



**BUEHLER®**

# VACUUM IMPREGNATION EQUIPMENT I

BUEHLER® VACUUM IMPREGNATION EQUIPMENT I evacuates entrapped air from specimens. Without the presence of air, the mounting compound fills the specimen pores and eliminates gaps between the specimen and the compound. As a result, edge retention is enhanced and friable samples are supported during grinding and polishing.

The rugged vacuum pump supplies sufficient vacuum to quickly evacuate entrapped air from any porous specimen. The patented, high strength plastic chamber maintains vacuum throughout the impregnation period by means of a simple "O" ring seal. Several specimens may be impregnated at one time using a unique rotary table, within the vacuum chamber.

The ingenious pouring mechanism enables the pre-mixed mounting compound to be placed inside the chamber and then poured into molds one at a time. A variety of epoxy and polyester castable (cold) mounting compounds can be used. Since the specimens are encapsulated under vacuum, the possibility of air entering is completely eliminated.

## VACUUM IMPREGNATION EQUIPMENT I is Easy To Use:

- Place the specimen molds on the rotating turn table within the vacuum chamber
- After the mounting compound is mixed, slide the mixing cup into the cup holder
- Place the vacuum chamber cover onto the base
- Pump down to the recommended vacuum of 26" Hg. (559 Torr)
- Pour the mounting compound into the mold and then use the control switch to advance the rotary table to the next mold
- Once cast, hold for one (1) minute, then vent to atmospheric pressure; repeat the cycle several times
- Open the chamber, remove the mounts and allow to cure normally

*The photo above illustrates that the VACUUM IMPREGNATION EQUIPMENT I is a complete system for impregnating porous and poorly consolidated materials.*

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The unique rotatable vacuum table and tilting dispensing mechanism allows the operator to pour epoxies under vacuum to better impregnate specimens. Replaceable Vacuum Table Liners protect the rotating table and eliminate messy cleanup.

## Specifications

**No. 20-1382-160 VACUUM IMPREGNATION EQUIPMENT I**, with high strength plastic vacuum chamber, built-in synchronous motor and rotating turn table, pouring mechanism, vacuum gauge, hoses, filtering flask, glass tubing, rubber stopper, 100 graduated paper cups, 12 SAMPL-KUPS®, 100 vacuum table liners, Drierite dehydrating agent and vacuum pump. For 115V/60Hz/1 phase. Operating instructions included.

**No. 20-1382-250 VACUUM IMPREGNATION EQUIPMENT I**, same as 20-1382-160, but for 220V/50Hz/1 phase operation.

**No. 20-1383-115 VACUUM IMPREGNATION EQUIPMENT I**, same as 20-1382-160, but without vacuum pump. For 115V/50Hz/1 phase operation.

**No. 20-1383-220 VACUUM IMPREGNATION EQUIPMENT I**, same as 20-1382-250, but without vacuum pump. For 220V/50Hz/1 phase operation.

**No. 20-1384-115 Vacuum Assembly**, vacuum chamber with built-in synchronous motor, rotary table and vacuum gauge. Does not include vacuum pump filtering flask, hoses, tubing and other accessories. For 115V/60Hz/1 phase operation.

**No. 20-1384-220 Vacuum Assembly**, same as 20-1384-115, but for 220V/50Hz/1 phase operation.

**No. 20-2850-160 Vacuum Pump**, for 115V/60Hz/1 phase operation.

**No. 20-2850-250 Vacuum Pump**, for 220V/50Hz/1 phase operation.

## Consumables

### Castable (Cold) Mounting Compounds

| Product                                 | Quantity      | Part No.    | Properties          |
|---|---------------|-------------|---------------------|
| <b>EPOXICURE™</b><br>(formerly Epoxide) |               |             |                     |
| Resin                                   | 1 qt. (0.95ℓ) | 20-8130-032 | Multi-purpose epoxy |
| Hardener                                | ½ pt. (0.24ℓ) | 20-8132-008 |                     |
| <b>EPO-THIN®</b>                        |               |             |                     |
| Resin                                   | 1 qt. (0.95ℓ) | 20-8140-032 | Low viscosity epoxy |
| Hardener                                | 1 pt. (0.47ℓ) | 20-8142-016 |                     |
| <b>EPO-KWICK®</b>                       |               |             |                     |
| Kit                                     | 1 qt. (0.95ℓ) | 20-8128     | Fast cure epoxy     |
| Resin                                   | 1 gal. (3.8ℓ) | 20-8136-128 |                     |
| Hardener                                | 1 qt. (0.95ℓ) | 20-8138-032 |                     |
| <b>EPO-COLOR®</b>                       |               |             |                     |
| Resin                                   | 1 qt. (0.95ℓ) | 20-8143-032 | Dye enhanced epoxy  |
| Hardener                                | ½ pt. (0.24ℓ) | 20-8144-008 |                     |

### Castable (Cold) Mounting Supplies

| Product                    | Quantity       | Part Number |
|----------------------------|----------------|-------------|
| SAMPL-KUPS®                | 12             | 20-8180     |
| Graduated Paper Cups       | 100            | 20-8177-100 |
| Vacuum Table Liners        | 100            | 20-2845     |
| Drierite Dehydrating Agent | 1 lb. (0.45kg) | 20-2835     |
| Stirring Sticks            | 1000           | 20-8175     |
| Release Agent              | 1 pt. (0.47ℓ)  | 20-8185-016 |

### Dimensions:

#### 20-1384 Vacuum Assembly:

13"W x 11"D x 16"H (330mm x 280mm x 400mm)

#### 20-2850 Vacuum Pump:

12"W x 6"D x 8"H (300mm x 150mm x 200mm)

### Shipping Weight:

No. 20-1382: 50 lbs. (23kg)

No. 20-1383: 23 lbs. (10kg)

No. 20-1384: 11 lbs. (5kg)

No. 20-2850: 28 lbs. (13kg)

*For a complete listing of Buehler consumable supplies for use with the VACUUM IMPREGNATION EQUIPMENT I, please refer to Buehler's Consumables Buyer's Guide.*

*Buehler continuously makes product improvements; therefore, technical specifications are subject to change without notice.*



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