The powerful benefits of Miltec UV’s new 400 watts per inch electrodeless UV system for Optical Fiber makes the MPI-400 the best system solution for maximum UV cure efficiency.
System Features and Benefits

**Efficiency**  Most efficient UV curing system available today for optical fiber curing

- Highest peak irradiance UV energy at the fiber, outperforming UV systems available today, results in improved cure speeds and coating properties
- Outperforms optical fiber UV curing systems available today in UV intensity at the fiber
- Increased UV output efficiency with Miltec’s premium reflector and new Advanced Honeycomb RF Screen which increases UV Peak Irradiance values by as much as 8%
- High efficiency Elliptical Reflector is used to focus (or concentrate) the UV light for maximizing the peak irradiance on the substrate
- FM Back Reflector included for optically focusing the UV energy around the back half of the fiber
- FM Back Reflector unique engineered design provides more reflective surface area yielding higher irradiance and more uniform UV light at the fiber than leading competitor's uv system
- Power supplies provided with dual power levels: 50% and 100%

**Savings**

- Uses 25% less electrical energy than the leading competitive UV system
- Reduced replacement parts costs versus the leading competitor
- Quick, easy bulb and component changes with Miltec’s patented “Quick Release” Screen means less downtime and labor savings

**Enhance Production**

- Electrodeless bulbs with proven long lifespan
- Virtually no bulb degradation during the life of the bulb
- Enhanced bulb and magnetron cooling due to Miltec’s exclusive engineered design for optimum air flow means longer bulb and magnetron life than in other UV systems available today
- Rapid start and restart of the bulb
- Special filled bulbs available (H, H+, D and V) to achieve different spectral outputs, which enables users to match the UV wavelength to the chemistry for optimizing cure efficiency
- Positive air cooling allows all cooling air to be filtered, which removes unwanted contaminants from cooling air stream and helps to maintain UV lamp cleanliness.
- Lamp assemblies are available in 10 inch (25.4 centimeter) modules, which can be positioned end-to-end for additional curing power
- Remote control interface allows the user’s production equipment to automatically switch lamps on and off with production start and stop
- System health status displayed on the front control pane
Exclusive enhanced engineering design and unique benefits of Miltec’s MPI-400 UV system make it an excellent choice for high speed optical fiber coating and coloring lines that demand high peak irradiance UV light output.

- Outperforms other UV systems produced today by concentrating more UV energy at the fiber, allowing for faster curing speeds
- Less electrical consumption with energy savings of 25% compared to leading competitive 600 watt per inch system
- Powers electrodeless UV bulb with microwave energy up to 400 watts per inch
- Ideally suited for demands of optical fiber production line that requires an energy efficient UV source which delivers extremely high peak irradiance, long lasting bulbs and consistent UV output
- High peak irradiance achieved using small diameter bulb (only 9 mm) in elliptical shaped reflector cavity so most UV light is concentrated from the reflector to its focal point where fiber is located
- Enhanced design FM back reflector coupled to the lamp module reflector insures that virtually all UV light emissions are concentrated at the focal point of the ellipse, which is the center line of the fiber
- Patent Pending Advanced Honeycomb RF Screen provides increased UV light transmission through the RF Screen, resulting in more UV light delivered to the fiber

**Patented Features**

The ML-400 Lamp module comes with our patented Quick-Release, ADV RF Screen.

Provides higher UV light transmission which results in up to 8% more UV light delivered to the fiber.
**MP-400 Power Supply**

*The engine that powers this high performing UV system.*

- Modular design easily retrofits existing microwave powered systems using industry standard power cables and interface logic.
- Two power levels at 400 W/inch and 200 W/inch, automatically or manually controlled as a function of production speed to prevent overheating and over-curing at slow production speeds.
- Switching to low power when suitable for a curing process significantly reduces energy consumption and results in energy savings.
- CE certified MPI-400 systems are available

**ML-400 Lamp Module**

*Standard 10 inch (25.4 centimeters) size utilizes two patent and patent pending RF Screen technologies for cost savings and enhanced production capabilities.*

Patented RF Screen includes captive quick release fasteners making removal possible in seconds for quick, easy maintenance & significant savings in downtime and labor for any production line.

**Patent pending Advanced Honeycomb Screen design features:**
- More open air area in the screen mesh pattern provides increased UV energy delivered to the chemistry
- Provides higher UV peak irradiance which leads to faster production speeds

Proprietary optimum reflector material delivers more UV light to the chemistry. Cold Mirror reflectors available if additional heat reduction is required.

**Significant improvement in air flow compared to leading competitor:**
- Improved lamp housing design eliminates the unwanted air leaks in the outer housing, resulting in more air to cool the lamp and magnetrons
- Leads to longer lasting bulbs and magnetrons

**Stainless steel construction of outer housing with brushed finish:**
- Robust for production environments
- Easy to clean and maintain in PM programs
**MP-400 Power Supply Specifications**

- **Maximum power level**: 400 watts per inch
- **Primary power choices**: 480vac (60hz) • 400vac (50hz)
- **Electrical requirement**
  - At 480vac 60hz • L1 - 7A, L2 - 7A, L3 -11A
  - At 400vac 50hz • L1 - 8A, L2 - 8A, L3 -15A
- **Control functions**
  - Power On/Off • Lamp On/Standby/Off • Power select Low/High
- **Remote control inputs**
  - Lamp On • Reset
- **Safety Interlock inputs**
  - E-stop • System blower
- **Air cooling requirements**: 205 SCFM@5 - 6.7 inches W.C. (5.83 M3/min.@1242-1664 pascals)
- **Weight**: 145 lbs. (65.8 kg) **MP-400CE Power Supply**: 125 lbs. (57 kg)
- **Dimensions**: 31.27 in L x 17.50 in W x 8.25 in H (79.5 cm x 44.5 cm x 21 cm)
- **Standard cable lengths**: 4’, 8’, 12’, 15’, 25’, 35’, 50’ 1.2m, 2.4m, 3.6m, 4.6m, 7.6m, 10.7m, 15.2m
- **CE Certification**: Optional at time of order

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**ML-400 Lamp Module Specifications**

- **Weight**: 33.6 lbs. (15.25 kg)
- **Dimensions**: 10.52 in. W x 15.34 in. H x 8.65 in. D (26.8 cm x 39 cm x 22 cm)
- **Material and finish**: Stainless steel
- **Optimum focus**: 2.1” (53mm) with respect to the bottom of the housing
- **Cooling requirements**: 240 CFM at 5.5-7.0 inches W.C. (6.72 CMM at 1370-1744 Pa)
- **Options**: Cold mirror reflector • modular blower

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**FM Back Reflector**

*Unique engineered design increases UV output compared to leading competitor’s 600 watts per inch lamp system with more efficient cooling features and provides greater reflective surface areas.*

- Required on MPI-400 UV system for a fiber coating or coloring line
- Stainless steel brushed finish housing with quick release draw latches for ease of attaching to the lamp module
- Enhanced elliptical shaped reflector couples to lamp module reflector so virtually all UV light emissions are concentrated to the focal point of the ellipse, which is the center line of the fiber
- Adjustable iris on each end so opening size of fiber can be reduced to minimize escaping UV light. Alternative end fittings available upon request.
- Connection points provided to allow nitrogen gas to be plumbed into the cure zone for nitrogen inerting requirements
- Mounting blocks with O-rings provided for installing a quartz tube for protecting