

The primary purpose of mounting metallographic specimens is for convenience in handling specimens of difficult shapes or sizes during the subsequent steps of metallographic preparation and examination. A secondary purpose is to protect and preserve extreme edges or surface defects during metallographic preparation. The method of mounting should in no way be injurious to the microstructure of the specimen. Pressure and heat are the most likely sources of injurious effects.

The most common mounting method uses pressure and heat to encapsulate the specimen with a thermosetting or thermoplastic mounting material. Common thermosetting resins include phenolic (PhenoCure® resin), Diallyl Phthalate and epoxy (EpoMet® resin) while methyl methacrylate (TransOptic® resin) is the most commonly used thermoplastic mounting resin.

Castable mounting materials may require neither pressure nor external heat and are recommended for mounting specimens that are sensitive to heat and/or pressure. Acrylic resins, such as VariDur® and SamplKwick® resins, are the most widely used castable resins due to their low cost and short curing time. However, shrinkage can be a problem with acrylics.

Compression Mounting Equipment Comparison Chart

		SimpliMet® 30 pg. 19	SimpliMet® 1000 pg. 19	SimpliMet® 3000 pg. 19
Mold Size (Round)	1"	■	■	■
	1.25"	■	■	■
	1.5"	■	■	■
	2"	■	■	■
	25mm	■	■	■
	30mm	■	■	■
	40mm	■	■	■
	50mm	■	■	■
Manual or Automatic	Manual	■	■	■
	Automatic	■	■	■
Method Programmability	Yes	■	■	■
Controls	Analog	■	■	■
	LCD	■	■	■

SimpliMet® 2 Mounting Press



SimpliMet® 2 Mounting Press is a manual hydraulic press for economical mounting of low to medium volume requirements. A thermostatically controlled heater and slip on mold cooler complement this compact unit. Mold assemblies are available in a variety of sizes and are sold separately.

20-1410-115 SimpliMet® 2 Mounting Press, 115 VAC, 50/60 Hz, 1 phase

20-1410-230 SimpliMet® 2 Mounting Press, 220 VAC, 50/60 Hz, 1 phase

Accessories

20-2104 Mold Assembly, 1" ID

20-2105 Mold Assembly, 1¼" ID

20-2109 Mold Assembly, 1½" ID

20-2117 TetraMet® Mold Closure

20-2127 Mold Assembly, 25mm ID

20-2128 Mold Assembly, 30mm ID

20-2204 Duplex Mold Assembly, 1" ID

20-2205 Duplex Mold Assembly, 1¼" ID

20-2209 Duplex Mold Assembly, 1½" ID

20-2223-115 Automatic Heater, 115 VAC, 60 Hz, 1 phase

20-2223-220 Automatic Heater, 220 VAC, 50 Hz, 1 phase

20-2303 Cooler with Air Fins, 2" ID

20-2323 Water cooler with fittings for hose connections, 2" ID

SimpliMet® 1000 Automatic Mounting Press



SimpliMet® 1000 Automatic Mounting Press is a cost effective system with electro-hydraulic operation. Liquid Crystal Display (LCD), user friendly touch panel and last settings retained programmability add convenience to this basic press. User selects pressure, temperature, heating time, mount size, language and units of measure for their application. Mold assemblies are available in a variety of sizes and are sold separately.

20-1415 SimpliMet® 1000 Automatic Mounting Press, 84-264 VAC, 50/60 Hz, 1 phase

Accessories

20-2401 Mold Assembly with Duplex Spacer, 1" ID

20-2402 Mold Assembly with Duplex Spacer, 1¼" ID

20-2403 Mold Assembly with Duplex Spacer, 1½" ID

20-2404 Mold Assembly with Duplex Spacer, 2" ID

20-2405 Mold Assembly with Duplex Spacer, 25mm ID

20-2406 Mold Assembly with Duplex Spacer, 30mm ID

20-2407 Mold Assembly with Duplex Spacer, 40mm ID

20-2408 Mold Assembly with Duplex Spacer, 50mm ID

SimpliMet® 3000 Automatic Mounting Press



SimpliMet® 3000 Automatic Mounting Press is a fully automatic press with 25 method programmability, automatic mold sensing and a preload option for sensitive materials. This fully programmable press increases specimen production and specimen consistency. Additionally, four mold size specific programs are available for operator convenience and simplicity. Easy to change molds are available in a variety of sizes and are sold separately.

20-1435 SimpliMet® 3000 Automatic Mounting Press, 84-264 VAC, 50/60 Hz, 1 phase

Accessories

20-2401 Mold Assembly with Duplex Spacer, 1" ID

20-2402 Mold Assembly with Duplex Spacer, 1¼" ID

20-2403 Mold Assembly with Duplex Spacer, 1½" ID

20-2404 Mold Assembly with Duplex Spacer, 2" ID

20-2405 Mold Assembly with Duplex Spacer, 25mm ID

20-2406 Mold Assembly with Duplex Spacer, 30mm ID

20-2407 Mold Assembly with Duplex Spacer, 40mm ID

20-2408 Mold Assembly with Duplex Spacer, 50mm ID

Mold Assemblies



Mold Assemblies for SimpliMet® 1000 and SimpliMet® 3000. Robust, easy-to-change bayonet mold closures are offered in a wide variety of sizes. Available mold sizes are 1", 1¼", 1½", 2", 25mm, 30mm, 40mm, and 50mm. These molds are machined to the closest of tolerances to ensure dimensional integrity of the mounted specimen. All mold assemblies include a duplex spacer providing the capability of producing two specimens during one cure cycle.

Cast N' Vac Castable Vacuum System



Cast N' Vac Castable Vacuum System removes trapped air from mounting material. It is designed as a single sample vacuum impregnation system which is an easy to operate, compact machine with built-in vacuum pump. The system comes complete with a small quantity of mixing supplies.

20-3510-160 Cast N' Vac Castable Vacuum System, complete with built-in vacuum pump, vacuum gauge, vacuum chamber for single sample impregnation, recessed cup holder, silicone stopper, epoxy supply tubes (5), hose clamp (1), 1¼" removable recessed disc (1), 1¼" phenolic RingForms™ (5), wooden stir sticks (5), and complete operations manual. For 115VAC, 60Hz, 1 phase operation.

20-3510-250 Cast N' Vac Castable Vacuum System, same as 20-3510-160 except 220VAC, 50Hz, 1 phase operation; recessed disc (1) 30mm and phenolic RingForms™ (5) 30mm.

Accessories

20-351150 Recessed Plastic Disc, 25mm

20-351250 Recessed Plastic Disc, 30mm

20-351350 Recessed Plastic Disc, 1¼"

20-351450 Recessed Plastic Disc, 1½"

20-351550 Recessed Plastic Disc, 40mm

20-351650 Recessed Plastic Disc, 50mm

20-351750 Recessed Plastic Disc, 2"

20-3518 Silicone Stopper

20-3519 Hose Clamp

20-3520 Epoxy Supply Tubes

20-352150 Recessed Plastic Disc, 1"

20-8175 Wooden Stir Sticks, pack of 100

20-8177-100 Paper Cups, Pack of 1000

20-8180 SamplKups®, set of 12, 1¼"

20-8251-100 RingForms™, Phenolic, 1", pack of 100

20-8252-100 RingForms™, Phenolic, 1¼", pack of 100

20-8253-100 RingForms™, Phenolic, 1½", pack of 100

20-8254-100 RingForms™, Phenolic, 2", pack of 100

Cast N' Vac 1000 Vacuum Impregnation System



Cast N' Vac 1000 Vacuum Impregnation System evacuates trapped air from castable mounting materials and specimens. With the reduction of trapped air, the castable compound fills the specimen pores, helping to eliminate the gap between the specimen and the compound. With the use of a unique rotatable turntable and tilting mechanism the operator may pour epoxies under vacuum to better impregnate specimens.

20-1382-160 Cast N' Vac 1000, 115 VAC, 60 Hz, 1 phase

20-1382-250 Cast N' Vac 1000, 220 VAC, 50 Hz, 1 phase

Accessories

20-2835 Drierite Dehydrating Agent

20-2842 Duo-Seal Vacuum Oil, Gallon

20-2845 Vacuum Table Liners, Quantity 100