

# ACCESSORIES



## PENETRANT TEST PIECES

## PRODUCT SUMMARY

**Cracked Aluminum Block** (or "Penetrant Comparator"): Meets ASME Boiler Pressure Code, Section V & III, MIL-I-25135 and AMS-2644. The cracked aluminum block is made from SB-211 Type 2024 aluminum, rolled 3/8" thick with dimensions of 2x3 inches. A notch separates the block's two sides to facilitate side by side comparisons.

**Sherwin PSM-5 Penetrant System Monitor Panel:** A stainless steel panel, 0.090" thick, and measuring 4x6 inches. A chrome plated strip runs the length of one side of the panel. Five crack centers are evenly spaced in the chrome plating in order of magnitude; the largest is readily visible with low sensitivity penetrants, while the smallest is difficult to observe even with high sensitivity materials. Adjacent to the chrome plated section is a grit blasted area of "medium roughness" to judge penetrant wash characteristics.

The **PSM-5 Panel** comes in two versions. One version is manufactured to Pratt-Whitney P/N TAM 146040 specifications. It has a chrome strip which has been lightly grit blasted in order to dull the surface. The chrome plated strip of the second version is not grit blasted. Sherwin Incorporated is an authorized manufacturer of TAM 146040 panels.

**PSM-5 Panel** processing meets MIL-STD-6866 and ASTM E-1417 requirements for daily system check.

**Sherwin WTP-1 Wash Test Panel:** A stainless steel panel measuring 4x6 inches and 0.090" thick with two parallel, "medium rough" strips, each 6 x 1.5 inches separated by a smooth 1 inch strip. The wash panel is used to meet monthly removability testing required by MIL-STD-6866.

**Sherwin Twin KDS Panels:** A pair of nearly identical panels with matching crack patterns. Being rugged, Sherwin Twin KDS Panels may be used to satisfy MIL-STD-6866 and ASTM E-1417 requirements for daily system checks. And, having matching cracks of known sizes, the panels may be used to compare penetrant performance.

**Twin NiCr Sensitivity Panels:** A set of two panels, each measuring 3.875 x 1.875 inches (100x35mm), sheared from the same stock with matching crack patterns. Makes simultaneous comparison of two penetrant batches practical. Available in sets having crack sizes of 10µm, 20µm, 30µm, and 50µm.

**Flaw Dimension Tool** (TAM 135273): A plastic ruler with linear and circular fluorescent marks in inches and millimeters for flaw dimension comparison under UV light. The tool measures graded flaw markings from .010 to .180 inches (.2 to 4.6mm).

## PSM-5 RECALIBRATION

**Sherwin PSM-5 Panel Recalibration:** Panels may be returned to Sherwin Incorporated for thorough cleaning, re-grit blasting, and crack measurement. If a PSM-5 panel can be restored to the original Pratt-Whitney drawing, it will be recertified and returned. If the panel cannot be restored, the user will be notified. The fee for recalibrating and recertifying a PSM-5 panel will be quoted on request. Allow approximately ten working days for shipping and processing.

Experience has shown that recalibration requirements will vary with how much a panel is used and with how well it is maintained. Sherwin Incorporated recommends that PSM-5 panels be recalibrated, at least, annually. It is possible for users to do this, and Sherwin's lab will advise on the appropriate procedures to follow.

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# BLACK LIGHTS & UV ACCESSORIES

**Spectroline SB-100 Black Light Lamp:** Produces up to 60% higher UV intensity than any other 100-watt lamp. The SB-100 can be equipped with either a spot bulb (typical peak intensity of 9000  $\mu\text{w}/\text{cm}^2$  at 15 inches) or a flood bulb (typical peak intensity of 1550  $\mu\text{w}/\text{cm}^2$  at 15 inches). The SB-100 comes with a standard 8 foot primary and secondary cord.

replacement filter	2F958
replacement spot bulb	100S
replacement flood bulb	100CF
carrying case	CC-250

**Ultra Violet Products B-100 Black Light:** Is a powerful long wave UV lamp with a typical peak at 365nm producing an intensity of 7,000  $\mu\text{w}/\text{cm}^2$  at 15 inches. It comes with a spot lamp.

replacement spot bulb	34-0011-01
replacement filter	38-0009-01

**Black Ray Tube-Type Lamps from Ultra Violet Products:** Ideal for use as overhead fixtures to provide large area fluorescence at maximum intensity.

XX-15	18x6x4 inches average minimum coverage at 2' is 6' x 6'. Typical intensity is 1600 $\mu\text{w}/\text{cm}^2$ at 12 inches.
XX-40A	48x6x4 inches average minimum coverage at 2' is 10' x 6'. Typical intensity is 1300 $\mu\text{w}/\text{cm}^2$ at 12 inches.

## Black Light Bench Lamps from Spectroline

X-15A	single 15 watt lamp 4.5 x 18.75 x 3.5 inches that produces 1250 $\mu\text{w}/\text{cm}^2$ at 12 inches.
X-30	single 30 watt lamp 6x36x4 inches that produces 1400 $\mu\text{w}/\text{cm}^2$ at 12 inches.
X-40	single 40 watt lamp 6x49x4 inches that produces 1500 $\mu\text{w}/\text{cm}^2$ at 12 inches.
XX-15A	two 15 watt BLB tubes 4.5 x 18.75 x 3.5 inches that produce 1600 $\mu\text{w}/\text{cm}^2$ at 12 inches.
XX-40	two 40 watt BLB tubes 6 x 49 x 4 inches that produce 1,750 $\mu\text{w}/\text{cm}^2$ at 12 inches.
Replacement tube for X-15A and XX-15A	BLE-1800B
Replacement tube for X-30	BLE-5000B
Replacement tube for X-40 and XX-40	BLE-7900B

**Spectroline Long Wave UV Digital Meter:** Is designed to measure long wave ultra violet radiation (black light) in the range of 320 to 380nm, with an accuracy of 5%. The DM-365X reads directly in microwatts per square centimeter over a range of 0 to 19,990  $\mu\text{w}/\text{cm}^2$ .

**Spectroline Radiometer/Photometer — Model DSE-100X:** Measures both black light (at 365nm peak) and visible light (at 555nm peak). The measuring range is 0-19,990  $\mu\text{w}/\text{cm}^2$  for black light and 9-199.9 foot candles for visible light. The DSE-100X uses two interchangeable sensors with 3 foot cords. The DIX-365 measures black light and the DIX-555 measures visible light.

**Ultra Violet Products Black Light Meter - Model J-221:** Is an inexpensive meter designed to measure overall black light intensity between 300nm and 400nm with a peak sensitivity at 365nm. The J-221 is supplied with a sensor cell, a four foot extension cord for the sensor cell, reduction screen, contrast filter, certification report, and instructions.

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**Sherwin PN WG-1 Wash Gun:** A sturdy Tri-Con Spray Wash Gun meeting MIL-I-6866 and ASTM E-1417 requirements. The Tri-Con gun is available with or without the full jet nozzle that emits coarse spray without air pressure.

**Dema Injector:** For spraying hydrophilic emulsifier. The emulsifier is drawn into the water stream by the Dema valve, emitting an emulsifier/water spray. The Dema Injector allows the penetrant user to process parts with the hydrophilic method without adding large dip tanks, and to use the same equipment necessary for a water wash operation.

**Refractometer:** Measures hydrophilic emulsifier concentrations. Hand held and equipped with a rubber grip and eyepiece. Meets MIL-STD-6866 and ASTM E-1417 requirements for weekly testing of hydrophilic emulsifier concentration.

**AO Hand Held Refractometer:** Has a built-in temperature compensator to insure accurate readings. Meets MIL-STD-6866 and ASTM E-1417 requirements for weekly testing of hydrophilic emulsifier bath concentration.

**Hydrometer:** Monitors aqueous developer concentration and, with the help of a graph, facilitates developer concentration adjustments. Meets the requirements of MIL-STD-6866 and ASTM E-1417 requirements for weekly concentration monitoring.

**Surface Temperature Thermometer:** A dual magnet surface temperature thermometer, designed to measure temperatures of many different surfaces. The bimetallic sensor is a specially processed alloy, preconditioned and pre-tested for permanent calibration and maximum stability. The thermometer reaches sensing equilibrium within three minutes, and is accurate within 2%.

## EYE PROTECTION

**UVS-30 Spectacles:** Protects eyes from exposure to sporadic, low intensity ultra violet sources. The well proportioned frames fit easily over regular prescription glasses.

**UVG-50 Goggles:** Protects eyes from exposure to extended or high intensity ultraviolet sources. Meets both ANSI Specification Z87.1 for safety eye wear and OSHA Standard 1910.133 for eye protection. Adjustable, well proportioned frames fit easily over regular prescription glasses.

**UVF-80 Face Shield:** Provides eye protection from exposure to extended or high intensity ultra violet sources. Meets both ANSI Specification Z87.1 for safety eye wear and OSHA Standard 1910.133 for eye and face protection. Adjusts to fit all head sizes.

**Holden Visor HV-1:** Protects eyes from extended exposure to high intensity ultra violet sources. Meets both ANSI Z-87 and MILSPEC requirements. Fits easily over prescription glasses. Maximizes overall visibility of indications by reducing visible light background.