

Key Note:  
Symbol for wavelength is  $\lambda$

**ORIGINAL SPECIFICATION FOR BEAMLOK® 2060 ION LASER SYSTEMS ARE AS FOLLOWS:**

1. At a current reading of 58.7 Amps and Tube Voltage of 250 Volts
  - a. Visible Multi-line TEM<sub>00</sub> @  $\lambda=454.4-514.5\text{nm}$ ; Power 10Watts
  - b. Visible Single Lines are as follows:
    - 1). TEM<sub>00</sub> @  $\lambda=514.5\text{nm}$ ; Power 3.2 Watts
    - 2). TEM<sub>00</sub> @  $\lambda=488\text{nm}$ ; Power 2.4 Watts
2. Magnet Current equals 9.20 Amps
3. Beam Diameter:  $\leq 1.7\text{ mm}$
4. Beam Divergence:  $\leq 0.45\text{ mrad}$
5. Optical Noise: (at 514.5 nm 10 Hz to 2 MHz)  
 $\leq 0.3\%$  RMS power mode  
 $\leq 0.4\%$  RMS current mode
6. Power Mode Stability:  $\pm 0.5\%$  over an 8-hour period  
 $\pm 0.3\%$  over a 2-hour period
7. Current Mode Stability:  $\pm 1.0\%$  over an 8-hour period
8. Brewster windows must be crystalline quartz in order to prolong UV performance and prevent color-center formation.
9. Brewster windows must possess a refractive coating to prolong plasma tube lifetimes when running at high visible and ultraviolet power outputs.

Purchase Request specification to Repair Service provider on 10 Watt Argon Ion Laser Systems are as follows:

1. Evaluate present condition of LASER system
2. Return 10 Watt Argon Ion Laser Systems to ORIGINAL specifications (as denoted above) by providing:
  - a. Replacement and/or remanufacture of Plasma Tube to meet original specs.
  - b. Replacement of other parts (such as Brewster Window, cathode and etc.) to meet and/or exceed original specifications.

Revised SPEC'S  
5/25/2010

3. Perform vacuum integrity check.
4. Evaluate residual gas analysis of Plasma Tube.
5. Process performance of new, used and/or remanufacture of Plasma Tube.
6. Perform installation, Optical cleaning, Re-alignment and Original Specification Test to 10 Watt Argon Ion Laser Systems
7. Provide burn-In/ Quality Assurance test.
8. Provide Service Warranty such as 12 months or 2000 hours on new, used and/or remanufacture of Plasma Tube .