

## Die Mounting Instructions for DMS Hot Stamping Systems between 6 and 10 inches in width and with steel shafts



570A Telser Road  
Lake Zurich, IL 60047  
Toll Free (800) 655-7882  
Tel. (847) 726-2828  
Fax. (847) 726-9292  
Email: [sales@dmsdies.com](mailto:sales@dmsdies.com)

### **The steps are as follows:**

1. Put new hot stamp die on 2 V blocks on a bench
2. Layout hot stamp shaft on bench adjacent to the die.
3. Install 1 of the 2 taper rings onto the die shaft with the taper facing away from the electrical box end and slide down towards the electrical box end until it hits the machined stop.
4. Pick up the shaft assembly and carefully insert it into 1 end of die that is sitting on the 2 V blocks. Make sure you insert it into the end of the die you intend to be your operator side or front of press side. It should slide on and come to a stop against the tapered side of the taper ring.
5. Now that the die is on the shaft, slide on the 2nd taper ring onto the shaft in the opposite direction of the first, so the taper ring seats into the outer end of the die.
6. Now insert the solid steel pin into the hole on the outer end of the die. By the way, there probably is a similar hole in the front end of the die, and at this time that should be plugged with a balled up piece of paper or something similar and not sensitive to heat to prevent cooling air from leaking out that hole later.
7. Slide on the gear spacer, which has a slot in it for the pin to go through. The small flange on 1 side of the gear spacer should face away from the die
8. Put the key in the key slot on the shaft
9. Slide the gear onto the shaft with the pin slot facing into the end of the pin. As you slide this on, you will be aligning the key slot in the center of the gear over the key, and at the same time rotating the gear after it is on the key a little bit to get the end of the gear pin to go into the pin slot on the inside face of the gear. This is easier than it sounds after you have done it the first time.

10. Now slide on about 3 or 4 wavy spring washers onto the shaft. Make sure that you offset the slots in the wavy washers so no 2 have a slot in the same position right next to each other. These wavy washers are important in that they will keep the gear and die tight on the shaft, but allow the die to grow in length when it is heated up without breaking something. The next step will discuss putting a nut on but not fully compressing these springy wavy washers, which is very important.
11. Install the lock washer onto the shaft aligning it with the keyway so it will not rotate later.
12. Install the nut by threading it onto the shaft until it meets the lock washer. Use the special spanner wrench included in your toolbox to hand tighten the nut into the lock washer.
13. **THIS IS IMPORTANT.** YOU DO NOT WANT TO OVER TIGHTEN THIS NUT. YOU WANT TO TIGHTEN IT UNTIL THERE IS NO SLOP OR PLAY SO THE DIE AND GEAR DON'T SLIDE AROUND ON THE SHAFT, BUT WITHOUT FULLY COMPRESSING THE 3 OR 4 WAVY WASHERS. THE WASHERS MUST NOT BE FULLY COMPRESSED, SO THEY CAN TAKE UP THE GROWTH OF THE DIE WHEN IT IS HEATED.

ANOTHER WAY TO DO THIS IS TO FULLY TIGHTEN THE NUT UNTIL THE WAVY WASHERS ARE FULLY COMPRESSED, AND THEN BACK OFF THE NUT 1 ½ OR 2 TURNS.

14. OK, now that you have the nut tightened the amount you want, align the outer slot on the nut to any leg on the lock washer. Then using a screwdriver or similar, gently bend the leg of the lock washer into the slot on the nut. This will keep the nut from rotating and becoming loose over time.
15. OK, you're almost done. Now install a snap ring onto the shaft in the first groove outside of the nut. Next, slide on the outer bearing block until it sits against the snap ring. Then install another snap ring to hold the block onto the shaft.

That's it, you're finished!

Feel free to call David or Scott or Gerry at DMS if you have any questions or problems.