

# T4060 RING MACHINE Assembly Instructions

( 1 ) T - Handle



( 1 ) Press Screw



( 1 ) Socket Screw



( 2 ) Cap Screws



( 1 ) Headstock



( 2 ) Standards



( 1 ) Base

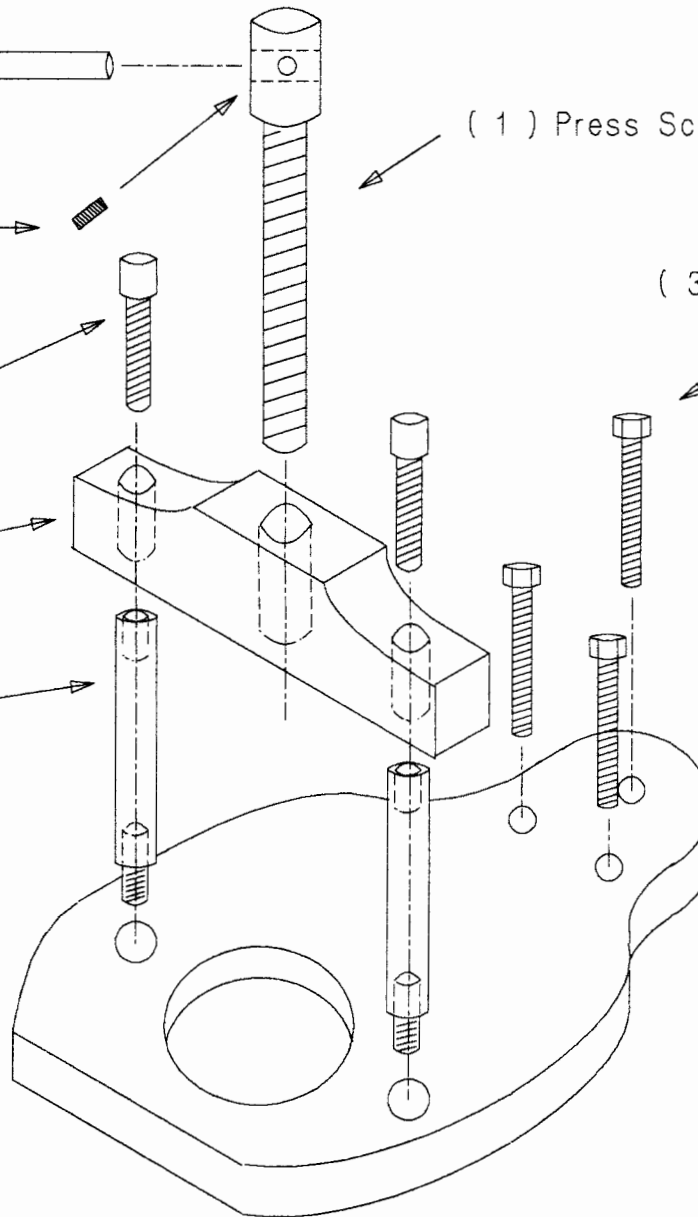


( 3 ) 1/2" Diameter Bolts with Nuts  
or 1/2" Diameter Lag Bolts.

( At least 1 1/2" long )

( not provided )

Used to attach machine  
to edge of bench or table



ALLIED SUPPLY  
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# T4060 RING MACHINE PARTS LIST

- 1- Base plate
- 1- Head stock
- 1- Press screw
- 1- set screw
- 2- Cap screws
- 2- Head supports w/ studs
- 3- Large base plate inserts (#1,2,3)
- 3- Small base plate inserts (#3A,3B,3C)
- 7- Bell dies (#4,5,6,7,8,9,10)
- 6- Tenon ring dies (#11,12,13,14,15,16)
- 1- Button (#17)

T4060  
RING SHRINKING MACHINE  
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SET UP

The machine is designed to hang over the edge of a bench or table top. There must be no obstruction on the underside, in front of the machine or within two feet directly under it. It should be secured to the top with (3)  $\frac{1}{2}$ " diameter lag bolts at least  $1\frac{1}{2}$ " long or (3)  $\frac{1}{2}$ " diameter bolts and nuts through the bench top.

PLEASE READ BEFORE USING

This machine can exert hundreds of pounds of force! Please use with care and practice on "junkers" before using on customers' instruments.

Please use caution when shrinking anything and only shrink to the point rings fit snug. A tenon ring that can be lightly tapped in place and any ring that doesn't turn when grasped by hand is snug. Most rings are plated and while the ring will shrink the plating will not. Some rings will appear to crack but this is generally the plating. Unfortunately there is no way to avoid cracking the plating.

TO TIGHTEN THE LARGE CLARINET BELL RING

Select the bell shaped upper die (#4 thru #10) which best fits the bell ring. This is determined by the following method: The outside of the die should be about  $1/16$ " smaller than the outside diameter of the large bell ring. Be sure that the die is large enough to rest entirely on the ring, not on the wood or plastic. Insert the bell, large end up, into the tapered hole (base, #1 or #2). If the hole is too large and the bell falls through, use the next smallest die and put the bell in that die.

Place the previously selected upper die (#4 thru #10) on the bell ring and tighten the "T"-handle just until contact is made with the top of the upper die. Be sure to center the upper die to the bell by shifting the small end of the bell which protrudes from the underside of the base. When the die is centered on the bell,

tighten the screw until all slack is taken up, you will feel the pressure increase, and the wood portion of the bell will no longer turn by hand. Turn the "T"-handle  $\frac{1}{4}$  of a turn and release. Remove the bell (sometimes a light tap of a rawhide hammer will be needed to free the bell from the press) and check to see if the ring is tight. If it is no, repeat the procedure.

#### CAUTION

DO NOT USE TOO MUCH PRESSURE!! Remove and examine the bell often, rather than take a chance of crushing it.

#### PROBLEMS

If the large ring should turn or roll during the shrinking process, the upper die was too small. This condition is indicated by the appearance of a gap between the ring and the wood. To correct this condition, place the bell in the machine, small end up. Place the button (#17) on the bell with the indentation up. Press the entire bell into the tapered die until the ring returns to it's normal position. Do not press too hard: an eighth of a turn of the screw should be enough. This may loosen the ring, in which case the regular tightening operation must be repeated, using a larger upper die.

#### TO TIGHTEN THE SMALLER TENON RINGS

Select base insert #3 and the small tapered insert (#3A,B, or C) that the ring fits and place then into the machine. Select the tenon band die (#11 thru #16) so the ring can slip on the pilot with enough play for shrinking. Be sure the die is not so small that the inside of the ring protrudes beyond the die shoulder when the ring is moved to one side. Using too small a die may bend the ring.

Insert the tenon band die (#11 thru #16) and the tenon ring into the tapered insert (#3A,B, or C). Tighten the "T"-handle until pressure is felt. Only tighten the "T"-handle  $\frac{1}{4}$  turn and release. Remove the ring (sometimes you will need to lightly tap the ring with a soft driver and rawhide hammer to free it from the tapered die) and check the fit. If still too loose repeat the procedure.