

CLM Compact Laboratory Mixers from EC Engineering

EC Engineering offers a new line of jar test equipment with many innovative and useful features. In addition to improvements in functionality, convenience, and versatility, the CLM (Compact Laboratory Mixer) systems are specifically designed for small size, easy portability, simple operation, and reasonable cost.

Two versions are available – the six-station CLM 6 and the lighter, smaller, more easily portable four-station CLM 4.

All systems come with a 30-day money back guarantee of satisfaction, and a one year warranty.



- Four and six station units available
- Compact size - 20" x 4" base (CLM 4)
- Lightweight construction
- Corrosion-resistant materials
- Quick and easy paddle manipulation
- No paddle shaft binding in bearings
- Digital tachometer
- Five adjustable preset mixer speeds
- Electronic motor speed controller
- High intensity mixing
- Removable baffle system
- Simultaneous chemical dosing
- Built-in high intensity illumination
- Built-in internal cooling fan
- Improved 1 L square jars with stopcocks
- Optional carry case for CLM 4

CLM Compact Laboratory Mixers

The drawing shows the main features of the CLM systems. The four-place CLM 4 is shown; except for the number of stations, the six-place CLM 6 is identical.

The base unit (1) includes jar support base, mixer drive system, paddles, light, and controls. The base footprint is only 20"x 4" (CLM 4) and 27"x 4" (CLM 6).

A solid black vertical surface (2) behind the jars provides a uniform background for observation of samples. A white plastic curtain sheet is supplied for insertion behind the jars for work with color removal and similar processes.

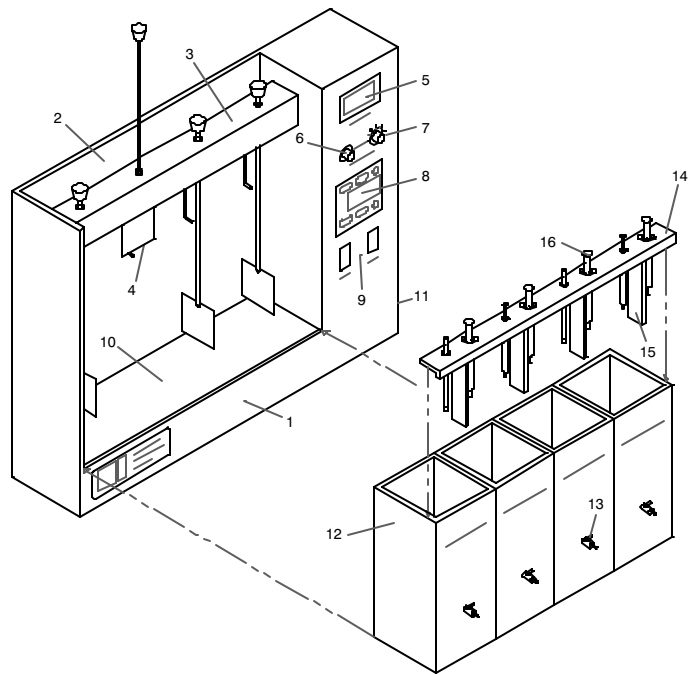
The mixer drive assembly (3) is part of the base unit. Paddles (4) can be lifted and parked, or lowered for service, in a single, one-handed operation taking less than a second. The paddle seizing problems common with other brands have been completely eliminated in the CLM.

Mixer speed is indicated by an accurate digital tachometer (5) and is adjusted by means of a continuously variable control (6) or five switch-selectable, adjustable preset speeds (7). A digital clock with dual alarm count down / count up timers (8) and mixer and light switches (9) are built into the control panel.

A high-efficiency, high-intensity, dual-tube fluorescent lighting system with electronic ballast (10) is built into the base. The good lighting and close jar spacing make it easy to document test results photographically.

A built-in internal cooling fan (11) greatly reduces the possibility of misleading results caused by sample heating.

The square jars (12) used in the CLM system are far better than cylindrical beakers for all jar testing procedures. The use of one-litre sample sizes has many advantages, and vertical dimensions are the same as for standard 2 litre jars.



All ECE floc jars use a miniature precision quick-connect stopcock system (13), which has proved to be far superior to the old rubber stopper setup. Spare jars and fittings are available separately.

The CLM system uses a removable module (14) with baffles (15) and chemical dosing syringes (16). The baffles prevent vortexing and air entrainment at the high mixing intensities available, and the syringes allow accurate, simultaneous dosing of chemicals.

For more information, detailed specifications, and current pricing, please visit us at www.ecengineering.net.

Sample specification

Supply and deliver a laboratory jar mixer system having the following components and specifications:

- Capable of simultaneously mixing four [six] one-litre water samples.
- Single integrated base structure incorporating all functional components, including jar support base, background curtain, lighting system, mixer drive system, paddles, and controls.
- Main components fabricated from corrosion-resistant materials (PVC, stainless steel, or aluminum).
- Designed for operation on 120 V 60 Hz power supply.
- Mixer speed manually adjustable from 10 to 300 rpm by means of continuously-variable control plus five switch-selectable, fully adjustable presets.
- Digital readout of mixer speed.
- Digital clock with dual alarm count down / count up timers.
- Individual on/off switches for mixer and light.
- Built-in fluorescent lighting system, 36 watts minimum, with high-efficiency electronic ballast.
- Built-in internal cooling fan, to operate automatically whenever light is on.
- Paddle system design such that paddles may be raised and parked, or lowered for service, with single-handed operation.
- Mixer drive system such that paddle shafts will not seize or bind in their bearings even in the presence of deposits from water samples or other sources.
- Removable baffle system to prevent vortexing and air entrainment in sample jars at high mixer speeds. Baffle to hold two syringes for each jar station, to permit simultaneous dosing of chemicals to all jars.
- Four [six] square sample jars, fabricated from clear, colorless acrylic plastic. Each jar to have total capacity no greater than 1.5 litres, and to be clearly marked at 1 L level. Subsurface sampling to be by means of miniature Luer stopcock system. Each jar to include all necessary sampling system fittings, 1 mL and 5 mL syringes, and 50 mL beaker.
- Fabric-backed vinyl dust cover, white styrene curtain sheet, owner's manual, reusable double wall shipping carton.



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