

Ultrasonic energy –
the power for longer lasting endotherapy devices



Reliable cleaning results due to the effectiveness of ENDOSONIC

Ultrasonic cleaning is well-established as the method of choice for dislodging debris from reusable endotherapy devices prior to disinfection and is mandatory before sterilisation by autoclaving.

There are many important factors which can affect ultrasonic cleaning performance. Energy distribution, ultrasonic frequency, fluid properties, temperature and accessory tray design all have an effect on the generation of cavitation, which is the essence of ultrasonic cleaning.

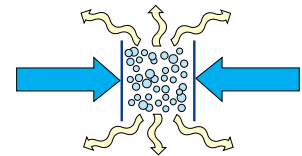
Cavitation

Cavitation is the creation and subsequent implosion of microscopic bubbles, generated by high energy ultrasonic waves. This effect is well recognised in both industry and hospitals for cleaning small or otherwise difficult to access components or surgical instruments.



Rarefaction

Negative pressure causes vapour bubbles to form.



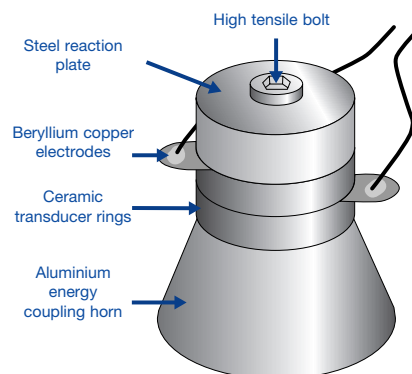
Compression

Positive pressure causes vapour bubbles to implode, releasing intense local forces, creating the energy for high performance cleaning.

Energy distribution

Energy distribution within the cleaning fluid is an essential pre-requisite for good cleaning – the transducer design and frequency of operation are fundamental to performance.

The Endosonic delivers optimised levels of power into four custom-designed transducers to provide strong, effective ultrasonic energy.



Endosonic transducer design

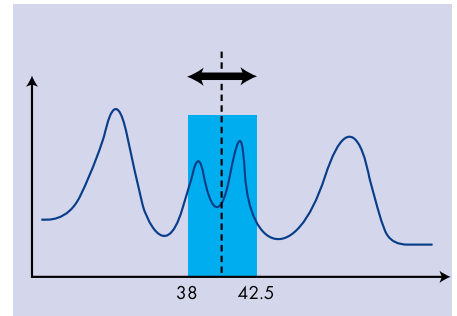
Fast and easy to use – a new standard in ultrasonic cleaning

Frequency Sweeping

Many ultrasonic cleaners employ a single frequency of operation, often in the region of 40 kHz, this frequency being selected and maintained by a control circuit within the electronics. The success of this single frequency design relies on the ability of the control circuit to select the dominant resonance of the unit and discriminate against others which occur naturally.

The Olympus Endosonic Cleaner is designed to maximise cleaning efficiency. To achieve this the Endosonic uses frequency sweeping technology. In this technique, the frequency of operation is continually scanned back and forth between 38 and 42.5 kHz. As a result, all the resonances in the range are energised at some point during the sweep, including the most dominant, resulting in all regions of the tank providing good cleaning performance.

This advanced technology makes the Endosonic one of the most effective cleaners available.



Swept frequency operation

Tray Design

Tray design is critical to distributing the ultrasonic energy evenly within the tank. Practical experience has shown that a solid base provides good energy coupling and even distribution, whilst allowing small devices to be retained safely for optimum cleaning.



The ENDOSONIC – bursting with cleaning energy!

Features include



- **Simple to operate**

Microprocessor control means that programming cycle times couldn't be easier. If a custom cycle is not chosen the timer circuit automatically defaults to 30 minutes and can be adjusted in one minute intervals from 1 to a maximum of 30 minutes.

- **Large tank**

Purpose-designed for the Endosonic to give optimum capacity and performance characteristics. Rapid and efficient drainage of the tank has been created by tapering the tank bottom and recessing the drain port to prevent 'pooling' of contaminated fluids. The easy to use integral

drain valve is positioned at the base and in the corner of the machine, so that the unit can be placed next to a sink for simple drainage.

- **Ergonomically designed**

An aesthetically pleasing hinged transparent lid prevents splashing yet allows the accessory devices to be monitored during processing.

- **Finished in highly durable polyester paint**

The entire casework is finished in a highly durable polyester paint for maximum resistance to wear and tear in normal use.

Specifications

Dimension	500 x 430 x 270 mm
Weight	10 kgs
Power Supply	120V 60 Hz, 230V 50 Hz, 220V 50 Hz
Power Consumption	500 VA
Maximum Tank Capacity	7.5 litres
Electrical Safety	Designed in conformance with EN IEC 61010-1
Regulatory Conformance	Complies with the requirements of Directive 93/42/EEC concerning medical devices, Class 1



Specifications and design are subject to change without any obligation on the part of the manufacturer.

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