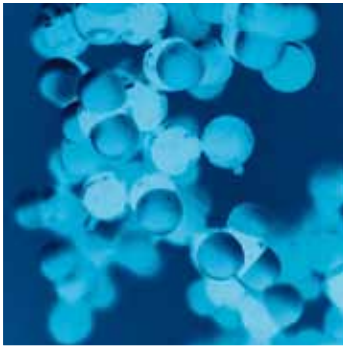




## IoN 100





## IoN 100 Plasma System

The **IoN 100** is our latest advancement in vacuum plasma technology. Gas plasma is fast becoming the technology of choice for surface modification of materials in the life sciences, electronic and industrial arenas due to its versatility and low impact to our environment. For example, the trend towards miniaturization in medical diagnostics requires precision cleaning, and selective chemical functionalization. Plasma removes organic contamination several orders of magnitude more efficiently than wet chemical processing and can chemically functionalize surfaces at the nano-scale. As a result, plasma is replacing older types of treatments that are no longer practical or economical.

The **IoN 100** is designed to meet the evolving demands of our customers, emphasizing versatility and control for their surface treatment needs. Its advanced features provide state of the art process control, fail-safe system alarms and data capturing software. This enables the system to meet stringent quality control programs in the Life Science industries. The **IoN 100** uses radio frequency (RF) generated plasma in a compact, fully integrated package. Another design feature of the new **IoN 100** is the ability to quickly and easily alternate between different chamber types and electrode configurations.

### Features include:

- Flexible quick change electrode and chamber options
- Plug and Play self installation
- Onboard gas generator package option
- Energy saving control feature for lowest cost of ownership
- Configurable chamber that can accommodate various electrode configurations for small sized complex 3-dimensional parts or high volume large part processing
- Industrial computer with a Windows® based system
- Graphical User Interface (GUI) software complies with CFR Title 21 Part 11 and Semi E95-1101
- User access control for separate process development, operator and maintenance programming and control
- Configurable process tolerance controls allowing precise lot-to-lot repeatability
- Remote statistical process control monitoring via Ethernet
- Onboard diagnostic features and alarm logging
- Recipe editor offers fast and versatile step control functionality
- Liquid Crystal Display (LCD) touch panel and keyboard

## Technical Data

### Process Chamber

<b>Material</b>	Aluminum (A), Quartz (Q) Ceramic (C)
<b>Volume</b>	100 liters (standard)
<b>Volume</b>	10 C, 40 Q/A, 100 A, 135 A, 190 A liters (optional)
<b>Inner Dimensions</b>	375 x 375 x 711 mm L 14.76" x 14.76" x 28" L (standard) or 965 mm L 38" L (optional)

### Process Gas

<b>Mass Flow Control</b>	up to 8 gasses
<b>Process Pressure</b>	Approx. 120-2000 mTorr
<b>Evacuation Time</b>	~1 minute (pump dependent)
<b>RF Generator</b>	Air cooled
<b>Frequency</b>	100KHZ, 13.56 MHz, 2.45GHz
<b>Power Output</b>	0-600 watts (standard) 0-1250 watts air cooled (optional)

### Power Requirements

<b>Electricity</b>	208-240 VAC, 3 phase 30A 50/60 Hz 5-wire (standard)
	415-480 VAC, 3 phase 15A 50/60 (optional)
<b>Process Gas</b>	Input pressure 1-2 bar / 30 PSI
<b>Purge Gas</b>	Input pressure 1-2 bar / 30 PSI
<b>Compressed Air</b>	Input pressure 5 bar / 75 PSI

### Chassis

- Self contained footprint featuring all power and gas connections
- Roll around chassis with leveling feet

### Dimensions

<b>Standard</b>	737 x 1980 x 1118 mm 29" x 78" x 44" 100 liters - A
<b>Optional</b>	635 x 1120 x 1473 mm 25" x 44" x 58" 135 liters - A
<b>Weight</b>	350.45 kg / 771 lbs. (standard)

### Options

- 1% pressure monitor
- Recirculating liquid chiller
- Pressure controller
- Light tower
- Barcode reader
- Spectrographic endpoint detection
- MFC upgrade for corrosive gasses
- Printer
- Monomer processing kit
- H2 generator unit
- Wall mount package
- Vacuum pumps (rotary vane, dry, scroll and blower package)
- Vapor phase MFC

### Safety Certification Standards

- CE certified
- EN 60204
- EN 61326

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