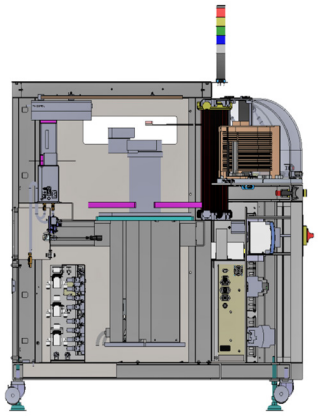
Averna

EFEM
Platform

Our **EFEM Platform** can be customized to suit your application's cleanliness, handling technique, throughput, and form-factor specifications. From design to manufacturing, this single platform offers the needed hardware, software, vision, optics design, sub-micron metrology, environmental control and materials handling for varying complexity and precision requirements.

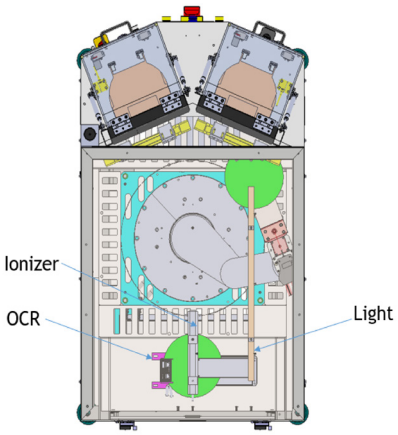
EFEM Platform

An Ultra-Clean, Reliable Platform for Wafer Handling



Get to Market Faster:

- Adaptable to different wafer technologies including film-frame carrier strategies, taiko wafers, thin/thick wafers, bonded wafers, non-flat wafers / wafers with 3D structures, and glass wafers
- High MTBF
- Mini-environment for contamination
- ESD charge control options
- Vacuum and low contamination integration capabilities
- Configurable layout for process simplification and/or footprint/form factor optimization
- High accuracy aligner systems to 10 µm accuracy
- Integrated vibration isolation capabilities



	EFEM Platform
Environmental	• Mini-Environment for up to ISO Class 1 Operation • Temperature Control • Electrostatic Charge Reduction
Wafer Handling	• Wafer Size: 300, 200, 150, 100 • Accommodates Various Thicknesses and Warped Wafers • Varying Substrate Materials (Glass, Silicon, Silicon Carbide, Germanium) • End Effectors or Various Gripping Technologies (Edge, Vacuum, Bernoulli) • Wafer Flipping • Industry Standard SMIF and FOUP Load Ports (one to four interfaces) • Accommodates Special Modules such as High-Precision Aligners
Robotics	• Single and Dual Arm • 3-Axis and 4-Axis
Vision & Optical	• Barcode Readers • Fiducial Recognition • OCR • Defect Analysis and Characterization • Flatness Analysis
Software Requirements & Features	• Standard 300 mm & 200 mm SEMI Compliant Libraries • Interfacing Protocols to Host Controller in Standard EFEM • SMEMA & SECS/GEM Interfaces • Data Management and Tracking Capabilities • SEMI E95 Compliance for Human Machine Interface (HMI) • Wafer Mapping

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