

# **PULLMAX SHRINK DIE SET UP MANUAL**

PAGE 2: STEP A - TRIM DIE SHANKS

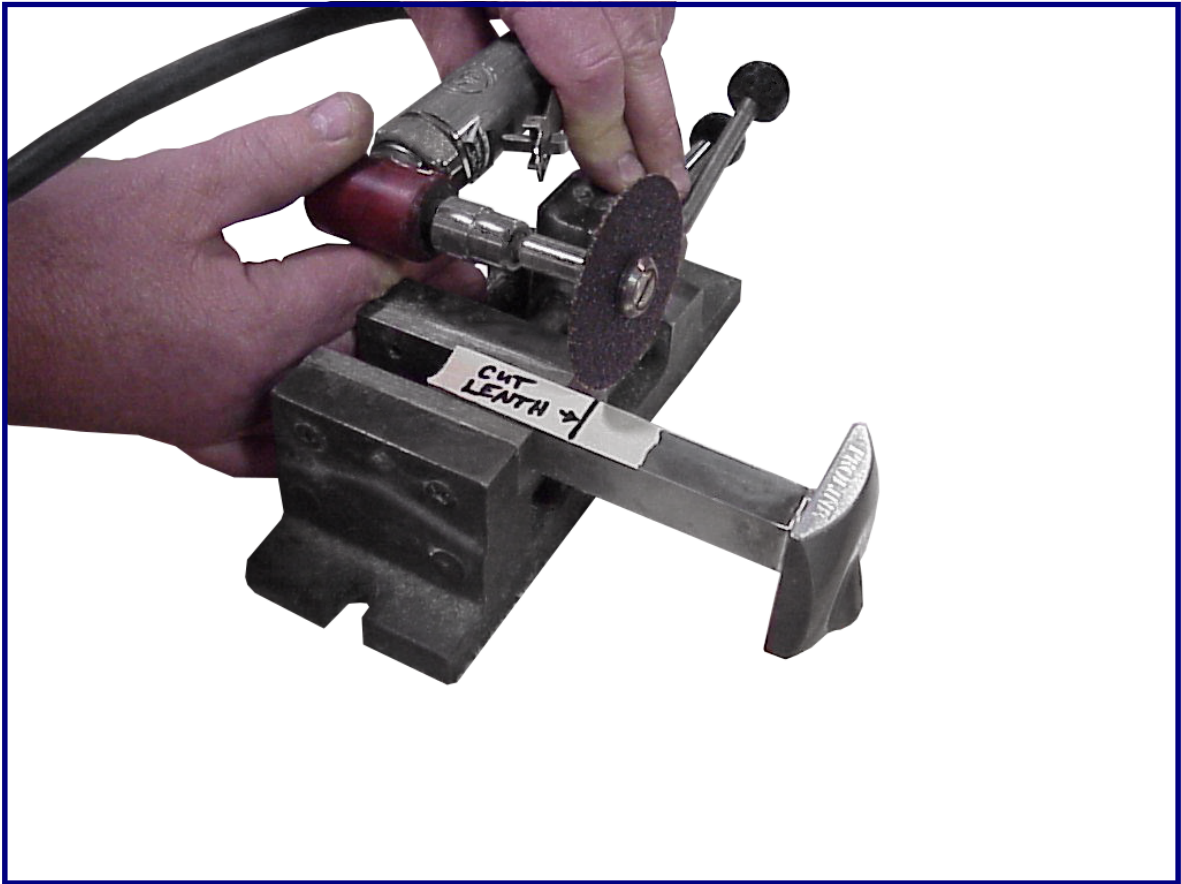
PAGE 3: STEP B - DIE SET UP

PAGE 4: STEP C - ADJUSTMENTS

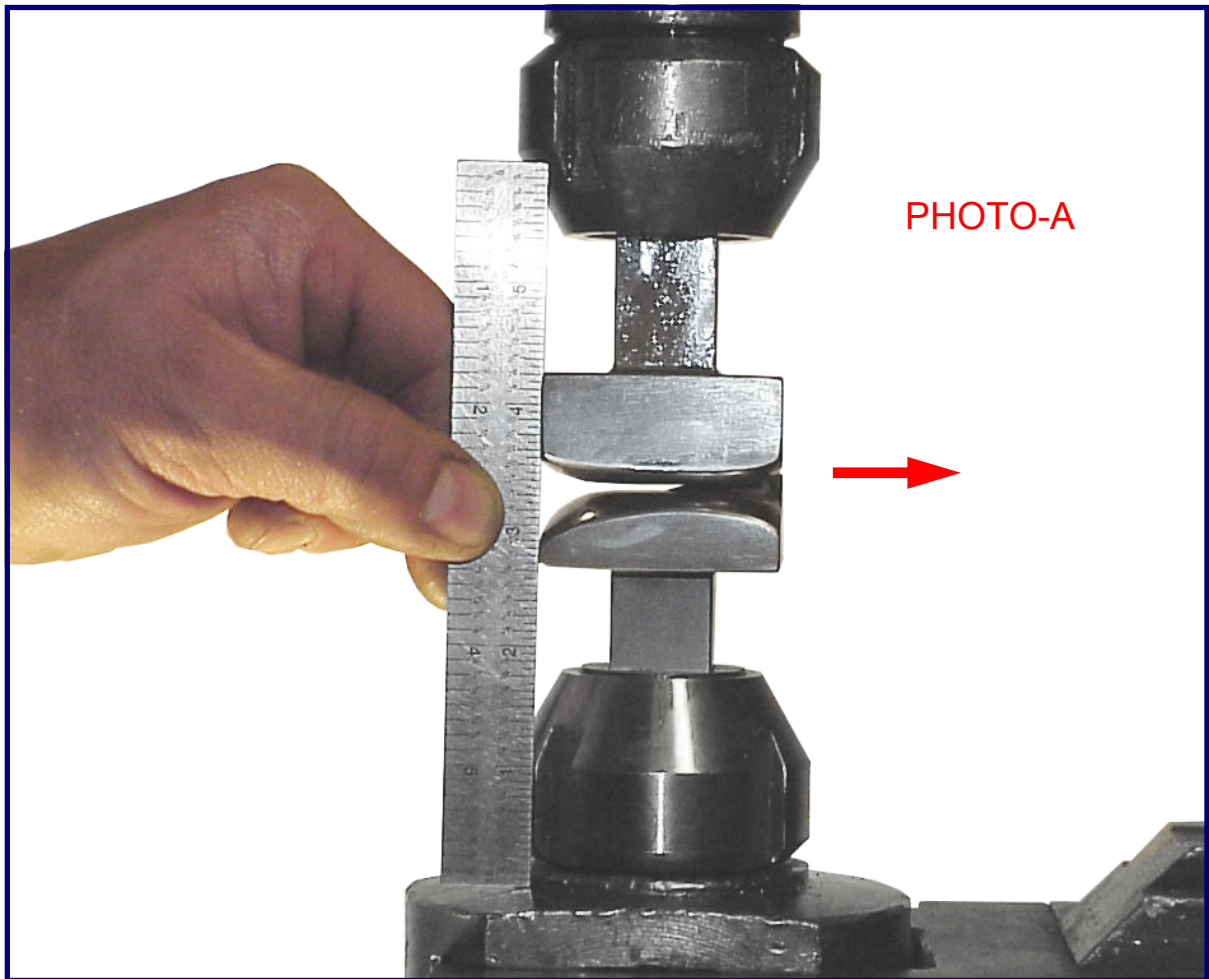
PAGE 5: STEP D - GETTING STARTED

PAGE 6: STEP E - SHRINKING PASSES

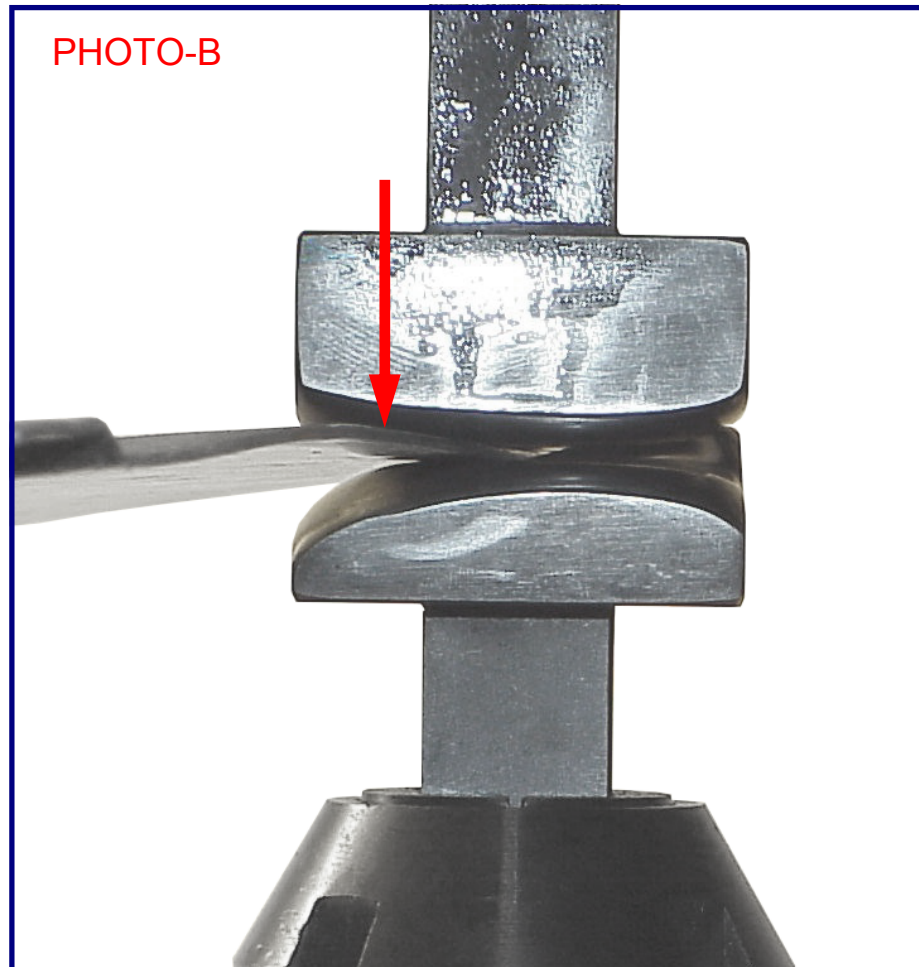
**STEP A.** Measure shaft length needed for your die block. Mark your cut length with a piece of masking tape. Clamp shaft and cut off excess shaft with a cut-off or “whiz” wheel. The material is hardened, so a saw blade will not work. Chamfer edges of cut.



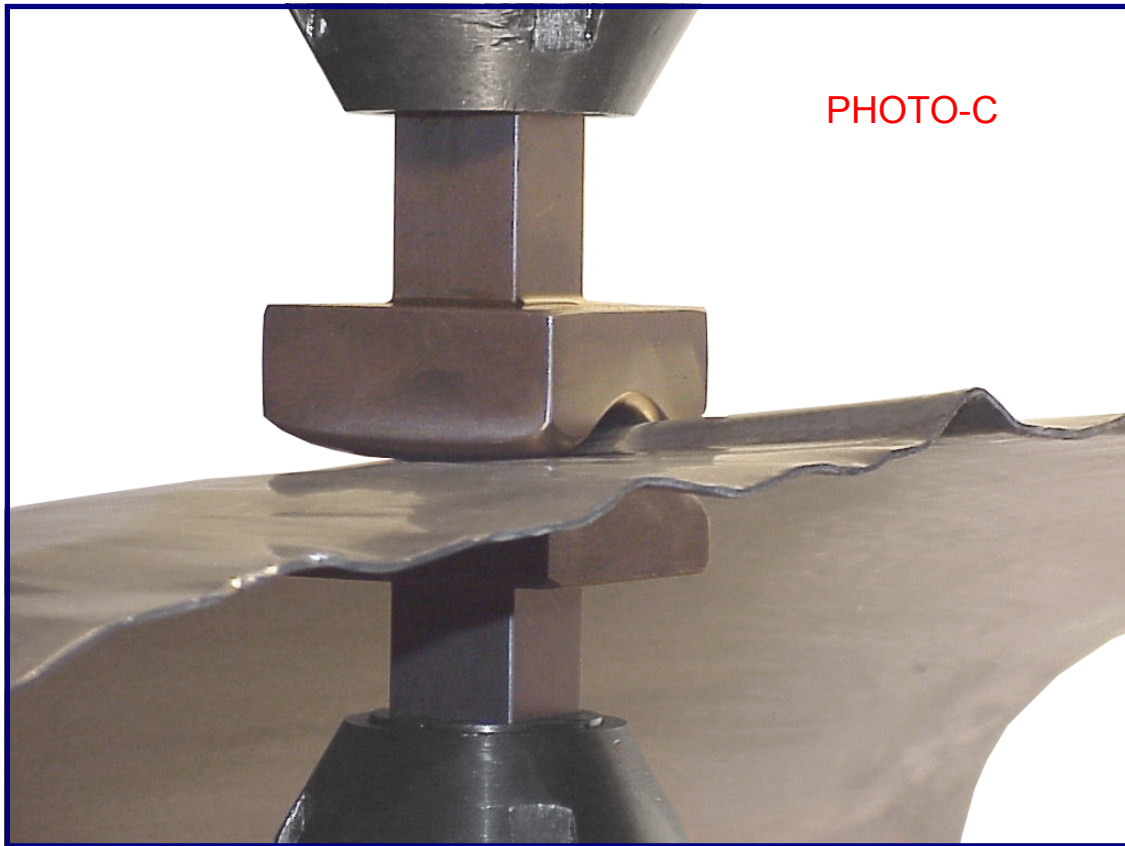
**STEP B.** Install upper die first, then install lower die. Check front to rear alignment with straight edge. If there is any misalignment, the bottom die should be towards the rear of the machine, not more than .03. Check side to side alignment with a straight edge. Dies should be within .010 misalignment side to side. (SEE PHOTO-A)



**STEP C.** Set adjustment by placing a piece of the material you plan to shrink between the upper and lower dies, at the base of the slope of the lower die. Rotate the machine by hand to the bottom of its stroke; adjust the bottom die up until you feel a slight drag on the material. Lock in place and retest to make sure there is only drag on the metal and that you are not squeezing the metal. If the machine is set up too tightly, you will not shrink the metal, but stretch it instead. Small adjustments will produce big changes. Make sure screw does not loosen while you are shrinking. (SEE PHOTO-B)



**STEP D.** You are ready to shrink, at this point. Start machine on low speed. Push metal in and pull back out using the same path. As the metal is pushed in, a pucker is pulled in the metal. As you pull the metal out, the pucker is flattened. If the dies are set properly, the metal will show signs of shrinking. It will also have some waves, as in the photograph. Try to keep it as smooth as possible. The panel will need to be planished for final smoothing. (SEE PHOTO-C)



**STEP E.** When shrinking a panel, you have to run more passes on the outside than you do on the inside. #1 will require fewer shrinks than #2 and #2 will require less than #3. The number will depend on the severity of the amount to be shrunk. (SEE PHOTO-D)

