

# SWL GOLD UNITUBE®



## SPECIAL FEATURES

### HORIZONTAL OR VERTICAL OPERATION

The Casso-Solar SWL Gold Unitube® is a short wavelength infrared heater that can be provided to operate in the horizontal or vertical position.

### VARIETY OF END TERMINALS

The SWL Gold Unitube® Heater can be provided with a variety of end termination configurations to suit design requirements. Cooling air is directed to the terminals, protecting the fused quartz filament seal.

### CUSTOM DISPERSION ANGLES

The infrared emission can be dispersed from the SWL Gold Unitube® Heater window at standard dispersion angles of 90°, 120° and 180° as well as custom dispersion angles. Casso-Solar can recommend the most efficient IR dispersion angle for your application.

### CUSTOM WATTAGE AND VOLTAGES

The SWL Gold Unitube® Heater is available in watt densities up to 200 watts per lineal inch, much greater than competitive products. These watt densities are possible due to patented and patent pending technology for supplying cooling air. Custom operating voltages are also available. Standard configurations are listed on the reverse.

**W**ith new product and process technology under continuous development, production equipment is required to give precise and flexible control over production quality, while operating efficiently with minimum maintenance. For over forty years, Casso-Solar Corporation has been providing our customers the competitive edge.

## NO REFLECTORS REQUIRED

The Casso-Solar SWL Gold Unitube® Infrared Heater contains an integral gold film reflector that directs the infrared energy to the product without the need for the typical external reflector. The integral gold reflector is maintenance free. Gold is the most efficient reflector material for all infrared energy, as it will not oxidize like other metallic reflectors.

## CONSERVES ENERGY

The SWL Gold Unitube® provides energy efficiencies of up to 85%, drastically reducing electrical power consumption over competitive tubular heaters.

Like all Casso Solar Infrared Heaters®, the SWL Gold Unitube® can be tuned to match the peak absorption point of the material being heated over the usable wavelength range of 0.76-4.0 microns, with emitter temperatures of up to 5000°F.

SWL Gold Unitubes® can be arranged to provide temperature profiling, or can be shut down to conserve energy with narrow products or when there is no product in the oven. Shortwave energy penetrates into most products to provide uniform heating through the product's thickness.

## FAST RESPONSE

Rapid warm-up is an important feature of the SWL Gold Unitube®. Peak radiant output can be achieved in less than one second with complete saturation in under one minute. Complete cool down can be within seconds of a line stoppage with the aid of a purge blower, thus protecting valuable product.

## EXTRA LONG LIFE

Patented and patent pending design provides cooling air flow through the heater to protect the gold from vaporization and extend lamp seal life, common failure areas in competitive products. A heavy walled, 5/8" diameter, exterior quartz tube is used in the SWL Gold Unitube® construction, making the heater one of the strongest of its kind. Energy intensity remains stable throughout the life of the heater.

## EASY TO CONTROL

Through the use of fast cycle zero-crossing SCRs, or phase angle firing SCR power controllers for precision applications, the SWL Gold Unitube® can maintain product temperature to within ± 2°F across the web. Optional optical pyrometers can measure product temperature and automatically control the process.

## DESIGN FLEXIBILITY

SWL Gold Unitubes® can be mounted together to form banks; prewired into single or multiple zones. Supply and exhaust air systems can be provided for moisture removal or use in solvent environments. Applications include paint and powder drying/curing, preheating and drying.

## Sales & Technical Information

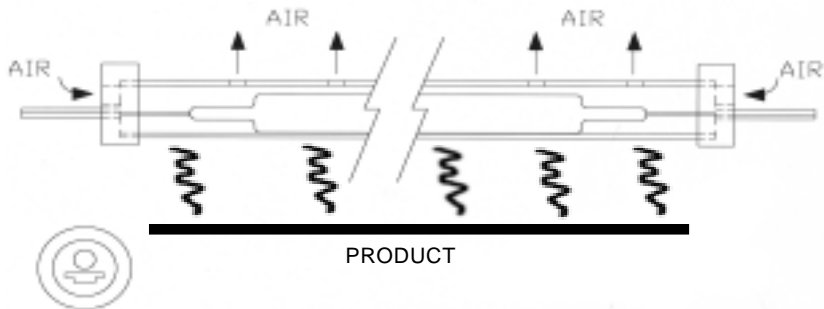
**800-988-4455**

All other calls: 845-354-2500  
 Fax: 845-362-1856  
 Website: [www.cassosolar.com](http://www.cassosolar.com)  
 E-mail: [sales@cassosolar.com](mailto:sales@cassosolar.com)



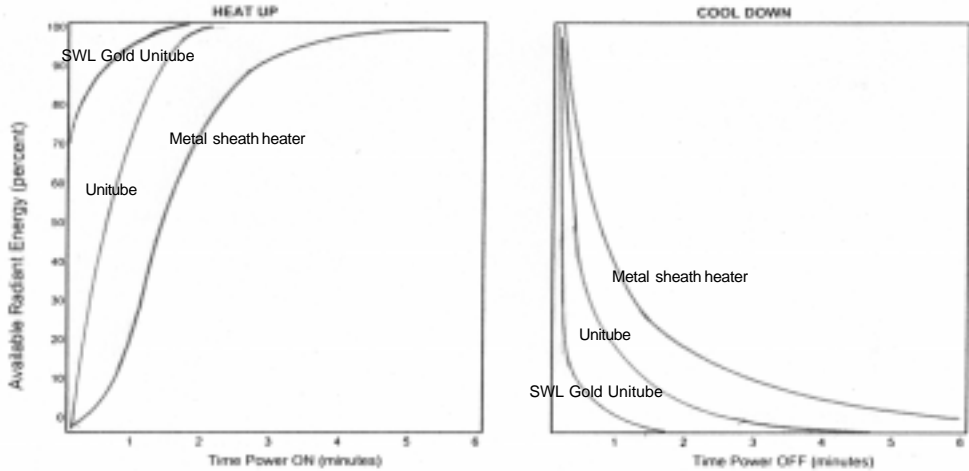
230 US Route 202, P.O. Box 163, Pomona, NY 10970

**SWL GOLD UNITUBE®**



**HEAT-UP AND COOL DOWN CURVES**

The curves below demonstrate the rapid response time of the SWL Gold Unitube®.



**SPECIFICATIONS:**

**WATT DENSITIES:** Up to 200 watts per lineal inch (32 watts per centimeter) generating watt densities up to 200 watts per square inch (12.6 watts/cm<sup>2</sup>).  
**VOLTAGES:** Voltage depends on heated length, 240-600 volts.

**SIZES:**

P/N	Watts	Volts	Heated Length	Orientation
USW1000240254H	1000	240	10 inches	Horizontal
USW2500480635H	2500	480	25 inches	Horizontal
USW2500480635V	2500	480	25 inches	Vertical
USW3800570965H	3800	570	38 inches	Horizontal
USW3800570965V	3800	570	38 inches	Vertical

All heaters are custom built and special sizes are available. All tubes 5/8" diameter (1.6 cm). Clear quartz. 180° window.

**WAVELENGTH EMISSION:** 0.76 - 4.0 microns, peak adjustable by emitter temperature.

**TEMPERATURE RANGE:** Up to 5000°F(2800°C) filament temperature.

**AIRCOOLING:** Required for most applications. Low density applications may be run without cooling air. Consult factory.

**LIFE EXPECTANCY:** With cooling, 5,000-10,000 hours, depending upon the application.  
 Manufactured under U.S. patents and patents pending.