

Product Specification

412 HL / 422 HL Ultrasonic Cleaner

Product Description

The 412HL and 422HL Ultrasonic Cleaners are engineered for efficient effective cleaning of instruments, glassware, other ware and utensils used in a healthcare setting. They are designed to combine simplicity and economy of operation with a maximum of flexibility.

These configurations, which offer two different tank sizes, come standard with automated power lids, Aqua-lift™ tray elevators, tank heater, automatic detergent injector, & automatic rinse/dry function.

Application

For use in healthcare facilities in cleaning of complex re-usable instruments, glassware, and other wares and utensils.

Standard Features

Construction/Design

The ultrasonic console is a self-contained cleaning machine, with a single washing tank, built-in detergent dispensing and storage, topmounted user-interface, and separate rinse/dry chamber. It is comprised of a welded frame with cover panels, and a seamwelded tank/top assembly.

- Type 304 stainless steel frame and panels, type 316 stainless steel wash and rinse tanks
- Twenty four transducers with 1000 watts of power at a frequency of 40 kHz, vacuum nickel brazed to the underside of the wash tank
- Simple touch screen user interface
- Smart water fill, user selectable to 5", 7.5", or 10"
- Standard tray elevators, which raise and lower baskets into each tank via manual toe switches, or automatically at the beginning and end of the cycle
- Automated Detergent Injection, adjustable from the user interface, with on-board tank storage
- User-defined & unit-controlled chamber solution temperature, with a 1000W external heating element
- Spray rinse system, with optional DI hookup through corrosion-resistant plumbing
- Forced hot air drying system, producing 235 cfm airflow through a 5.2 kW heater
- Safety Features include door interlocks, lid switches and liquid level sensor
- Sensor diagnostics screen on the user interface provides visibility to key PLC inputs to aid in troubleshooting
- Easy service access to all plumbing, electrical relays and ultrasonic components
- Modular ultrasonic generator, for easy repair or replacement

Dimensions

Model	External Dimensions H x W x D (in/mm)	Wash Chamber Dimensions H x W x D (in/mm)	Working Height Dimension (in/mm)
412 HL	53.5 x 64 x 28.5 (in) 1359 x 838 x 724 (mm)	12 x 24 x 13 (in) 304 x 609 x 330 (mm)	36 (in) 914.4 (mm)
422 HL	53.5 x 64 x 28.5 (in) 1359 x 838 x 724 (mm)	15 x 24 x 13 (in) 381 x 609 x 330 (mm)	36 (in) 914.4 (mm)



Benefits

Highly Effective Cleaning

Unit combines the ultrasonic frequency most effective for removing heavy soil levels with a high watt density (ultrasonic power per unit of water), to produce consistently effective cleaning. Optional 10-port irrigation in both wash and rinse tanks also helps flush evacuated debris out of cannulated instruments. Built-in chamber heater assures optimum water temperature for cleaning chemistries. Rinse and dry leaves instruments completely clean and ready for low temperature sterilization processes, without the need to hand or air dry.

Optimized Ergonomics

Standard lid/basket lift is clinician friendly, eliminating the need to lift heavy case sets out of the chamber. Handy toe switch makes it easy to open the lid, even when carrying baskets or instruments.

Solid Durability

All components are built for long life and hard service. Vacuum brazed transducers, with a metal to metal tank bond, outlast conventional epoxy-bonded components. Water-pressure-driven lid/basket lift mechanism has fewer parts to fail than motor-driven alternatives. Solid all stainless steel frame and casing, combined with highest-quality stainless steel tank, will resist deformation and corrosion over years of use.

Ease of Use

Intuitive touchscreen controller combines the simplicity of single-button operation with the power of a menu-driven system. Wash and detergent time, water fill level, tank flush, and sensor diagnostics are all accessible from one unified control set.



For more information, visit belimed.com

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Cycle Description

Instruments are washed in ultrasonic bath, per a user-defined timed program, ejected at end of cycle, and then moved to and loaded in rinse chamber for timed removal of any loose surface debris. The cycle completes with a timed hot air drying step, followed by basket elevation for user removal.

Configuration

Electrical Requirements

- 120V/208V 60 Hz 1PH 40A

Options

- 10-port cannulated instrument irrigation system
- Automated lubricant injection system
- DI water hookup (rinse only)
- Detergent liquid level sensor

Accessories

- Supplemental drain pump
- Drain screen
- Stainless steel wire instrument tray
- Additional cannulated instrument tray

Cleaning Chemistries

Use a detergent with an affinity for cleaning the types of soils being removed. It must be compatible with and support ultrasonic cavitations. It must be free rinsing without leaving residue and above all be non-foaming. Belimed supplies an enzymatic cleaning solution for this application.

Installation

All utility connections are easily accessible at the rear of the washer. The electrical connection is hardwired at the unit. Incoming water must meet hardness specifications. A supplemental drain pump is required if the wall or floor drain does not provide adequate slope from the 6" high outflow connection. See product Cut Sheet for details.

Preventive Maintenance

Periodic preventive maintenance is recommended to ensure proper operation of the equipment. Belimed maintains a nationwide, factory trained Service Technician Group who can perform this maintenance and/or train Bio-medical staff on the proper procedures.

Belimed also offers a number of PM Plans. Contact Belimed Technical Service for more details.

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