



SparkMVP™ 250|300

SparkMVP is a high-performance, automatic dimensional measuring system for manufacturing quality control. SparkMVP excels at measuring fine features and provides complete part measurements automatically.

- High resolution fixed lens optical system and digital megapixel metrology camera with 4:1 digital zoom
- Configurable objective lenses and backtube for 1.0x to 10x optical magnification range
- Granite base and column for stability with precision CNC X, Y, Z stages
- Optional TTL laser, touch probe and grid projector

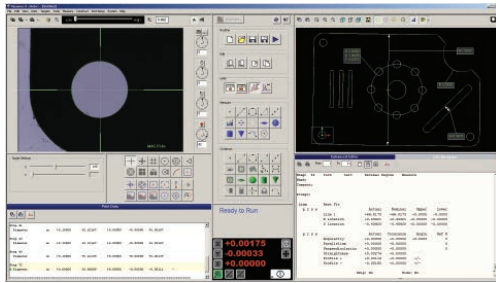
SparkMVP Measuring Ranges (mm)				
Models		X	Y	Z
	250	300	150	150
	300	300	300	150

Automatic High-Performance Measuring System



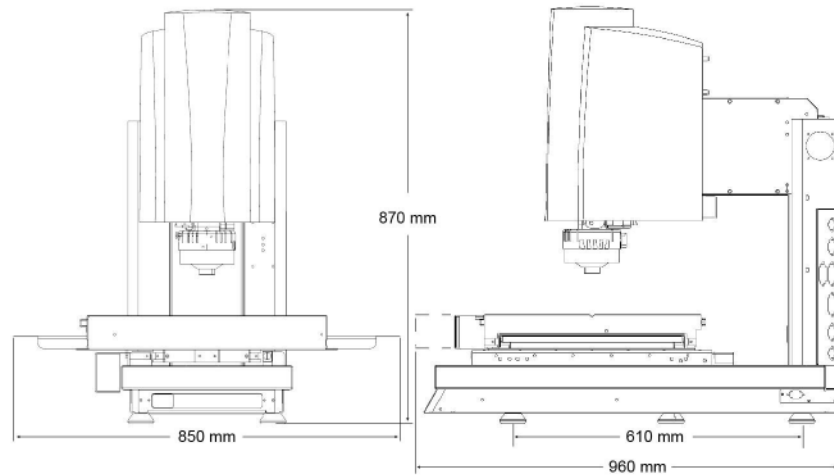
SparkMVP 300 model with optional touch probe shown

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Measurement Software

Measure-X® is the world's most popular video metrology software. Measure-X makes it easy for SparkMVP to accurately measure fine features that require multi-step measurement routines, automatically combining autofocus, edge detection, programmable lighting, laser scanning and touch probing.



SparkMVP 300 Model Shown

System Weight:	Shipping Weight:
250 Model - 130 kg	250 Model - 255 kg
300 Model - 180 kg	300 Model - 300 kg

		Standard		Optional			
X, Y, Z Travel	250	300 x 150 x 150 mm					
	300	300 x 300 x 150 mm					
X, Y, Z Scale Resolution		0.5 µm		0.1 µm			
Stage Drive System		Stepper motor X, Y; DC Servo motor Z					
Max Recommended Stage Load		SparkMVP 250 model - 20 kg SparkMVP 300 model - 25 kg					
Working Distance		34 mm (with standard Conical VectorLight™ and 1.0X lens)		64 mm (with optional Fresnel VectorLight and long working distance 1.0X lens)			
Imaging Optics							
Fixed lens optics with factory configurable back tube and field interchangeable front lens options							
Front Lens (Field Interchangeable)	Lens	FOV		Lens	FOV (with standard 1X back tube)		
		1.0X				2.5X	
		5.7 mm x 4.2 mm				1.1 mm x 0.9 mm	
Back Tube (Factory Installed)		1X		2X			
Metrology Camera		High Density Megapixel Black & White Metrology Camera with 4:1 Digital Zoom					
Magnification on 24" LCD Monitor		27x to 108x on-screen digital/optical magnification with full feature Measure-X layout		27x to 1000x on-screen digital/optical magnification with optional interchangeable front lenses and full feature Measure-X layout			
Sensors		TP20 touch probe and change rack, Through-the-lens (TTL) laser					
Illumination		LED coaxial surface light, LED backlight, Conical VectorLight programmable LED ring light with 5 rings and 8 sectors		Fresnel VectorLight programmable LED ring light with 6 rings and 8 sectors for use with long working distance 1.0X lens; Grid projector for focusing			
Controller		QVI standard system controller with networking and communication ports		Single flat panel LCD monitor, or dual flat panel LCD monitors; keyboard, mouse			
Software		Measure-X		MeasureFit® Plus, Measure-X Offline, CAD interface, SmartProfile®, EVOLVE™ SPC, SmartSCS software for FDA compliant environments			
Miscellaneous Options		Manual or motorized rotary indexer, NIST traceable calibration artifact, dust cover					
Power		100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 500W					
Operating Environment		Temperature 15-30 °C					
Rated Environment		Temperature 18-22 °C, stable to ±1 °C, max rate of change 1 °C / hour, max vertical gradient of 1 °C / meter; 30-80% humidity; vibration <0.001g below 15 Hz					
XY Area Accuracy		$E_L: (2.5 + 6L/1000) \mu\text{m}$					
Z Linear Accuracy		$E_L: (5.5 + 5L/1000) \mu\text{m}$		$E_L: (2.0 + 5L/1000) \mu\text{m}$ (with 5.0X lens)			

Accuracy is evaluated with a QVI verification procedure where "L" is measured length in millimeters. Specifications apply within the rated environment. Standard optical specifications apply at the maximum digital magnification of the standard configuration. XY Accuracy applies with an evenly distributed load up to 5 kg in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface. Depending on load distribution, accuracy at maximum payload may be less than standard.



Confidence. When Results Matter.™

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