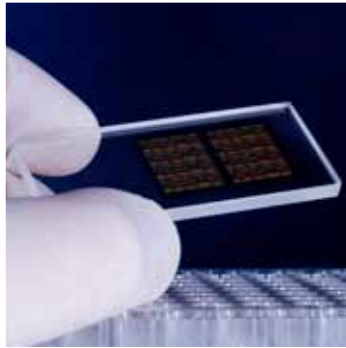




IoN 40 Plasma System





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The **IoN 40** 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 40** 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 40** uses radio frequency (RF) generated plasma in a compact, fully integrated package. Its bench top design allows for easy installation in laboratory or production environments.

Features include:

- Fully configurable chamber that can accommodate various electrode configurations for medium sized complex 3-dimensional parts or high volume small 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

Material	Aluminum
Volume	36.5 liters
Inner Dimensions	229 x 330 x 483 mm 9" x 13" x 19"

Available Electrodes

- Primary Plasma
 - Vertical Electrode
 - Side wall Electrode
 - Removable 3 & 5 shelf 289 mm x 234 mm 11.38" x 13.15" tray
 - Temperature controlled 3 shelf
 - Low particulate electrode
- Secondary Plasma electrode

Process Gas

Mass Flow Control	up to 8 gasses
Process Pressure	Approx. 120-2000 mTorr (pump and gas flow dependent)
Evacuation Time	~1 minute (pump dependent)
Venting	Adjustable
RF Generator	Air cooled 100 KHz, 300 Watts (Standard)

Power Requirements

Electricity	110 VAC or 220 VAC single phase, 2.3 KW, 50/60 Hz
Process Gas	Input pressure 1- 2 bar 30 PSI
Purge Gas	Input pressure 1- 2 bar 30 PSI
Compressed Air	Input pressure 5 bar 75 PSI
Dimensions	775 x 723 x 781 mm 30.5" x 28.5" x 30.75"
Weight	156.36 kg / 344 lbs.

Options

- 1% pressure monitor
- Pressure controller
- Light tower
- Barcode reader
- Alternate gas selector
- Spectrographic endpoint detection
- 300 and 600 watt 13.56 generator
- Stainless steel MFC
- Printer
- Recirculating liquid chiller
- Table
- Monomer processing kit
- Vacuum pumps (rotary vane, dry and scroll)
- Vapor phase MFC

Safety Certification Standards

- CE certified
- EN 61010
- EN 61326

PVA TePla America, Inc.

251 Corporate Terrace • Corona, CA 92879
Tel: (951) 371-2500 • Fax: (951) 371-9792
Email: sales@pvateplaamerica.com