Ross HSM-100LCI-T Laboratory Mixer

Color touch screen controls and display for speed, percent of load, batch timer and temperature.

Type 316 stainless steel wetted parts polished to 150-grit finish. Option: Hastelloy.

Tower cage assembly for the Batch High Shear Mixer (HSM) Attachment.

Four-blade rotor and stator head

Optional temperature probe

Sturdy frame for bench mounting.

Mixer can be used with different size beakers and vessels. Atmospheric and vacuum-rated stainless steel vessels are offered as options.

Electronic variable speed control from 500 to 10,000 rpm (+/- 1% accuracy). Constant torque operation.

1 HP Variable Frequency Drive, 115 volt, 50/60 Hz, single phase, 20 amp, IP 55/NEMA 12 motor. Optional voltages are available.

All non-stainless steel external surfaces are coated with white two-part epoxy paint.

Data acquisition/PC control option: Mixer can connect to and be controlled from a computer via USB, Ethernet or wireless hub. Data may be downloaded as a CSV file and viewed in Excel or Access format.

Cord and plug included.

Disperser blade

Up/down controls for electronic lift (15” of travel). Maximum clearance under mixing attachment: 16”

12” between feet (base)

Dust- and fluid spray-resistant enclosure

Clamp assembly with chain for securing vessel/beaker in the mixing position (option).
INTERCHANGEABLE MIXING ATTACHMENTS

Batch Attachments
Recommended batch size range: 0.3 to 4 gallons (1 to 15 liters)

High Shear Mixer (HSM)
Includes one rotor, three stators* and choice of Teflon, bronze or glass-filled Teflon bushing.

High Speed Disperser (HSD)
Includes one 2” saw-tooth disc blade and two four-blade propellers (1-1/2” and 2-1/4”). Other blade designs and sizes are available.

Inline Attachments
Recommended mixing volume: 1 to 20 gallons (3.8 to 76 liters)

Inline High Shear Mixer (Inline HSM)
Includes one rotor, three stators* and single mechanical seal

Quad High Shear Mixer (Quad HSM)
Includes one four-stage rotor/stator set and single mechanical seal

*Interchangeable stators supplied with Batch and Inline HSM attachments:

- Slotted
- Round Hole Disintegrating
- Fine Screen
The HSM-100LCI-T is designed for fast changeover between agitators. Swapping from a rotor/stator to a disperser attachment takes less than five minutes and requires two simple hand tools (a wrench and a drift pin).

**Micro High Shear Mixer Attachment**  
**(Micro HSM)**  
For small batch sizes (50 to 500 ml)

Includes one rotor, slotted stator and Teflon bushing.

Mixer weight: approx. 62 lbs (28 kg)  
(plus weight of attachments)

Maximum raised height: 39 3/8” (1000mm)

Overall width: 15” (381mm)

Overall length: 22 5/8” (575mm)

**SAMPLE APPLICATIONS**

- Biodiesel blends
- Carbon dispersions
- Ceramic slurries
- Conductive inks
- Cosmetic creams and lotions
- Dyestuffs
- Electronic pastes
- Flavor emulsions
- Glass and paper coatings
- Greases and lubricants
- Gum dispersions
- Hair and nail coloring products
- Latex dispersions
- Low-viscosity adhesives
- Ophthalmic solutions
- Oral suspensions
- Paints
- Pharmaceutical emulsions
- Pigment and resin dispersions
- Printing inks
- Salad dressings, sauces and spreads
- Soaps and cleaning solutions
- Specialty chemicals
- Synthetic fuels
- Syrups and beverage emulsions