

scia systems



**scia Clean
1000/1500/3000**

HIGH-QUALITY CLEANING AND QUALIFICATION

Features & Benefits

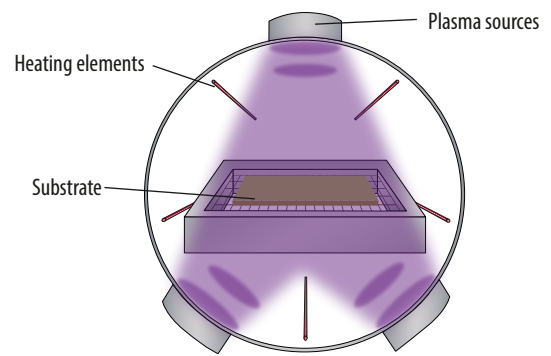
- Low base pressure and fast pumping due to electropolished and heated vacuum chamber
- Separate substrate heating for improved desorption
- Qualification of residual contamination by high-sensitive mass spectroscopy
- Selectable quantity of plasma sources for advanced cleaning with H₂ plasma
- Recipes for repeatable temperature ramps and fully automated cleaning cycles
- Transfer system for loading of heavy substrates

Applications

- Ultra-high purity cleaning of X-ray optics
- Cleaning of components for beam line accelerators
- Outgassing qualification of complex vacuum assemblies

Principle

- Dry-Cleaning
 - Removing of contamination from 3-dimensional shaped substrates by using ultra-high vacuum (vacuum desorption)
 - Further cleaning progress with optional heating of substrate and/or chamber (thermal desorption) and applying plasma treatment



Technical Data

	scia Clean 1000	scia Clean 1500	scia Clean 3000
Substrate size (up to)	1000 mm dia., 850 mm length, 500 kg	1500 mm dia., 1700 mm length, 2 t	3000 mm dia., 3400 mm length, 14 t
Substrate heating	Radiation heaters (7.5 kW) up to 250 °C	Radiation heaters (20 kW) up to 250 °C	Radiation heaters (40 kW) up to 250 °C
Chamber heating and cooling	Pressurized water based heating up to 150 °C and cooling (16 kW)	Pressurized water based heating up to 150 °C and cooling (48 kW)	Pressurized water based heating up to 150 °C and cooling (96 kW)
Plasma sources	Up to 2 optional ICP plasma sources (PI400), max. 2.5 kW per source	Up to 10 optional ICP plasma sources (PI400), max. 2.5 kW per source	Up to 12 optional ICP plasma sources (PI400), max. 2.5 kW per source
Base pressure	< 5 x 10 ⁻⁹ mbar	< 5 x 10 ⁻⁸ mbar	< 5 x 10 ⁻⁸ mbar
Quality control	Mass spectrometer for quantitative outgassing measurement		
System dimension (W x D x H)	1.60 m x 1.80 m x 2.70 m (without electrical rack and pumps)	8.00 m x 4.20 m x 3.60 m (without electrical rack and pumps)	15.00 m x 5.50 m x 4.80 m (with electrical rack and pumps)
Configurations	Single chamber with front door, manual loading with transport wagon	Single chamber with front door, loading via transfer system with transport carriers	
Software interfaces	SECS II / GEM, OPC	SECS II / GEM, OPC	SECS II / GEM, OPC

