

SPECTROLINE[®]

UV Products for Nondestructive Testing



**SPECTRONICS
CORPORATION**



**ISO 9001:2000
CERTIFIED COMPANY**

Spectroline® UV Technology Creates the World's Most Advanced NDT Products.

MAXIMA™ ML-3500 Series Ultra-High Intensity UV Lamps

These super-powerful lamps make NDT inspections easier, safer and more reliable. They feature state-of-the-art micro discharge light (MDL) technology with fatigue-free ergonomic design.

- Deliver up to 10 times the UV-A output of conventional HID inspection lamps
- Integral bulb/reflector assembly
- Instant on/off/restrike
- Lightweight, solid-state ballast
- Prefocused at the factory
- Virtually no emission of hazardous UV-B at 15 inches (38 cm)
- Stay-cool, impact-resistant and dent-proof housing
- Available in 120V, 230V, 240V and 100V versions, as well as battery-operated versions
- All bulbs feature a rated life of 2,000 hours

The series consists of three models:

The **ML-3500S** spot model has a nominal steady-state UV-A intensity of $50,000 \mu W/cm^2$ at 15 inches (38 cm).

The **ML-3500D** spot with diffusing filter model has a nominal steady-state UV-A intensity of $14,000 \mu W/cm^2$ at 15 inches.

The **ML-3500FL** flood model has a nominal steady-state UV-A intensity of $4,500 \mu W/cm^2$ at 15 inches with a much wider area of coverage.

All MAXIMA lamps are available in battery-operated versions — the **ML-3500MS** (spot), **ML-3500MD** (diffusing filter) and **ML-3500MFL** (flood). Each includes a 12-volt, 7 amp/hr rechargeable battery that will operate the lamp for two full hours. A battery recharger and carrying case are included.



Line voltage model



Battery-operated "M" version



UV-400 SuperFlood™ World's Most Powerful UV Flood Lamp

This lamp has been specially designed and engineered for fluorescent penetrant and magnetic particle inspections, parts degreasing inspections, and wash station inspections.

- 400-watt metal halide bulb delivers an *unmatched* steady-state UV-A intensity of $6,500 \mu W/cm^2$ at the lamp's center, measured at a 15-inch (38 cm) distance
- Irradiates an area as large as 24 x 10" (61 x 25 cm) with *unequaled* uniformity
- Unique twin-filter system eliminates hazardous UV-B radiation to protect inspectors

Spectroline® UV Lamps for Every NDT Application...



BIB-150P Series

World's Highest Intensity Self-Ballasted UV Lamp

This lamp is a favorite with NDT inspectors because it provides super-high UV-A intensity at an economical price. Its light weight and ergonomic design ensure easy handling for long inspections.

- Unique Built-In-Ballast™ 150-watt bulb eliminates the need for a heavy, external transformer
- Space-age engineering polymer housing is impact-resistant and dent-proof
- Has a total weight of only 3¹/₄ lbs (1.5 kg). Measures just 9⁵/₈ inches (24 cm) long, including the heat guard/stand
- Vinyl-coated, stainless-steel, wraparound caging protects against burns and acts as a lamp stand
- Special Bulb-Saver™ minimizes bulb movement during handling and reduces the risk of breakage
- Easily meets MIL and ASTM specifications for FPI and MPI
- Available with either concentrated spot or broad-beam spot bulb. Concentrated spot configuration has a nominal steady-state UV-A intensity of 4,500 $\mu\text{W}/\text{cm}^2$ at 15 inches (38 cm). Broad-beam configuration has a nominal steady-state UV-A intensity of 4,000 $\mu\text{W}/\text{cm}^2$ at 15 inches
- Bulbs feature average rated life of 5,000 hours

The **BIB-150P** model comes with an 8-foot (2.5 m) power cord.

The **BIB-150PX** model comes with a 20-foot (6 m) power cord.

SB-100P Series

Designed for Maximum Efficiency and Versatility

We developed the SB-100P Series UV lamps to be very affordable, super-high intensity “workhorses” for MPI and FPI inspections

- Combines state-of-the-art innovations with proven features. The cord comes out of the stay-cool, contoured handle to prevent tangling, and the crack-resistant, tempered filter reduces replacement costs significantly
- Lamp head and transformer base housings are constructed of a special heat-resistant engineering polymer that ensures years of rugged use
- Lamp head is ergonomically designed and detaches easily from the transformer base for comfortable, fatigue-free handling
- Transformer provides maximum power to the unit and features an indicator light to show when the lamp is on
- Easily meets MIL and ASTM specifications for FPI and MPI
- Available with either a spot or flood bulb. Spot configuration has a nominal steady-state UV-A intensity of 4,800 $\mu\text{W}/\text{cm}^2$ at 15 inches (38 cm). Flood configuration has a nominal steady-state UV-A intensity of 1,200 $\mu\text{W}/\text{cm}^2$ at 15 inches
- Bulbs feature average rated life of 5,000 hours

The **SB-100P** model comes with a special heat-resistant, 3-wire secondary cord. The primary and secondary cords are both 8 feet (2.5 m) long.

The **SB-100PX** model has an 8-foot primary cord and a 20-foot (6 m) secondary cord.

The **SB-100PXR** model is equipped with 20-foot primary and secondary cords.



For additional flexibility, ML-3500, BIB-150P, SB-100P and C-100P Series lamps are also available with extended length power or secondary cords housed in a retractable “flying” reel. See price list or log onto www.spectroline.com for more details.

and for Every Budget!

FC-Series

World's Lightest Fan-Cooled, Portable UV Lamps

NDT inspectors find that the FC-100 and FC-150 Series UV lamps make prolonged inspections seem much shorter because they provide cool operation and increased comfort.

- Quiet, *built-in fan* dramatically reduces running temperature, provides more comfort and safety for users, and ensures long bulb life
- Ergonomically designed, with the handle and cord at the balance point of the lamp head. As a result, they can be held for long periods with little user fatigue
- Special remote lamp switch in the pistol grip prevents accidental shutoff, while separate fan control switch allows for safe cool-down
- Lamps are housed in a super-strong engineering polymer that is dent-proof and impact-resistant
- Easily meets MIL and ASTM specifications for FPI and MPI
- Bulb features average rated life of 5,000 hours

The **FC-100** model with 100-watt bulb has a nominal steady-state UV-A intensity of $5,000 \mu\text{W}/\text{cm}^2$ at 15 inches (38 cm), comes with 8-foot (2.5 m) primary and secondary cords and is available in spot and flood versions (flood intensity is $1,200 \mu\text{W}/\text{cm}^2$)

The **FC-150** model with Built-In-Ballast™ 150-watt bulb has a nominal steady-state UV-A intensity of $4,500 \mu\text{W}/\text{cm}^2$ at 15 inches and has an 8-foot power cord. Available in concentrated spot and broad-beam versions (broad-beam intensity is $2,500 \mu\text{W}/\text{cm}^2$)

The **FC-150X** model comes with a 20-foot (6 m) power cord.

The **FC-100M** model has the same specifications as the FC-100 model, but is a direct replacement lamp for use with Magnaflux® magnetic particle machines.



FC-100



FC-150

C-100P Series

Lightest High-Intensity UV Lamp for NDT Inspections

Compact lamp head provides users with maximum comfort. Easily fits in tight places that are taboo to larger lamps, making it ideal for spotting surface flaws in confined areas.



- Our lowest-priced compact, high-intensity lamp. This 100-watt lamp is powered by a magnetic ballast encapsulated in a high-impact plastic housing
- Compact lamp head weighs only 1⁵/₁₆ lbs (0.7 kg)
- Features a spot bulb with a nominal steady-state UV-A intensity of $4,000 \mu\text{W}/\text{cm}^2$ at 15 inches (38 cm)
- Flexible, heat-resistant filter holder virtually eliminates filter movement during use, reduces the risk of breakage and prevents any visible light leakage
- Constructed of anodized aluminum with a stay-cool pistol grip for extra safety and long life
- Easily meets MIL and ASTM specifications for FPI and MPI
- Bulb features average rated life of 5,000 hours

The **C-100P** model comes with 8-foot (2.5 m) primary and 8-foot secondary cords.

The **C-100PX** model has 8-foot primary and 20-foot (6 m) secondary cords.

The **C-100PXR** model has 20-foot primary and 20-foot secondary cords and cord mounting brackets.

Spectroline® UV Lamps Are Ideal for Field and Limited Access Areas.

CH-50P/12

Portable and Very Affordable High-Intensity UV Lamp

Battery-operated lamp delivers UV light in tight areas that defy conventional lamps. "Instant-on" operation enables you to perform inspections *immediately!*

- Produces higher UV intensity than ordinary 12-volt lamps
- Lamp head measures only 5¼ x 7½ inches (13 x 19 cm) at its widest point, so it's easy to inspect in confined areas that are "off limits" to larger lamps
- Features a 50-watt bulb with nominal steady-state UV-A intensity of 2,500 $\mu\text{W}/\text{cm}^2$ at 15 inches (38 cm).
- Battery-operated unit weighs a mere 2 lbs (0.9 kg)
- Very economical to operate, because it consumes 50% less power than competitors' 12-volt lamps
- Housing is made of a super-tough engineering polymer that's impact-resistant and dent-proof
- Easily meets MIL and ASTM specifications for FPI and MPI
- Includes a 4-foot (1.2 m) cord with cigarette-lighter plug and a 1-foot (0.3 m) adapter cord with alligator clips. Connects to any 12-volt battery or cigarette-lighter outlet. A 12-foot (3.6 m) extension cord is also provided
- A compact, lightweight battery pack (model BP-12A) is available as an accessory. It comes with a 12V, 7 amp/hr sealed lead acid rechargeable battery, a charger and a nylon case with shoulder strap. Permits field use of the CH-50P/12 lamp in areas where there are no AC outlets



Optional BP-12A battery pack



AP-400

Portable UV Inspection Kit

NDT inspectors rely on this convenient kit to detect critical indications in places that ordinary lamps can't reach. It's ideal for many types of small area inspections.

- Compact, battery-powered UV lamp illuminates previously inaccessible areas without time-consuming disassembly
- Delivers 40 hours of inspection time on 8 "D" cell alkaline batteries (not included)
- Entire kit, including batteries, weighs only 6¼ lbs (2.8 kg)
- The 4-watt UV probe measures only 1 inch (2.5 cm) in diameter and is a mere 6 inches (15.2 cm) long
- Kit also contains a 10-foot (3 m) power cord, 10-foot extension cord, adjustable inspection mirror and a spare 4-watt tube

Spectronics Corporation has more than a half century of experience in designing and manufacturing high-quality UV inspection lamps and related equipment. Our Research & Development Department continues to refine existing products and develop new ones to meet the industry's need for equipment based on the latest ultraviolet technology.

Spectroline® Digital Radiometers Ensure Optimum Accuracy!

DM-365XA

*Digital UV Radiometer Provides Increased Accuracy
for More Repeatable Results*

Measures UV-A light sources with overall accuracy of $\pm 5\%$.
Conforms to NIST standards.

- Calibrated with pyroelectric radiometer for maximum accuracy
- Autozeroing, excellent linearity and cosine response, solid-state design, compact, durable, simple operation, battery-level indicator
- Sealed silicone photodiode protects against shock and humidity
- Sensor housing is constructed with series of baffles and unique self-sealing mechanism to eliminate light leakage
- Compact, lightweight and battery operated so measurements can be taken anywhere



DSE-2000 Series

*Combination UV Radiometer/Photometers Measure
Both Visible and Black Light*

Specially designed and engineered for NDT and quality control inspections, these digital meters ensure compliance with MIL and ASTM specifications for MPI and FPI.

- Eliminates the need for two separate meters
- System includes digital readout unit and both a black light sensor and a visible light sensor (footcandle or lux versions)
- Autozeroing and ultra-reliable electronic circuitry provide superior signal-to-noise ratio in the measurements
- Readout unit features easy-to-read LED display
- Complete with convenient storage/carrying case

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