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LABCAIRE INTRODUCES WORLD'S MOST ADVANCED ULTRASONIC PROCESSOR

Sonication is an indispensable tool in a wide variety of sectors, including biotechnology, pharmaceuticals, chemicals, environmental and the process industries. However, until now, achieving consistent and reproducible results has been a hostage to the imprecise control of the process offered by current sonicator instruments.

The answer, according to Labcaire Systems, is the Misonix Sonicator 4000. The new instrument automatically modulates the power at the tip to ensure consistent and reliable results by tracking in real-time frequency changes in the converter/tip assembly caused by load and temperature changes.

Output amplitude is adjustable within the range of zero to 100%, enabling users to accurately pinpoint the most effective amplitude for their particular samples. For instance, the extra control conferred by the Sonicator 4000 could mean the difference between the formation of monodispersed liposome drug delivery vehicles and an ineffectual polydispersed sample. Equally, in the industrial sector the ability to accurately form or break emulsions and reduce particle sizes is crucial if product consistency is to be maintained.

Switchable probe attachments allow users to choose between direct or indirect sonication, depending on whether it is appropriate for the sample to come into contact with the probe. Microtip probes may also be used, which enable users to direct focussed ultrasound waves that result in an intense zone of cavitation bubbles. The resulting "scrubbing" action cleans many types of surfaces, including the removal of solder residue from PC boards, cleaning dirt from etched surfaces, and clearing clogged filters and valves.

The Sonicator 4000 also includes digital processing and touch-screen control to make it the most intuitive and easy to use system available. The new instrument may also be programmed to run multiple protocols in sequence for up to 3 days continuous use and can be set to display the total energy it has output into the system.