

GRS Thermo-Loc® Versa-Clamp Kit INSTALLATION

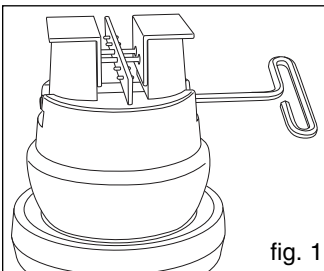
PART #003-688



This new fixture kit allows you to make two part form-fitting jaws for almost any vise using Thermo-Loc.

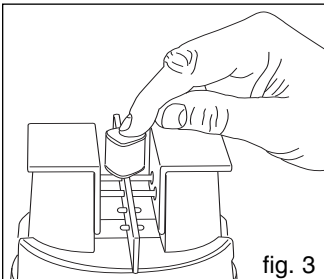
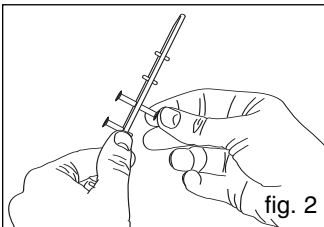
There are two styles of jaw kits available, deep set jaw and shallow set jaw. If the part is deep, such as an eye loupe, you may choose to have it partly submerged into the jaws to firmly hold the item. This has two benefits, the work piece is securely held, preventing movement and vibration, and the surface to engrave is almost flush with the top of the jaws for easier access.

On shallow parts, such as a small knife, you will want to place the work piece at or above the jaws. The benefit to this method is the work piece is positioned so that the entire work surface is exposed and the work piece is almost flush or slightly above the jaws for easier access.



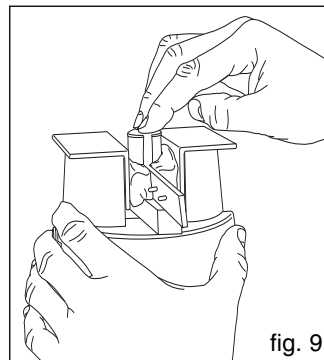
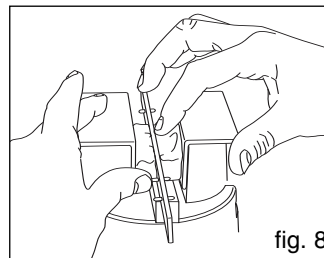
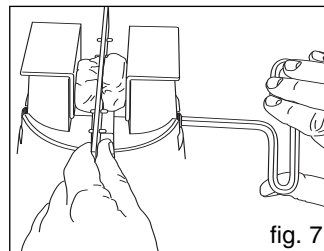
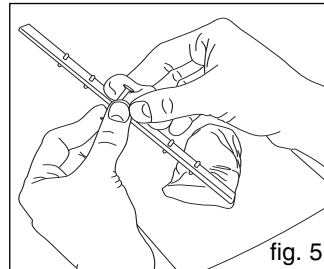
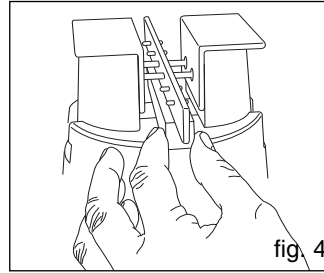
DEEP SET JAW METHOD

Place either the long (#003-331) or the short (#003-330) angle bracket (selection depends on the length of the workpiece) on top of both sides of the vise (as shown in fig. 1). Select the narrow pin plate (#003-332) and load 2 hollow rivets on each side of the plate (fig. 2). The larger the item is, the further apart the rivets are. There are three length choices of hollow rivets (#023-016, 017, 018). The different lengths allow for the width of the workpiece needed to be held. If the workpiece is narrow use the shorter rivets, and if the workpiece is wide use the longer rivets.



After making the appropriate choices of parts to use from the kit for your new set of

jaws, place the pin plate with rivets into the vise and gently clamp (fig. 1). Sit the workpiece on the pin plate and check



for correct height and width (fig. 3). Raise and lower the pin plate if needed to get the part to a comfortable working position above the top of the jaws.

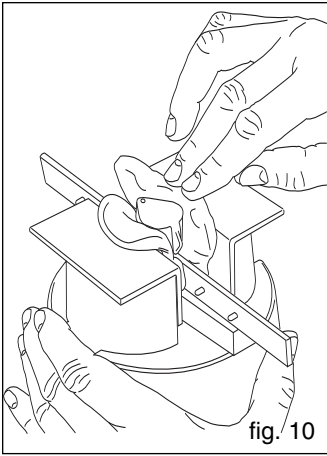
TIP: (fig. 4) The user will find re-locating the pin plate height is easier if a spacer made from metal, plastic or wood (must be wrapped in plastic or aluminum foil) is used under the pin plate. This will allow the height to remain the same until Thermo-Loc has cooled and you have completed your fixture.

Remove the pin plate and begin to heat several sticks of Thermo-Loc on the Teflon pad. Gently apply a lump of Thermo-Loc around the two rivets on each side of the pin plate (fig. 5). DO NOT allow the Thermo-Loc to cross over the edge of the pin plate as it will stick to itself. If this happens and the Thermo-Loc has cooled, reheat the area with the Micro Hot Air System (#006-520 or #006-521) or a heat gun and separate the Thermo-Loc. Put the pin plate now with Thermo-Loc back into the vise and tighten carefully (fig. 7). Take your fingers and evenly distribute the Thermo-Loc creating a flat surface for the workpiece to sit (fig. 8). Remember do not let the Thermo-Loc cross the pin plate. Firmly press the workpiece down on the pin plate (fig. 9).

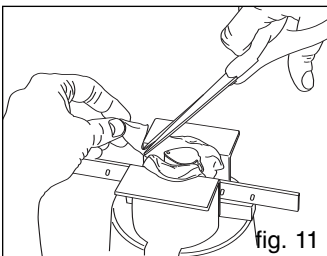
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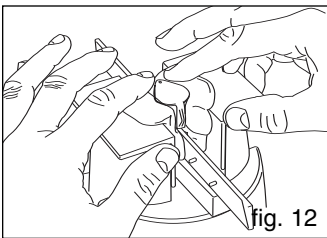
PART #003-688



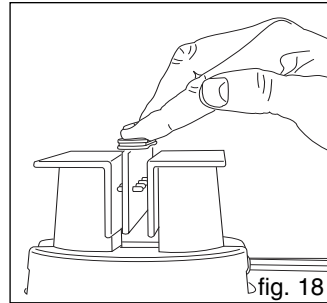
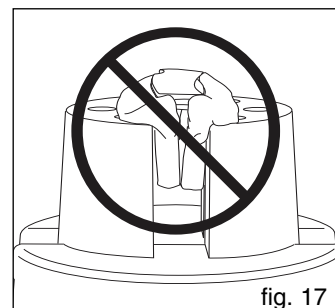
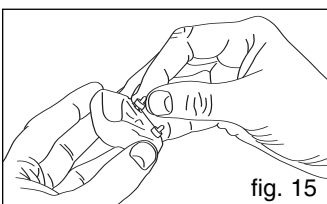
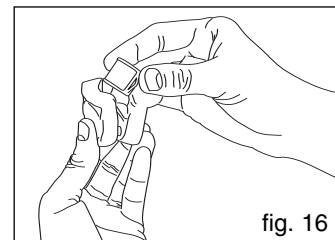
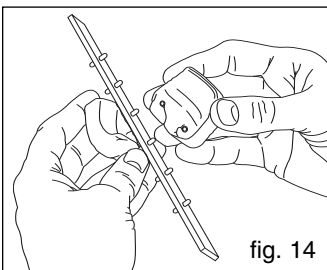
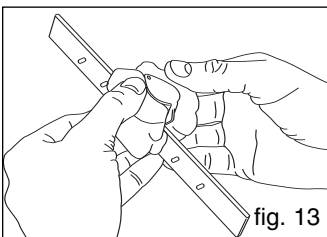
Re-heat the left over Thermo-Loc, if it has cooled. Tear off a piece and form around each side of the workpiece (fig. 10). If the length of the Thermo-Loc is longer than the work piece, household scissors may be used to cut the off the excess length while still warm (fig. 11). Continue to work Thermo-Loc until it is flat on the angle bracket and overlaps slightly on the workpiece (fig. 12). Let the Thermo-Loc completely cool.



Remove it from the vise, (fig. 13) and separate the two sides from the pin plate (fig. 14). The pin plate is no longer needed. If the two sides of the jaws have joined together, re-heat the area and separate.



Insert an orange jaw spacer (#003-326) into the rivet holes on one side of the jaw (fig. 15) and place the two sides together holding the workpiece (fig. 16). These spacers make up for the pin plate and allow the two sides to stay parallel when clamped. If pins are not used, the sides will be pushed together and cause uneven clamping on the workpiece which will



cause movement and vibration (fig. 17).

SHALLOW SET JAW METHOD

This procedure is practically the same as the deep set jaw method. The difference is the use of other parts in the kit and the placement of the workpiece.

Instead of using the narrow pin plate, use the wide pin plate (#003-333). Follow the same steps until determining the placement of the workpiece before adding Thermo-Loc. Place the work piece on top of the Pin Plate to make sure the work surface is slightly above the angle brackets (fig. 18). Continue following the same instructions as the deep set jaw method to complete the jaws.

HELPFUL TIPS

When working with long parts, the work piece can be re-located in the vise jaws by sliding the completed jaws back and forth in the vise to keep it under the microscope, much like the Positioning Vise does to keep the work piece in view through the lens.

KIT ACCESSORIES

Thermo-Loc®

Thermo-Loc® softens with heat to a pliable clay-like consistency that you can form around your work. At room temperature, it hardens and holds securely. Supplied in 6" long reusable sticks.

#003-664	0.5 lb.	\$14.
#003-665	1.0 lb.	\$24.
#003-666	5 lb.	\$98.

Thermo-Loc® Starter Kit

Includes 6" square PTFE/Teflon® pad for microwave use and 1 lb. Thermo-Loc
#003-667 \$29.90

PTFE Teflon® Pad

6" (150mm) square pad for microwave use.
#003-291 \$11.80

Micro Hot Air System

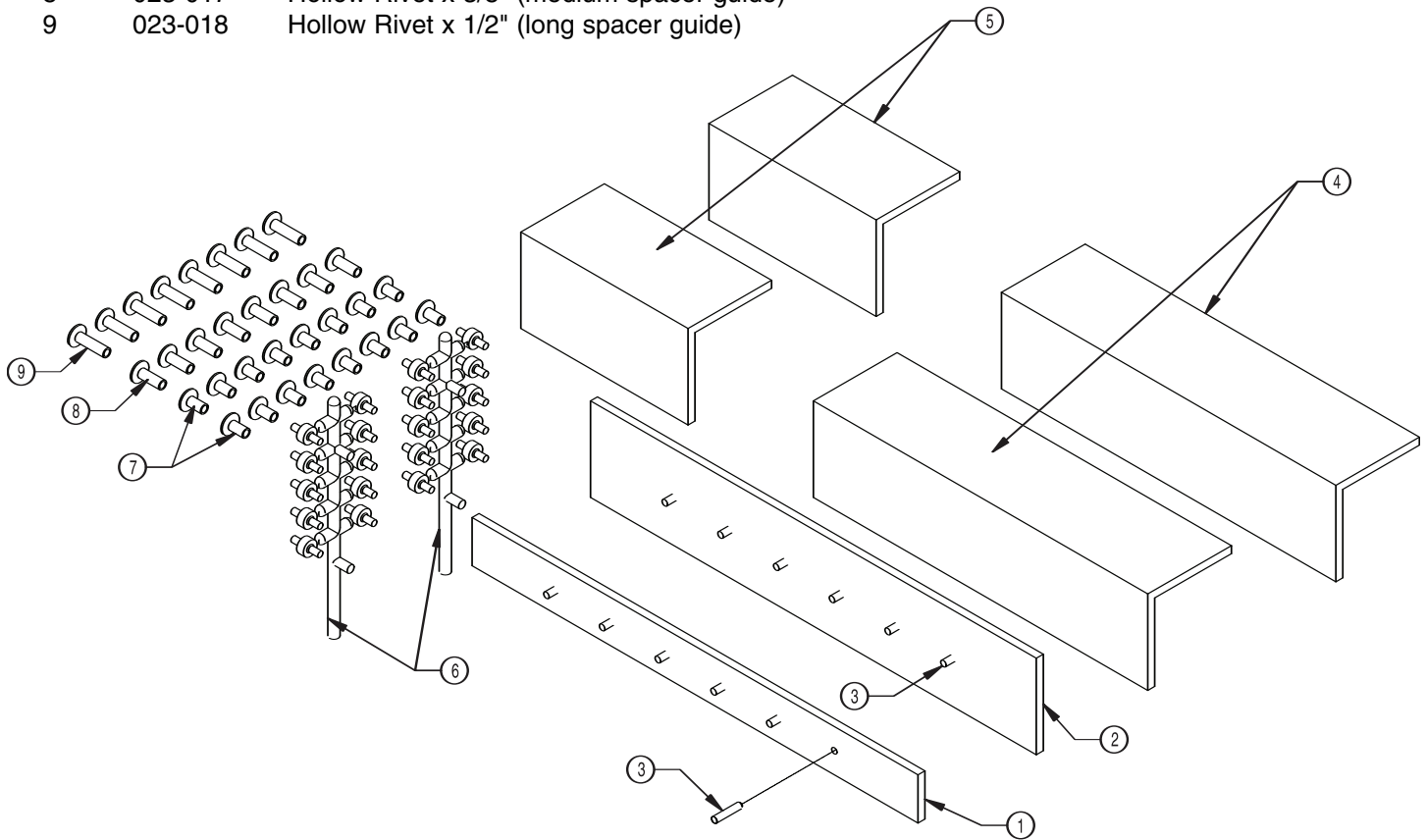
Originally designed for electronic hot air soldering, this system has many useful applications including working with Thermo-Loc® materials, welding and repairing many types of plastics, and more. It supplies precisely controlled hot air from 210-900°F (100-480°C). Air flow is also adjustable from almost nothing to full flow. It's truly pinpoint heat. Includes three interchangeable round nozzles: 0.1", .17" and .3" diameters (2.5mm, 4.4mm and 7.2mm).

#006-520	115 Volt, 60 Hz	\$198.
#006-521	230 Volt, 50 Hz	\$238.

GRS Thermo-Loc[®] Versa-Clamp Kit PARTS LIST

PART #003-688

Item No.	Part No.	Description
1	003-332	Narrow Pin Plate .750"
2	003-333	Wide Pin Plate 1.5"
3	023-015	2.5mm x 12mm Dowel for Locating Spacers
4	003-331	Long Angle for Jaw Construction
5	003-330	Short Angle for Jaw Construction
6	003-326	Jaw Spacer to Insure Proper Closing and Lock Up of Jaws
7	023-016	Hollow Rivet x 1/4" (short spacer guide)
8	023-017	Hollow Rivet x 3/8" (medium spacer guide)
9	023-018	Hollow Rivet x 1/2" (long spacer guide)



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