Ultra Probe Sonicator (Homogenizer)

Cat No: USOT-M-1200

MOLEQULE-ON®

Description

MQ Ultra Probe Sonicator (Homogenizer) with a frequency 24KHz (19-26 KHz) has automatic frequency scanning and checking. The model USOT-M-1200 has machine and sound proof box together. Compact shell design occupies minimal bench space with a size of 6.8 kg and a dimensions 47x32x52 cm. Complete the whole experiment with much less noise.

The unique design of titanium alloy probe allows the ultrasonic waves emits from the sides and increases the contact area with the sample, so the sample is processing more thoroughly. The probe is resistant to acid and wear having a lifespan 6 times longer than ordinary probes. Probe options include (mm) Φ3, Φ6, Φ8, Φ10, Φ13, Φ16, Φ18, Φ20, Φ25, Φ30 (probe is sold separately according to customer's need).

The outer box has 3.2" color LCD touch screen, data storage function which store about 10 set of data individually. Additional features include automatic resonance point, power control and 99h time control which can be paused at any time. Temperature sensor can detect sample temperature in real time 0-300°C (Overheat Protection). Each parameter has an independent setting interface. It displays the frequency and power setting with 1% increment.

Small bulb inside the box allows to observe the status of the sample during processing.

Applications

- Extraction of cell contents, bacterial and viral tissue.
- Dispersion and homogenization of the material particles. For example, nanomaterial dispersion (silicon dioxide, carbon nanotubes, graphene, etc.)
- Accelerate the dissolution and accelerate the chemical reaction. For example, for chemical synthesis.

Working Applications

High shear forces created by ultrasonic vibration have the ability to break up lump formation and result in smaller and more uniform particle sizes. The stable and homogenous suspensions produced by ultrasonic are widely used in many industries. Probe sonication is acquiring more and more noticeable position in industry. It is highly effective for processing nanomaterials (carbon nanotubes, graphene, inks, metal oxides, etc.).

Sonicators have become the industry standard for:

Generation of ultrasonic frequency for various technologies such as:

- Welding (thermoplastics, strands, contacts, metals)
- Punching (thermoplastics, textiles)
- Cutting (textiles, foods, foils, rubber)
- Drilling (jewels, drawing dies)
- Eroding (gems, cameos (glass, stones, jewels)
- Cleaning, emulsifying, dispersing (in liquids)

Specifications

Model No.	**USOT-M-1200**
Power In	200 ~ 240V/ AC+/-10%, 50Hz-60Hz
Power Output	0~ 1200 Watt (Step Control 0-100%)
Frequency Range	20kHz, 25kHz, 28kHz, 30kHz, 35kHz, 38kHz, 40kHz, 60kHz, 80kHz (+/- 1.0 kHz)
Working temperature	-5 to +50℃
Overcurrent protection Temp	+85℃
3 Working Mode	Continuous Paulse Loop (1 sec ~ 99 min).
Timer	(1 sec ~ 99 hours)
Sample Processing Volume	0.5 ~ 3000 ml
Ultrasonic Probe	Titanium alloy, long life design.
Size	25cm x 36cm x12cm
Net Weight	4.0 kg

Probe Options

Ø3mm Probe	0.3ml~100ml
Ø6mm Probe	0.3ml~200ml
Ø10mm Probe	10ml~500ml
Ø13mm Probe	10ml~1 Liter
Ø20mm Probe	50ml~2 Liter)