

## CNC machine with step controller

**MiniFLAT®**  
Series M / P

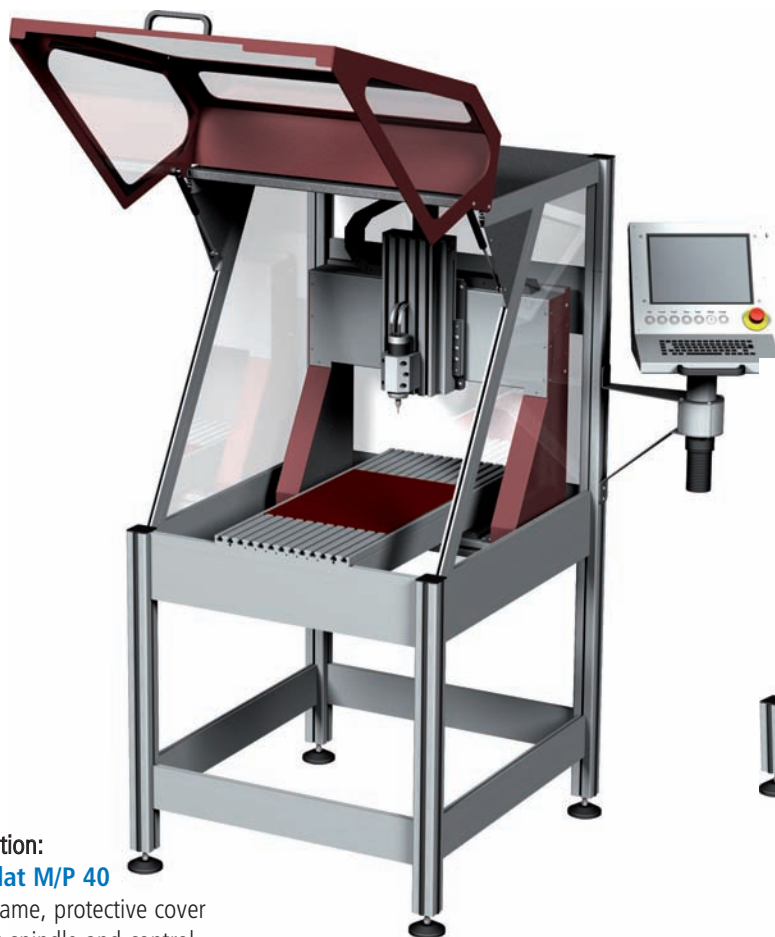


Illustration:  
**MiniFlat M/P 40**  
with frame, protective cover  
Milling spindle and control  
panel



Illustration:  
**MiniFlat M/P 20**  
with milling spindle

### General

**MiniFlat®** CNC machines are set-up modular (with and without baseframe), with high operating comfort for a multitude of automatable tasks and applications at an ideal price/performance ratio.

The basis is a sturdy aluminum steel frame with linear units. The clearance free ball screws used in the linear axes ensure high precision, accuracy and smooth running.

**MiniFlat®**-CNC machines are available as compact units in 4 standard sizes with traverse paths of

- X = 300 mm,
- Y = 200 / 400 / 800 / 1.000 mm,
- Z = 150 mm

in open and closed design (with protective cover).

The linear units with stepper motors are ideally adjusted to the control and the software. The stepper motor controller with safety circuit is located at the back side of the **MiniFlat®**.

The M series contains the Step Controller iMC-M, the P series the Step Controller iMC-MP. (refer to section "Controls".)

Operation is done from the front with function keys or optionally with the control panel.

For all CNC machines (standard color: grey) extensive accessories and software applications as well as designs with other traverse ranges are available.

Technical specifications subject to change.

# CNC machine

## with step controller

# MiniFLAT<sup>®</sup>

## Series M / P

### Applications

MiniFlat<sup>®</sup>-CNC Machines are the basis for the set-up of machines for:

- Drilling and milling
- Assembling and mounting
- Imprinting and engraving
- Metering and fastening
- Boring and polishing
- Bonding and casting
- Soldering and welding
- Measuring and testing
- Scanning
- ... etc.

### Options

For MiniFlat<sup>®</sup>-CNC Machines special devices and tools for different requirements and applications are available:

- Drilling and milling spindle
- Frequency converter
- Tool changer
- Cooling/spraying device
- Rotary unit
- T-Groove table milled
- Extraction
- Vacuum clamping plates
- FlatCom

- Baseframe
- Protective cover
- CNC Joystick
- I/O Module
- Applications
- Control panel

We are able to design and manufacture for OEM customers, in collaboration, special machines.

### Technical Data

	<i>MiniFLAT</i> M/P 20	<i>MiniFLAT</i> M/P 40	<i>MiniFLAT</i> M/P 80	<i>MiniFLAT</i> M/P 100
<b>Traversing range X/Y/Z</b> (mm)	300 x 200 x 150	300 x 400 x 150	300 x 800 x 150	300 x 1000 x 150
<b>Table clamping area WxD</b> (mm)	325 x 600	325 x 800	325 x 1200	325 x 1400
<b>Opening</b> (mm)	200			
<b>Dimensions WxDxH</b> (mm)	750 x 630 x 700	750 x 830 x 700	750 x 1230 x 700	750 x 1430 x 700
<b>Guides</b>	Linear units with precision steelshafts and ball circulation skid, clearance free adjustable			
<b>Process speed X/Y/Z</b> (mm/s)	50/100			
<b>Repeat accuracy</b> (mm)	≤ 0,02			
<b>Drive motors</b>	Stepper motors			
<b>Drive elements X/Y/Z</b>	Ball screw drive, clearance free adjustable			
<b>Control</b>	Step controller iMC-M with 4 final stages 36V/3,5A and power supply 200W with CPU board, alternatively with clock direction interface module Step controller iMC-M with 4 final stages 48V/4.2A and power supply 500W with CPU board, alternatively with clock direction interface module			
<b>Operation</b>	Function key, Emergency OFF (optional: control panel)			
<b>Software</b>	PAL-PC, Remote, Windows, ProNC, isy-CAD/CAM, Galaad, Win PC-NC, EdiTask, EMC (Linux)			
<b>Weight (kg) *</b>	approx. 60	approx. 66	approx. 78	approx. 84
<b>Item no. M Series (with iMC-M) *</b>	281110 0001	281110 0002	281110 0003	281110 0004
<b>Item no. P Series (with iMC-MP) *</b>	281110 0101	281110 0102	281110 0103	281110 0104

\* without base frame, without protective cover

Technical specifications subject to change.