



# ULTRAVIOLET CURING SYSTEMS



Porta-Cure 100 UV Source



Point Source

## PORTABLE AND SPOT UV CURING SYSTEMS

**The Porta-Cure 100** ultraviolet irradiator meets the requirements of researchers and field engineers for intense ultraviolet energy for diverse applications, such as:

- Curing photopolymer paints, inks and coatings
- Photoactivation of UV-sensitive adhesives
- Photoresist activation
- Graphic arts exposure and UV adhesives

A compact, portable source of ultraviolet energy with a specially designed 4"-diameter 100-watt mercury vapor discharge lamp, the Porta-Cure 100 provides high output at the 365-nanometer wavelength. Other important features include:

- Integrally filtered lamp to eliminate ozone and all actinic (harmful) ultraviolet
- 72,000 $\mu$ w/cm<sup>2</sup> typical intensity in spectral ranges of 325 to 382 nanometers at 12" from light source (specifically, 9,280  $\mu$ w/cm<sup>2</sup> at the 365-nanometer line)
- All electrical components, including lamp, mounted in fan-cooled instrument case-style housing
- Compact size and light weight ideal for research applications
- Also designed for bench-top use or for optical tripod mounting with unlimited lamp positioning

### TECHNICAL DATA

- Lamp Watts: 100
- Input Power: 120 Volt, 60 Hz, 2.2 Amps. 220 Volt, 50 Hz, 2 Amps
- Dimensions: 10"D x 6"W x 8.5"H

- Weight: 10 lbs. (Porta-Cure 100 only). 12 lbs. with optional tripod
- Electrical Connection: 8/3-wire grounded service cord
- Tripod (optional): Open: 60"; closed: 18"; elevator rise: 14"

**The Point Source** is made for today's solvent-free manufacturing. This reliable, powerful tool has all the features needed for effective spot curing, including:

- Patented lamp reflector assembly designed for easy access
- All anodized aluminum construction
- Clean room-ready; Class 100
- CE Approved
- 100 watt lamp

- Solid-state, high-performance power supply
- Digital shutter timer with foot switch
- Manual-robotic shutter interface switch
- Standard 5mm x 1 meter liquid-filled light guide
- Total Weight: Less than 14 lbs.
- Footprint: 9.75" x 12.5"
- 8 UV watts



## American Ultraviolet Company

It's all we do.

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# ULTRAVIOLET CURING SYSTEMS



## PORTA-CURE 1000/1000F/1500F PORTABLE CURING SYSTEMS

Porta-Cure ultraviolet irradiators meet the requirements of researchers and field engineers for intense ultraviolet energy for diverse applications, such as:

- Curing photopolymer paints, inks and coatings
- Photoactivation of UV-sensitive adhesives
- Photoresist activation
- Graphic arts exposure and UV adhesives

The Porta-Cure line of curing systems has been designed to meet requirements for focused or non-focused irradiation. The Porta-Cure 1000F and 1500F feature an elliptical reflector system to concentrate UV energy into a narrow beam across the curing surface. They are ideal for curing fast-moving films, such as printing inks on conveyors.

The Porta-Cure 1000 features a half-round reflector system to irradiate a wide area. This optical configuration permits the unit to be positioned either across or parallel to the curing surface for greater ultraviolet exposure time. The

Porta-Cure 1000 is the solution for curing thicker, slow-moving films, such as UV-sensitive adhesive.

All Porta-Cure systems contain a medium-pressure (200/250/300 Watts/linear inch) mercury vapor discharge lamp with high-efficiency output in the 185 to 400-nanometer UV cure range. Ozone-free lamps and lamps of various arc lengths are available for direct interchange to the units. Other general features include:

- Specially processed specular aluminum reflector
- Fan-cooled housing
- Remote power supply for maximum operational ease and lamp portability
- High/low lamp intensity control to reduce output to an idle mode
- Designed for conveyor, bench-top or optional tripod mounting.

| Model  | Porta-Cure 1000         | Porta-Cure 1000F      | Porta-Cure 1500F      |
|--|-------------------------|-----------------------|-----------------------|
| Lamp Wattage   | 1000*                   | 1000*                 | 1600*                 |
| Lamp Arc Length (inches)   | 5                       | 5                     | 8                     |
| Reflector  | Half-round, Non-focused | Adjustable elliptical | Adjustable elliptical |
| Power  | 120V, 60Hz, 12 Amp**    | 120V, 60Hz, 12 Amp**  | 120V, 60Hz 16 Amp**   |
| <b>Lamp Dimensions</b>   |                         |                       |                       |
| L x W x H (inches)   | 15.18 x 8.5 x 6.5       | 15.18 x 8.5 x 6.5     | 15.18 x 8.5 x 6.5     |
| Lamp Weight (lbs.)   | 12                      | 12                    | 12                    |
| <b>Power Supply Dimensions</b>   |                         |                       |                       |
| L x W x H (inches)   | 17 x 12 x 10            | 17 x 12 x 10          | 17 x 12 x 10*         |
| Power Supply Weight (lbs.)   | 48                      | 48                    | 55                    |
| *All units are available for 300 Watt/inch operation. PC-1500F at 300 Watts/inch requires a larger power supply and 220 Volt, 60 Hz input power. |                         |                       |                       |
| **Consult factory for optional voltages.   |                         |                       |                       |
| ALL IRRADIATORS SUPPLIED WITH: 8-ft. multi-conductor lamp to power cable, 8-ft./3-wire grounded service cord.                                    |                         |                       |                       |

| Spectral Irradiance           |                           |         |         |        |         |
|-------------------------------|---------------------------|---------|---------|--------|---------|
| Wavelength in Nanometer Units | Distance from Lightsource |         |         |        |         |
|                               | 4"                        | 6"      | 12"     | 24"    | 1 Meter |
| 254                           | 26,000                    | 14,400  | 4,500   | 1,125  | 415     |
| 297                           | 30,000                    | 19,000  | 8,300   | 2,170  | 820     |
| 365                           | 78,000                    | 44,300  | 13,900  | 3,435  | 1,242   |
| 296-405                       | 320,000                   | 165,000 | 48,000  | 12,400 | 4,800   |
| 228-420                       | 1,500,000                 | 880,000 | 250,000 | 69,000 | 26,000  |

Readings in Microwatts/CM<sup>2</sup>