

Automated High-Throughput Homogenization

Omni Prep 96

Automated Sample Prep
Homogenizer Workstation

Omni LH 96

Automated Sample Prep
Liquid Handling &
Homogenizer
Workstation



OMNI
INTERNATIONAL

The Homogenizer Company™

Less Chopping. More Time.

Weighing. Diluting. Homogenizing. Transferring. For large projects and core labs, processing a large number of similar samples can be a labor-intensive, hand-numbing activity, spanning a matter of days or weeks. Manual processing runs the risk of fatigue, variability, and cross contamination. Harness the power and simplicity of automation and free up your staff for higher value activities like analysis and reporting. When you streamline initial sample prep and automation with the Omni Prep 96 or Omni LH 96, you'll reduce processing time and increase productivity, all while easing stress on your team.

Streamline your single-sample processing

The innovative Omni Prep 96 and Omni LH 96 are specifically designed to streamline the labor- and time-intensive homogenization process. The features built into the Prep 96 and LH 96 provide a professional approach to simultaneously processing a large number of similar samples.

Applications

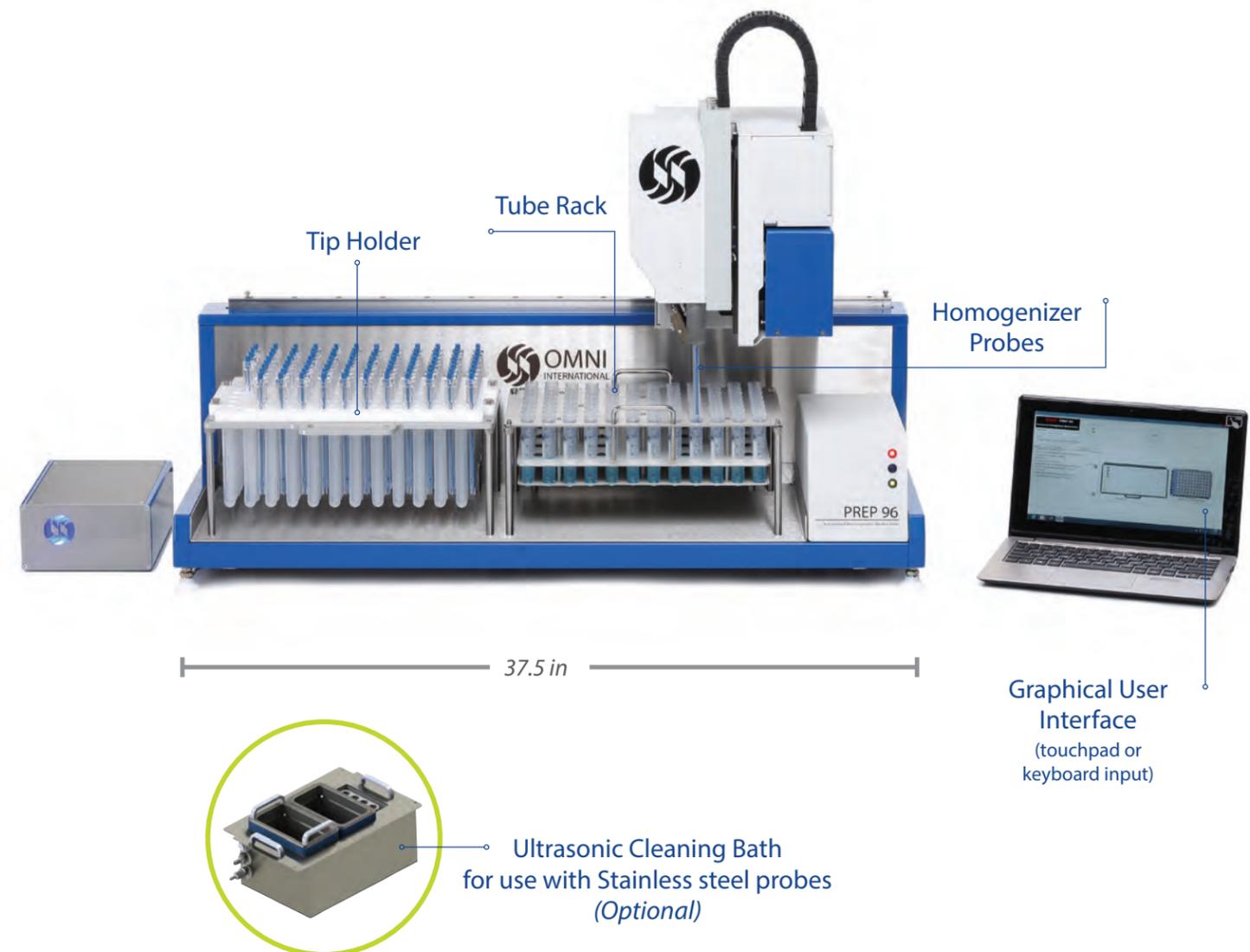
- Pharmaceutical research
- Biological research
- Cellular research
- Cancer research
- Medical research
- Food and plant analysis
- Plant and animal tissue processing
- Soft and hard tissue homogenization
- Drug discovery - DMPK
- Q.C. – tablet processing
- Protein extraction
- Enzyme Studies
- Nucleic acid isolation
- Emulsions and suspensions
- Nanotechnology
- Neuroscience



Omni has your sample prep solutions

Omni Prep 96: Automated Homogenizer Workstation

The Omni Prep 96 is a fully automated homogenizer workstation. The design eliminates bottlenecks and increases throughput, enabling true walk-away processing in your lab. The small footprint fits into most bio-safety cabinets and fume hoods. User-friendly programming makes saving, recalling, or changing existing protocols easy. Omni patented Whisper Drive Technology™ with brushless motors delivers maintenance-free, ultra-quiet, maximum processing power.



Our Focus: Homogenization

Omni International is "The Homogenizer Company." For more than 30 years, through our team of engineers and customer interactions, we've designed and built homogenizers to solve every sample prep problem imaginable. We make homogenization less painful and fit seamlessly into your workflow.

Omni LH 96: End-to-End Sample Prep Automation

The Omni LH 96 is a fully automated liquid handling and homogenizer workstation. Like the Omni Prep 96, the Omni LH 96 has a modular design, small footprint, and brushless motors for automated homogenizing, but also integrates multiple liquid handling steps, such as weighing, diluting, and pipetting into one end-to-end system. Laborious manual processing that used to take hours or days can now be automated and completed effortlessly in a matter of minutes. Fully customizable, the Omni LH 96 can increase productivity, reduce errors, and improve results, completing large projects faster than otherwise possible.

“The LH 96 works extremely well ...
We do hundreds of tissues a day
and we couldn’t do it by hand.”
— Senior Research Scientist,
Large Pharmaceutical Company

“The LH 96 does the entire front end
of our sample prep. We can just walk
away while it works. It’s amazing.”
— Noah Post,
ISIS PHARMACEUTICALS

“With the LH 96, we can process
200 samples in two days
or less, instead of three.”
— Dallas McCassalin,
REGULUS THERAPEUTICS



The LH 96’s modular design is completely customizable





Omni Tip™ plastic disposable generator probes

The Omni Tips' patented design eliminates the hassle of disassembly and maintenance of traditional stainless steel generators.

Features

- > **Economical:** <1% of the cost of stainless steel probes
- > **Eliminates Cross Contamination**
- > **Ideal for PCR, RNA, and DNA sample preparation**
- > **Maintenance Free**

Proprietary **Omni Tip™ Probes** are available in both soft tissue (deaggregation) and hard tissue (frozen) versions. Engineered from durable plastics, **Omni Tips™** are reusable (autoclavable) and are so economical they can be disposed of after each use to eliminate cross contamination.

The outer tube of **Omni Tips™** is made of Lexan 144R, a polycarbonate. The inner shafts are made of Ultem 1000, a polyetherimide. The **Omni Tips'** patented design eliminates the hassle of disassembly and maintenance of traditional stainless steel generators. Treatable volume - 250 µL to 30 mL.



Hybrid probes

The **Omni Tip™ Hybrid Probes** combine the convenience of disposable plastic probes with the durability of traditional stainless steel probes. Hybrid probes are made up of an outer stainless steel tube with an inner Ultem™ plastic shaft. The plastic shafts can either be disposed of after use or cleaned and reused multiple times. The simple two-piece design makes these probes much easier to clean and disassemble than traditional stainless steel probes.



Stainless steel probes

Omni's stainless steel probes are ideal for larger sample volume, larger initial sample tissue size, and tougher tissue types. Stainless steel probes are also resistant to most organic solvents commonly used during homogenization.

System Specifications



OMNI PREP 96

OMNI LH 96

Application	Homogenizer only	Homogenizer plus liquid handling
Graphical User Interface (GUI)	PC-based software with GUI. Programs may be customized and stored for rapid call up.	
Sample Capacity	8 samples simultaneously. 24 to 96 samples, depending on tube size.	
Tube Size	2 mL, 5 mL, 14 mL, 15 mL, 20 mL, 35 mL and 50 mL**	
Processing Range	.25 mL to 35 mL per tube*	
Generator Probes	Omni Tip™ plastic probes reusable/disposable. Hard or soft tissue version. 7 mm x 110 mm length. Omni Tip™ Hybrid probes with stainless steel exterior stator shaft and plastic interior rotor for added versatility. Stainless steel probes (5, 7, or 10 mm diameter) may also be used.	
Cleaning Bath (Optional)	3 stage cleaning bath (for cleaning stainless steel probes). Consists of flush tank, rinse bath, and ultrasonic bath.	
Weighing Module	Includes gripper arm & tube adapter, Readability range 0.0001 (g)	
Temperature Module	Passive (dry ice) batch cooling module. Active (glycol) cooling module for recirculation of chilled air (<> 4°C).	
Bulk Lid Dispenser	5000 µL capacity, accuracy to +/- 1% at full stroke. Capable of dispensing up to 6 separate fluids/reagents.	
Bar Code Scanner	2D for reading pre-applied bar code labels.	
Pipette Module	4 independent channels, 1000µL tips, liquid level and clog detection, accurate to +/- 2%	
Power Rating	Up to 4 x 40 W brushless motors***	8 each 40 W brushless motors
Speed Control	Variable to 28,000 rpm	
Dimensions	37.5 in.(w) x 16 in.(d) x 27 in.(h) 96.5 cm(w) x 40.6 cm(d) x 68.6 cm(h)	40 in.(h) x 28 in.(w) x 20 in.(d) 101 cm(h) x 71.1 cm(w) 50.8 cm(d)
Weight	95 lbs. (43kg) (base unit)	150 lbs. (68kg) (base unit)
Sound Level	< 75 db	
Electrical Requirements	110VAC or 230VAC (Universal power input)	
Environmental Requirements	Operates at ambient room temperature (50-95°F or 15-35°C). Base unit fits into most fume hoods. Custom enclosures available.	
Warranty	1 year	

* Larger samples possible with the Prep 96 with 100 w motors. ** Other tubes may be adaptable, contact OMNI for details. *** Larger motors available on the Prep 96 as custom.



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