

# Cleaning Solutions for High Purity Components

With Highest Cleanliness Requirements



**SBS ECOCLEAN GROUP**

**ECOCLEAN UCM MHITRAA**



## At a Glance

### PARTS AND COMPONENTS

- Components for EUV and DUV lithography
- Wafer Scanner
- Depositing systems
- High-vacuum pumps and valves
- Components for high-power lasers (High-Power Ultra-Short-Wavelength)
- Components for high-power measurement and analysis systems, e.g. gas chromatographs, electron scanning microscopes, mass spectrometers

### REQUIREMENTS (GRADE I-IV)

- General: free of processing agents, free of stains
- Particular requirements in the  $\mu$  range or below
- Extreme limit values in relation to residual organics or residual moisture
- Atomic/molecular limits

# Parts Cleaning of High Purity Components

The cleaning of high-vacuum components (UHV, XHV, UCV) which are used for example in production equipment for the semiconductor industry (e.g. EUV and DUV technology), vacuum technology solutions for science, research and industry, or also high-power laser systems, place extremely high demands on the cleanliness of the components used. For these tasks in high-tech industries, Ecoclean develops and manufactures cleaning solutions that are optimally tailored to the application. They ensure that the required cleanliness levels are achieved in a stable, sustainable and efficient manner.

## System Technology:

- Aqueous cleaning systems, e.g. single and double chamber systems, immersion-type systems
- Ultrasonic immersion-type systems as standard and special solutions
- Solvent cleaning systems as single and double chamber systems
- Special systems for aqueous and solvent cleaning, e.g. very large components
- Spray cleaning systems
- Flexible process engineering, e.g. spraying, immersion, pressure flooding, injection flood washing, ultrasonic cleaning – also with several frequencies, ultrasonic plus, pulse pressure cleaning (PPC), low-pressure plasma
- Flexible movement of goods, e.g. turning, swiveling, oscillating, lifting movements
- Vacuum drying after solvent or aqueous cleaning, infrared and/or high-purity hot air drying – also combined with vacuum drying (aqueous)
- Media treatment tailored to the cleaning technology, process, contamination, cleanliness requirement and throughput, e.g. distillation, vacuum evaporator, ultrafiltration, deionized water system, deionized ultrapure water systems, osmosis, desalination solution
- Partial and full automation including goods transport via roller conveyors, robots or loading portal

# Solution Concepts

## Pre-cleaning "free of oil and grease"

Cleaning after machining or finishing

- Oil, emulsion, particles, rub off, ...

➤ Chamber cleaning system (solvents/aqueous)



e.g. EcoCcore

## Final cleaning "Grade II"

After pre-cleaning

- Removal of residual organics, particles and atomic/ionic contamination

➤ Chamber cleaning/Inline immersion system



e.g. EcoCvela, UCMPerformanceLine

## Final cleaning "Grade I"

After pre-cleaning

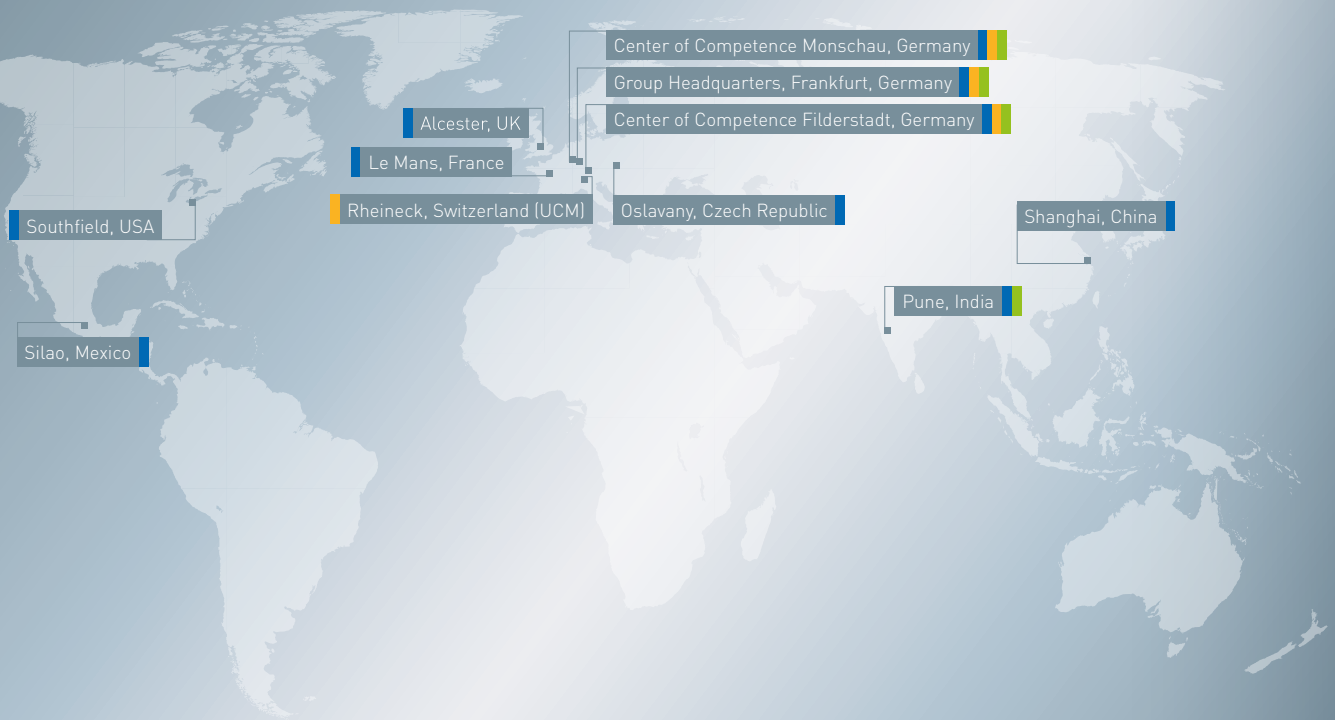
- Removal of residual organics, particles and atomic/ionic contamination

➤ Special solutions/Inline immersion system



e.g. UCMHighLine

## Our Locations Worldwide



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