

**Polymer Plus  
MB-100  
Die Production Unit**



**Eliminate lead time for hot stamping orders!  
Bring Die production In-house.**



Often customization orders are won or lost as a result of lead time. The Polymer Plus MB-100 allows you to bring hot stamping die production in-house, reducing lead time significantly.

Process our rigid photopolymer hot stamping material in this mini exposing and drying unit. Designed specifically for processing metal backed photopolymer plates to be used in hot foil stamp applications. Maximum exposure area is 4x8".

The upper exposure drawer features a unique glass-over-foam locking assembly for exposure of negative film and photopolymer plates. Four 15-watt ultraviolet lamps powered by self-starting ballasts provide plenty of exposing power. Cycle time is controlled by an electronic digital timer. The lower drawer houses a 400 watt convection oven for drying a plate after washing by hand. Temperature is maintained by use of an electronic microprocessor temperature controller. Both drawers ride on ball-bearing drawer slides for smooth operation.

Modular construction facilitates repair and replacement of parts should that ever become necessary. Designed and built in USA.



Upper Drawer  
Exposure to UV Light



Lower Drawer  
Convection Drying Oven

**Specifications:** Dimensions: 16" wide x 12" deep x 11" high  
 Machine weight: 37 lbs. Shipping weight: 50 lbs.  
 120 volt, 60 Hz., 6 amps (North America) \$ 1980.00  
 240 volt, 50 Hz., 3 amps (Export) 2150.00

# Making Hot Stamping Plates with the MB-100

Three simple procedures are all that's required to produce a hot stamping die with the MB-100.

## 1. Set Image for Hot Stamping

The original hot stamping image can be prepared in many different ways. The preferred method is to use a personal computer and a simple "desktop publishing" software program along with a laser printer (600 dpi or greater density) for good image resolution. Customer provided copy needs to be scanned for printing by the laser printer. To make a negative with the exposure unit, the original copy must be laser printed on vellum paper. Vellum is translucent, allowing light to pass through. Simply insert our laser printer compatible vellum paper in the paper tray and print!

## 2. Producing the Negative

### Step 1: Expose Negative Film

The vellum original is placed in the exposure unit along with a piece of JMP Daylight Safe Negative Film. Expose film to ultraviolet light for one minute.

### Step 2: Spray Negative Film with Developer

The film is sprayed with a water-based developer to loosen the emulsion in the unexposed areas.

### Step 3: Wipe away Emulsion

Simply swish the film with a soft cotton pad to remove the emulsion and reveal your copy. Finish by rinsing with tap water and drying with a paper towel.

## Negative Material Supply Kits

### DS-1 \$62<sup>.13</sup>

20 sheets	Vellum Paper, 8½"x11"
10 sheets	Daylight Safe Film, 9"x12"
8 ounces	Developer in a Spray Bottle
100 sheets	Soft Cotton Wipes
1	White Plastic Washout Plate

### DS-2 \$184<sup>.21</sup>

50 sheets	Vellum Paper, 8½"x11"
50 sheets	Daylight Safe Film, 9"x12"
1 quart	Developer with a Spray Bottle
100 sheets	Soft Cotton Wipes
1	White Plastic Washout Plate

## 3. Producing the Polymer Die

### Step 1: Expose Polymer Plate

The negative is placed over the photopolymer plate. A sheet of glass is clamped over the negative and photopolymer material. The photopolymer is then exposed to UV light for three minutes.

### Step 2: Wash Polymer Plate

Washing of the photopolymer plate is done by hand with warm water and a soft scrub brush. No detergent is needed. Washing a plate thoroughly requires five minutes.

### Step 3: Dry Polymer Plate

The convection oven built into the machine is used to dry the plate. Temperature is set to about 190°F and the drying cycle takes 40 minutes.

### Step 4: Post-Expose Polymer Plate

The plate is then reinserted in the exposure drawer for a five minute "post exposure" cycle under the UV light.

## Photopolymer Plate Materials

Size	Each	Pkg of 5	Pkg of 10	Pkg of 20
<b>2 x 3 ½" Plates</b> (Model 307)	\$ 5.35	\$ 25.07	\$ 46.87	\$ 88.84
<b>3 x 6 ½" Plates</b> (Model 301, 303 & 305)	13.08	62.13	115.54	220.18
<b>4 x 7 ½" Plates</b> (Model 306)	21.10	100.28	187.48	355.34
<b>8¼ x 11¾" Plates</b> (Full Sheets)	47.96	226.72	425.10	806.60



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