



## **SOLARBEAM® TR-METAL HALIDE EXPOSURE SYSTEM**

### **TECHNICAL BULLETIN #1 (SYSTEMS OVERVIEW)**

#### **THE SEALED BEAM**

The real secret to SOLARBEAM® Tri-Metal Halide efficiency is the unique blend of space age gallium, iron, and mercury iodides. Once the lamp is energized, mercury evaporates at a low temperature and this causes a rapid rise in lamp power. The gallium and iron then melt and vaporize with mercury to produce large amounts of UV in a precise range. The sealed beam glass filters out all unwanted wavelengths and the prismatic lens uniformly directs and distributes the light to the exposure surface. With this most perfect light, high resolution, fine line screens with solid half-tone and color process dots are produced with speed!

#### **WHAT ABOUT THE BULB?**

Unlike open arc tubes (conventional metal halide bulbs), the SOLARBEAM® Tri-Metal Halide tube is sealed into a lamp housing in a pure nitrogen atmosphere. It can be handled without gloves and it simply plugs in and out. There are no cumbersome fittings or tags to deal with when it is time to change bulbs. The unique blend of three halides combined with a built-in parabolic reflector and a computer generated prismatic lens take metal halide technology to an advanced level.

#### **LESS MEANS MORE!**

SOLARBEAM® Tri-Metal Halide lamps produce better light and they are tremendously more efficient than conventional metal halides from an energy savings point of view. And because the light is directed through a prismatic lens, it is uniform. The stencil “sees” light from only one direction, producing sharper lines and solid dots for half tones and four color processing. The low level of UV output normally associated with metal halide lamps is trapped within the glass of the sealed beam. Therefore, no eye and skin damaging UV is produced and no ozone escapes into the atmosphere. The screen making area for the first time is environmentally safe! And SOLARBEAM® is fast – it can be equal to or faster than any conventional metal halide lamp. Finally, since this advanced technology produces SOLARBEAM® light power with less electricity, the solid state systems cost less! And in this case – less means more! To provide you with a concrete example, a SOLARBEAM® 7000 Series Lamp uses only 11 amps to produce an exposure equal in time to a conventional 5000 watt system. With no standby power requirement, the overall energy usage is one tenth of a conventional metal halide lamp. In an energy conscious world, SOLARBEAM® represents a significant step forward.