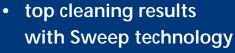
# Elmasonic E Ultrasonic Cleaning Units

economic cleaning for all purposes



- high ultrasonic power with the latest processor-controlled generator technology
- durable, economic, available in 8 sizes

Laboratory
Watches & Jewellery
Industry
Health care industry



# How do you obtain more economic and efficient cleaning results? With the new ultrasonic cleaning technology made by Elma

#### The ultrasonic cleaning process

Cleaning by ultrasound is intensive, gentle to the material and environmentfriendly all at the same time. Cleaning in modern laboratories, the service, the industry, the watch and jewellery business and the health care industry is unthinkable without this technology. The transducer systems change electric energy into mechanic vibrations which are then transmitted through the stainless-steel tank into the cleaning bath. Tiny micrometric vacuum bubbles are created which implode very fast: this process is called cavitation. It produces highly energetic jets which remove efficiently all dirt particles from any item immersed in the cleaning bath.

A more homogeneous power distribution in the cleaning bath for a better cleaning result



The Elma research department has been working on process optimisation for more than 50 years. The result are powerful

transducer systems which guarantee a homogeneous sound field distribution through continuous shifting of the sound pressure maxima (Sweep function). The cleaning power is evenly distributed in the cleaning bath and the cleaning results are optimised. The units of the Elmasonic E series all operate automatically with "Sweep".

The ceramic heating is dry-run proof

The ceramic heating elements in the Elmasonic E units assist the cleaning process. All unit sizes from 1.75 up to 28



litre tank volume are equipped with these heating elements. In practical operation and in endurance tests this heating type has

proven absolutely dry-run proof. The Elmasonic unit range is completed by an Elmasonic S 10 H with 0.8 litre tank volume. This unit size is frequently used for all kinds of cleaning purposes.



#### Adjustment of cleaning period and temperature by turning knob



The cleaning period can be set to permanent operation or short-term operation. For reasons of safety, the unit automatically

switches off after 12 hours. The turning knob allows temperature settings between 30° and 80° C, variable in 5° steps. Operation of the unit is easy and can be learned in no time at all.

The Elmasonic E series consists of 8 different

(automatic switch-off after

12 hours).

#### Well-known Elma quality and improved design

The drain valve on the back can be turned and is operated by a turning knob on the unit side (Elmasonic E 60 H up- wards). The material used and the thorough technology prolong the service life of the units.

#### A rewarding investment

You will hardly find another ultrasonic cleaning unit of comparable quality and with as many standardised features as the units of the Elmasonic E series at the same price!

#### Cleaning chemicals and ultrasonic cleaning technology - all made by Elma

Elma started research and production of their own cleaning chemicals in 1975. The cleaners are specifically designed for the use in an ultrasonic bath.



The range of cleaners is very wide and contains special solutions for the various business branches and its particular cleaning tasks.

Contact us for further information!

■ The operating panel is userfriendly, easy to handle and arranged unit sizes with tank volumes ranging from 1.75 up to 28 litre. They are fitted with that no liquid can enter the efficient 37 kHz ultrasonic power sensitive electronics of the unit. transducers of the latest generation. ■ The cleaning tank is made of cavitation-resistant stainless steel. ■ The cleaning process is assisted by a dry-run proof ceramic heating. ■ Elmasonic E ultrasonic units of proven Elma quality "Made in Germany". ■ Pilot lamps for cleaning period and temperature. ■ The turning knob for the preselection of the cleaning period can be set to permanent operation or short-term operation

Key On/Off

unit

Key Start/Stop

ultrasound

■ The new developed plastic cover reduces the noise and accelerates the heating process.

Very handy: the cover can be used as a drip-off tray when turned upside

down. The collected cleaning liquid can be returned into the bath.

- Filling level is marked inside the tank.
- The carrying handles are made of ergonomically shaped plastic. (E 30 H upwards)
- The mains cable can be plugged off for practical and safe transportation.
- The turning knob on the side of the unit allows easy draining through the drain valve on the back of the unit. (E 60 H upwards)
- The cleaning process can be started by hand or temperature controlled automatically.
- The temperature turning knob allows temperature settings between 30° and 80°C, variable in 5° steps.

### **Technical details**

	<sup>H</sup> _D w	S 10 H	E 15 H	E 30 H	E 60 H	E 70 H	E 100 H	E 120 H	E 180 H	E 300 H
Tank volume max.	Litre	0,8	1,75	2,75	5,75	6,9	9,5	12,75	18	28
Tank internal dimensions	WxDxHmm	190x85x60	151x137x100	240x137x100	300x151x150	505x137x100	300x240x150	300x240x200	327x300x200	505x300x200
Unit external dimensions	WxDxHmm	206x116x178	175x180x212	300x179x214	365x186x264	568x179x214	365x278x264	365x278x321	390x340x321	568x340x321
Weight	kg (ca.)	2,0	2,1	2,8	4,6	5,5	5,6	6,9	8,1	10,2
Ultrasound frequency	kHz	37	37	37	37	37	37	37	37	37
Ultrasound peak performance max.*	W	240	240	320	400	480	400	600	600	800
Heating power	W	60	60	200	400	400	400	600	800	1200
Current consumption total	W	90	90	240	500	520	500	750	950	1000
Sweep		V	<b>✓</b>	V	<b>V</b>	<b>V</b>	<b>&gt;</b>	<b>V</b>	<b>V</b>	V
Carrying handles		no	no	V	<b>V</b>	<b>V</b>	<b>&gt;</b>	<b>V</b>	<b>✓</b>	V
Drain valve diameter	Inch	no	no	no	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Order No.										
Mains voltage	220-240 Vac	100 1214	100 4625	100 4630	100 4642	100 4649	100 4654	100 4657	100 4661	100 4668
Mains voltage	100-120 Vac	100 7137	100 7159	100 7160	100 7161	100 7162	100 7163	100 7164	100 7165	100 7166
Accessories:										
Basket internal dimensions	WxDxHmm	177x73x35	112x103x55	198x106x55	255x115x80	465x106x55	255x200x80	250x190x120	280x250x120	455x250x120
Basket mesh size	mm	7x1	7x1	7x1	9x1	9x1	9x1	9x1	9x1	9x1
Basket charge	kg	1	1	1	5	5	6	7	8	10

<sup>\*</sup> S10 H – E 30 H impulse sound; E 60 H – E 300 H double half wave sound. The choice of signal form has been matched to the relevant geometry of the tank. Due to the signal form the maximum peak of the ultrasonic power is fourfold and eightfold respectively.

## **Practical Accessories**

The true value of a product becomes immediately visible when you put it to the test. The well-proven range of accessories for the Elmasonic E units has been enlarged. Fitting baskets with plastic-coated handles and the remo-

vable cover, to be used as a drip-off tray when turned over, are practical helpers. The following accessories are available now:





Elma Hans Schmidbauer GmbH & Co. KG Kolpingstr. 1-7 D-78224 Singen Tel. +49(0)7731/882-0 Fax +49(0)7731/882-266 info@elma-ultrasonic.com Immersion baskets