

Engraving with your computer  
and sign-making / CAD software

**Mimaki**

# ME-500/ME-650 Engraving Plotters

## Main Features

ME-500

ME-650

- Maximum engraving areas of 483×305mm(19×12") and 650×440mm(25.6×17.3")
- Supports HP-GL<sup>\*1</sup> commands for compatibility with various sign-making and CAD software.
- Simultaneous 3-axis linear interpolation enables smooth and speedy 3D engraving.
- Engraves on metals as well as plastics.
- Rigid construction and precisely controlled servo motors for all X, Y and Z axes for accurate engraving.
- Software controllable spindle height adjustment makes multi-pass engraving easy.
- Material height sensor eliminates need for manual adjustment of spindle height and ensures engraving at constant depth.
- A pen<sup>\*2</sup> can be attached for test-drawing before engraving.
- Z-stroke of 60mm (2.4") for engraving on thick materials.
- One megabyte memory buffer allows repeat engraving and also frees computer for another job quickly.
- Handy operation panel for ease of use.
- Chip removal attachment and adaptor to vacuum pump are standard<sup>\*3</sup>





## ME-500

## ME-650

Maximum engraving areas: 483×305mm (19×12"), 650×440mm (25.6×17.3")

Long materials can be set along the front-back direction. Maximum material widths are 650mm (25.6") for the ME-500 and 750mm (29.5") for the ME-650.

### HP-GL\*1 compatible

Most of sign-making and CAD software programs for both PC and MAC support HP-GL. The ME-500/ME-650 can be driven by these programs.

### 3D-Engraving

Simultaneous 3-axis linear interpolation enables smooth and speedy 3D engraving.

### Wide variety of materials

The ME-500/ME-650 can engrave on metals as well as plastics.

### Accurate engraving

Rigid construction and servo control technologies of Mimaki accumulated through years of developing and manufacturing of drafting and cutting plotters allow the ME-500/ME-650 to engrave very accurately. All X, Y and Z axes are servo motor driven for maximum precision.

### Automatic material height sensing and constant depth engraving

Material height sensor eliminates need for manual adjustment of spindle height and ensures constant depth engraving on a material with uneven thickness.

### Test-drawing with pen

Optional pen can be attached to test-draw before actually engraving. (Optional pen holder is required to install the pen.)

### 60mm Z-stroke

Spindle can move up to 60mm (2.4") above table and allows materials of up to 50mm (2.0") to be set.

### Software controllable spindle height adjustment

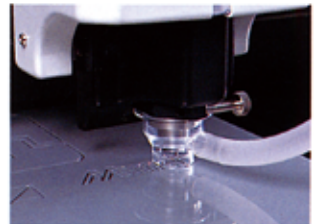
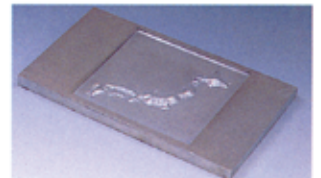
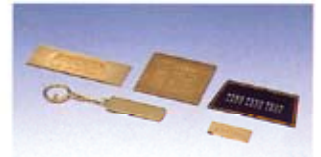
Spindle height adjustment can be done through software as well as from the ME-500/ME-650's handy operation panel, which makes multi-pass engraving easy.

### Large memory buffer

A computer can send jobs to the ME-500/ME-650's one megabyte memory buffer without waiting for the ME-500/ME-650 to finish engraving. The computer therefore can be used for another job while the ME-500/ME-650 are engraving. Also, data stored in the memory can be used to engrave the same job.

### Handy operation panel

Operation panel is separated from the main body for ease of use. All electrical circuitry is contained in the main body and the handy operation panel.



## SPECIFICATIONS

Model		ME-500	ME-650
X-Y Axes	Engraving Area	483×305mm (19.0×12.0")	650×440mm (25.6×17.3")
	Speed	Engraving	0.5-50mm/sec (0.02-2.0"/sec)
		Moving	20-80mm/sec (0.8-3.1"/sec)
	Acceleration	Engraving	0.05G
		Moving	0.3G
Mechanical Resolution	0.5μm		
Z-Axis	Maximum Z Stroke	60mm (2.4")	
	Speed	Engraving	0.5-10mm/sec (0.02-0.4"/sec)
		Moving	5-30mm/sec (0.2-1.2"/sec)
	Acceleration	Engraving	0.05G
		Moving	0.3G
Mechanical Resolution	0.25μm		
Command Resolution	10, 25μm		
Spindle Rotation	7000-14000rpm		
Spindle Diameter	6mm (0.24"), 3mm (0.11") optional		
Maximum Material Weight	20kg (44lbs)		
Command	MGL-IIIC3 (HP-GL*1 based)		
Receiver Buffer Size	1MB		
Interface	RS-232C		
Flatness	0.2mm		
Distance Accuracy	0.1mm/300mm		
Perpendicularity	±0.3mm/300mm		
Repetition Accuracy	0.05mm		
Origin Repetition Accuracy	±0.2mm		
Power Requirement	AC100, 120, 220, 240V Factory preset		
Power Consumption	50/60Hz		
Operating Environment	Temperature	5-40°C	
	Humidity	35-75% (Rh) No condensation	
Dimensions (W×D×H)	785×730×510mm		880×940×510mm
	(30.9×28.7×20.1")		(34.6×37.0×20.1")
Weight	80kg (177lbs)		95kg (210lbs)

The specifications are subject to change without prior notice.

## Chip removal attachment and adaptor

The ME-500/ME-650 are equipped with a chip removal attachment and an adaptor to a vacuum pump. Typical vacuum pump\*3 can be easily attached to the adaptor. Optional Vacuum Pump Controller turns on/off power to the vacuum pump so it will run only when engraving.

## SUPPORTING TOOLS AND ACCESSORIES

SPA-0014	: Pen Holder for DU-23
SPA-0015, 0016	: Chip Removal Attachment (26.0, 11.0mm diameter)
SPA-0019	: Clamp tool
SPA-0021, 0024, 0032	: Engraving Cutter Holder (6mm, 3mm & 1/4 inches diameter)
SPA-0026	: Holder for BS Tapered Shank Cutter
SPB-0010, 0014, 0015	: Engraving Cutter (0.4, 0.2, 1.0mm)
SPB-0016	: Braille Cutter
SPB-0017, 0026	: End Mill (2.0, 1.0mm)
SPB-0018	: Ballnose End Mill (1.0mm)
SPA-0028*4	: Modification Kit for BS Tapered Shank Spindle Type
OPT-C0078, C0081	: Vacuum Pump Controller (120V, 220V AC)
OPT-C0090	: Adaptor Kit for Kavo High Speed Spindle
OPT-C0094	: Vacuum Table (ME-500)
DU-23	: Ball-Point Pen (Used with SPA-0014, 0020)
SPC-0067, 0068	: Gluefilm (For ME-500, 650)
SPC-0024	: Spindle Motor Brush
SPA-0025	: Chip Removal Attachment for Modeling Purpose

\*1 HP-GL is a trademark of Hewlett-Packard Co.

\*2 Pen and pen holder are optional.

\*3 Vacuum pump is not included.

\*4 BS Tapered Shank Spindle is suitable for highly precise engraving.

For this spindle, the following accessories are available.

SPA-0020	: Pen Holder for DU-23
SPA-0017	: Chip Removal Attachments (3.0 & 9.0mm diameter)
SPA-0022	: Holder for 3mm Diameter Straight Type End Mill
SPB-0025, 0019, 0020, 0021	: Engraving Cutter (0.1, 0.2, 0.4, 1.0mm)
SPB-0027, 0022, 0023	: End Mill (1.0, 2.0, 3.0mm)