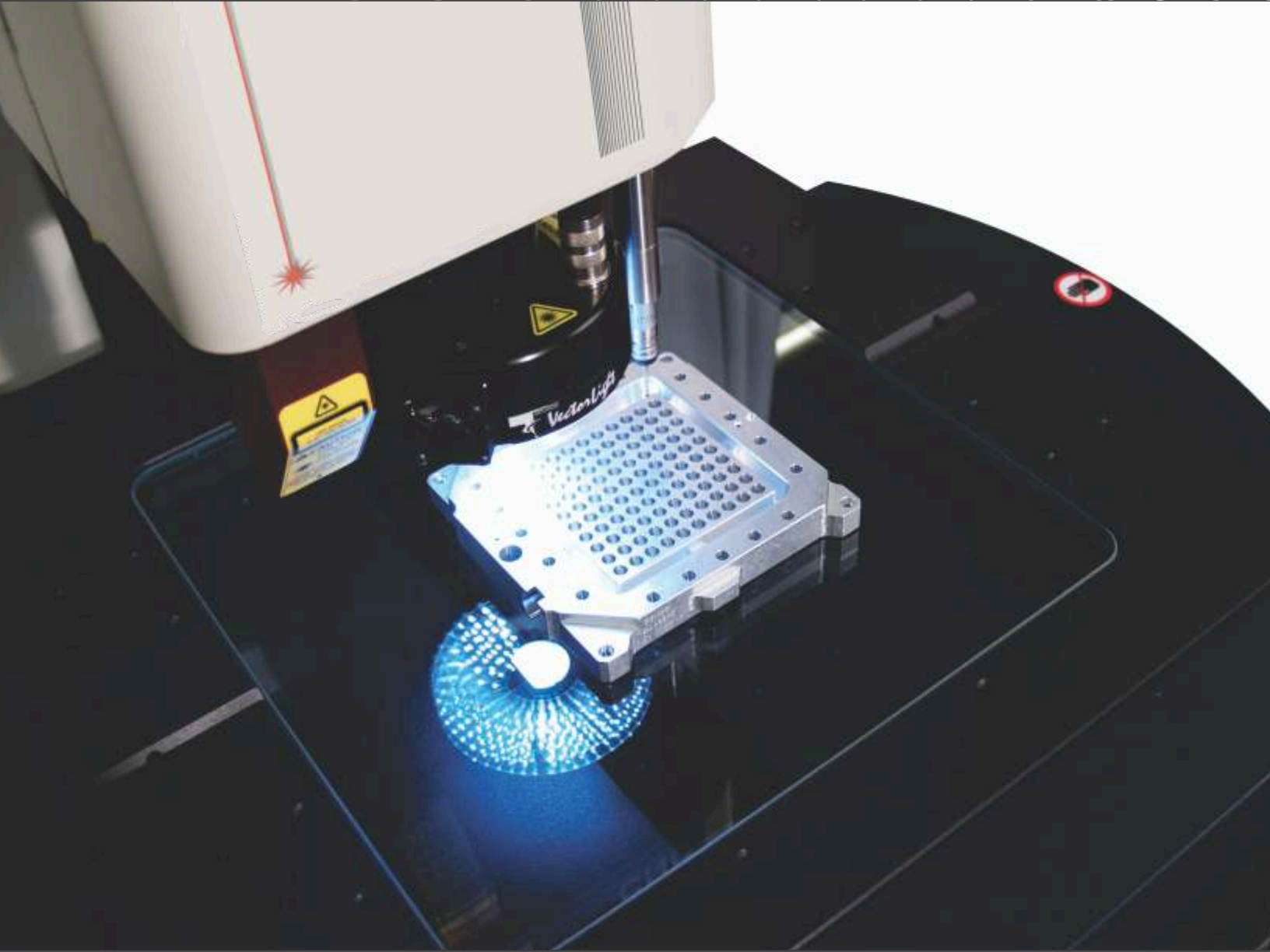


RAM Optical
Instrumentation

RAM

The Vision is Simplicity



Inspection And Measurement Systems



Automatic Measurements Without Motors

RAM Optical Instrumentation offers a line of semi-automatic and automatic, non-contact measuring systems for the shop floor or gage lab. RAM systems feature a versatile digital color camera and the industry leading measurement software, Measure-X®.

StarLite™ 150/200/250/300

StarLite 150 is a compact 3-axis semi-automatic measuring system that is reliable, accurate and easy to use. Built on a rigid cast metal base and column, the StarLite 150 is a solid, repeatable performer, even in harsh shop conditions.

StarLite 200/250/300 models take semi-automatic performance to the next level with solid granite base for rigid, stable 3-axis measuring capability. Precision crossed-roller stages with ergonomic controls make operation easy.

StarLite Systems Feature:

- Precision mechanical bearing X,Y,Z manual stages with 1.0 micron scales
- QVI digital color camera
- Digital camera coupled to a motorized zoom lens
- 35X to 450X zoom range
- Patented high intensity LED VectorLight™, LED backlight and optional LED coaxial light
- CompuFocus™ for accurate and repeatable Z axis measurement by any operator
- Full function Measure-X - the world's most friendly video measurement software



StarLite 150



StarLite 200

StarLite	Measuring Range (mm)		
Model	X	Y	Z
150	150	75	125
200	200	150	150
250	300	150	150
300	300	300	150

SNAP™

The SNAP Digital Measuring Machine combines a unique large field optical system with a high resolution, digital zoom camera. SNAP provides the ultimate in simplicity for measuring a large variety of parts with many critical dimensions. SNAP completes entire part measurements in seconds with no moving parts!

- 8:1 zoom magnification range
- 75mm Z stage motion
- Fully telecentric optics
- Digital, megapixel black & white camera



SNAP Digital Measuring Machine



Fully Automatic Measurement

SprintMVP systems provide fully automatic, 3-axis measurements with speed and accuracy. All SprintMVP systems feature rugged granite construction, precision motorized XYZ stages with 0.5-micron scales, and versatile zoom optics with a high resolution CCD color camera.



SprintMVP 300 with optional touch probe and DRS laser

SprintMVP Model	Measuring Range (mm)		
	X	Y	Z
200	200	150	150
250	300	150	150
300	300	300	150
400	450	450	150 or 300
600	610	450	150
700	610	610	150
1500	900	1500	200
1550	1250	1500	200
1552	1500	1500	200

SprintMVP™ 200/250/300

SprintMVP benchtop systems from RAM Optical provide automatic dimensional measurement through programmed operation of advanced Measure-X® measurement software. With available laser and touch probe sensors, Sprint MVPs are true high performance metrology systems.

SprintMVP Systems Feature:

- Motorized zoom optics with 35X to 175X zoom range
- High resolution CCD color camera
- Joystick controlled, motorized X,Y,Z stages
- Patented VectorLight™, high intensity LED ring light, LED backlight and LED coaxial surface light
- The industry's most advanced edge detection and autofocus for reliable video measurements
- Optional laser, touch probe, and rotary indexer
- Optional QVI Megapixel Digital Color Camera with up to 20X digital-optical zoom

Large Travel SprintMVP 400-1550

SprintMVP 400-1550 large travel systems accommodate large parts or large multi-part fixtures with the same easy to use capabilities as the other SprintMVP models. Large travel SprintMVP systems include:

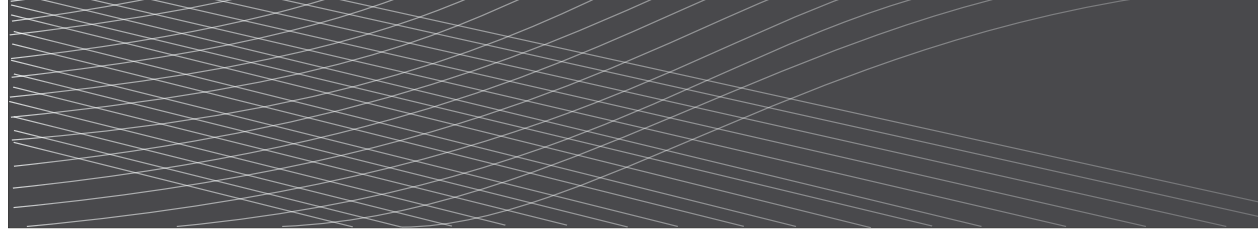
- Granite bases on rugged steel frames for robust accuracy and stability
- Compound stage or moving gantry motion systems for accurate positioning and easy access for loading and unloading parts or fixtures



SprintMVP 400 with compound X,Y stage



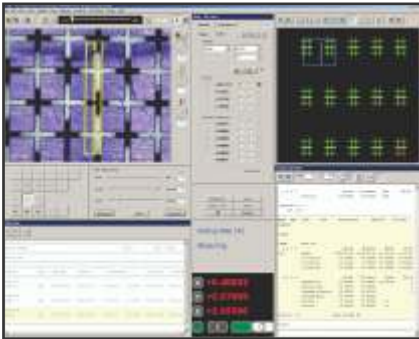
SprintMVP 1552 with moving gantry stage



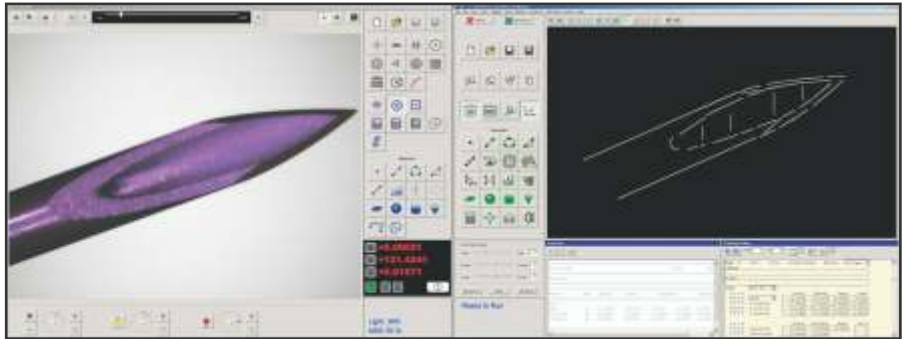
Measurement Software

All measurement systems from RAM Optical Instrumentation include Measure-X, the world's most popular vision measurement software. Measure-X lets you get started on simple measurements with minimal set-up. The exclusive FeatureFinder® enables even complex features to be measured with a simple point and click. Measure-X also offers extensive advanced capabilities such as CAD import,

AutoCorrelate™ - automatic part recognition for fixtureless operation - Off-Line programming and more. Measure-X routines run easily and interchangeably between manual and motorized stage systems. One part routine can run on any of several StarLite or Sprint MVP systems. Measure-X is available in single or dual monitor user interfaces.



Single Monitor User Interface



Dual Monitor User Interface

Modular Measurement Systems



Video Direct Microscope (VDM™)

VDM is a compact microscope system that enables high magnification inspection with less eyestrain. The EDF objective changes magnification with distance between lens and parts over a 150mm range. Great for individual or group inspection.



Optical Video Probe (OVP™)

The OVP provides video imaging with zoom for detailed full color images. It is designed to mount to Coordinate Measuring Machines (CMMs) or machine tools. Standard features include motorized zoom lens, VectorLight LED Ring light, and InSite™ controller.



QVI Cobra™ Laser Scanner

The Cobra hand-held laser scanner is a versatile tool for measuring and mapping surface profiles. The Cobra is portable and easy to use on a benchtop, or by placing it directly on a part surface. Both 2-D and 3-D configurations are offered, as well as a video option for real-time surface imaging. Scan-X® measurement software offers easy operation and extensive capabilities.