

Integrated Surface Technologies



The Vaporrix Cartridge

The gas cartridge is designed for simplistic "plug and play" operation and offers easy maintenance. Vaporrix cartridges are refillable, reducing the overall Cost-Of-Ownership and Cost-Of-Consumables.

- The Vaporrix cartridge comes in configurations allowing for the optimal handling of small volumes of synthesized precursors to the mass production of coatings with kilogram size chemical charges – thus minimizing any equipment downtime related to consumables.
- The Vaporrix cartridge has special intelligence features in which information is exchanged with the RPX host for lot tracking, expirations and positional identification with an embedded RF-ID chip.
- Vaporrix cartridges allow for the sealed storage of precursors in a light free environment and under vacuum (free of any moisture ingress). This allow precursors to have extend shelf-lifes up to 3 years.
- Overtemperature limits can be hardware specified to protect precursors from any unintentional temperature excursions resulting in pre-mature aging.



Carrier Gas Assist (ie. Bubbler) Cartridge

| Cartridge Size Height (inches) | Chemical Bottle Capacity | Chemical Delivery Method | Chemical Bottle Material | Special Notes |
|--------------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------|
| 10" | 100cc | Evaporative | Steel | For metal organics |
| | 150cc | Evaporative | Aluminum | |
| | 150cc | Evaporative | Stainless Steel | HVCR Seal |
| | 260cc | Evaporative | Aluminum | |
| | 400cc | Evaporative | Steel | |
| 12.25" | 40cc | Carrier Gas Assist | Stainless Steel | |
| | 100cc | Carrier Gas Assist | Stainless Steel | |
| | 150cc | Carrier Gas Assist | Stainless Steel | |
| | 260cc | Carrier Gas Assist | Aluminum | |
| | 620cc | Evaporative | Aluminum | |

Cartridge Configurations

Key Features:

- Temperature Sensor: Self calibrating Resistor-Transistor-Diode.
- Position Identification Interlocked.
- Dual Heaters: Chemical Bottle, Valve Block.
- Input Power: 120VAC @ 2Amps.
- Safety Overtemp Limits: 55°C, 70°C, 80°C, 110°C, 150°C.
- RF ID: Chemical Name, Overtemp Limits, Date Filled, Position Identification.
- Connectivity via Ethernet RJ-45 connector.
- VCR[®] Metal-to-Metal Sealing interface.
- Manual Shut-off Teflon[®] sealed valves.
 Fully Insulated with High Temperature Silicone.