

Milling / drilling machine

PICOMAX® 20: Compact Precision Drilling and Milling Machine.



PICOMAX® 20

— FEHLMANN —

PICOMAX® 20

For an efficient production of single parts and small lots.



This machine should be the basic equipment of every workshop!

PICOMAX® 20

Clear design and easy operation.

Versatility.

The machine offers a wide range of applications and can be used for all mechanical and electrical production departments in industry, schools, laboratories, as well as for model and tool making being especially suited for the manufacture of precision single parts and small-lot production.

The coordinate tables.

The customer can choose between different sizes of coordinate tables available in standard design or with digital position display. The most important aspects are stability, zero backlash, protection against contamination and low overall height of the machine. These guarantee the highest precision of the coordinate tables even under full load.

Accuracy.

The load accuracy of the hardened and ground screws is 0.01 / 200 mm.

The torque was limited to a perfect value to avoid an overload of the spindle during milling. Thus, no damage will occur to the machine even in case of a temporary overload. The rigid column with non-positive housing clamping of the housing not only provides for a high stability but also for a high machining and repetition accuracy over the whole machining range.

Easy operation.

An integrated thread-cutting device is standard equipment. The proven quick tool change system SF 32, continuously electronically adjustable speed as well as the smooth and very accurately guided movement of the vertical drilling head are timesaving features making work easier. All mechanical and electrical controls are arranged clearly and within easy reach.

The FEHLMANN PICOMAX 20: The ideal machine for apprentice shops and vocational training schools.



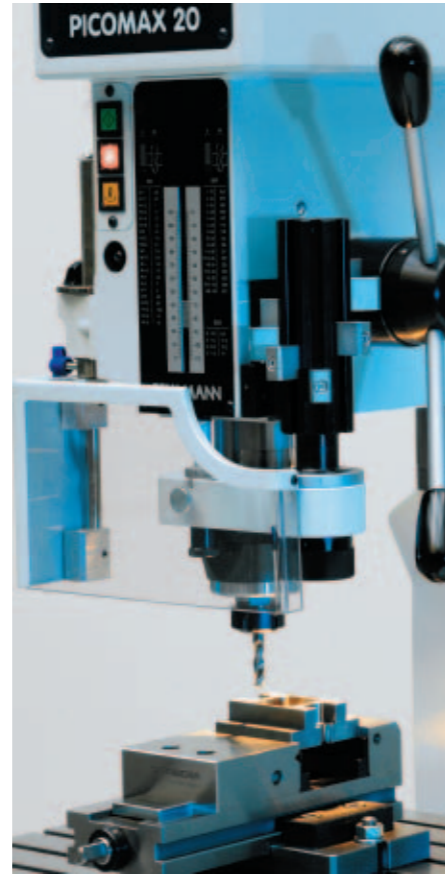
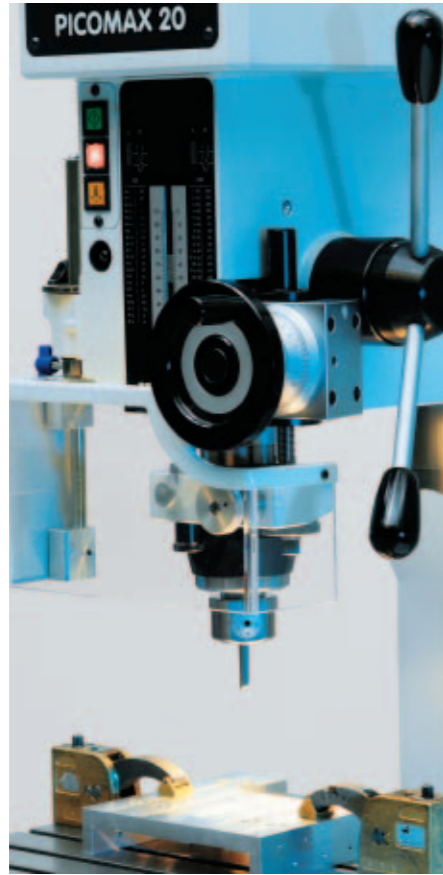
Choosing between three different versions – the efficient solution according to field of application.

The quill of PICOMAX 20 can be equipped with different stop and in-feed systems.

PICOMAX 20 with in-feed system and fine depth adjustment by hand wheel.

This in-feed system is suited for milling and boring works.

The dial with a scale partition of 0.01 mm is easy to adjust. Thus a jig boring machine precision is achieved.



PICOMAX 20 with in-feed system and turret stop with 8 separately adjustable stops for limiting the in-feed.

With this system especially drilling, counterboring and thread cutting works can be executed quickly and precisely in small lots.



PICOMAX 20 with central stop. Easy and precise adjustment of the drilling depth. Ideally suited for drilling, counterboring and thread cutting operations in single parts production.

The depth spindle is equipped with a nonius featuring a partition of 0.1 mm.

The proven quick change system SF 32:

- Changing accuracy 0.002 mm
- Changing time approx. 3 sec.
- Automatic tool ejection
- Robust connection between tool and spindle.

PICOMAX® 20-M with feed table. Quick, safe and easy to operate.



The attached DC motors allow for positioning the table at rapid traverse or by means of the continuously adjustable feed system. All axes of the table are provided with electric limit switches and ball screw spindles. Ideal for milling operations.

The PICOMAX 20-M with feed table KS 323-M has a universal range of application. It can be used in apprentice shops, laboratories, for the manufacture of prototypes, the construction of special purpose machines and even for tool making.



Hole circle machining with operator prompting.

PICOMAX® 20

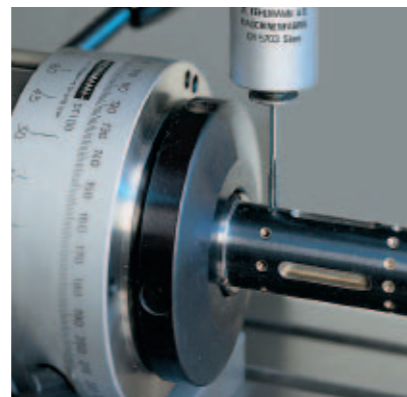
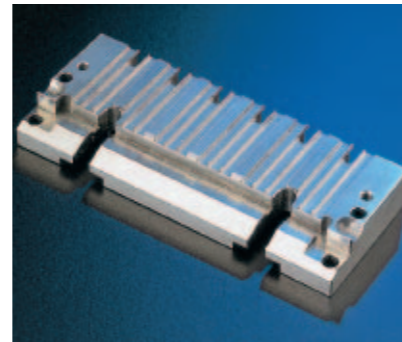
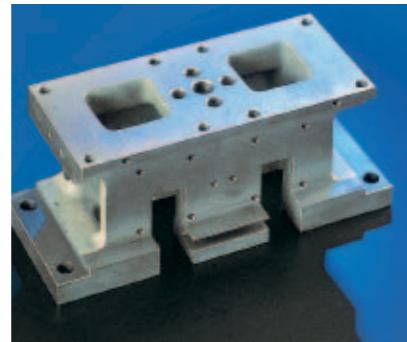
Drilling, boring, thread cutting and milling.

Large assortment of tool shanks and adapted special accessories.

Drilling and thread-cutting machine with central stop and drilling table with 7 T-slots.



The machine head can be adjusted to different work-piece lengths and heights by means of a crank handle. It is mounted on the column and locked against turning so that the original position on the X/Y axis can be repeated with an accuracy of ± 0.01 mm.



Ideal for manufacturing of single parts, complex workpieces as well as small lots.

With great benefits for daily use.

The automatic tapping function is ready for operation within seconds. Also thread formers may be used.



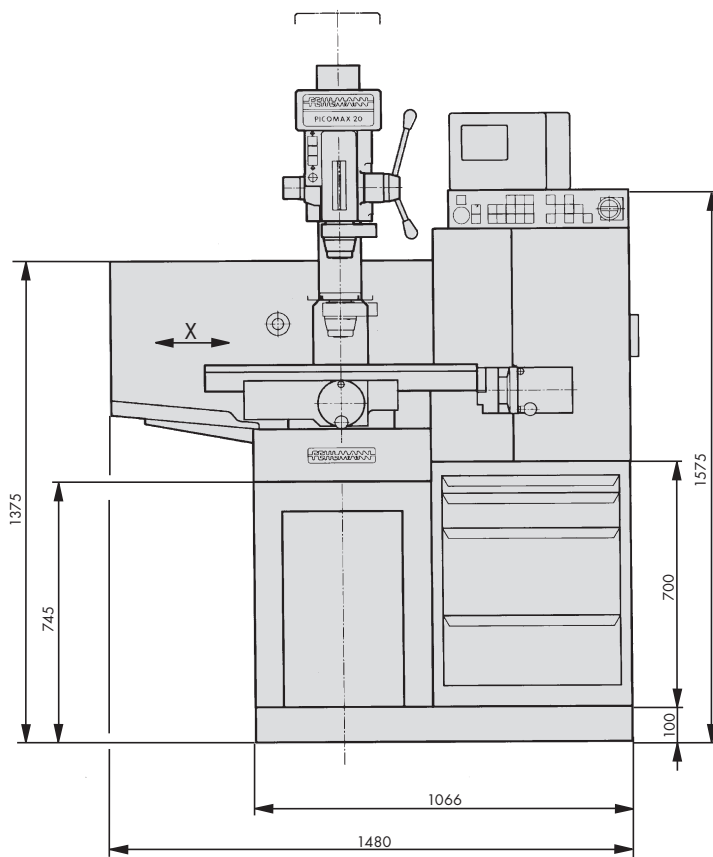
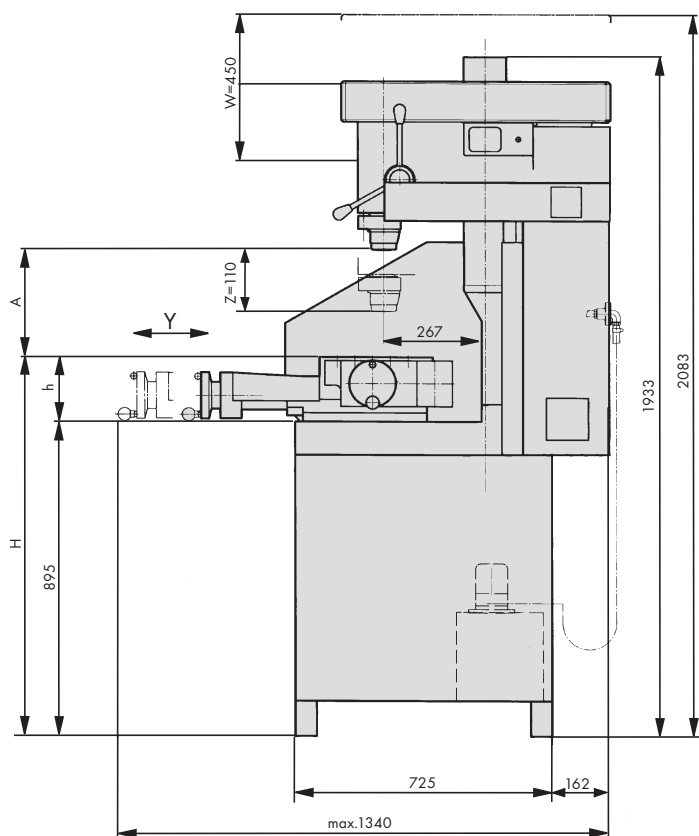
Where to keep the accessories? All parts can be stored in their proper places in a large drawer block integrated at the base so they can be found easily.



The excellent stability of the machine as well as the continuously adjustable speed provide optimum cutting conditions for minor milling work.



Technical data PICOMAX® 20



Working spindle

Machine head adjustment W	450 mm
Quill movement Z	110 mm
Drive power	2,9 kW
Max. spindle torque	40 Nm
Speed range infinitely variable	50 – 6300 min ⁻¹

SF 32 tool change system

Repeat accuracy	
tool changing	0,002 mm
Tool changing (manual)	approx. 3 s

Feed drive P20-M

Feed rates X / Y	1 – 2000 mm/min
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Capacity (steel 700 N/mm²)

Economical milling capacity	25 cm ³ /min
Max. drilling capacity	Ø 20 mm
Tapping capacity	M 16

General

Machine weight	approx. 850 kg
Total connected load	4 kW
Operating voltage	3 x 400V 50Hz
Mains fuse, slow	16 A

Measuring system

Direct measuring system with linear scale	X / Y
Indirect measuring system with resolver	Z
Smallest programmable increment	0,001 mm
Max. positioning tolerance	0,010 mm

Table selection	Drilling table	KS 255	KS 322	KS 323 KS 323-M
Longitudinal travel X	--	280 mm	350 mm	450 mm
Transverse travel Y	--	210 mm	260 mm	260 mm
Clamping area	400x375 mm	530x255 mm	670x320 mm	770x320 mm
Distance between table and spindle nose A	150-600 mm	110-560 mm	80-530 mm	77-527 mm
Height above floor H	105 mm	145 mm	190 mm	194 mm
Table height h	250 kg	150 kg	200 kg	200 kg
Max. table load	12 H8	10 H8	12 H8	12 H8
Tee-slots width spacing/number	50/7	50/4	50/5	50/5

Your Precision Advantage.®

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Guards could have been removed for better illustration. Technical specifications subject to change.

Made in Switzerland

