

PICOMAX 20

Compact Precision Jig Boring
and Milling Machine.



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Machines-outils / neuf et occasion - Machines-tools / second-hand
Werkzeugmaschinen / neu und gebraucht

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PICOMAX 20

Clear design and ease of operation.

The PICOMAX 20 is the successor of the P18 S introduced over 30 years ago of which thousands have been tried and tested as timesaving, efficient machine tools. It is a very compact, robust and extremely operator-friendly jig boring and milling machine.

Versatility.

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

The coordinate tables.

The customer can choose between coordinate tables of different sizes 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.

Ease of 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.

This machine should be the basic equipment of every workshop!

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



PICOMAX 20

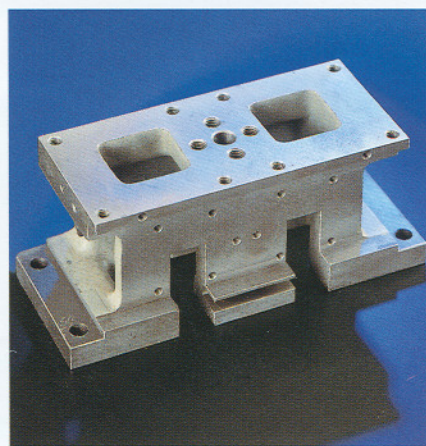
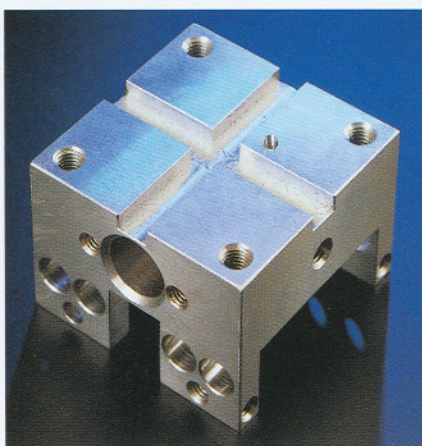
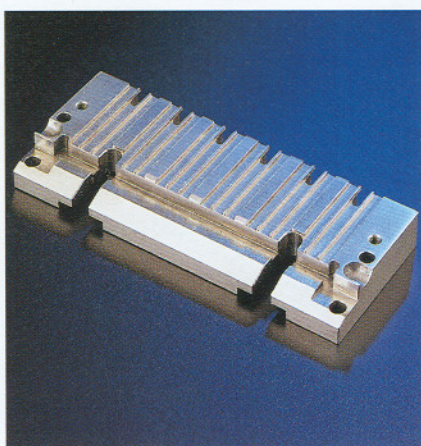
Drilling, boring, thread cutting, and milling.

Large assortment of tool shanks and adapted special accessories.



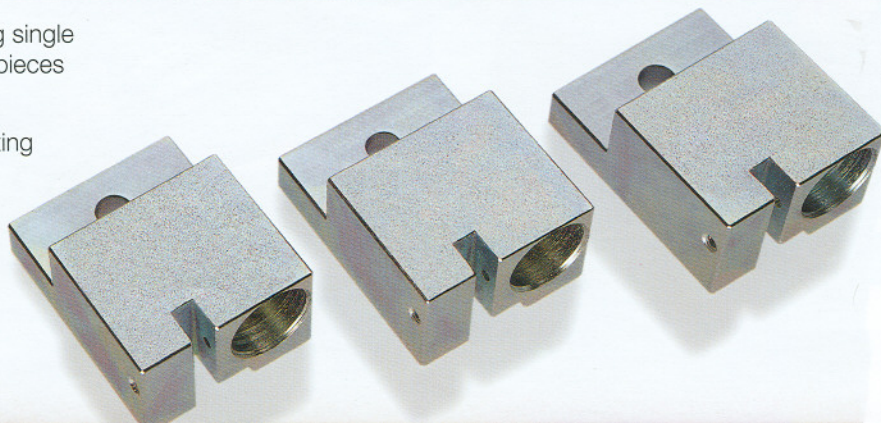
Drilling table with seven T-slots and turret with 8 adjustable stops.

Very compact boring and milling machine. Extremely robust and easy to operate.



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

Drilling and thread cutting machine.

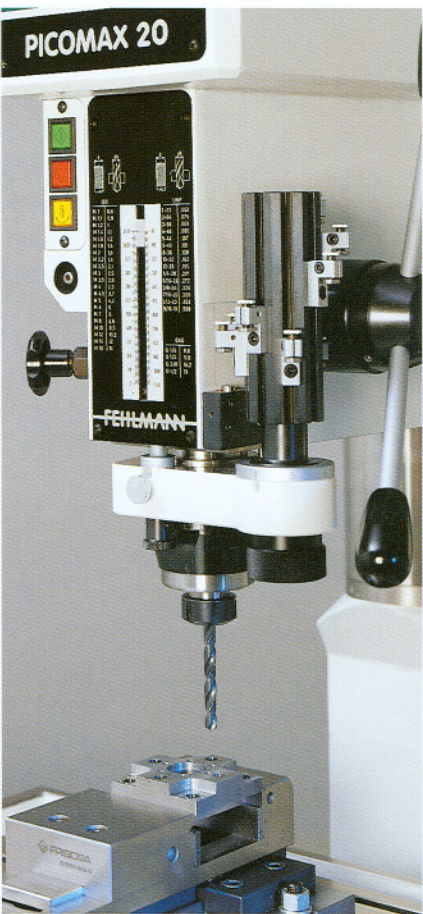
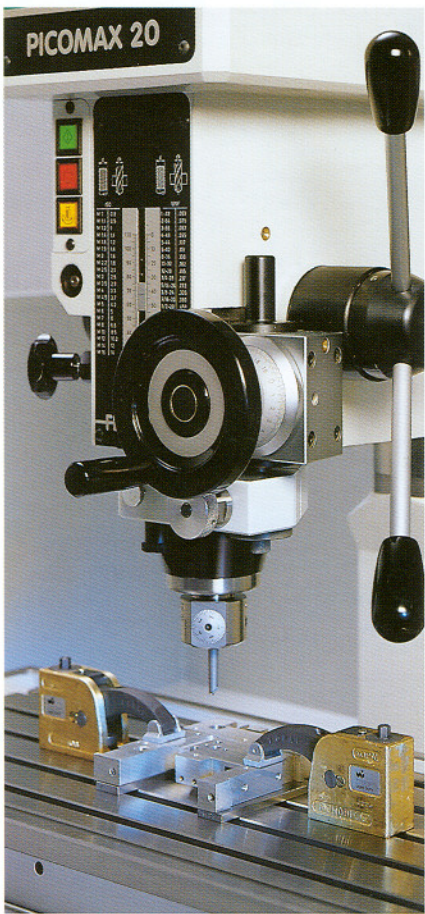


PICOMAX 20

For an efficient production of single pieces
and small lots.



Choosing between fine downfeed or turret stop. Changing the workpieces is a matter of seconds.



The quill of PICOMAX 20 can be equipped with different stop and infeed systems.

◀◀
PICOMAX 20 with depth stop and fine downfeed of drilling and milling spindle. The dial with a scale division of 0.01 mm is easy to adjust. Fine downfeed is absolutely necessary for milling and boring.

◀
PICOMAX 20 with depth stop and turret with 8 adjustable stops. This equipment is especially suited for quick and accurate drilling and thread cutting.



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.



The machine head can be adjusted to different workpiece 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.

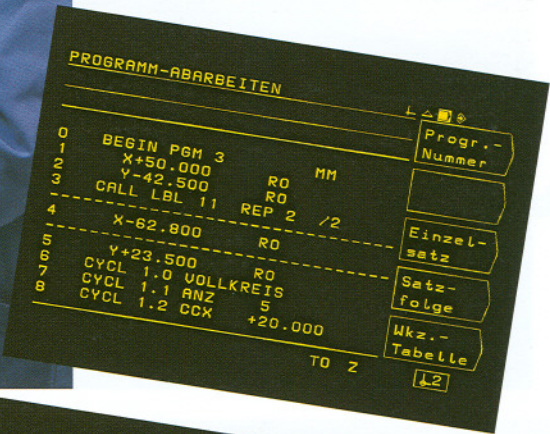
PICOMAX 20-M with feed table.

Quick, safe and easy to operate.



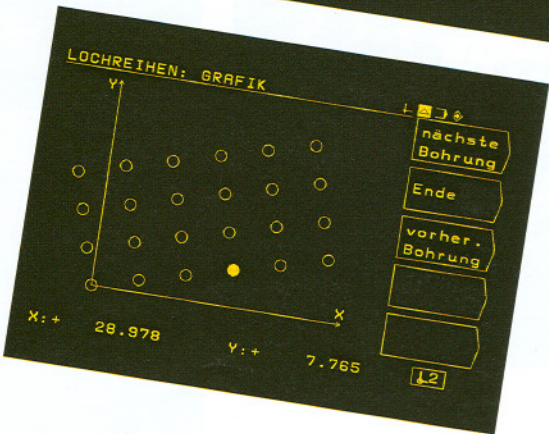
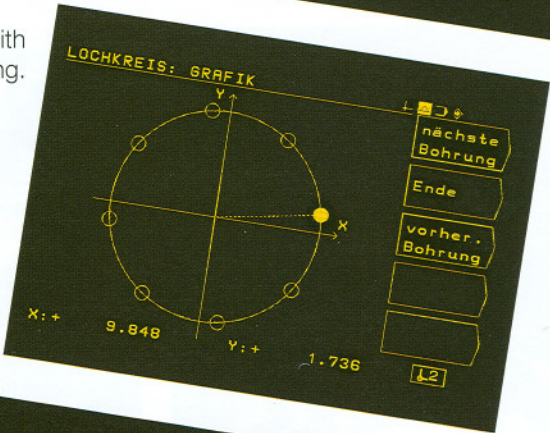
The attached DC motors allow for positioning the table at rapid traverse or by means of the continuously adjustable feed system. All axis of the table are provided with electric limit switches. Ideal for milling operations.

The PICOMAX 20-M with feed table KS 321-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.



Control unit with integrated table control and position display.
The position display offers many advantages such as programming 99 reference points, 20 programmes with a total of 2000 programme blocks, tool compensation, whole circle machining, subprogramming, teach-in, etc.

Hole circle machining with operator prompting.



Useful features for everyday use.



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

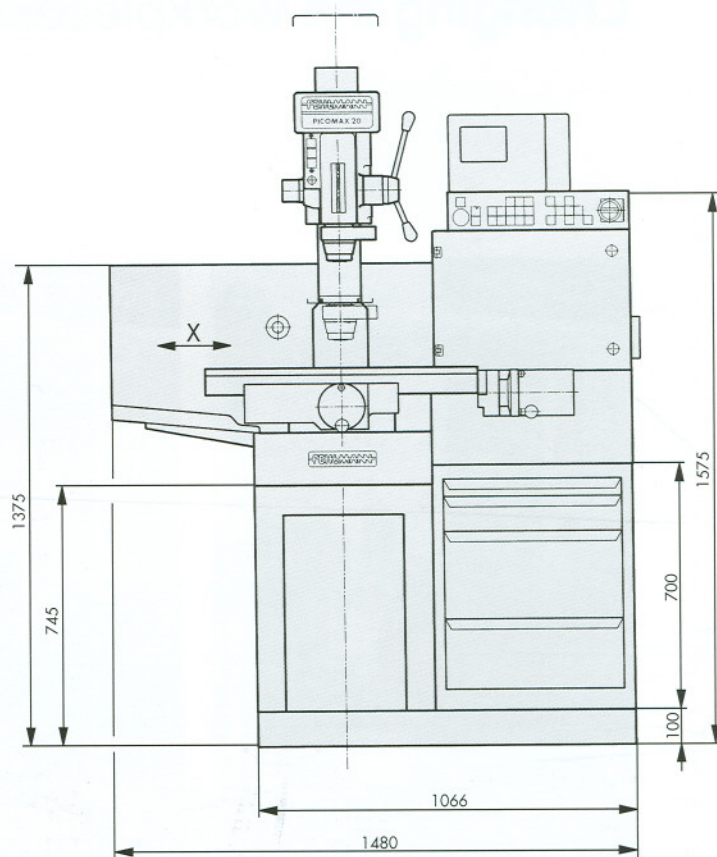
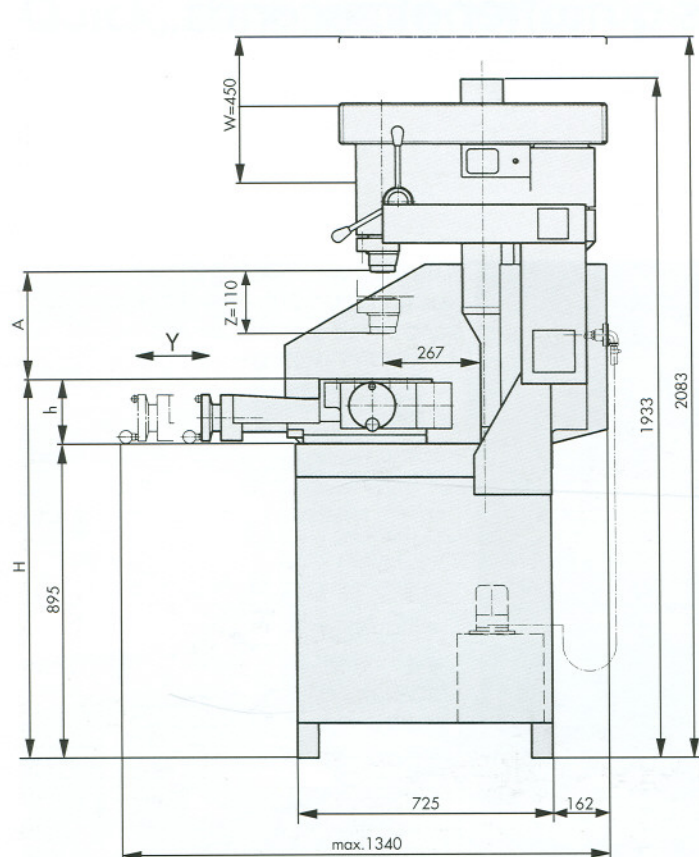
In next to no time, the thread cutting automatic of PICOMAX 20 for cutting or forming threads up to M16 from steel of 700N/mm² is ready for operation.



◀ The large distance between table and spindle head allows for the use of a precision internal grinding device for carrying out occasionally internal grinding work.

◀◀ 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 technical data.



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)	ca. 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	16A

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

W. Fehlmann Ltd.

Machine tool works

CH-5703 Seon/Switzerland

Represented by:

Table selection	Drilling table	KS 255	KS 320	KS 321 KS 321-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	1015 mm	1055 mm	1085 mm	1088 mm
Table height h	105 mm	145 mm	175 mm	178 mm
Max. table load	250 kg	150 kg	200 kg	200 kg
Tee-slots width	12 H8	10 H8	12 H8	12 H8
spacing/number	50/7	50/4	50/5	50/5

Technical specifications subject to change.

Master of practice.

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