



PAN-EUROPEAN CLEANLINES COMPETENCE CENTER

Cleanroom environment has become a key technology used in manufacturing engineering such as communication and information technology, biotechnology, nanotechnology, material science, PV, LED, pharmaceuticals, food, automotive, aviation, and aerospace. Without it, trends like enhanced performance and miniaturization would be impossible to maintain. The new Cleanliness Competence Center »PERiMETER« with its leading edge contamination analyzing equipment (CT, SEM, etc.) installed in a reference cleanroom ISO class 1, will support local research as well as industry partners, attract high tech in the emerging regions of Central and Eastern Europe and therefore directly support the structural funding policy of the EU.

Future trends in ultraclean manufacturing

Electronics	Semiconductor	Trend towards bets cleanliness classes needs
	Flat panel	Particles and electrostatics are critical for layer
	Hard disk	Critical areas (e.g.head assembly): ISO Class 1&2
	Solar	More efficient contacting methods
Others	Optics	Cleanrooms of ISO Class 5 and less critical
	Automotive	Cleanrooms of ISO Class 8 and cntroled areas
	Aerospace	Cleanrooms of ISO Class 5 to ISO Class 8
	Microsystems	Cleanrooms of ISO Class 5 to ISO Class 8

POINTS OF CONTACT

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Quality Test Center PERiMETER





Zeiss EVO MA25
Scanning Electron
Microscope
*(e.g. to conduct automated
analysis of particles and
element analysis)*



Zeiss AxioZoom .V16
Zoom Microscope
*(e.g. to conduct automated
analysis of particles acc. to
ISO 16232)*



Zeiss Metrotom 1500
CT-based Coordinate
Measuring Instrument
*(e.g. for accuracy
measurement of automotive
parts)*



Zeiss O-INSPECT 442
Multi Sensor Tool
*(e.g. for accuracy
measurement of automotive
parts)*



Zeiss SURFCOM FLEX 50A
Mobile Control and
Analysis Unit for Surfaces
*(e.g. surface roughness
measurement of critical
surfaces)*



Testo Probes
Environmental Monitoring
*(e.g. temperature, humidity,
... measurement)*

**Analysis of
materials**

**Correlative
analysis
Inspection**

**Assembling- and defect
analysis
Porosity and damage
analysis**

Size accuracy

**Automated particle
analysis
Surface characterization
(roughness)**

Monitoring

Particle emission

**Ultra precision
cleaning**

**Particle
extraction**

**Technical
cleanliness**



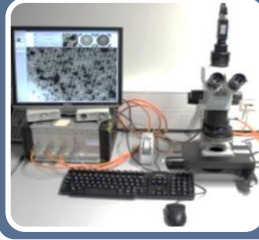
ACP JetStation
CO₂-Snow Jet Cleaning
*(e.g. precision cleaning of
optical lenses, wafers, etc.)*



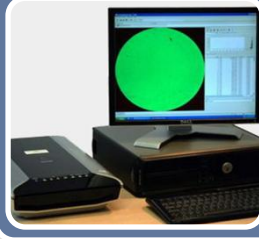
Gläser RiuS Double
Extraction Chamber
*(e.g. to extract particles
from automotive parts)*



CTU 1000 Series
Contamination Test Unit
*(e.g. to extract particles
from automotive parts)*



Jonesa
Stereomicroscope
*(e.g. to conduct automated
analysis of particles acc. to
ISO 16232)*



MicroQuick
Particle Scanner
*(e.g. to conduct fast and
easy automated analysis of
particles)*



PMS LASAIR
Aerosol Particle Counter
*(e.g. to measure airborne
particles to qualify
cleanrooms or equipment)*