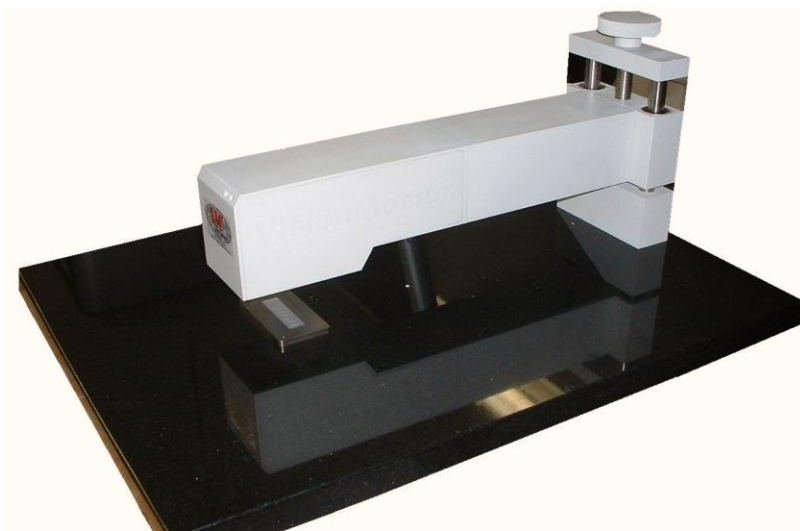# VM450

The **VM450** is the latest development in True 3D measurement technology. Integration of a color camera with a larger Field of View (FOV), while still retaining .07 mil resolution, allows operators to measure everything from 0201's and micro-BGA's to your largest applications. With its Windows® XP interface, the **VM450** is easy to learn and use, making it an exceptional value for the SMT manufacturer concerned with improving printing and production yields.

VM450
(Shown with solid granite base)

SPC Software (Optional)

The optional Siemens® Criterion SPC software is a powerful tool that helps operators control the critical stencil printing process. Data collected by the **VM450** is instantly charted by the Criterion Software. Calculations crucial to understanding printing performance are reported, including:

- X and Moving Range

- X-Bar and Sigma

- X-Bar and Range

- Histograms

- P Chart, np chart, c chart and u chart

- Pareto, weighted pareto for defects and corrective actions

- Variance and standard deviation

- Skewness, kurtosis and chi-squared for goodness of fit

- Min., max. and median values
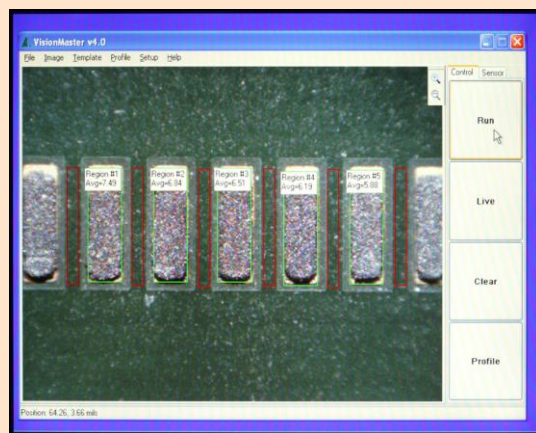
- Cr, Cp, Cpk and lower Z values

System Features

- Windows® XP/VISTA user interface

- Color Image for easy Operator use

- Accurate & repeatable measurements regardless of substrate color and reflectivity

- Automatic calculation of height, area, width and volume measurements

- One-year, end-user warranty including technical support.

System Includes

- Anti-static work surface

- 2.5+ GHz CPU and SVGA monitor

- Hardware/software reference manuals

Options

- Siemens® SPC Software (LAN Ready)

- NIST Traceable Standard

- Extended Warranty

- Manual X-Y Stage

Automated Measurements

To obtain measurements on the VM450, position the circuit board under the system's sensor to the desired location. Use manual, semi-automatic or full automatic mode to measure one of seven solder paste characteristics.

3D Color Profile Analysis

The VM450 allows operators to obtain 3D color profiles for fast and accurate paste analysis. Operators may use these profiles to help them determine what corrections are needed in their solder paste printing process, thereby reducing down time.

System Specifications

- **Maximum Object Thickness** — 5.1 cm (2.0")
- **Standard work Surface (L*W)** — 61 cm x 46 cm (24" x 18")
- **Throat depth** (sensor to support) — 41 cm (16")
- **System Computer** — 2.5+GHz – 1 MB RAM
- **Electrical Requirements** — 120 OR 240 VAC, 50-60 Hz, 2A
- **Ambient Operating Temperature** — +15° - +28° C (+60° to 82° F)
- **Ambient Operating Humidity** — <90% non-condensing
- **System Weight*** (crated) — 68.4 Kg (150 lbs)
- **System Weight*** (un-crated) — 36 Kg (80 lbs)
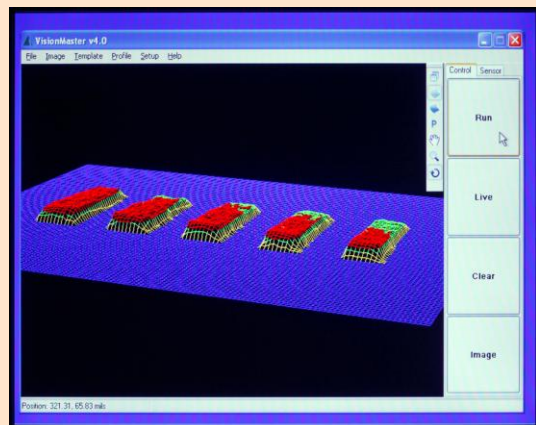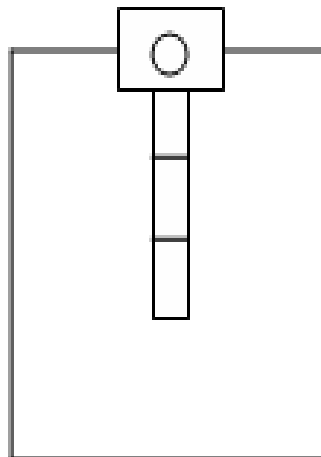
* Weight not including system pc and monitor

Sensor Specifications

- **Measurement Range** — 429 µm (16.9 mils)
- **Accuracy** — 1.0 µm (0.04mil) on calibration target
- **Repeatability** — <10% (+/-20% Tolerance) 50um (2 mil) minimum tolerance
- **Integral Video Camera** — High resolution CMOS Camera (1 megapixel)
- **Field of View (FOV)** — 6.2 mm x 8.2 mm (242 mils x 323 mils) 0.33 seconds per FOV
- **Illumination** — LED-based white light

For More Information:

ASC International
1799 County Road 90, Suite 6
Maple Plain, MN 55359 U.S.A.
- Tel: USA 763-479-6210
- Fax: USA 763-479-6206
- E-mail: info@ascinternational.com
- Web: www.ascinternational.com
- Toll Free: 1-888-478-2912 (USA Only)

- Overall Length: 27" (68.58cm)
- Base Length: 24" (61cm)
- Width: 18" (45.72cm)
- Height: 19" (48.26cm)

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