

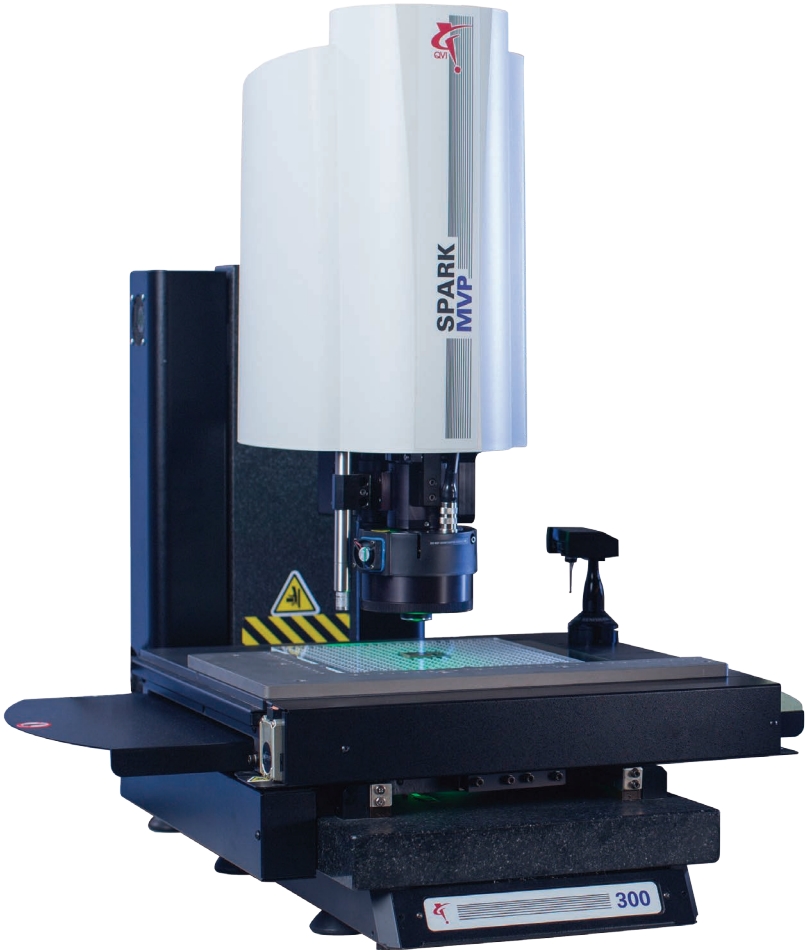
**QVI® SparkMVP™**

**Automatic High Performance Measuring System**

**RAM**

SparkMVP is a high performance, automatic dimensional measurement 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 3:1 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



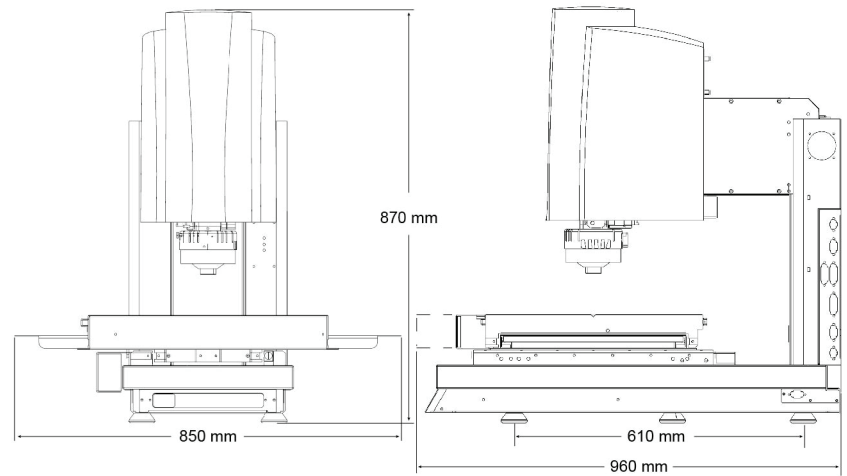
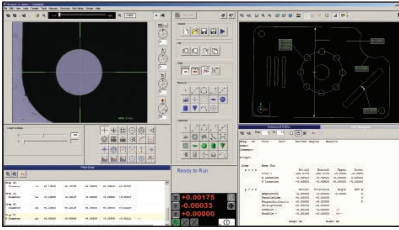
SparkMVP Measuring Ranges (mm)				
Models		X	Y	Z
	<b>200</b>	200	150	150
	<b>250</b>	300	150	150
	<b>300</b>	300	300	150



SparkMVP 300 model with optional touch probe shown.

## Measurement Software

Measure-X® is the world's most popular video metrology software. Measure-X makes it easy for QVI 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:**  
 200 Model - 130 kg  
 250 Model - 130 kg  
 300 Model - 180 kg

		Standard	Optional	
<b>X, Y, Z Travel</b>	200	200 x 150 x 150 mm		
	250	300 x 150 x 150 mm		
	300	300 x 300 x 150 mm		
<b>X, Y, Z Scale Resolution</b>		0.5 µm	0.1 µm	
<b>Stage Drive System</b>		Stepper motor X,Y; DC Servo motor Z		
<b>Max Recommended Stage Load</b>		SparkMVP 200/250 models - 20 kg SparkMVP 300 model - 25 kg		
<b>Working Distance</b>		34 mm (with standard Conical VectorLight™ and 1.0X lens)	64 mm (with optional Fresnel VectorLight™ and long working distance 1.0X lens)	
<b>Imaging Optics</b>		Fixed lens optics with factory configurable back tube and field interchangeable front lens options		
<b>Front Lens (Field Interchangeable)</b>	Lens	FOV (mm)	Lens	FOV (mm) (with standard 1X back tube)
	1.0X	6.46 x 4.82	2.5X 5.0X	2.58 x 1.93 1.29 x 0.96
<b>Back Tube (Factory Installed)</b>		1X	2X	
<b>Metrology Camera</b>		QVI Digital, Megapixel Black & White Metrology Camera with 3:1 Digital Zoom		QVI High Density Megapixel Black & White Metrology Camera with 4:1 Digital Zoom
<b>Magnification on 24" LCD Monitor</b>		27x to 82x 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
<b>Sensors</b>		TP20 touch probe and change rack, Through-the-lens (TTL) laser		
<b>Illumination</b>		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
<b>Controller</b> <small>*Controller configuration subject to change without notice.</small>		QVI standard system controller with networking and communication ports*		Single flat panel LCD monitor, or dual flat panel LCD monitors; keyboard, mouse
<b>Software</b>		Measure-X		MeasureFit®, SmartReport®, CAD interface, SmartFeature® software for FDA compliant environments
<b>Miscellaneous Options</b>		Manual or motorized rotary indexer, NIST traceable calibration artifact, dust cover		
<b>Rated Environment</b>		Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz		
<b>Power</b>		100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 500W		
<b>XY Area Accuracy (at 20°C) 1,2,3,4,6</b>		E <sub>2</sub> : (2.0 + 4L/1000) µm (SparkMVP 200) E <sub>2</sub> : (2.0 + 6L/1000) µm (SparkMVP 250, 300)		
<b>Z Linear Accuracy (at 20°C) 1,2,5,6</b>		E <sub>1</sub> : (5.5 + 5L/1000) µm (with Std. 1X lens)		E <sub>1</sub> : (3.5 + 5L/1000) µm (with 2.5X lens) E <sub>1</sub> : (2.0 + 5L/1000) µm (with 5.0X lens)
<b>Notes:</b>		1. Where L = Measurement length in mm.   2. With evenly distributed 5 kg load in the standard measuring plane. Depending on load distribution, accuracy at maximum recommended load may be less than standard accuracy.   3. All optical accuracy specifications at 1:1 digital pixel resolution.   4. All specifications apply to a thermally stable system operated in the rated environment.   5. Maximum rate of temperature change: 1° C per hour.   6. Calibration artifacts are described in QVI publication number 790762.		



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