

Thermo-Loc™ Handle INSTRUCTIONS

INSTALLING TOOL IN HANDLE

First... remove any paint, oil, rust or dirt from tool shank.

Second... heat Thermo-Loc handle to about 170° - 200° F (77° - 93°C) to soften Thermo-Loc core. Heating may be done in a warm oven, slow cooker, or placing the handle in hot water.

CAUTION: If a microwave oven is used, you **MUST** follow microwave instructions below!



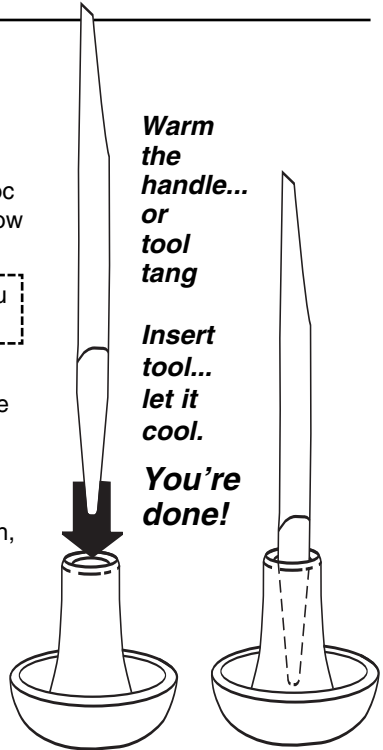
Do NOT overheat handle and do NOT touch hot handle with bare hands, use a glove or pad to prevent injury.

Third... insert tool shank into the softened Thermo-Loc core to the desired depth and position. If tool shank does not go in far enough, remove the tool and heat the handle longer -OR- clamp tool in a vise and drive the handle further onto the shank with light hammer strokes. Let handle cool fully before using (a refrigerator/freezer will safely speed cooling).

Warm the handle... or tool tang

Insert tool... let it cool.

You're done!



Microwave Instructions

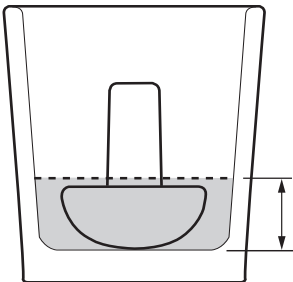
FOR INSTALLING TOOLS - NOT REMOVING THEM



Remove any metal or tools from Thermo-Loc handles. **NEVER place any metal** including tools installed in Thermo-Loc handles in a microwave oven. Place Thermo-Loc handle with large end (knob) down into a shallow cup or glass made from a microwave-safe material. Add enough water to cover the large end of the handle (approximately 5/8" - 3/4" or 15 - 20mm deep) see illustration below. Heat with 50-100% power for 30-60 seconds until Thermo-Loc core softens sufficiently.

IMPORTANT: The knob (large end) of the handle **MUST** be covered with water during microwaving or it can distort or even melt. If handle falls over during

heating process, **STOP** and reposition handle so the knob is covered with water. **DO NOT HANDLE HEATED HANDLE WITH BARE HANDS**, use gloves or a suitable pad. Microwave power and time requirements vary with the age and wattage of oven. Newer, higher wattage ovens should be used at lower power settings and shorter times. Be careful **NOT** to **OVERHEAT**...heat cautiously until Thermo-Loc core softens just enough to allow tool to be inserted sufficiently.

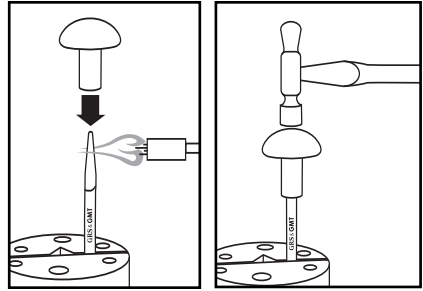


WATER LEVEL

SEE BACK FOR MORE DETAILS

Alternate Method

Clamp tool in a vise with clean shank exposed. Heat tang slowly and sufficiently with a heat gun or small torch and press unheated Thermo-Loc handle onto the heated tool shank. Be careful NOT to overheat the tool. If desired, drive the handle further onto the tool shank with light hammer strokes. Let handle cool fully before using.



Removing Tool From Handle

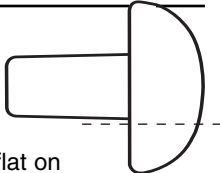
Clamp tool tightly in a vise and tap the handle off with a hammer. This method leaves no residue from the Thermo-Loc core. If handle doesn't release with minimal effort, heat in a warm oven, slow cooker, or by placing the handle in hot water. **DO NOT PUT HANDLE WITH TOOL IN A MICROWAVE.** When core softens, pull the tool out. **DO NOT HANDLE HEATED HANDLE WITH BARE HANDS,** use gloves or a suitable pad.



Options and Creative Uses

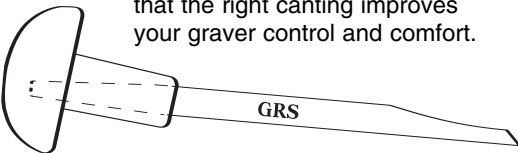
Adding a FLAT

Some engravers and jewelers prefer a flat surface on the bottom of graver handles. To put a flat on Thermo-Loc handles, cut off the outside material with a hacksaw or jeweler's saw. Then, file or sand the edges until smooth.



Graver Canting

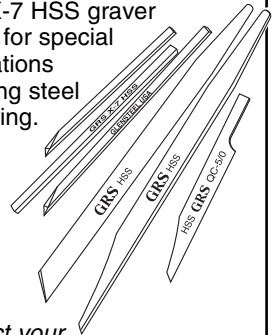
At times, it may be desirable to cant (tilt) the graver in the handle to change the working angle or increase hand clearance. By design, Thermo-Loc handles allow fast and easy graver canting. Because Thermo-Loc handles are reusable by reheating, it is economical (and even fun) to try different angles. You may discover that the right canting improves your graver control and comfort.



GRS Gravers

GRS offers the highest quality and widest selection of gravers. Precision ground from German high-speed chrome steel, these gravers are available in three styles: Traditional Gravers, New Traditional Gravers (with sculpted tips) and QC Gravers (shortened with sculpted tips for power handpieces).

GRS also offers tungsten carbide graver blanks, GlenSteel graver blank and GRS X-7 HSS graver blanks for special applications including steel engraving.



Contact your supplier or GRS Tools for more information.



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