



### Mortar Mixer, 5 Qt. (4.73 Liter)

ASTM C-305; AASHTO T-162.

- **5 qt. (4.73 liter) capacity.**
- **Three-speed selective transmission.**
- **Stainless steel mixing bowl and beater for rust resistance and easy cleaning.**
- **Supplied complete with clearance adjustment bracket per ASTM requirements.**

This special 5 quart (4.73 liter) Mortar Mixer is used for mixing cement pastes and mortars in accordance with ASTM and AASHTO specifications. The table mounted unit has a planetary mixing action so that the stainless steel beater reaches every part of the batch, rotating on its axis opposite to the direction in which it moves around the bowl. This gives a thorough blending and mixing of all of the ingredients, resulting in a consistent and predictable result in the finished mix.

#### Specifications

|             |                                                     |
|-------------|-----------------------------------------------------|
| Capacity.   | 5 qts. (0.167 ft, 4.73 liters).                     |
| Motor.      | 1/6 h.p.; 124 Watts.                                |
| Speeds.     | Low, intermediate, and high; 139, 285 and 591 rpm.  |
| Mixing.     | Planetary action.                                   |
| Bowl.       | Stainless steel; with clearance adjustment bracket. |
| Beater.     | Flat-type; stainless steel.                         |
| Dimensions. | 10-3/8" x 12-1/4" x 17" h. (263 x 311 x 432 mm).    |
| Weight.     | Net 37 lbs. (16.8 kg); Shpg. 55 lbs. (25 kg).       |

#### Ordering Information

EI39-0075/02. 115vAC, 60 Hz, 1ø.

EI39-0075/01. 220vAC, 50 Hz, 1ø.

#### Replacement Parts

EI39-0075/10. Stainless Steel Bowl.

EI39-0075/12. Stainless Steel Beater.



### Automatic/Manual 5 Liter Mortar Mixer

EN-196-1, 413-2, 459-2; BS-3892; ISO-679.

- **Microprocessor control.**
- **Choice of automatic mixing cycles.**
- **Sand and water dispenser options.**

This mixer is designed to mix mortars and cement pastes primarily to the requirements of EN-196. The mixing paddle has a planetary motion and is driven by a motor with a microprocessor based speed and program controller. The mixer can be operated either in an automatic or manual mode. The mixer is supplied complete with bowl and paddle.

#### Specifications

|                |                                                         |
|----------------|---------------------------------------------------------|
| Low Speed.     | Paddle: 140 +/-5 rpm; Mixing Head: 62 +/-5 rpm.         |
| High Speed.    | Paddle: 285 +/-10 rpm; Mixing Head: 125 +/-10 rpm.      |
| Bowl Capacity. | Approx. 5 liters.                                       |
| Dimensions.    | 13.75" w. x 20.85" d. x 22.85" h. (350 x 530 x 580 mm). |
| Weight.        | Net 119 lbs. (54 kg).                                   |

#### Ordering Information

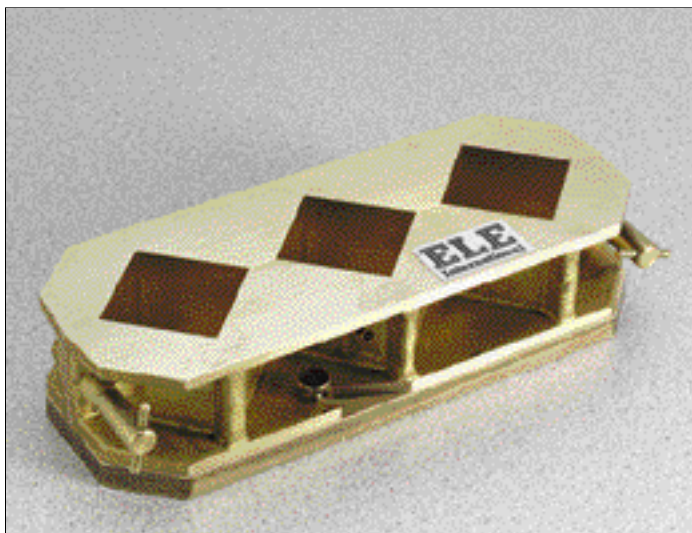
**Note:** Shown with accessories; not included, order separately.

EI39-0031/02. 110-120vAC, 50/60 Hz, 1ø.

EI39-0031/01. 220-240vAC, 50/60 Hz, 1ø.

#### Accessories

- EI39-0031/12. Water Dispenser. Consists of a pipette and mounting bracket. Dispenses water into the mixing bowl to an accuracy of +/-1 ml.
- EI39-0051/02. Automatic Sand Dispenser. Automatically discharges sand 30 seconds after start of mixing sequence and stops after an additional 30 seconds. EI39-0031/02 mixer supplies power.
- EI39-0051/01. Automatic Sand Dispenser. Automatically discharges sand 30 seconds after start of mixing sequence and stops after an additional 30 seconds. EI39-0031/01 mixer supplies power.
- EI39-0060. Bowl Cover.
- EI39-0065. Plastic Scraper, 200 ml long. Pack of 5.



### Cement Cube Mold (ASTM)

ASTM C-87, C-109, C-141, C-579, C-593; AASHTO T-106.

- **Manufactured in strict conformance to ASTM and AASHTO specifications.**
- **Three-gang design for multiple sample preparation.**
- **Wide flange design for mold stability and performance.**
- **Precision machined forged bronze construction for accuracy and corrosion resistance.**

Designed and manufactured in strict conformance to ASTM standards, the Cement Cube Mold is used to form 2" (50.8 mm) cube samples for compressive strength testing of Portland cement, mortars, lime, gypsum and capping compounds.

The main feature in the design is the wide flange construction of the top and base. This wide flange simplifies the striking off of excess amounts of cement when the cubes are being prepared and gives greater stability to the mold in storage, preparation and curing. The sturdy flanges prevent warping of the mold during use. Warping has been the cause of cement cube molds losing their dimensions and angular tolerances.

Another important feature is the use of mechanical screw clamps to connect the two halves of the mold so they can be drawn tightly together. This same feature is important in removing cubes from the mold. With an unscrewing action on the clamps, the two sides of the mold can be drawn apart uniformly. This eliminates prying the mold sections apart with a trowel, knife or other sharp instrument, a practice which destroys mold surfaces and springs the mold out of tolerance. The "T" bolts are held in place by snap rings which precludes loss and allows for ready replacement should the "T" bolt be damaged. To facilitate cleaning of the mold, all of its surfaces are clean lined and smooth.

#### Specifications

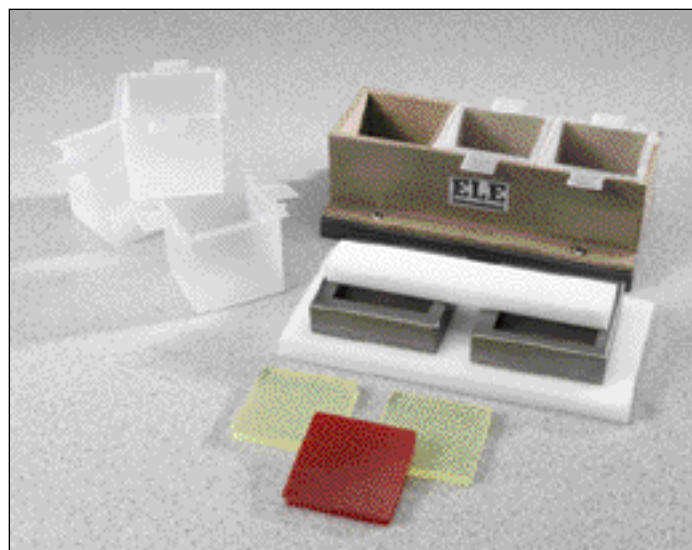
|               |                                                                                       |
|---------------|---------------------------------------------------------------------------------------|
| Sample Size.  | Up to three 2" (50.8 mm) cubes.                                                       |
| Construction. | Forged bronze; three-gang with wide-flanged top and base; machined and ground finish. |
| Mold Closure. | Mechanical; "T" bolt screw clamps held in place by snap rings.                        |
| Base Plate.   | Machined forged bronze with knurled hold-down screws.                                 |
| Weight.       | Net 12 lbs. (5.4 kg).                                                                 |

#### Ordering Information

EI39-0412.

#### Accessories

- EI39-0412/10. Cover Plate. Acts as riser to slow rate of cooling of cube center.  
EI39-0420. Hard Rubber Tamper. 1/2" x 1" x 6" I. (12.7 x 25.4 x 152.4 mm).



### 2" (50.8 mm) Cube Test System

- **Complete, low cost system for making and testing 2" (50.8 mm) cubes.**
- **Durable brass mold frame.**
- **Removable polypropylene water tight disposable liners.**
- **No cleaning of mold required, just insert new liner.**
- **New "unbonded" capping system required when using this method; capping accessories included in every kit.**
- **Reproducible, accurate results.**

The 2" (50mm) Cube Test System consists of a brass three gang mold with liners for specimen preparation and a new unbonded capping system for use during compression testing.

In operation the plastic liners are placed into the mold cavities. A layer of cement (about 1") is placed into all compartments and tamped. The compartments are then filled to overflowing, tamped, and then smoothed flush to the top of the mold. After curing, the samples are easily removed by pulling the liner tabs up and out of the cavity. The specimens are then stripped by cutting the plastic liner with a utility knife.

Compression testing of the specimens is performed using the provided capping system. Testing without the use of the cap system will result in erroneous low compressive strengths.

#### Specifications

|                   |                                      |
|-------------------|--------------------------------------|
| Mold Frame.       | Brass; three gang.                   |
| Liners.           | Water tight polypropylene with tabs. |
| Tamping Rod.      | Polypropylene.                       |
| Retainer Caps.    | Stainless steel.                     |
| Compression Pads. | Polyurethane; 1/4" (6.3 mm) thick.   |
| Weight.           | Net 7 lbs. (3.2 kg).                 |

#### Ordering Information

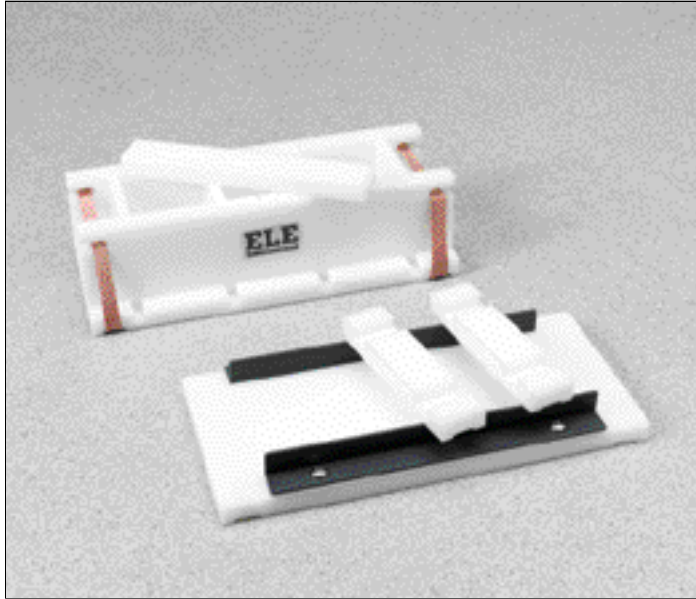
- EI39-0414. Includes stainless steel three gang mold, 27 liners, tamping rod, 2 retainer caps, 4 compression pads and utility knife.

#### Replacement Parts

- EI39-0414/10. Plastic Disposable Liners. Box of 198.  
EI39-0414/12. Compression Pads. Set of 4.

#### Special Note:

Testing without the use of the "unbonded" cap system will result in erroneous low compressive strengths.



### Cement Cube Mold (Economy)

- **Economical three-gang design.**
- **Manufactured from corrosion-resistant materials.**
- **Includes top and compaction tamper.**

The Economy Cube Mold is designed to form 2" (50.8 mm) cube samples for compressive strength testing. The three-gang mold is manufactured out of ultra-high density molecular weight polyethylene. The mold is supplied complete with a top and compaction tamper.

#### Specifications

|               |                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------|
| Construction. | Ultra-high density molecular weight polyethylene; three gang; up to three 2" (50.8 mm) samples. |
| Top.          | Polyethylene with plastic guide rails.                                                          |
| Tamper.       | Polyethylene.                                                                                   |
| Weight.       | Net 2 lbs. (0.9 kg).                                                                            |

#### Ordering Information

EI39-0416.

### Hard Rubber Tamper

ASTM C-109, C-157, C-185, C-227, C-243;  
AASHTO T-71, T-106, T-137.

- **Meets ASTM and AASHTO specifications.**
- **Hard rubber design prevents damage to mold during compaction.**

The Hard Rubber Tamper is used for preparing mortar specimens for compressive strength testing. The tamper's cross section is approximately one half inch by one inch and is six inches long.

#### Specifications

|               |                                          |
|---------------|------------------------------------------|
| Construction. | Hard rubber.                             |
| Dimensions.   | 1/2" x 1" x 6" (12.7 x 25.4 x 152 mm) l. |
| Weight.       | Net 4 oz. (113 g).                       |

#### Ordering Information

EI39-0420.

### Cement Mold Brush

- **Brass bristles prevent damage to molds.**
- **Tapered wooden handle.**

The Cement Mold Brush is ideally suited for cleaning cement from molds, slump cones and other devices after use.

#### Specifications

|                 |                                                    |
|-----------------|----------------------------------------------------|
| Handle.         | Wooden.                                            |
| Bristles.       | Stiff brass wire; 5/8" w. x 5" l. (15.8 x 127 mm). |
| Overall Length. | 10" (254 mm).                                      |
| Weight.         | Net 8 oz. (227 g).                                 |

#### Ordering Information

EI39-0425.

### Test Sand (#20-30)

ASTM C-91, C-185, C-359, C-778; AASHTO T-132.

- **Standardizes mortar for tensile strength testing.**
- **Specially graded to meet industry standards.**
- **Supplied in 50 lb. (22.6 kg) heavy-duty bags.**

Supplied in 50 lb. (22.6 kg) bags, this Sand is specially graded to pass a No. 20 sieve and be retained on a No. 30 sieve within the tolerances specified by ASTM and AASHTO standards.

#### Specifications

|                   |                                                |
|-------------------|------------------------------------------------|
| Specific Gravity. | 2.65.                                          |
| Bulk Density.     | 97.14 PCF (1.556 gm/cc).                       |
| Grading.          | Passes No. 20 sieve; retained on No. 30 sieve. |
| Weight.           | Net 50 lbs. (22.6 kg).                         |

#### Ordering Information

EI39-0430.

### Cube Test Sand

ASTM C-109, C-349, C-359, C-379, C-778; AASHTO T-106.

- **Specially graded to meet industry standards.**
- **Supplied in 50 lb. (22.6 kg) heavy-duty bags.**

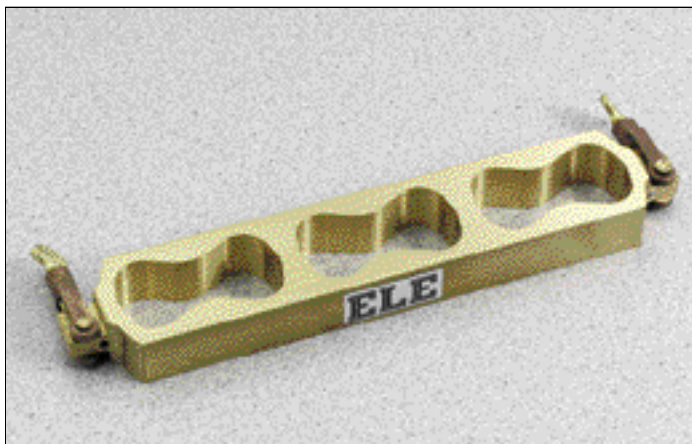
This specially graded Sand is used in the preparation of mortar for strength testing.

#### Specifications

|                   |                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Specific Gravity. | 2.65.                                                                                                                                  |
| Bulk Density.     | 93.45 PCF (1.497 gm/cc).                                                                                                               |
| Grading.          | No. 16 sieve retains 0%. No. 30 sieve retains 2%.<br>No. 40 sieve retains 30%. No. 50 sieve retains 75%.<br>No. 100 sieve retains 98%. |
| Weight.           | Net 50 lbs. (22.6 kg).                                                                                                                 |

#### Ordering Information

EI39-0435.



### Cement Briquette Mold

ASTM C-307, C-472; AASHTO T-132.

- Corrosion resistant machined bronze construction.
- Three-gang design with clamps to prevent spreading during molding.
- Meets ASTM and AASHTO specifications.

The Cement Briquette Mold is used to form specimens for tensile strength testing of hydraulic cement mortars. The mold is made of cast bronze and can form up to three specimens.

#### Specifications

|               |                                                  |
|---------------|--------------------------------------------------|
| Construction. | Machined bronze, three-gang with holding clamps. |
| Weight.       | Net 4 lbs. (1.8 kg).                             |

#### Ordering Information

EI39-1102.



### Three-Gang Prism Mold

EN-196-1, 413-4, 459-2; BS-3892; ISO-679.

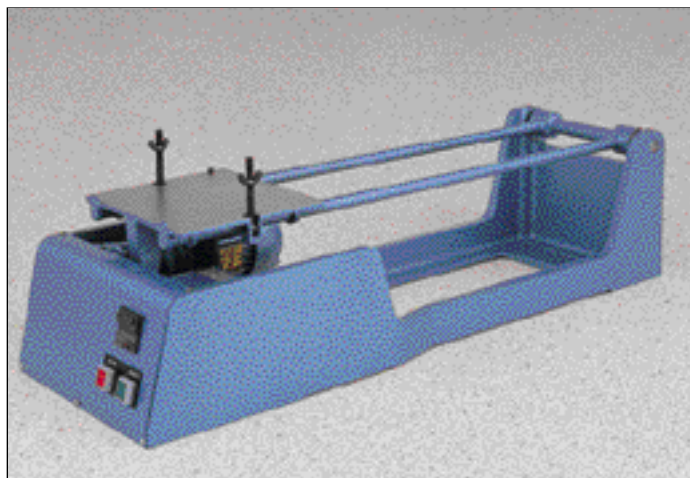
The Three-Gang Prism Mold is used to prepare 40.1 x 40 x 160 mm mortar prisms. The mold is manufactured in strict compliance with industry standards.

#### Ordering Information

EI39-1100.

#### Accessories

- EI39-1100/10. Glass Plate.
- EI39-1120. Feeding Hopper.
- EI39-1130. Scraper. Double-ended tool used for spreading and leveling mortar.
- EI39-1170. Mortar Sand. EN-196-1 graded. For 3 prisms, 1,350 g pack.



### Jolting Table

EN-196-1, 413-4, 459-2; BS-3892; ISO-679.

The Jolting Table consists of a mold table seated on a rotating cam, driven at 60 revolutions per minute. The unit is supplied with a power switch box, push-button start/stop control and automatic stop control at test end.

#### Ordering Information

*Note:* Molds not included; order separately.

EI39-1150/02.

EI39-1150/01.

### Humidity Cabinet

EN-196.

The Humidity Cabinet is built to high specifications and is designed for the early curing of mortar prisms prior to storage under water. The cabinet incorporates a circular chart recorder to record temperature and humidity levels.

#### Specifications

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Capacity.          | 320 liters.                                                                                                                 |
| Temperature Range. | 0-50°C at ambient.                                                                                                          |
| Fluctuation.       | Better than $\pm 0.2^\circ\text{C}$ .                                                                                       |
| Variation.         | Better than $\pm 0.5^\circ\text{C}$ .                                                                                       |
| Recorder.          | 7 day type; 0-50°C temp. and 10-90% RH humidity range.                                                                      |
| Shelves.           | 10.                                                                                                                         |
| Dimensions.        | Internal: 20" w. x 19.3" d. x 50.2" h. (510 x 490 x 1,275 mm)<br>Overall: 25" w. x 26" d. x 68.7" h. (635 x 660 x 1745 mm). |
| Weight.            | Net 333 lbs. (151 kg).                                                                                                      |

#### Ordering Information

EI39-1300/02. 110-120vAC, 60 Hz, 1Ø.

EI39-1300/06. 220-240vAC, 60 Hz, 1Ø.

EI39-1300/01. 220-240vAC, 50 Hz, 1Ø.

#### Replacement Parts

EI39-1300/10. Circular Charts.