

Our Technology

- Modular and customer-specific chamber systems (aqueous/modified alcohol) or our ultrasonic series immersion system (aqueous)
- Ultrasound in different frequencies and power levels, Injection Flood Washing (IFW), spraying, Pulsated Pressure Cleaning (PPC) and Pulsated Pressure Passivation (PPP)
- Circular filtration systems
- Passivation, DI rinsing, lift-out, drying (warm air, vacuum, infrared, spinning)

System Qualifications

- Support with qualifications (IQ, OQ, PQ) based on qualification plan
- Support with risk analysis
- Data acquisition and storage processes
- Audit trail according to FDA 21 CFR Part 11
- User administration
- Material certificates
- Calibration certificates

Our Services

- Lifetime Service
- Comprehensive Training
- Process Consulting
- Regular Maintenance
- Acoustic Performance Measurement (APM)
- Annual Calibration of Process Sensors
- Availability of Helpdesk, Spare Parts, etc.

Sterile Products

e.g. implants, dental implants, inhalers, ...

Non-Sterile Products

e.g. instruments, tools, orthodontic parts, cannulas, ...



Solution Concepts

Pre-cleaning

Cleaning after machining

- e.g. turning, milling, drilling, ...
- primarily oil, chips, particles

Intermediate Cleaning

Cleaning after finishing

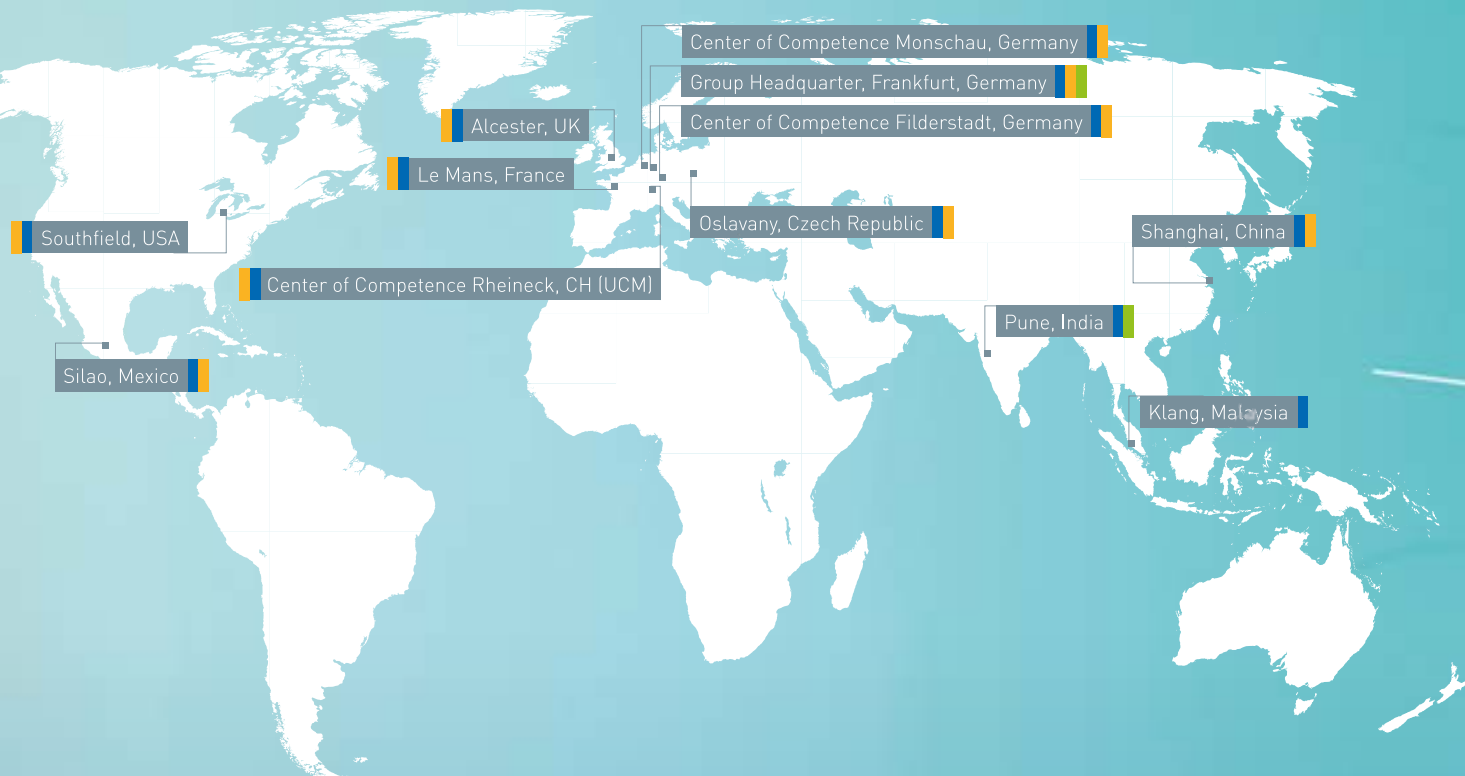
- grinding, blasting, polishing
- primarily polishing, grinding /aluminum oxide residues

Post-cleaning/Passivation

Cleaning prior to sterile packaging

- primarily dust, surrounding grease
- organic contamination (e.g., fingerprints).
- microbiological contamination (e.g., bioburden: bacteria, spores, microorganisms).

Our Locations Worldwide



CONTACT



Our Medical Technology Experts

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ECOCLEAN UCM MHITRAA

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Health Care

The One-Stop Partner for Qualified Parts Cleaning

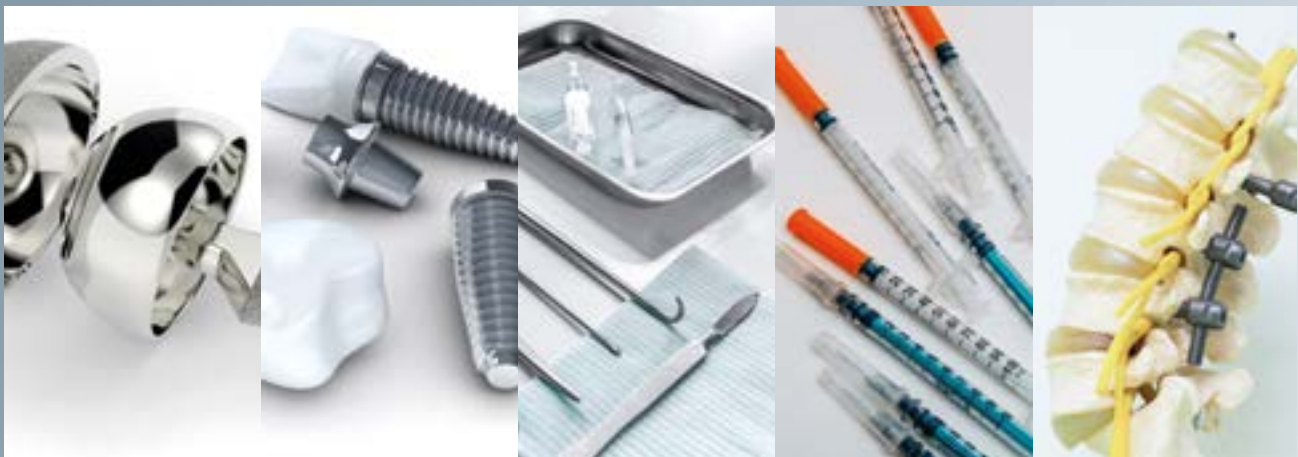


ECOCLEAN UCM MHITRAA

Traceable Cleaning Solutions to Validate your Processes

High cleanliness requirements as well as consistent cleaning results are daily challenges in the manufacturing process of medical parts and components.

The introduction of the MDR/FDA in particular, significantly increases the requirements for complete traceability. Whether water-based, solvent, single-stage or multi-stage, the traceable cleaning systems from Ecoclean & UCM offer optimal conditions for process validation in medical technology. All products cleaned in our systems can be traced and identified by means of process data logging and audit trails.



AT A GLANCE

Components	Materials	Cleanliness Requirements
<ul style="list-style-type: none">■ Orthopedic parts■ Prostheses■ Medical instruments■ Dental parts■ Syringes & cannulas■ 3D printed medical technology components■ Medical plastic parts	<ul style="list-style-type: none">■ Stainless steel■ Ceramics■ Plastic■ Titanium	<ul style="list-style-type: none">■ General: Free of operating materials, particle contamination and spots■ Chemical exposure: Cytotoxicity■ Biological pollution: Aerobic germs (Bioburden)■ Biological pollution: Endotoxins■ Organic residues such as process materials (oil, cooling lubricants, cleaners, ...)



Global Service, Exclusive APM & Calibration

EXPERT SERVICE FOR EVERY STEP IN THE LIFECYCLE OF YOUR CLEANING SOLUTION

Our worldwide service team supports the entire lifecycle of your cleaning solution – from consultation and installation to maintenance and optimization. Our goal is to provide you with expert and reliable advice before and after your purchase and to assist you with any questions you may have. The service team has access to an extensive global network of resources that you can rely on at any time.

We offer calibration of our ultrasound systems using our high-tech APM (Acoustic Performance Measurement) technology, which measures ultrasound performance directly at the ultrasound source in real time. Specifically designed for demanding medical cleaning tasks, this system also enables fully automatic process monitoring and calibration of US systems for the first time. This process supports both open multi-stage immersion systems and closed chamber cleaning systems, thereby expanding the range of applications for a variety of cleaning processes.

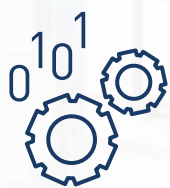


Global Expertise for Medical Cleaning Trials

WORLDWIDE TEST CENTERS FOR THE HIGHEST CLEANING REQUIREMENTS

We operate specialized Test Centers worldwide, where cleaning trials are conducted on original-soiled medical parts under near-production conditions – ensuring optimal solutions for even the most demanding cleaning tasks. Our Test Centers are equipped with the latest technology and staffed by experienced professionals who carefully analyze and evaluate every cleaning process. By simulating real-world conditions, we can accurately evaluate the effectiveness of different cleaning methods, whether for complex surgical instruments, implants, or other medical devices.

These tests not only guarantee the highest precision and quality, but also enable the development of customized cleaning processes that comply with the strictest legal requirements. In addition, we offer practical training courses to ensure clean results and effective knowledge transfer right from the start.



Technology Centers for Process Development and Contract Cleaning

CUSTOMIZED CLEANING & SURFACE TREATMENT SOLUTIONS

In our advanced Technology Centers, customers can explore and evaluate surface treatment and parts cleaning technologies. Together, we develop and optimize processes – and offer contract cleaning.

Whether you're looking for process development, want to validate parameters before purchasing a system, or outsource cleaning using our contract cleaning, our team is ready to help. With decades of experience in this field, we bring valuable insights and technical expertise to every project. Our goal is to help you optimize your production and achieve optimal results, regardless of the complexity of the task.