

Modular. Reliable. Connected.

# **Elmasystem Evo**





### Elmasystem Evo

## A fully automated solution for the most demanding cleaning requirements.

#### Tailor-made systems.

Elmasystem Evo adapts flexibly to a wide variety of cleaning tasks. Various process modules for ultrasonic cleaning, rinsing, drying as well as extensive expansions can be individually customised from modular building blocks for an optimal cleaning process. The system can be integrated into existing upstream and downstream value-added processes.

Common interfaces such as OPC/UA enable a seamless connection to different IT systems, such as Enterprise Resource Planning (ERP) or Manufacturing Execution System (MES). Elmasystem Evo represents a process-safe and high-performance system in the form of a worthwhile investment for modern production environments.

Highlight			
			MAXIMUM BENEFITS
Developed for	Cleans	Removes	
Medical technology	Implants, instruments and contact lenses	Adhesive residues	
		Oil and grease	
	Precision optics, optics for safety and	Abrasive and polishing pastes	
Photonics	monitoring systems, vacuum components, parts for laser and lithography technology	Particles	
Energy and drive technology	Components for fuel cells and drive	Flux	
	systems, power electronics, electro- mechanical components	Film-like impurities	
	Technical ceramics and substrates,	Organic and inorganic impurities	
Precision components	components for injection moulding tools, valves, nozzles, springs	Particulate impurities	
Watches and jewellery		Oxidation	
	Micromechanical components, cases, straps	Protective coatings	



#### Elmasystem Evo

## Three sizes. One goal. Flexible cleaning processes.

#### Unlimited possibilities.

Elmasystem Evo always focuses on the overall clean- monitored, ensuring reduced consumption of water ing process. Thanks to modern interfaces, the system integrates into existing IT infrastructures. Smart feed cleaning results. Barcode, DMC and RFID systems and discharge systems ensure seamless integration into upstream and downstream production processes. Cleaning processes are continuously and intelligently

and cleaning chemicals without compromising the ensure a high degree of transparency and complete traceability.



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Elmasystem Evo	550	800	1600	
Tank capacity approx. (l)	55	80	160	
Multi-frequency sonic (kHz)	25 / 45 or 37 / 130			
Frequency modes	Degas, Sonic, Sweep, Pulse			
Basket dimensions (mm)	244 / 424 / 210	244 / 424 / 360	505 / 432 / 360	
Temperature (°C)	variable, 30–80			
<ul> <li>User-friendly system visualisation, process monitoring and diagnostic management, user administration and audit trail</li> <li>Traceability through barcode, DMC and RFID systems</li> </ul>		6 Fin level monitoring, automated bath maintenance and dosing options      7 Flexible and variable		
<sup>2</sup> Traceability through barcode, DMC and RFID systems				
3 Manual or automated basket conversion		Defined environmental conditions; for example, through system enclosure and laminar flow boxes		
4 Maximum load weight: 35 kg		<sup>9</sup> Transfer option through lift doors / double airlocks from grey room to clean room		
<sup>5</sup> Peripherals in closed enclosures		<sup>10</sup> Feed and discharge through automated conveyor systems		



#### Technical data



Elmasystem Evo

### Maximum cleanliness. Efficient operation 24/7.

The Elmasystem Evo is like a Swiss army knife. Whether you choose the manual entry-level version or the fully automated expansion – the system offers maximum flexibility thanks to the modular building block system. The system can be easily adapted to new cleaning requirements. Various measures can be taken to achieve the highest levels of cleanliness in accordance with the ORK/SCP cleanroom classification as well as biological and chemical requirements.

Standardised production processes are the basis for high system availability. Intelligent transport and transfer systems enable fully automated and efficient 24/7 operation. Smart barcode, DMC and RFID solutions ensure efficient data processing and traceable processes.

Modular building block system for optimal cleaning results. Seamless integration into value-added processes. Attractive price-performance ratio.



Highlights

#### Elmasystem Evo service

### A wide range of expansions. Tailor-made service.

#### **Extensive possibilities.**

Elmasystem Evo is based on modular building blocks Before the system is put into operation, operators and therefore offers maximum flexibility when designing the cleaning system. In addition, a comprehensive range of practical expansions, such as dosing, oil separation and filtration, and calibrated process sensor technology is available.

#### Focus on sustainability.

Continuous intelligent process monitoring is the basis fault analysis to troubleshooting. for optimal bath maintenance. Key parameters such as temperature, conductivity and pH value are measured continuously and ensure the optimum dosage of the cleaning chemicals. Intelligent rinsing water management, energy-saving and noise protection concepts, as well as water treatment and recirculation systems all ensure sustainable operation.

#### Smooth operation.

receive intensive training from Elma experts. Regular care and maintenance of the system contribute to reliable system availability. Elma makes this easy with tailor-made spare parts packages as well as service and maintenance contracts. Should faults nevertheless occur, our flexible service team will be ready to help you - on site or remotely - at every step from

#### Any questions?

Our service team will be happy to help!

+49 7731 882-2288



# Software visualisation

Intuitive and easy-to-use interface

Connection to external systems

Data logger, audit trail, diagnostics

**Process optimisation** 

Digitalisation



#### Movement and product handling

Baskets and product carriers

Oscillation, rotation, lift-out

Integration into upstream/downstream processes e.g. clean rooms, packaging, assembly



Economic efficiency



### Bath maintenance and process monitoring

Dosing, oil separation and filtration

Calibrated process sensor technology

Measurement of temperature, conductivity, pH value, TOC, refractive index, particle number and size



Sustainability



#### **Resources and** environment

Intelligent rinsing water management Energy saving and noise protection design Water treatment and recirculation systems



www.elma-ultrasonic.com

Elma process laboratory

## **Qualified experts** with one goal – perfect cleaning results.

In our in-house process laboratory, qualified chemists develop highly effective products for various cleaning processes. These are produced at Elma and put to use in various industries. Our specialists will be happy to help you develop your cleaning procedures and answer any questions you may have about bath maintenance and the application of cleaning agents.



#### Individual cleaning tests.

The cleaning agents developed in our own application laboratory and manufactured in our own production facilities can master even difficult cleaning tasks for various applications. In our in-house process laboratory, we work together with our customers to develop process solutions for individual cleaning tasks, resulting in a coordinated system concept that includes the cleaning process and the associated chemistry.

#### Focus on quality.

An unwavering commitment to the highest quality is the foundation of the company's philosophy. The consistent further development of our core competencies and a constant focus on improvement and complete customer satisfaction underline Elma's exceptionally high quality standards. Furthermore, Elma is certified by DQS in accordance with DIN EN ISO 13485:2016.







Elma Schmidbauer GmbH Gottlieb-Daimler-Strasse 17 78224 Singen (Germany)

www.elma-ultrasonic.com

