

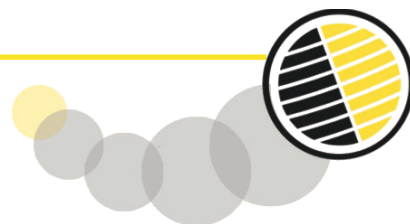


## Falcon RIE +

The Falcon RIE+ plasma system is a benchtop plasma reactor designed for both anisotropic attack and isotropic cleaning, modification, and surface activation.

The PLC constantly monitors the status of the system components and allows for both manual and automatic operation.

A simple graphical user interface combined with an efficient RF system make the Falcon RIE a simple and versatile solution, ideal for Research and Development, or medium production.



## PRODUCT FEATURES

- System management and control system based on touch screen display and graphic user interface able to provide in real time all process information
- Possibility to operate both in cleaning mode (upper electrode polarization) and in R.I.E. mode (lower electrode polarization). Possibility to operate both in cleaning mode (lower electrode polarization) and R.I.E. mode (lower electrode polarization)
- 13.56 MHz RF generator with automatic adaptation network that guarantees excellent process repeatability
- Possibility to achieve base vacuum as low as 10<sup>-5</sup> mbar due to integrated turbomolecular pump
- Diagnostic tool for faults and machine status by means of software that enables fast analysis.
- Datalogging with a frequency of <0.5 Hz providing a history of chamber and process conditions
- Easy access to key system components

## TECHNICAL SPECIFICATIONS

<b>Dimensions</b>	L x P x A – Footprint	710 x 602 x 750-900 mm (user adjustable height)
	Net Weight	100 Kg
	Respect Distance	Right, Left, Front - 250 mm, Back - 250 mm
<b>Process chamber</b>	Material	Alluminium
	Maximum Volume	12.5 liters (732 in <sup>3</sup> )
<b>Electrodes</b>	Material	Alluminium
	Active Working Area	Ø 210 mm
	Height	162 mm
<b>RF signal</b>	Maximum Power	200W standard (300W or 600W optional)
	Frequency	13,56 MHz
<b>Process Gas</b>	Available flows	10, 20, 50, 100 sccm
	Maximum number of gases	3 (Mass Flow Controller from MKS Instruments)
<b>Control interface</b>	Control	PLC con display Touch Screen
	Remote control	In development
<b>Pumping system</b>	Turbomolecular pump	85 ls <sup>-1</sup> (240 ls <sup>-1</sup> optional)
	Rotary Pump	6.8 m <sup>3</sup> h <sup>-1</sup> (12 m <sup>3</sup> h <sup>-1</sup> optional)
<b>Services</b>	Power Supply	Single-phase + Ground 220/240 VAC, 8 A 50/60 Hz, 7 AWG Single-phase + Ground 110/120 VAC, 16A, 50/60 Hz, 5 AWG
	Process Gas Connection, Type and Size	6.35 mm (0.25 in.) OD Swagelok®
	Process Gas Pressure	1 bar (15 psig) minimum to 3 bar (45 psig) maximum, regulated
	Purge Gas connection, type and dimensions	6.35 mm (0.25 in.) OD Swagelok®
	Recommended purge gas	N2, Air
	Purge Gas Pressure	Min. 1 bar (15 psig) to max. 3 bar (45 psig), regulated
	Pneumatic Valves connection, type and dimensions	6.35 mm (0.25 in.) OD Swagelok®
	Gas purity for pneumatic valves	Compressed Air, Oil Free, Dew Point ≤7°C (45°F), Particulate Size <5 µm
	Gas pressure for pneumatic valves	2 bar (30 psig) minimum to 6 bar (90 psig) maximum, regulated
	Exhausts	NW 25 KF
<b>Compliance</b>	International	CE Marked

