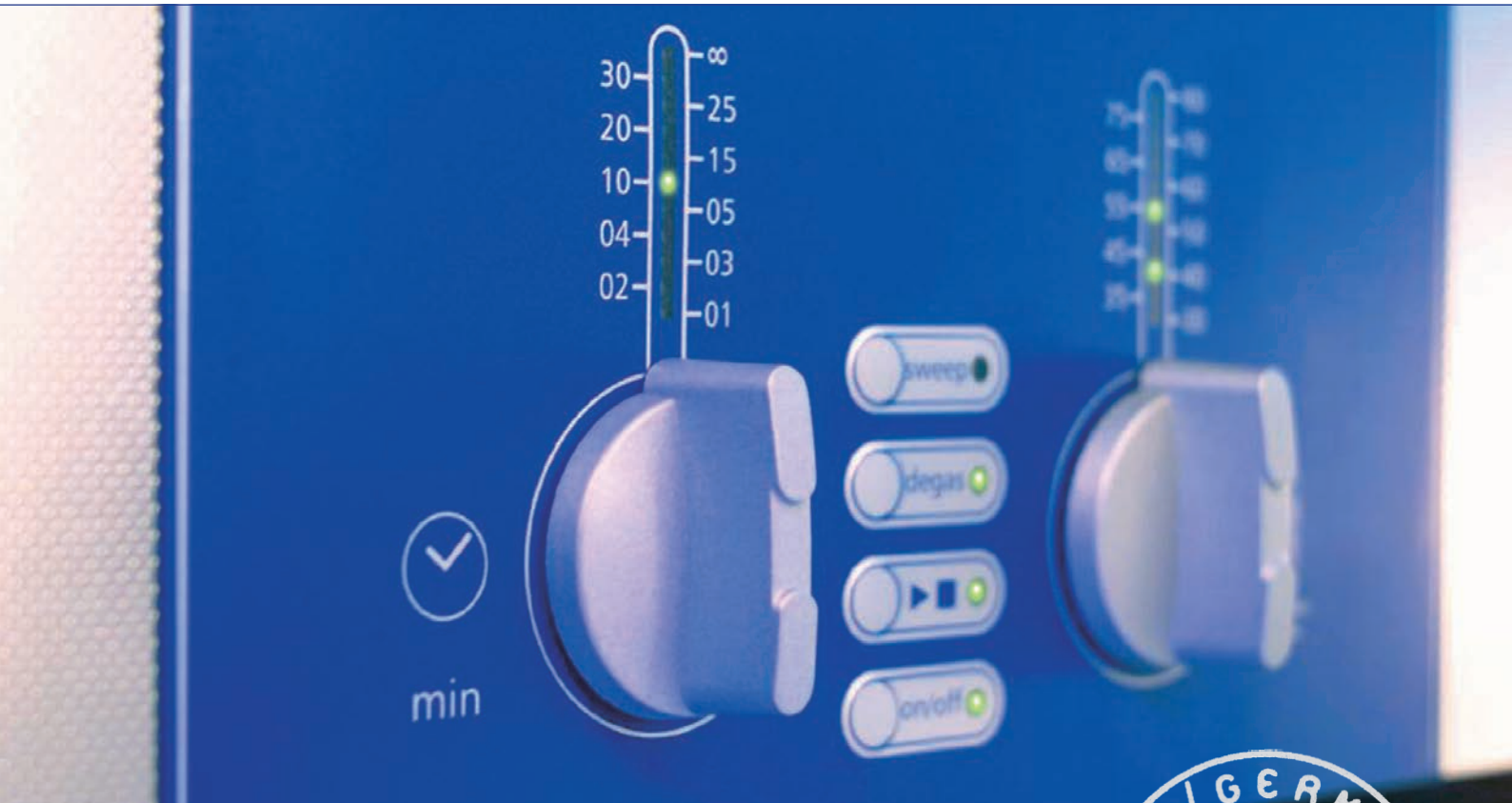




Ultrasonics.Steam.Ultraclean.



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

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Elmasonic S ultrasonic units: specific features for all business sectors



Cleaning, degassing and dispersing in the lab



Cleaning in the dental and medical sectors



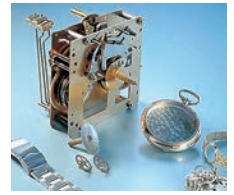
Cleaning of ophthalmology and opticians



Cleaning of items in industry, workshops and service



Cleaning in the jewellery branch

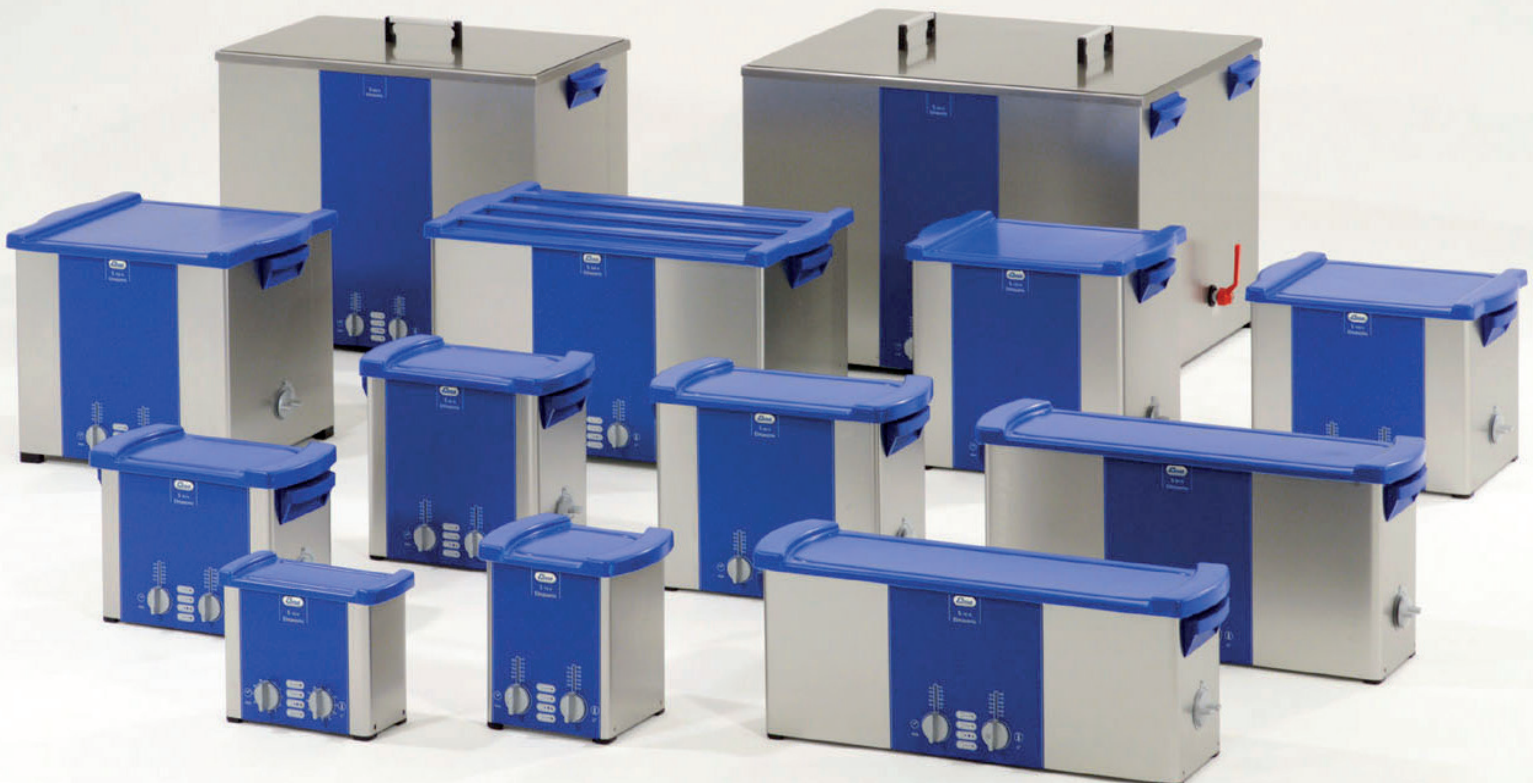


Cleaning of items in the watchmaker branch

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.

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

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

- 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).

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



- Marking for filling level.

- 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.*



- LED display temperature (except S 10 / H).

Degas function key

Start/Stop key
Ultrasound

On/Off key Unit

Turning knob
temperature

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

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

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

- 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).

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. ^{*1)}	W	240 ^{*2)}	280 ^{*2)}	320 ^{*3)}	560 ^{*3)}	600 ^{*3)}	600 ^{*3)}	600 ^{*3)}	600 ^{*3)}	800 ^{*3)}	800 ^{*3)}	1200 ^{*3)}	1600 ^{*3)}	3200 ^{*3)}
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 ^{*4)}	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 ^{*4)}	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.

