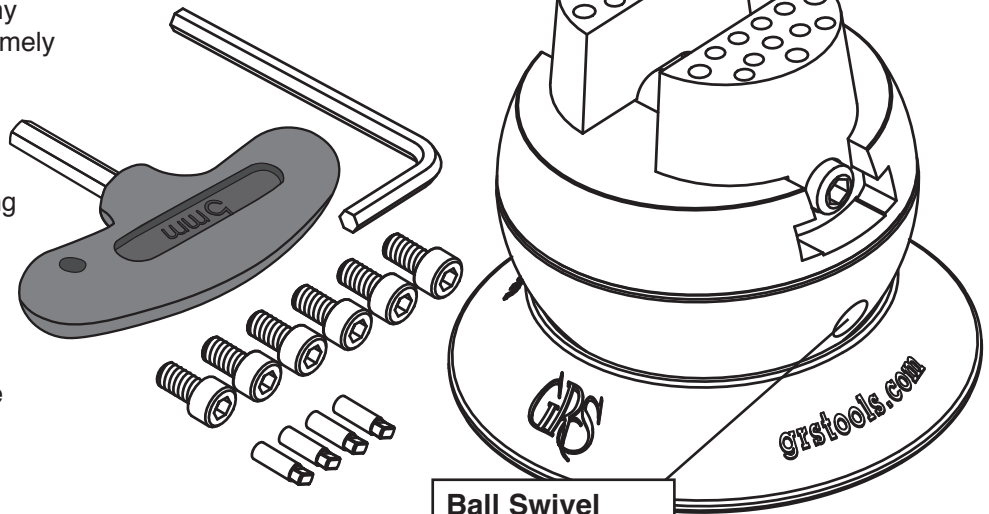


GRS[®] MicroBlock[®] Ball Vise For Engraving and Jewelry Making

INSTRUCTIONS • #003-683 & #003-684

The GRS MicroBlock[®] will provide many years of trouble-free service. It is extremely rugged in construction, yet is relatively simple and easy to maintain. Required lubrication is minimal.

The jaws are drilled to accept engraving block attachments. The MicroBlock[®] includes six socket head screws, which can be used to secure special items or fixtures. GRS offers the 520 Attachment Set (#003-520) that includes storage for the pins that come with the block.



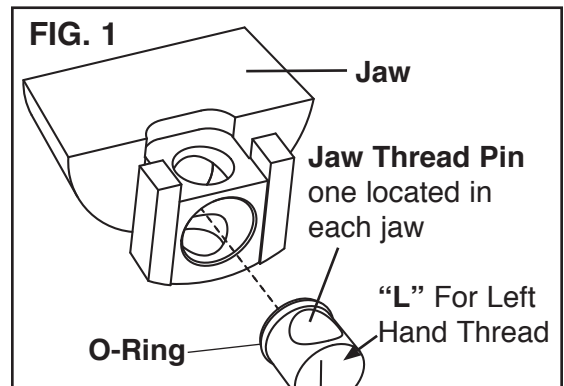
**Ball Swivel
Tension Screw**

Maintenance

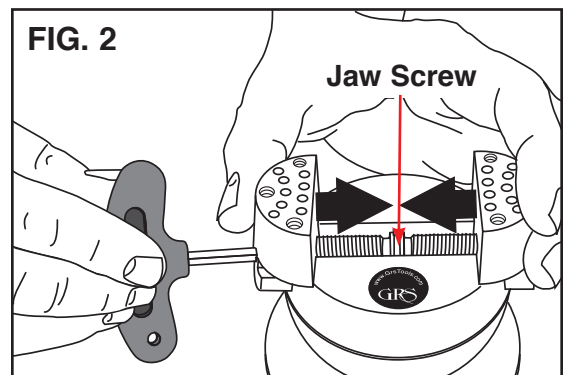
Based on usage, open jaws fully and clean dirt and metal pieces from the threads. After cleaning, apply a small amount of light oil to threads.

Jaw Thread Replacement

Overtightening the jaws will cause wear and damage to the threads. If jaws become loose, replace with kit #003-629. Remove the jaws by opening them as wide as possible until they come off the end of the jaw screw (**FIG. 1**). 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-ring 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.

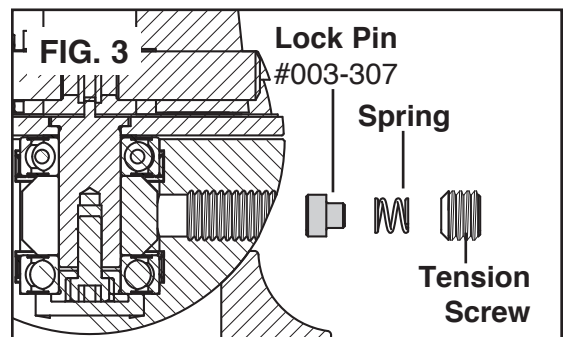


Start the jaw threads at the same time when replacing them (**FIG. 2**). Hold each jaw in position and turn the jaw screw to close them. Either a large rubber band or a second person is useful to hold the jaws against the thread while the jaw screw is turned. If the jaws don't meet at the same time in the center, remove them and try starting the threads at the same time again.



Rotational Lock Replacement

The LOCK or DRAG PIN is subject to wear by design and may need replacement after extended use. Simply remove the ball swivel tension screw with hex wrench. The Spring and Lock Pin should follow (**FIG. 3**). If not, turn the ball until they fall out. Replace the Lock Pin (order #003-307), Spring and Tension Screw.



Thread Pin Replacement Kit #003-629

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

520 Attachment Set #003-520

Included with MicroBlock[®] Ball Vise #003-684.

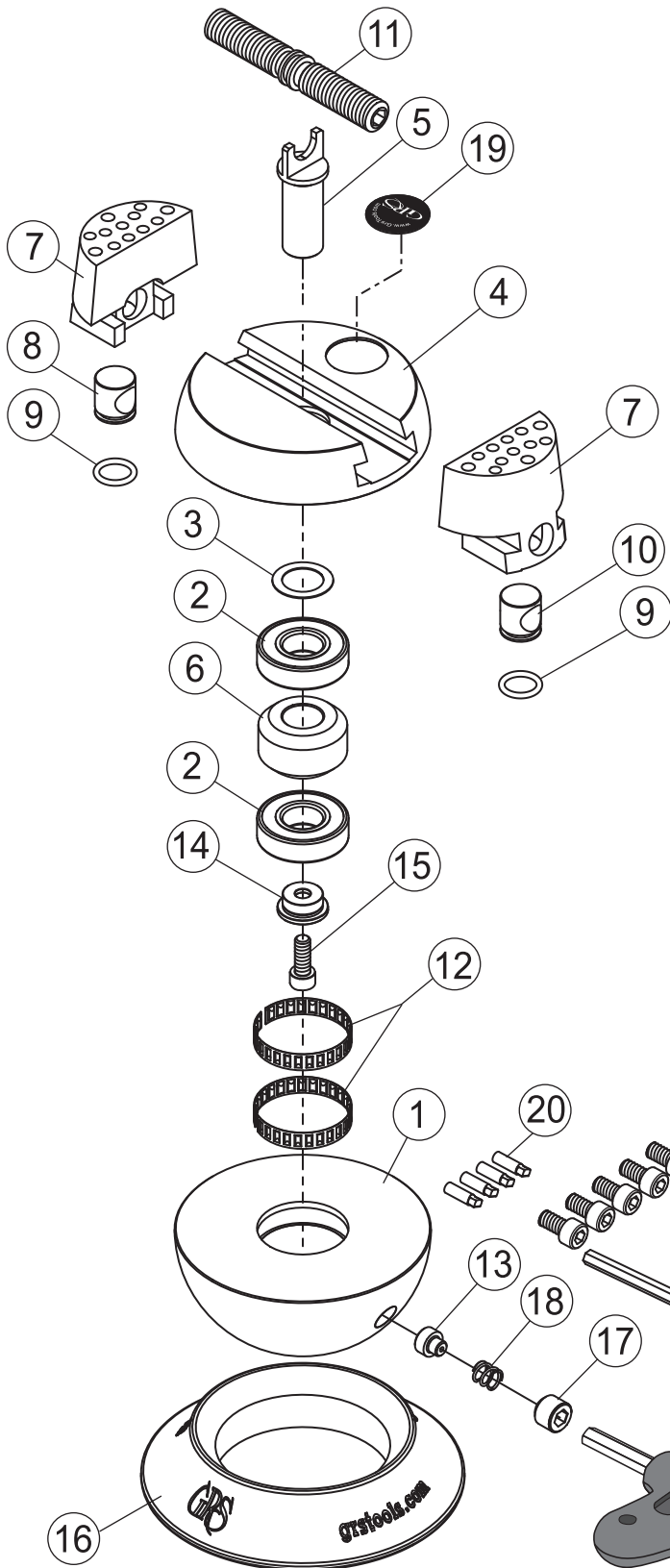


MicroBlock® Ball Vise

For Engraving and Jewelry Making

PARTS LIST • #003-683 & #003-684

GRS MicroBlock® Ball Vise Complete Assembly #003-683 & #003-684



PART #	DESCRIPTION
1	003-308 Stainless Steel 80 mm Base
2	022-379 Shielded Bearing
3	022-383 .015" x .513 " x .750" SS Washer
4	003-309 Crown
5	003-316 Jaw Screw Yoke
6	003-312 Bearing Spacer Brake Rotor
7	003-315 MicroBlock® Vise Jaw
8	003-314 Left Hand Drive Nut
9	002-084 O-Ring, 3/8" x 1/2" x 1/16"
10	003-313 Right Hand Drive Nut
11	003-317 Jaw Screw
12	022-380 Tolerance Ring
13	003-307 Lock Pin
14	003-311 Bearing Retainer
15	002-067 10-32 x 1/2" SHCS
16	003-310-V2 Support Base
17	022-382 Flat Nose Set Screw
18	003-306 Drag Spring
19	003-140 GRS Label
20	003-050 Attachment Pin #1
21	022-822 4 mm Hex Wrench
22	022-823 M5 x .8 x 10 mm Long SHCS
23	024-215 T-Wrench 5 mm Hex
24	003-679 Thermo-Loc Sample Kit

GLENDO LLC

900 Overlander Road • Emporia, KS 66801 USA
800-835-3519 • 620-343-1084 • Fax: 620-343-9640
grs@grstools.com • www.grstools.com
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