

# Krytek 300

## ION SOURCE CONDITIONER

The Krytek 300 Ion Source Conditioner offers one-step conditioning and testing to improve implanter performance and save valuable implanter time. The only system that simulates and conditions an ion source off-line as if it were in an implanter, the Krytek 300 reduces implanter time required to bring up a source following exchange by one to two hours.

A single Krytek 300 can condition and test ion sources after every rebuild, off-line for up to 10 implanters in your fab. The system supports ion sources and ion beam components from all implanter manufacturers.

### FEATURES

#### Improved vacuum system

- Clean turbodry-scroll pumped system
- Rapid pump-down of source and canister
- Full scale (0-100 AMU) RGA for He leak testing and troubleshooting
- Removable canister to store rebuilt source under high vacuum until use
- Various high vacrroughing pump sets offered

#### Computer, software and communication

- Windows XP Professional™ platform
- Set-point oriented conditioning algorithm to improve quality and reduce cycle time
- Simplified communication hardware for easier troubleshooting
- RGA can be operated during automated sequence for advanced recipe editing
- 17-inch large viewing angle, flat panel monitor

#### Hardware

- Emission power supply standard on all systems
- Powerful filament power supply – 2.8 kw (220A, 12V)
- Adjustable source cradle for forward tipping sources
- Inspection window in hood allows source connections to be visualized without opening
- Easily accessible I/O box



### RETURN ON INVESTMENT IS MEASURED BY MORE IMPLANTS PER DAY

- Reduces time required for ion source exchange by up to 90%
- Eliminates failure after source exchange (zero-hour sources)
- Eliminates premature source and other ion beam component failure due to rebuild errors

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THE LEADER IN FAB SERVICES

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### FEATURES

- Set point-driven automated testing and conditioning sequences
- Record of test results stored to hard drive with Window XP Professional® platform operating system for easy export and printing
- Instant fault identification
- Automated and manual leak testing (system can be used as a manual leak checker with simple start/stop screen)
- Automated electrical and thermal testing and conditioning under operating conditions:
  - Filament open test; Arc short test
  - Filament ramped from 0-220 amps
  - Cathode open test; cathode short test
  - Bias power ramped up to 250 watts
  - Arc voltage test up to 1700 volts
  - Vaporizer open test; Vaporizer short test
  - Vaporizers ramped up to 550° C
  - Oxide burn-off and out-gassing of solids in vaporizer crucibles
  - Up to 4 TC tested for accuracy
- Cooling water lines tested (flow and leak to vacuum)
- Vacuum storage after testing sequence for shorter pump-down time and time to beam

### SPECIFICATIONS

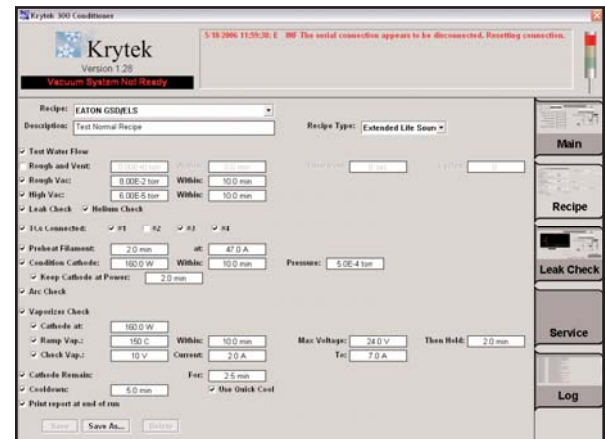
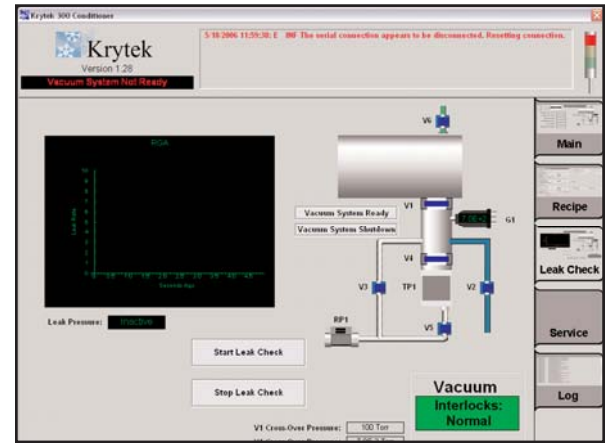
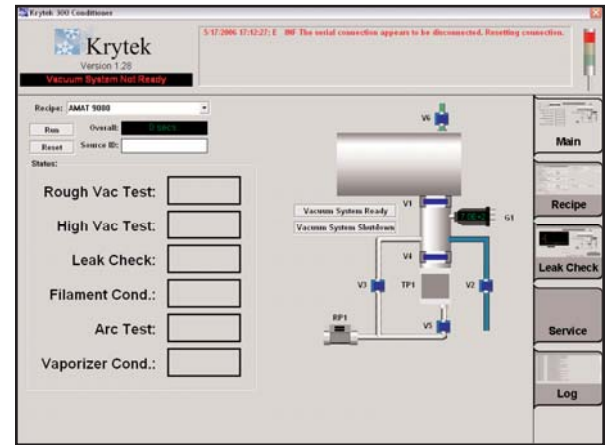
- Filament power supply: 12 V - 220 A
- Bias power supply: 600 V - 2A
- Arc power supply: up to 1700 V - 1.3 mA
- Vaporizer power supply: 100 V - 12 A
- Pumping system: 250 liters/sec turbo molecular drag pump with 250 liters/min. dry scroll roughing pump
- RGA: 1-100 amu, 10<sup>-11</sup> torr sensitivity
- CCIG: 760 torr to 10<sup>-9</sup> torr

### APPLICATIONS

- Ion sources
- Leak checking
- Extraction electrodes
- Electron showers
- Flag faradays
- Mass Resolving System (MRS)

### DIMENSIONS

- 50"W x 56"H x 32"D (1270mm x 1422mm x 802 mm)
- 515 lbs (234 kg)



The Krytek software features user-friendly operator interfaces.

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