Medical Technology
Safe and Efficient Cleaning

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SBS ECOCLEAN GROUP

At a Glance

COMPONENTS	MATERIALS	CLEANLINESS REQUIREMENTS
▪ Orthopedic parts ▪ Prostheses ▪ Medical instruments ▪ Dental parts ▪ Syringes & cannulas ▪ 3D printed medical technology components ▪ Medical plastic parts	▪ Stainless steel ▪ Hard metal ▪ Ceramics ▪ Plastic ▪ Titanium	▪ 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, ...)

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 MDR2 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.

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)
- Circular filtration systems
- Passivation, DI rinsing, lift-out, drying (warm air, vacuum, infrared, spinning)
- De-powdering (dry), powder recovery, removal of sintered powder particles

System Qualifications

- Support with qualifications (DQ, IQ, OQ) 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

Solution Concepts

Pre-cleaning

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

Chamber system (solvent/aqueous)

Intermediary cleaning

Cleaning after finishing
- Grinding, blasting, polishing
- Primarily polishing, grinding / aluminum oxide residues

Inline immersion system

Final cleaning/Passivation

Cleaning prior to sterile packaging
- Primarily dust, surrounding grease

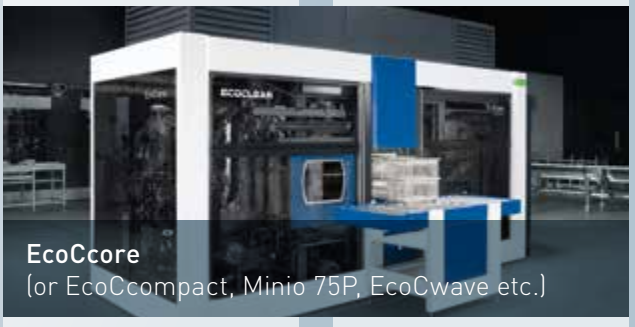
Inline immersion system

Sterile Products

e.g. Implants: dental implants, inhalers, ...

Non-Sterile Products

e.g. Instruments: tools, orthodentic parts, cannulas, ...



EcoCcore
(or EcoCcompact, Minio 75P, EcoCwave etc.)

UCMSmartLine (or UCM)

UCM

Sterile Packaging

Non-sterile Packaging

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Our Locations Worldwide