PLASMA EQUIPMENT TECHNICAL SERVICES
INCORPORATED
392 W. LARCH ROAD, UNIT #16
TRACY, CA. 95304
(209)832-3326   FAX(209)832-3371

PETS INc

EFFECTIVE 1/08/2002

PETS-RIE-A16-4-LF

OR

PETS-RIE-SS16-R-LF

DATA SHEET

REACTIVE ION ETCHING SYSTEM

PETS-RIE-A16-4-LF or
PETS-RIE-SS16-4-LF

INCLUDING:

*10 ½" DIA., ACTIVE WORK AREA
  PLATEN, 304 STAINLESS STEEL,
  WATER COOLED WITH CERAMIC
  INSULATOR

*15 " I.D. ANODIZED ALUMINUM
  CHAMBER UNLESS STAINLESS
  STEEL IS CHOSEN

*MECHANICAL PUMP (14 CFM, W/FOMBLIN
  OIL & ALL CONNECTING FITTINGS)

*COMPUTER CONTROLLED WITH ALL
  SOFTWARE & LICENSES (SEE COMPUTER
  AND SOFTWARE DATA SHEET)

*+ OR – 5% UNIFORMITY GUARANTEE
  (ACROSS THE WAFER)

*4 MASS FLOW CONTROLLERS (100 sccm
  UNLESS SPECIFIED)

*40 KHz POWER SUPPLY
  (600 WATTS MAX., AIR COOLED)

COMPUTER HARDWARE AND SOFTWARE DATA SHEET

SOFTWARE

The PETS Inc. operating software is built with Microsoft Visual Basic and is used to interface the computer to the physical hardware and to provide a visual interface to the tool for the interactive manual and automatic modes of operation. The PETS Inc. operating software works on the Microsoft Windows NT platform. Excel from Microsoft can be used to manipulate any datalogging files for presentation purposes. It is not absolutely necessary, however (and therefore is not provided), as Microsoft Notepad can display the datalog (comma delineated) files and write or edit recipe files.

The manual mode of operation is mainly intended for R & D activities and system maintenance. In this mode, the operator interacts with the tool by "clicking" on the switch icons and/or "dragging" the indicator of the slider bar icons with the mouse.

The switch icons are linked to hardware in the tool which is "binary" in nature. Included in this class of hardware are valves, heaters and the RF Generator enable controls.

The slider icons are linked to hardware in the tool which is "analog" in nature. Included in this class of hardware are the set-points of the mass flow controllers and the RF Generator set-point.

The automatic mode of operation is identical to the manual mode except that the actions taken are entered into a Notepad Recipe (.rcp) file in advance of actual operation. While the automatic mode is active, screen interactions with the switches and sliders will have no effect on the hardware.
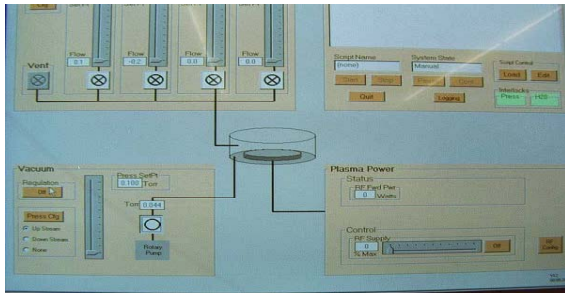
COMPUTER HARDWARE

The computer hardware is a PC compatible powered by a 733 MHz Intel Pentium III processor and is housed in a mini-tower cabinet. It comes with 128 megRAM and a video card with 8megRAM. There is a 3 ½" (1.44 mByte) floppy drive, a 40x CD Rom drive and a 6.4 Gbyte hard drive to go along with the keyboard, mouse and 17" (16" viewable) monitor.

The I/O cards that are being used are sourced from Intelligent Instruments (a Burr-Brown Company) and utilize the 3 ISA slots available on the mother board. The video card utilizes a PCI slot.

NOTE: If a floor model system is ordered, then the above computer hardware will be housed in an Industrial Computer Cabinet and be mounted in a standard 19" rack mounting instead of using the mini-tower cabinet!

RIE SYSTEM OPTIONS

* TURBO PUMP, CONTROLLER & HI-VAC VALVE   ADD $
  (WITH CABINET OPTION ONLY!)

* DOWN STREAM PRESSURE CONTROL   ADD $

* SCRUBBER (PVC, WATER RECIRCULATION TYPE)   ADD $

* OIL FILTRATION   ADD $
  (ADDITIONAL FOMBLIN OIL SUPPLIED)

* MANUFACTURING SYSTEM INTO FLOOR MODEL   ADD $
  CABINETRY (THIS INCLUDES INSTALLING COMPUTER
  INTO AN INDUSTRIAL CABINET FOR RACK MOUNTING-
  SEE PICTURE ABOVE)

* ADDITIONAL CHANNELS OF MASS FLOW   ADD $ EACH
  (MAXIMUM OF 8, SYSTEM COMES WITH EITHER
  2 OR 4)

 * CRYO PUMP, COMPRESSOR & HI-VAC VALVE   ADD $
  (WITH CABINET OPTION ONLY!)