

SMITHIN' MAGICIAN III

Assembly Instructions & Die Specifications

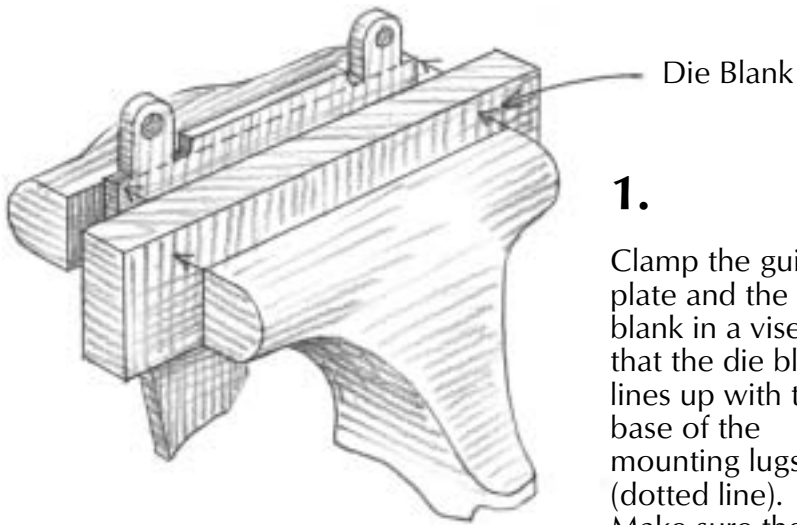


This kit includes (2) laser-cut guide plates, (2) $\frac{3}{4}$ " square guide bars, (1) base plate, (6) rivets, (1) cold rolled mild steel die blank, (2) shims, and assembly instructions. Use of an oxy-fuel torch and drill press are required for assembly. The guide assembly is designed to work with $\frac{3}{4}$ "x 2" cold rolled steel tolerances (+.000 -.008). Limit the use of mild steel dies for non-cutting hot work applications such as fullering. Mill tool steel dies to approximate cold rolled tolerances and use for all hot, or cold work applications. For information regarding tool steel dies call 800-944-6134

©2004 Hoffmann Publications, Inc.
P.O. Box 1699
Washington, MO 63090

SMITHIN' MAGICIAN III

Assembly Instructions

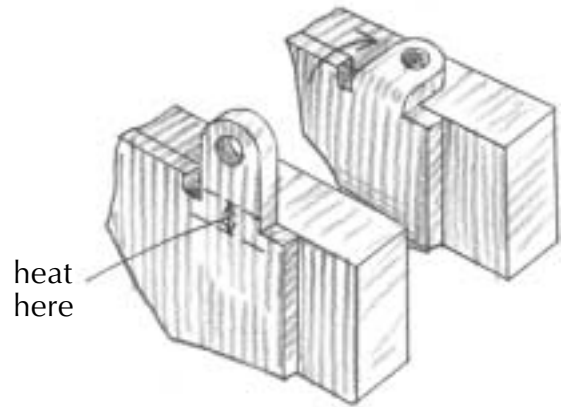


1.

Clamp the guide plate and the die blank in a vise so that the die blank lines up with the base of the mounting lugs (dotted line). Make sure the die blank is positioned higher than the vise jaw.

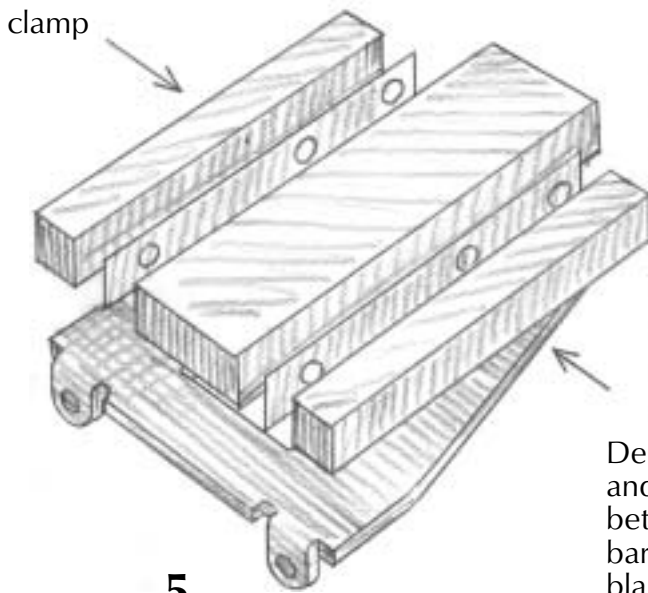
2.

Heat the base of each lug with an acetylene torch (use a welding tip to achieve a narrow band of heat), and hammer the lug flat against the edge of the die blank. Drill out the holes after bending if they become distorted.



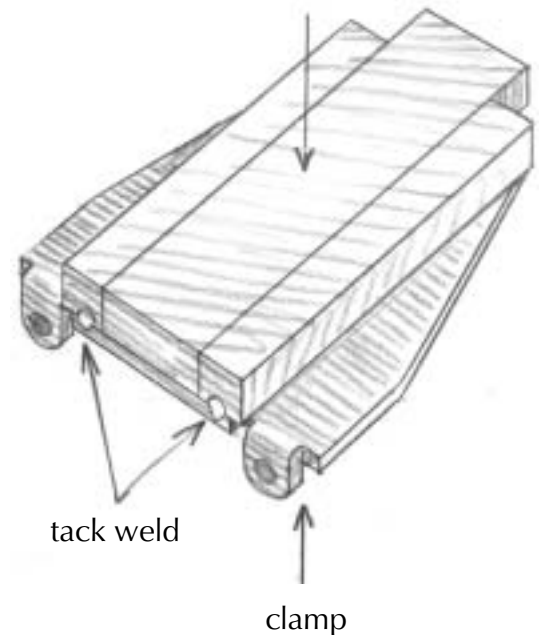
4.

Align the clamped guide bars and die blank with one of the guide plates and clamp them to it. Tack weld the ends of the guide bars and remove the clamps, die blank and shims.



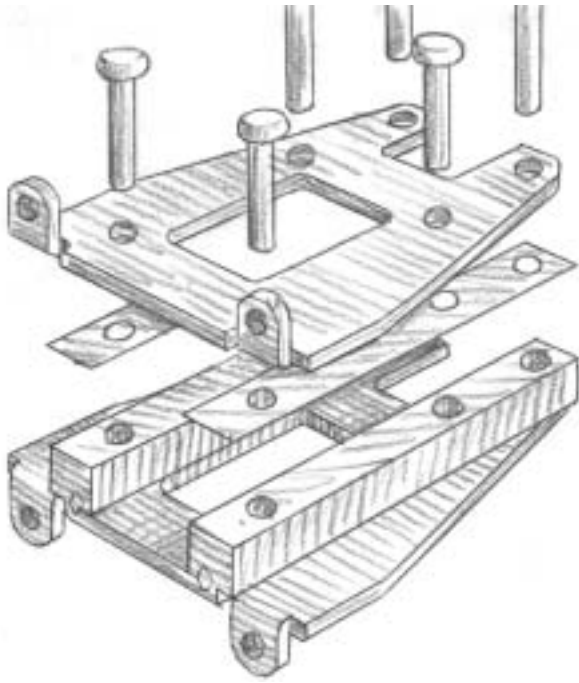
5.

Deburr the shims and sandwich them between a guide bar and the die blank and clamp together centered over the guide plate opening. The thickness of the shims is .008".



5.

Use the holes in the guide plate to drill 3/8" holes through the guide bars.

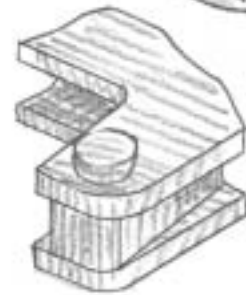


6.

Assemble as shown using the supplied rivets. Drill the holes out with a "W" lettered drill if the rivets fit too tight. Make sure the shims are on the same side as the rivet heads. You may want to assemble with 3/8" bolts instead of rivets to facilitate adjustment of the tolerance between the guide and the dies.

7.

Assemble, heat the rivet ends with a torch, and set them. Use a rivet set on the two bottom rivets to avoid damage to the mounting lugs. Round off the top of the guide bars and shims to match the guide plates. Grind off the tack welds at the base of the guide bars.



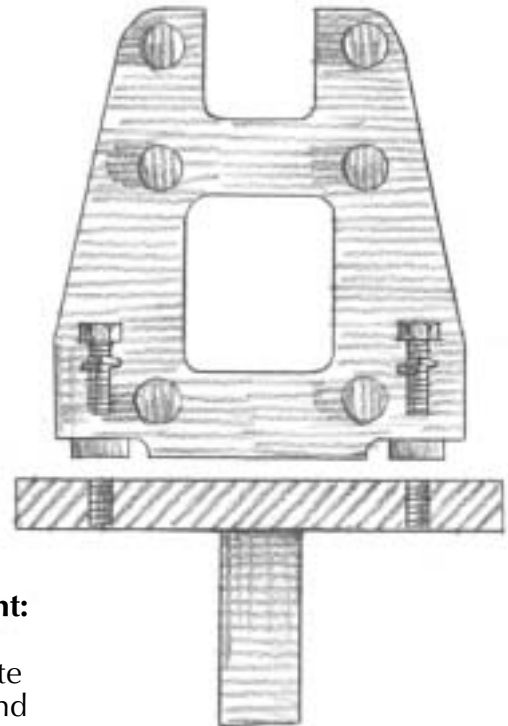
MOUNTING OPTIONS

Assembly Tips:

1. Make sure all the rivets slide easily through the holes before assembly. Driving the assembly together with tight fitting rivets may result in gaps between the parts.
2. Fit the shims away from the die side of the guide bars as much as possible to avoid interference with dies.
3. Use transfer punches to drill and tap the base plate in alignment with the feet.

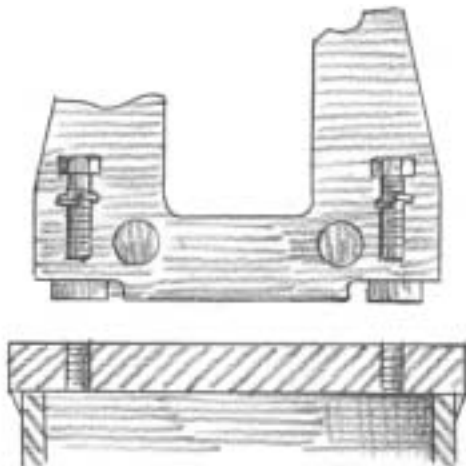
Anvil mount:

Weld a hardy stem to the base plate, and secure with 5/16" machine bolts and lock washers.

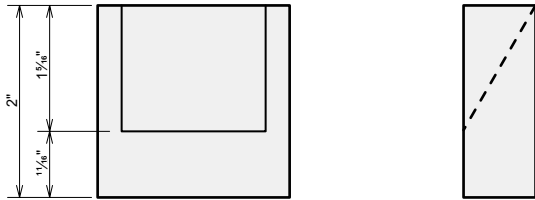
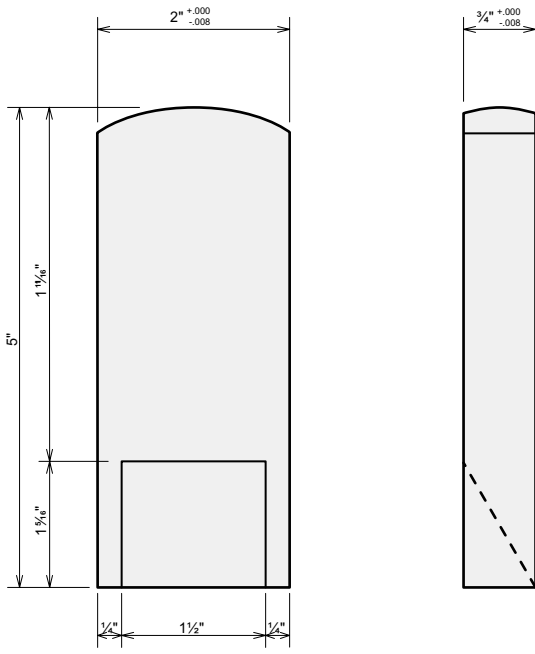


Metal Stand mount:

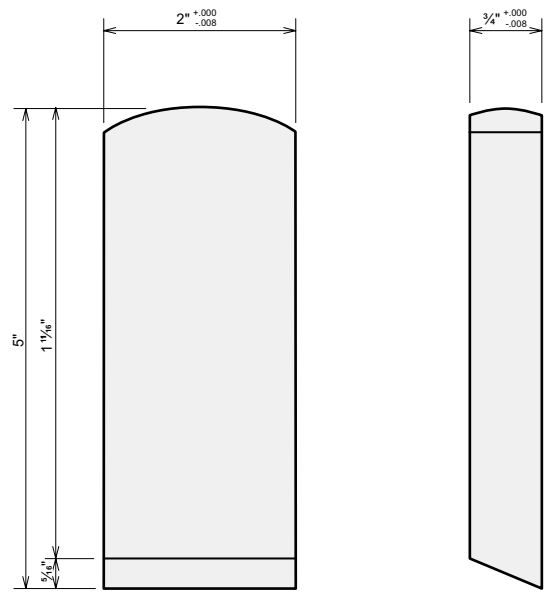
Weld the base plate to a metal stand and secure with 5/16" machine bolts and lock washers.



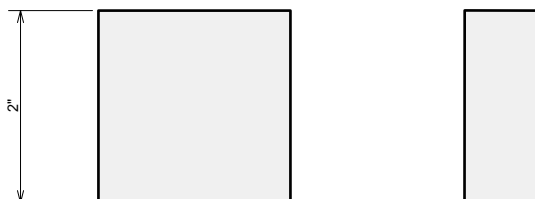
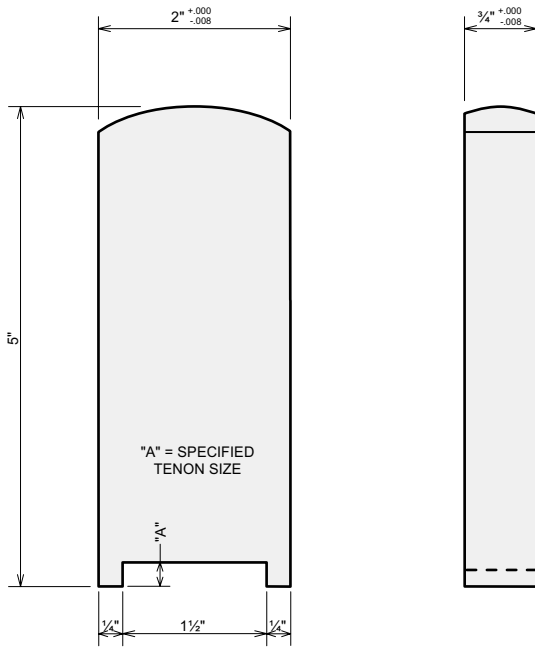
Common Die Sets



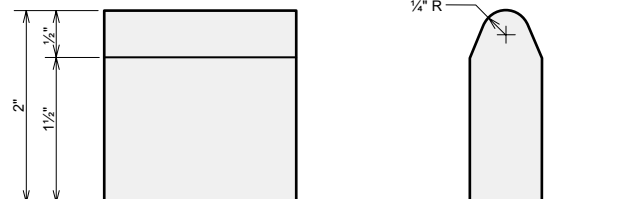
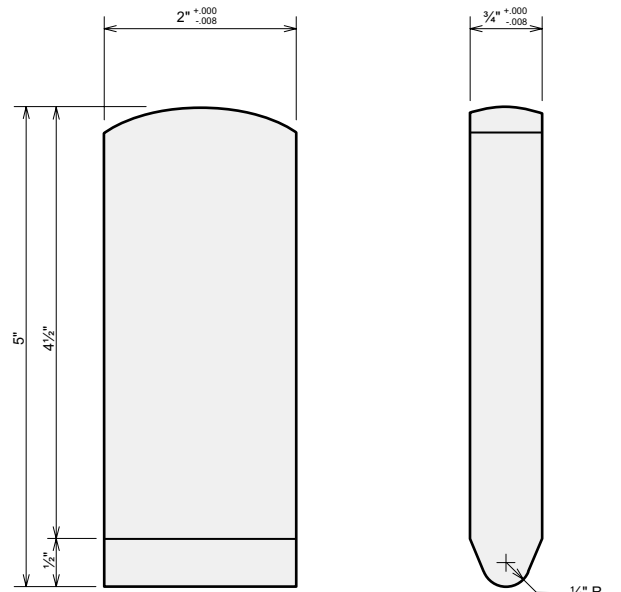
Cut-off



Side Set



Tenon



Fuller