



Ultrasonics.Steam.Ultraclean.



Ultrasonic Cleaning Units

## Elmasonic S

Ultrasonic Cleaning Units



- Electronic time and heating control
- Autostart temperature-controlled / temperature pre-selection
- High-performance transducer systems
- Dry run proof ceramic heating
- Quick degassing with Autodegas / Degas
- Improved cleaning performance with Sweep
- Safety switch-off

[www.elma-ultrasonic.com](http://www.elma-ultrasonic.com)

# Elmasonic S ultrasonic units: specific features for all business sectors



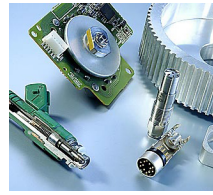
*Cleaning, degassing and dispersing in the lab*



*Cleaning in the dental and medical sectors*



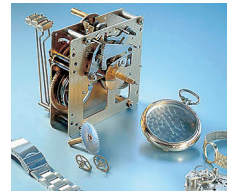
*Cleaning of ophthalmology and opticians*



*Cleaning of items in industry, workshops and service*



*Cleaning in the jewellery branch*



*Cleaning of items in the watchmaker branch*

The Elmasonic S ultrasonic units offer practically every available technical feature.

- Laboratory: Ultrasound cleans everywhere the cleaning liquid can go. It is particularly suitable for the cleaning of laboratory instruments made of glass, plastic or metal. Elmasonic S units degas HPLC solutions, mix, disperse, emulsify and dissolve specimens.
- Medical sector: Thorough cleaning of surgical, medical and of micro-instruments without causing damage to the material; or cleaning of rigid endoscopes and flexible endoscopic accessories.
- Dental laboratory: Cleaning of instruments, removal of cement and plaster; cleaning of dental mould spoons, drills and prostheses. Cleaning of dentures, crowns and other prosthetic materials.
- Jewellery: Cleaning and brightening up of gold, silver, platinum and fancy jewellery. Cleaning of precious, semiprecious and set stones.
- Watch sector: Cleaning of watch cases, mechanical parts and metal bracelets. Cleaning of clockworks.
- Optician: Cleaning of complete glasses and optics. Intensive cleaning of spectacle pads and joints.
- Workshop and service: Intensive cleaning with alkaline, acid and neutral elma clean products in the workshop, for service works, for the final cleaning and for conditioning for coating.
- Industry: Cleaning in the mechanics, electronics and glass industries, automobile parts production and plating or other surface refinement processes. Gentle and intensive cleaning of items made of steel, light and non-ferrous metals, plastics and glass.

## The Elmasonic S series

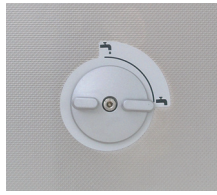


*All unit sizes available without heating (except S 450H and S 900H)*



# The special functions and advantages

The Elmasonic S units are available in 13 different sizes, ranging from 0.5 litre up to 90 litre. They are equipped with efficient 37 kHz ultrasonic high-performance transducers of the latest generation.



Knob for drain on side



Adjustable drain duct



Practical cover



Filling level marking

- The optional dry run proof heating supports the cleaning process.

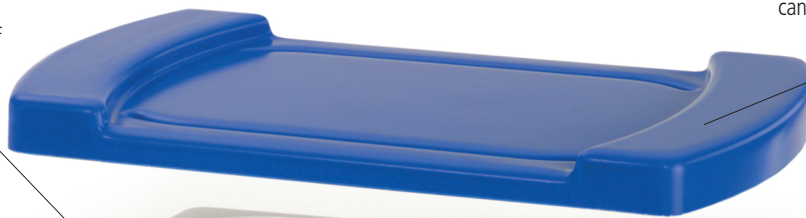
- The operating panel is user-friendly and arranged so that no liquid can enter the electronics.

- The newly developed cover reduces the noise and accelerates the heating-up process.

- The cleaning tanks are made of cavitation-resistant stainless steel.

When turned over, the cover can be used as drip-off basin. The collected cleaning liquid can be emptied back into the tank.

- The optional Sweep function guarantees an optimum sound field distribution in the cleaning bath due to a modulation of the frequencies.



- The set cleaning time and the remaining cleaning time are both indicated by LED display (except S 10 / H).

- Marking for filling level.

- The turning knob for the pre-selection of the cleaning period can be turned to permanent operation or short-time operation.

- The carrying handles are made of ergonomically shaped plastic.\*

- The turning knob on the side allows an easy draining of the cleaning liquid through the drain duct on the back of the unit.\*

Degas function key

Start/Stop key  
Ultrasound

On/Off key Unit

Turning knob  
temperature

LED display temperature (except S 10 / H).

\*see table for deviations

- The Degas function allows a quicker degassing of the cleaning liquid. Another advantage is the time-controlled „Autodegas“ function for the efficient degassing of freshly mixed cleaning liquids.

- For safety reasons, the unit automatically switches off after 12 hours.

- The cleaning process can be switched on by hand or automatically (temperature-controlled).

- The removable mains cable with mains plug allows easy and safe transportation (except S 450H & S 900H).

- With the temperature turning knob the temperature can be set between 30° and 80°C in steps of 5°. Both set and actual temperature of the liquid are indicated by LED display (except S 10 / H).

- Elmasonic S ultrasonic units in proven Elma quality „Made in Germany“

## Technical details

|                                           |              | S 10 / H           | S 15 / H           | S 30 / H           | S 40 / H           | S 60 / H           | S 70 / H           | S 80 / H           | S 100 / H          | S 120 / H          | S 180 / H          | S 300 / H           | S 450H              | S 900H              |
|-------------------------------------------|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Tank max capacity                         | litre        | 0.8                | 1.75               | 2.75               | 4.25               | 5.75               | 6.9                | 9.4                | 9.5                | 12.75              | 18                 | 28                  | 45                  | 90                  |
| Tank Internal dimensions                  | W x D x H mm | 190x85x60          | 151x137x100        | 240x137x100        | 240x137x150        | 300x151x150        | 505x137x100        | 505x137x150        | 300x240x150        | 300x240x200        | 327x300x200        | 505x300x200         | 500x300x300         | 600x500x300         |
| Unit external dimensions                  | W x D x H mm | 206x116x178        | 175x180x212        | 300x179x214        | 300x179x264        | 365x186x264        | 568x179x214        | 568x179x264        | 365x278x264        | 365x278x321        | 390x340x321        | 568x340x321         | 615x370x467         | 715x570x467         |
| Weight                                    | kg (ca.)     | 2.0                | 2.1                | 3.3                | 4.0                | 5.1                | 5.6                | 6.4                | 5.9                | 7.5                | 8.5                | 11.0                | 25                  | 45                  |
| Ultrasonic frequency                      | kHz          | 37                 | 37                 | 37                 | 37                 | 37                 | 37                 | 37                 | 37                 | 37                 | 37                 | 37                  | 37                  | 37                  |
| Ultrasonic peak power max. <sup>*1)</sup> | W            | 240 <sup>*2)</sup> | 280 <sup>*2)</sup> | 320 <sup>*3)</sup> | 560 <sup>*3)</sup> | 600 <sup>*3)</sup> | 600 <sup>*3)</sup> | 600 <sup>*3)</sup> | 600 <sup>*3)</sup> | 800 <sup>*3)</sup> | 800 <sup>*3)</sup> | 1200 <sup>*3)</sup> | 1600 <sup>*3)</sup> | 3200 <sup>*3)</sup> |
| Heating power                             | W            | 0/60               | 0/60               | 0/200              | 0/200              | 0/400              | 0/600              | 0/600              | 0/400              | 0/800              | 0/800              | 0/1200              | 1600                | 2000                |
| Power consumption total                   | W            | 30/90              | 35/95              | 80/280             | 140/340            | 150/550            | 150/750            | 150/750            | 150/550            | 200/1000           | 200/1000           | 300/1500            | 2000                | 2800                |
| Sweep                                     |              |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |
| Degas/Autodegas                           |              |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |
| Carrying handles                          |              | no                 | no                 |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |
| Drain duct /diameter                      | inch         | no                 | no                 | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"               | 3/8"                | 1/2"                | 1/2"                |
| Order number                              |              |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |
| with heating <sup>*4)</sup>               | 220-240 Vac  | 100 1214           | 100 2060           | 100 1955           | 100 2006           | 100 2238           | 100 2140           | 100 2170           | 100 2279           | 100 2825           | 100 2877           | 100 3033            | 100 3908            | 100 3946            |
| without heating <sup>*4)</sup>            | 220-240 Vac  | 100 5507           | 100 4626           | 100 4631           | 100 4635           | 100 4643           | 100 4650           | 100 4652           | 100 4655           | 100 4658           | 100 4662           | 100 4669            | -                   | -                   |
| Accessories:                              |              |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |
| Basket internal dimensions                | WxDxH mm     | 177x73x30          | 112x103x50         | 198x106x50         | 190x105x75         | 255x115x75         | 465x106x50         | 455x106x75         | 255x200x80         | 250x190x115        | 280x250x115        | 455x250x115         | 455x270x194         | 545x450x250         |
| Basket mesh size                          | mm           | 7x1                | 7x1                | 7x1                | 7x1                | 9x1                | 9x1                | 9x1                | 9x1                | 9x1                | 9x1                | 9x1                 | 9x1                 | 16x1,5              |
| Basket loading                            | kg           | 1                  | 1                  | 1                  | 3                  | 5                  | 5                  | 5                  | 6                  | 7                  | 8                  | 10                  | 20                  | 30                  |

\* 1) The choice of the waveform has been matched to the relevant tank size.

\* 2) Impulse waveform

\* 3) Standard sine-wave modulation

\* 4) Units also available with 100-120 Vac (except S450H and S 900H)

## Ultrasonic technology and cleaning chemicals all from one source

The true value of carefully developed products are appreciated as soon as they are used. We have expanded the well-known range of accessory equipment for the Elmasonic S series. Baskets with plastic coated handles, a jewellery rack with 10 adjustable hooks, a cooling coil, clasps for Erlenmeyer flasks or the new cover are practical little helpers.

- Baskets for all unit sizes
- Plastic cover, except S 450H & S 900H
- Stainless-steel cover with openings for 1 or 2 beakers
- Beakers
- Acid-proof tanks or Hostalen tanks
- Immersion baskets made of Hostalen or stainless steel
- Instrument holder or test tube rack
- Electric hot air dryer
- Instrument holder for 1 litre solvent flasks HPLC

Elma started the development and production of cleaning chemicals in 1975. The Elma cleaners have been specially designed for the use in ultrasonic baths. The range of products is adjusted to the various cleaning tasks of the different business branches.

