Soneko Product Spotlight
Ruby Red Infrared Lamp

A new infrared emitter, the short wave Ruby Red quartz halogen lamp (see Figure 1) has been developed to provide the benefits of short wavelength T3 lamps, without the glare. This lamp has high heating rates in up to 100 w/in and has instant on and off capabilities similar to a T3 lamp.

Figure 1- Ruby Red Lamp

The Ruby Red is a sealed construction and has a life expectancy of 5000 hours.

The Ruby Red lamp utilizes a colored quartz envelope that surrounds the tungsten filament. The envelope absorbs the energy emitted in the visible range. Figure 2 shows the emission of the Ruby Red versus a standard T3. The emission of the Ruby Red is reduced significantly in the visible range (0.39 to 0.78 microns). The thermal losses of the lamp are less than 5% of the total emission.

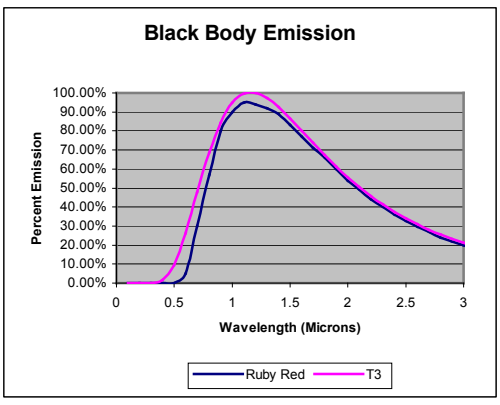

Figure 2 - Emission of Ruby Red Lamp

Benefits of Ruby Red Lamp

The Ruby Red lamp is a short wave emitter, and thus has all of the benefits of fast response and high heating density of the T3. In addition, the Ruby Red filters out the objectionable visible light, which minimizes color selective heating. Table 1 shows the advantages of the Ruby Red lamp.

Infrared Emitter	Advantages
Short Wave Quartz Halogen Lamp (T3)	❑ High heating rates (up to 100 w/in) ❑ Instant on/off (seconds) ❑ Penetrating heat in polymers ❑ Predominantly short wave
Ruby Red Lamp	❑ High heating rates (up to 100 w/in) ❑ Instant on/off (seconds) ❑ Penetrating heat in polymers ❑ Predominantly short wave ❑ No glare ❑ Less color sensitivity

Table 1 - Benefits of Ruby Red

Applications

The Ruby Red lamp is designed for applications where T3 quartz halogen lamps have been used traditionally. It is specifically designed for any applications where the visible light (glare) is objectionable to workers. The wavelength spectrum is essentially the same as the T3, less the visible portion and the small losses beyond the visible. Thus, applications where short wave IR has been used will work with the Ruby Red lamp.

Typical applications include:

- ❑ Paint drying and curing
- ❑ Ink drying
- ❑ Plastics preheating
- ❑ Adhesive curing
- ❑ Metals heating

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Product Availability
The Ruby Red lamp is produced in many of the same size packages as the T3 lamp, including those shown in Table 2.

Lamp	OAL (inches)	Heated Length (inches)	Volts
500	8.8	5.0	120
1000	13.8	10.0	240
1600	19.8	16.0	240
2500	28.8	25.0	480
3800	41.8	38.0	480

Table 2 - Lamp Configurations

Figure 3 shows the typical configurations, which are the same as what is commercially available for the T3 lamps. Specify end configuration when ordering.


Type H – Steel sleeve with lead


Type G – Ceramic with insulated lead


Type M – Short Wave R7 (button contact)


Spring contact for Type M


Type N – Ceramic with insulated lead

Figure 3 - End Configurations

Reflectors designed for the T3 can accommodate the Ruby Red lamps. Custom configurations are also available.

Other Infrared Lamps
HeatRep sells a full line of infrared emitters in short and medium wavelength emissions. Refer to Table 3.


Rapido 100 watt/inch, medium wave lamp


IQH 50 watt/inch, medium wave


Twin Tube Emitters with either IQH or Short Wave Filaments

Table 3 - Other IR Lamps

Contact Gene Barisonek regarding your heating process requirements by phone (732-271-1710) or via email (gene@soneko.com).