Matrix Moldings

DEFINITIONS

Bearer Bars: Steel strips used to achieve proper molding depth of matrixes and stamps.

Originals: Either a magnesium photo-engraving or hard polymer reproduction of the artwork form which a matrix can be reproduced.

Matrix Floor: Point of measurement from the back of the matrix to the lowest point of impression in the matrix.

TM-120 Floor is recommended at .125"

DETERMINE THICKNESS OF BEARER BARS

1. Add the height of the original to the matrix floor.
2. Add the thickness of the release paper if placed between the bearer bars.
3. Be sure the bearers are the same height on each side.

STEPS FOR MOLDING

1. **Cut the matrix board 3/4" - 1" larger than the original photo engraving.**
2. **Spray the original with a mold release spray.**
3. **Place the matrix board coated side up on the serving tray, the original is then place on top face down. Cover with release paper.**
4. **Close press to a slight "daylight" opening and preheat TM 120 for 3 to 3 1/2 minutes.**
5. **Slowly close platens until bearers are tight, avoid speed of closure and excessive pressure.**
6. **Cure for ten minutes total at 307 F, preheat time is included in this ten minutes.**
7. **Carefully remove original from matrix mold, let cool. A soft bristle brush may be used to remove any foreign particles.**

TROUBLESHOOTING & REMEDIAL STEPS

TROUBLE	*POSSIBLE CAUSE*	*REMEDY*
Cracks in the coating surface.	**Cause is probably too long of preheat.**	**Close more slowly and reduce preheat time.**
Blistering.	**Caused by excessive moisture in the board or too high of press temperature.**	**Dry board, be sure to store in dry location, check press temperature.**
Matrix coating dulls or sticks in matrix.	**Caused by insufficient cure, too low of press temperature or undercut originals.**	**Be sure to cure matrix at 307 F for 10 minutes. Be sure your engraver gives all images "good" sloping shoulders.**