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TECHNOLOGY GROUP

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We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

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so your equipment works exactly as you specify.

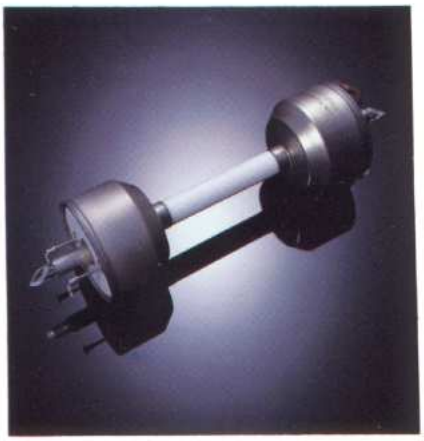
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Find the *Ion Laser Technology ILT 5500A* at our website: ***Click HERE***

The ILT 5000 components. Designed with performance in mind.



THE PLASMA TUBE

Extensive research has reinforced the reliability of the ILT 5000 Series plasma tube while reducing its overall cost. Various features extend the tube life, and enable it to be refurbished at less than half the cost of a new tube.

The entire tube is constructed of ceramic and metal capable of high temperature cycling. The bore material is beryllium oxide. Beryllium oxide is used for its high thermal conductivity and low sputtering characteristics. Internal gas return paths in the bore replace the use of fragile glass external paths. Two large Kovar end shrouds double the gas volume of other manufacturers, reducing gas contamination and depletion.

A pure molybdenum anode brazed in with OFHC copper also provides high thermal conductivity and is not adverse to the cathode. Processing under high vacuum and high temperature eliminates gas contamination from component out-gassing. Optical contamination is minimized by a continuously active non-evaporable getter, which builds in even longer tube life.

AIR COOLING AND HEATSINK DESIGN

The ILT method of air cooling incorporates a fully brazed pure copper heat sink with more than 700 square inches of heat-dissipating surface area and two high-volume fans, versus one used in most designs. These move only cool ambient air through the resonator and across the heat sink, providing more efficient cooling of the tube and longer fan life. This overall design further strengthens system reliability.

RESONATOR DESIGN

The base and main support structure are made from light aluminum plate, with four solid invar rods forming the optical support structure. These supply maximum stability even under severe conditions. Solid spring steel mirror adjustment gimbals offer easy adjustment along with high vibration and shock stability.



OPTICAL CAVITY

The optical cavity is completely sealed from contamination. The cavity is connected to the plasma tube by a unique Kovar brewster tube shroud which is an integral part of the tube. Unlike other designs which seal the cavity to a fragile glass stub, this achieves a much tighter dust seal.

A littrow prism in single-line output models guarantees 100% spectral purity and the ability to tune through the entire argon spectrum. In addition, a prism/high reflector combination greatly reduces power drift due to temperature changes.



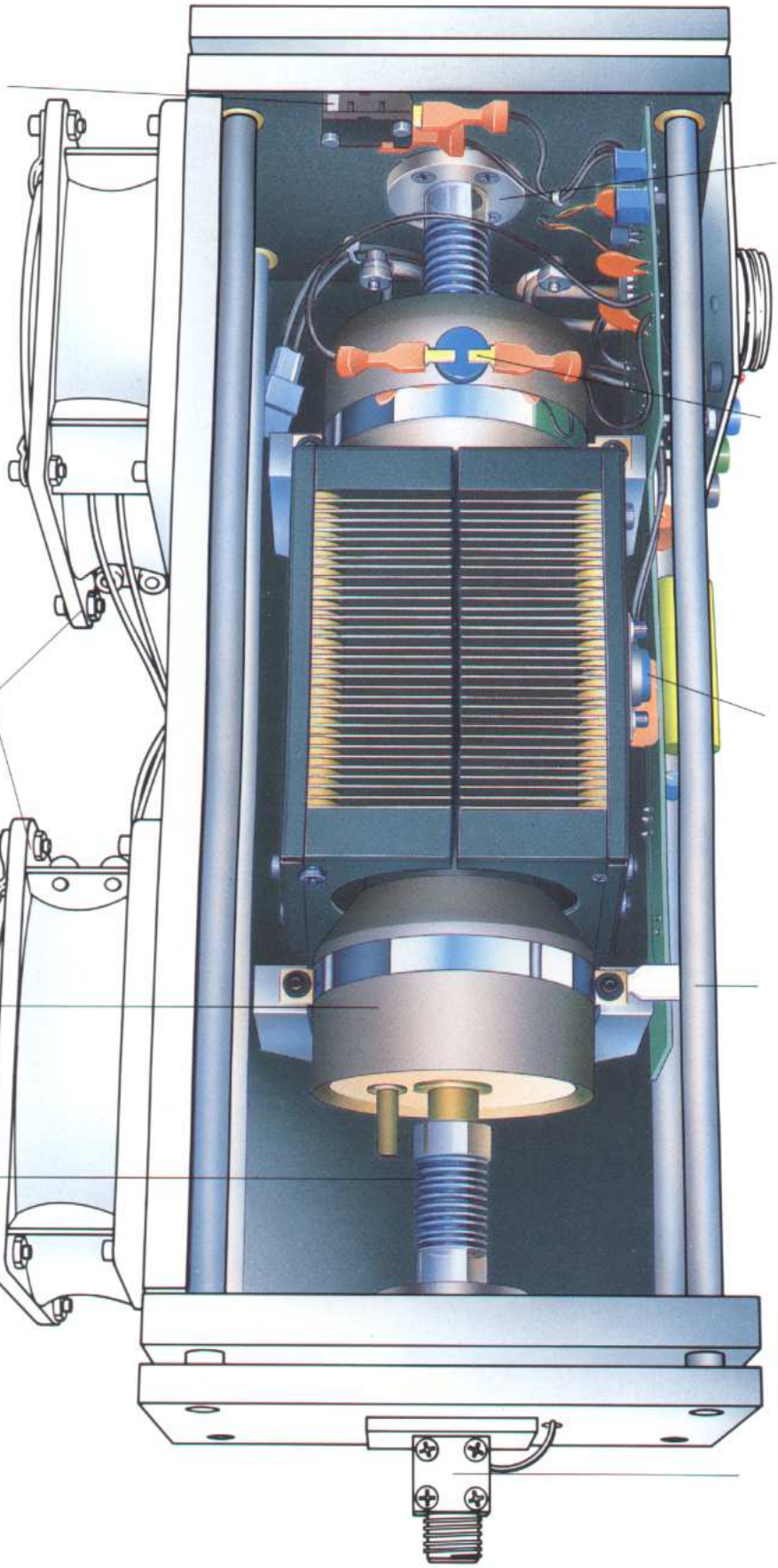
MODEL 5400 OEM POWER SUPPLY

We have united simplicity and technological ingenuity in a solid-state, reliable and compact switching power supply. The ILT 5000 Series power supply features a voltage doubled front end. This boosts the 115 VAC line input to 340 VDC and switches it to a fully isolated step-down transformer at 30 KHZ. This exclusive design provides line isolation and enables maximum laser energy output even at low-line voltage inputs. It is also available in 100 or 220 VAC.



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An inside look at the MODEL 5490A



Cover interlock safety switch shuts down anode and cathode voltage when cover is removed.

Mirror adjustment gimbal. One solid steel piece design provides field proven shock proof permanent alignment.

Fan thermostat controls cooling fans and monitors tube temperature. Fans turn on when tube is up to operating temperature and turn off only after tube is completely cooled down. As a result, the tube can warm up and cool down faster.

Dual high volume fans provide 120 CFM of cooling air at each end of plasma tube where it's most needed.

Overtemp interlock. Plasma tube heatsink is monitored by a thermostat. If tube overheats, the power to anode and cathode shuts down, protecting system against fan blockage and failure.

Large metal end shroud gas reservoir for added tube life.

Solid invar rod resonator design. Four rod design provides maximum stability.

Sealed optical cavity. Air tight seals provide maintenance free operation.

Light control models. Beam splitter/photo diode samples the beam and maintains constant power output.

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

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