

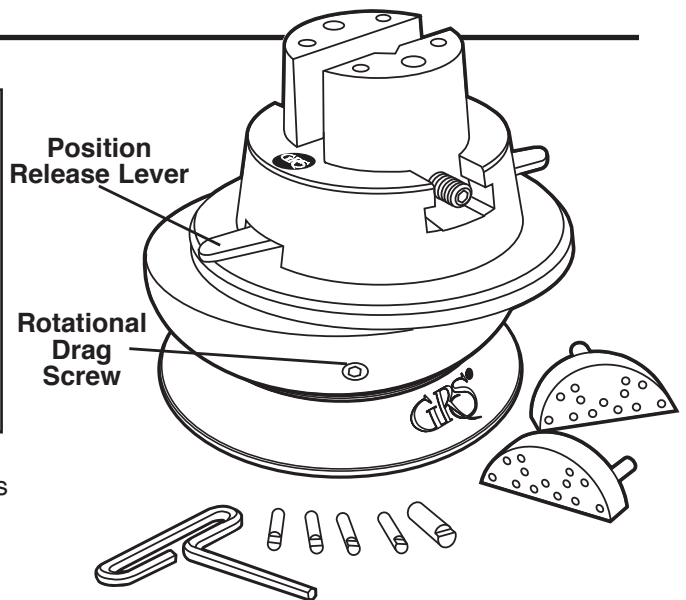
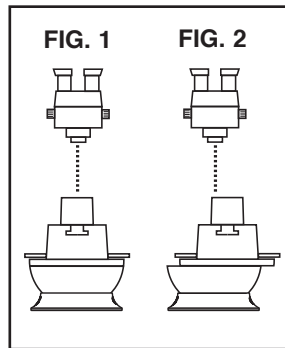
# GRS® Positioning Vise

For Engravers and Jewelers Using a Microscope

INSTRUCTIONS • #003-541

## How To Position

Make sure the vise head is in the center of the vise base. Place the vise directly in the center under the microscope (**FIG. 1**). Pressing the “Release Lever” will free the vise head so that it may be moved or slide in any desired direction. Release the lever and the vise head locks in place and will rotate from that desired point (**FIG. 2**). Users will quickly learn to position the vise while looking through the scope.



## Maintenance

Based on usage, open jaws fully and clean any dirt and metal pieces from the threads. After cleaning, apply a small amount of light oil to the threads.

## Wear Repair

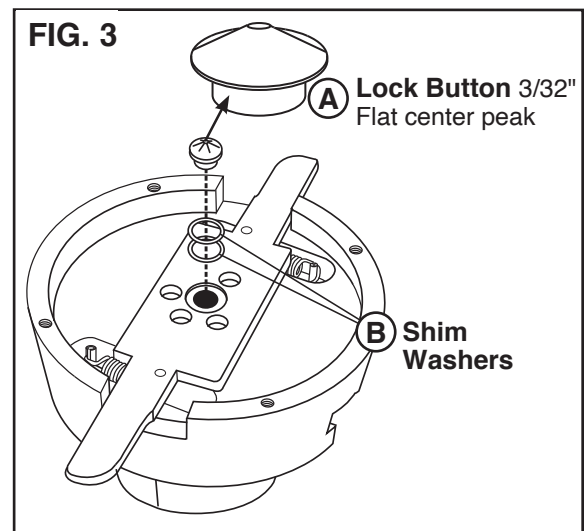
Parts that may wear and eventually need replacing are the “Lock Button” (**FIG. 3.A**) located at the center of the position release lever and the “Jaw Thread Pins” (**FIG. 8**) located in each jaw.

## Loss of Locking Tension

If the vise head does not stay in locked position, tighten the tension. Loosen the Rotational Drag Screw located on the side of the ball (**FIG. 4**). Lift the upper portion of the vise out of the base. Turn the vise head upside down and rest it on its top.

Remove the four hex head bolts (**FIG. 5**) from the mounting plate and lift the plate off. Set the bearing / post assembly (**FIG. 6**) to the side. The lock button (**FIG. 3.A**) is now visible in the center of the lever handle.

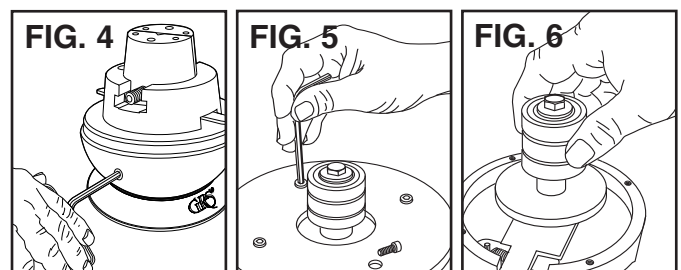
Remove the lock button with a small screwdriver by prying it up. The button should have a 3/32" flat in the center of the crown. **If the button is damaged or excessively worn**, we recommend replacing it. If it looks in good shape, you can add tension by placing shim washers (**FIG. 3.B**) under the button. This will raise it to create more locking tension.



Reassemble the vise by placing the bearing / post in the center of the vise head as shown in **Figure 6**. Set the mounting plate over the bearing/post and align the bolts.

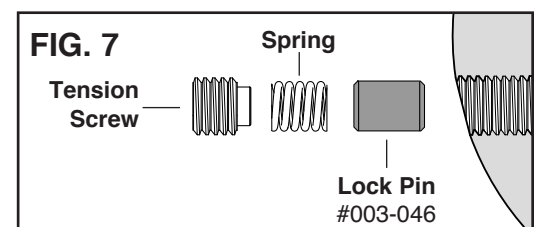
Pull the release lever open to move the vise head. Hold it in that position and then tighten the four bolts down. **Hold the lever open when tightening the bolts or damage to the lock button will occur.**

Place the vise head into the base and tighten the ball swivel tension screw (**FIG. 4**).



## Rotational Lock Replacement

The LOCK or DRAG PIN is subject to wear and may need replacement after extended use. Simply remove the ball swivel tension screw with the hex wrench. The Spring and Lock Pin should follow (**FIG. 7**). If not, turn the ball until they fall out. Replace the Lock Pin (#003-046), Spring, and Tension Screw.



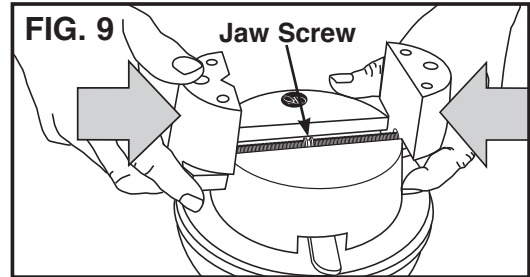
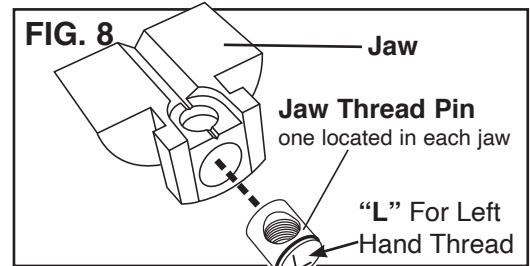
## Thread Pin Replacement Kit • #003-627

Includes Jaw Screw, Left and Right Thread Pins, O-Rings, and Tube of Synthetic Grease.

## Vise Jaw Thread Replacement • #003-627 & #003-628

Overtightening the jaws will cause wear and damage to the threads. If jaws become loose, replace with kit #003-627. Remove the jaws by opening them as wide as possible until they come off the end of the jaw screw (FIG. 8). The jaw thread pin is located on the underside of each jaw. NOTE: Before removing pins, locate the one with the "L". This is the left hand thread pin and will need to be replaced with the same. Apply a small amount of synthetic grease (included in kit) to the O-rings and jaw screw before installing them. Lift the jaw screw out of the yoke and replace it. Note which side the left hand thread is on. Grease the threads and yoke well.

Start the jaw threads at the same time when replacing them (FIG. 9). Hold each jaw in position and turn the jaw screw to close them. Either a large rubber band or a second person is useful to hold the jaws against the thread while the jaw screw is turned. If the jaws don't meet at the same time in the center, remove them and try starting the threads at the same time again.



## GRS Positioning Vise Complete Assembly #003-541

PART #	DESCRIPTION
002-067	#10-32 x 1/2" SHCS
002-091	Wrench 1/4" T Handle Allen
002-112	5/16"-18 x 3/4" HHB
002-127	O-Ring, 0.625 x 0.75 x .062
002-174	Roll Pin, 1/8" x 3/4"
002-212	Bearing, 5/8" x 1/2"
002-214	Washer, 0.312 x 0.859 x 0.125
002-450	Bearing 5/16" Steel Ball
003-007	Jaw Screw
003-008	Jaw, Left Hand
003-009	Jaw, Right Hand
003-015	Pin, 1/4"
003-016	Pin, 3/8"
003-020	Spring, Block Drag
003-064	Thread Pin, Left Hand
003-065	Thread Pin, Right Hand
003-067	1/2"-13 x 1/2" SSS FLT PT HF
003-141	Base-Positioning Vise
003-142	Vise Crown S.S.
003-143	Spacer, Drag Pin
003-144	Drag Pin
003-146	Yoke
003-148	Mounting Plate
003-151	Spring
003-206	Shim Washer
003-207	Lock Button
003-507	Pin Plate Assembly (2 Pin)
003-508	Pin Plate Assembly (1 Pin)
003-538	Post
003-540	Handle Assembly
022-149	Bearing
022-150	Race-.031 THK
022-171	Thrust Washer-.078 THK
033-020	Large Block Base Ring Plastic
033-021	Large Block Base Ring Rubber

