

Lamp Output on Different Exposure Units

Lamp intensity in exposure units is critical in the production of an AVantage[®] photopolymer printing plate. Low intensity lamps will affect the quality of the plate being made and the finishing steps during processing. The life of a lamp is dependent upon a variety of factors including the type of exposure unit being used, the type of lamp, operational temperature, the number of cycles run, total hours of all cycles, and the surface of the bulb being cleaned. Lamp output also depends upon the type of glass in the exposure unit; smaller units have Pyrex glass while large systems have soda-lime glass.

Exposure units:

43040/3048

High output UV lamps at 350 nm can be used in the upper and lower frame sections. The output range of these lamps varies from 3.0 - 6.5 mW/cm² in the upper frame area. The lower glass lamp range varies from 4.0 - 6.5 mW/cm². Higher intensity 370 nm lamps with an output intensity of 4.0 - 8.0 mW/cm² can be used in special units where the bulb position has been lowered.

4460/5280

Large exposure systems are built using soda-lime glass. This type of glass absorbs UV light, and the lamps are positioned farther away from the glass surface. The upper frame area uses 350 nm lamps. The lower frame uses high intensity 370 nm lamps. UV lamp intensity varies from 2.0 +/- 0.5 mW/cm² in the upper frame area. Replace these bulbs when they reach less than 1.2 units. Lower frame lamp intensity varies from 4.0 +/- .5 mW/cm². These lamps need to be replaced when they reach 2.5 units or less.

Post-X

The Post-X unit for all systems uses a special, reflective, high-intensity bulb at 370 nm. The output of this lamp is 20.0 +/- 1.0 mW/cm². These lamps should be replaced once they fall below 10.0 mW/cm².

Cleaning / Maintenance

Periodic cleaning of lamps, at least on a quarterly basis, will improve lamp intensity and performance. Take precautionary measures by wearing protective gloves and safety glasses. Remove dust build up from lamps using a lint-free towel and Windex[®] or a similar cleaning solution.

Periodic cleaning of the exposure unit's upper and lower frame glasses will also improve performance. Refer to AVantage[®] Tech Tip #9 for complete instructions.