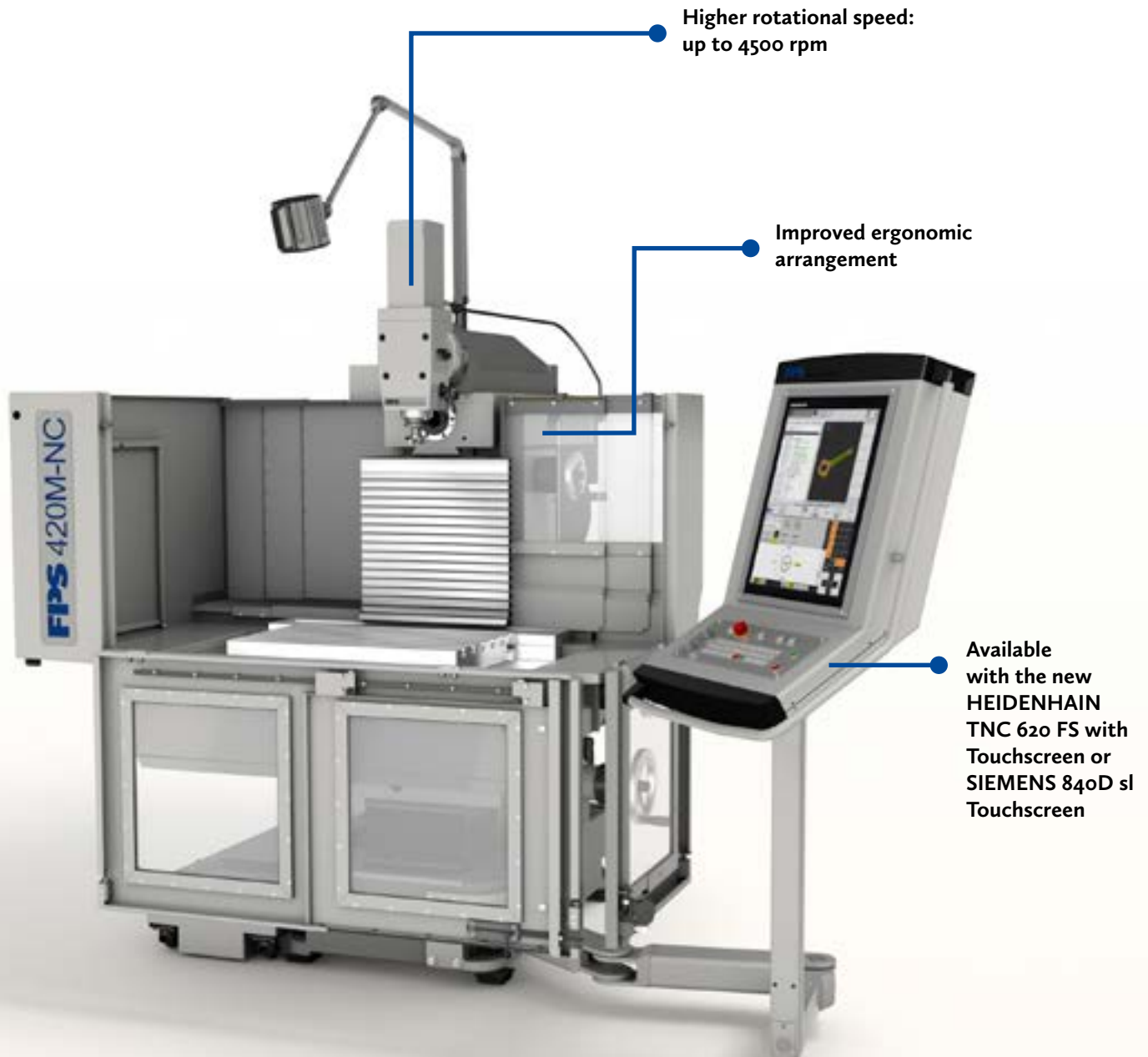
FPS 420M-NC | FPS 620M-NC

The robust multi-talent

New



Milling and drilling machine FPS 420M-NC | FPS 620M-NC



Highlights

- The perfect entry point to modern manufacturing.
- Solid, durable and easy to maintain – the ideal companion in apprenticeship and manufacturing workshops.
- Infinitely variable up to 4500 rpm: For improved feed and higher cutting speed.
- User-friendly with sophisticated ergonomics.
- Compact machine for tight spaces.
- Controls: HEIDENHAIN TNC 620 FS with touchscreen or SIEMENS 840D sl with touchscreen.

For apprenticeship and industrial machining

The new FPS milling and drilling machines are primed to train the next generation of machining specialists. Our machines stand for ease of operation in the contemporary manufacturing landscape.



Indestructibly precise

Customer benefit is our highest priority. We specifically designed our FPS 420M-NC and FPS 620M-NC for the robust use in apprenticeship training and flexible operations in workshops.

Our machines are the perfect entry point to modern manufacturing. This is where our machines stand out with their openness and flexibility.

No matter where you deploy our FPS 420M-NC or FPS 620M-NC – they convince with outstanding accessibility and easy handling.

Our Expertise, Your Customer Benefit

We, FPS Werkzeugmaschinen GmbH, produce universal machine tools, milling and drilling machines for industry, craft, universities and apprenticeship.

We know what our customers value and thus provide only the highest quality made in Germany.

Your milling and drilling machines FPS 420M-NC and 620M-NC provide

- Sturdy, heavily ribbed cast design for rigidity and inherent stiffness.
- Vertical and horizontal working spindle.
- Hydraulic damping system.
- Infinitely variable, high-torque main drive.
- Practical standard equipment – many options available.

Models

- **FPS 420M-NC**
Working ranges X-420 mm
Y-350 mm Z-400 mm
- **FPS 620M-NC**
Working ranges X-620 mm
Y-350 mm Z-400 mm

Easy handling

Our machines offer the best possible handling. The working space is highly accessible and the hand-wheels are ergonomically arranged.

Choose from two controls

The future-oriented CNC controls by SIEMENS and HEIDENHAIN are perfectly geared to the machine. Their straightforward handling and ease of creating programmes make operating the machine especially appealing. This provides optimal conditions for both early successes in apprenticeships and easy solutions in manufacturing – even for complex tasks.



Controls

- HEIDENHAIN TNC 620 FS with touchscreen
- SIEMENS 840 D sl with touchscreen

Our machines empower gratifying work

Due to its simple and easy access, even inexperienced users quickly develop confidence towards the machine.

Manual, mechanical safety hand-wheels on all axes





Uncompromising precision

Sensitive and precise working for exclusively best results

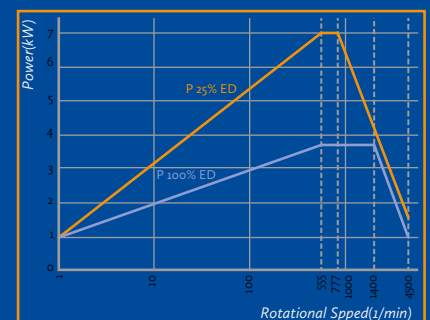
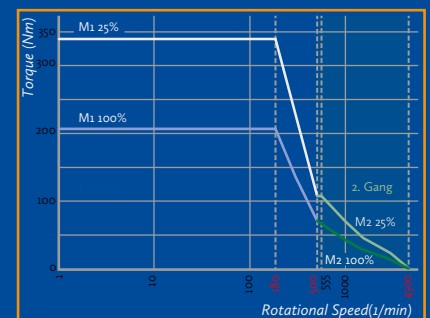
We benchmark ourselves against the precision of our machines. In our modern world of manufacturing, this includes the accurate reworking of advanced materials with progressive tools.



Precision in every detail:

- Firm and low-vibration cast design
- Durable spindle bearings
- As a standard feature:
oriented spindle stop for precise thread cutting without tapping chuck

Rotational Speed/Performance chart



Built for precision

All components are produced in Germany – in this way we can guarantee continuously high quality. Smoothed guides make for excellent gliding while counter guides scraped by hand keep the oil film steady.



Total flexibility

Whether in apprenticeship or in the workshop – you want to flexibly deploy your machine tool.

Our FPS 420M-NC and FPS 620M-NC are suitable for diverse controls and processes. The user can operate the machine manually with the hand-wheels or using the CNC control. Whether it be simple or complex machining – our FPS 420M-NC or FPS 620M-NC is the right machine for you in any case.



Vertical or horizontal

The milling head may swivel by 180° to easily and quickly reset the machining plane (horizontal – vertical).

High performance in the smallest spaces

Considering their performance and accessibility, our machines are exceptionally compact. Therefore, our FPS 420M-NC and FPS 620M-NC find their space even in workshops where floor space is limited.

Space Requirement Depth 1875 mm



Space Requirement Width 2235 mm / 2435 mm

Standard equipment and options

With us, much already comes as standard features.
Create your individual configuration from our diverse,
optional features.

Standard features

- Vertical Cutter Head with Quill
- Rigid Angle Table
- Horizontal Milling Spindle
- Manual, mechanic hand-wheels
- Solid guides, scraped by hand
- Splash Protection Cabin
- Ball Screw Spindles
- Hydraulic Tool Clamping
- Automatic Gear Changing
- Overload Protection
- Direct Linear Encoder
- Automatic Central Lubrication
- Freestanding Coolant Tank, 80 liters
- Halogen Machine Lamp
- Machine Feet
- Controls: Choice of HEIDENHAIN TNC 620 FS or SIEMENS 840 D sl



Work safely

Next to an electronic overdrive protection for every axis, our machines are also equipped with an additional brake for the Z axis.

Options

- Universal Machine Table
- Dividing Head
- LED Machine Lamp
- Minimum Lubrication
- Counter-holder with counter bearing
- Electronic Hand-wheel
- Infrared Measuring Probe
- Tool Measuring
- Cleaning Gun
- Special Paint Finish
- Tools and more Equipment



Specifications

		FPS 420 M-NC	FPS 620 M-NC
Working Range	X axis	420 mm	620 mm
	Y axis		350 mm
	Z axis		400 mm
	Milling Head additionally movable in Y axis		150 mm
	Space Requirements W x D x H	2235 x 1875 x 2000 mm	2435 x 1875 x 2000 mm
Angle Table	Table Area/Clamping Surface	630 x 400 mm	820 x 420 mm
	T-Slots: Amount/Width/Spacing	6 / 14 H12-Richtnut H7 / 63 mm	
	Allowable Load	300 kg	
Work Spindle	Vertical and horizontal		
	Vertically extendable as a Quill, with Clamping/Stroke	ca. 80 mm	
	Milling Head manually swivelling	+/- 90°	
Tool Holder	with hydraulic tool clamping system	ISO 40 DIN 69871	
Clamping System	Hydraulic Clamping System	DIN 69872 (Standard) DIN 2080 (Option)	
Main Drive: Three-Phase Motor fitted with brake	Power	7.0 KW	
	Torque	340 Nm	
	Rotational Speed over 2 gear levels	0 bis 4500 1/min	
Feed Drive: Digital Drive	Feed Rate infinitely controlled	0 bis 2000 mm/min	
	Rapid Traverse	5000 mm/min	
	Hand-wheel Rotation	2.5 mm	
Connection	Electrical Connection	3 x 400 VAC 50 Hz 25 A	
	Max. Primary Fuse	35A GR	
	Network Configuration	TN-S Connection Type: Termination	
Control Cabinet Electronics	CE-compliant according to the current regulations by the (German) employer's liability insurance association	BGVA 3 / DIN-EN 60204-1	
Control	in swivelling Control Console	HEIDENHAIN TNC 620 FS or SIEMENS 840 D sl	
Weight	Total Machine Weight incl. Work Table, Milling Head and Splash Protection Cabin	ca. 1800 kg	

Service

- We offer worldwide on-site service
 - Our service engineer visits you immediately
 - We can get your machine up and running within 24 hours
- We deliver spare parts fast and reliably
 - Largely from our own warehouse
- Benefit from our years of experience and unique specialist knowledge.

Contact Us!
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