



QVI® SparkMVP™ 400

High Performance, Large Capacity Measurement System

RAM

SparkMVP 400 is a large capacity dimensional measuring system designed for measurement of small parts or features. An optional extended Z-axis provides added range for larger parts.

- High resolution fixed lens optical system and digital megapixel metrology camera with electronic zoom
- Configurable objective lenses and backtube for 1.0x to 10x magnification range
- Optional TTL laser, touch probe and grid projector
- Optional 300 mm Z-axis for extended measuring volume



SparkMVP 400 Measuring Range (mm)			
	X	Y	Z
400	450	450	150
Optional	450	450	300



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Measurement Software

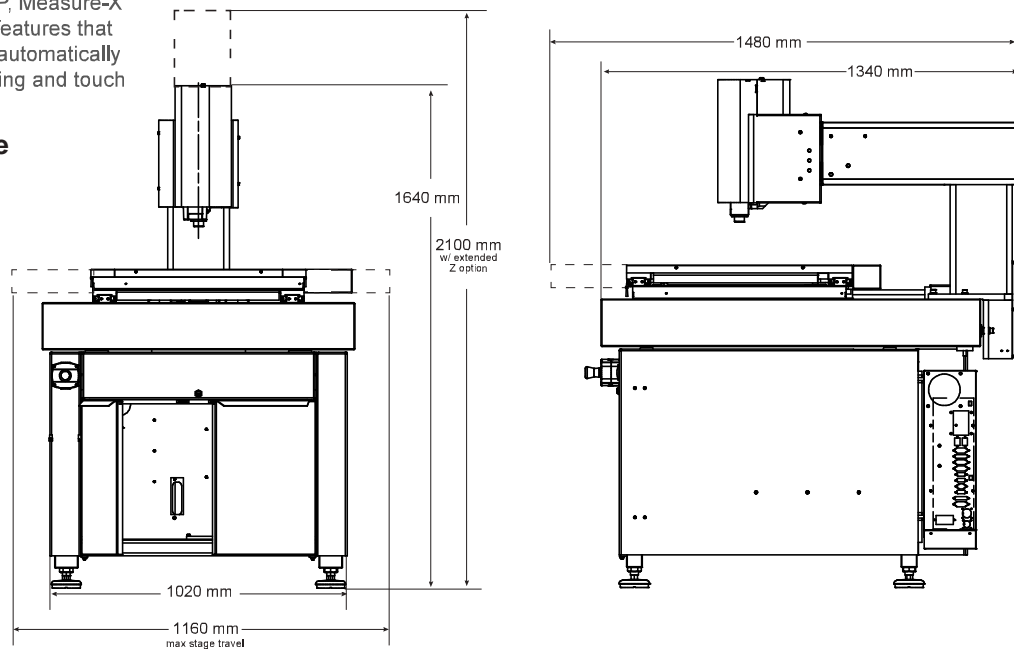
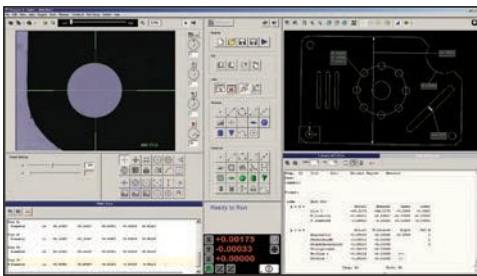
Measure-X[®] is the world's most popular metrology software. When paired with QVI SparkMVP, Measure-X makes it easy to accurately measure fine features that require multi-step measurement routines, automatically combining autofocus, lighting, laser scanning and touch probing.

Optional Measurement Software

- MeasureFit[®]
- SmartReport[®] powered by QC-CALC™
- CAD interface
- SmartFeature[®] software for FDA compliant environments

Miscellaneous Options

- Renishaw touch probe and change rack
- Through-the-lens (TTL) laser
- Rotary indexer
- Digital I/O capability



System Weight: 1010 kg

	Standard	Optional		
X, Y, Z Travel	450 x 450 x 150 mm	450 x 450 x 300 mm		
X, Y, Z Scale Resolution	0.5 μm			
Stage Drive System	Precision, compound motorized XY stage and linear Z stage with 3-axis joystick control			
Max Recommended Stage Load	30 kg			
Working Distance	69 mm (with standard VectorLight™ and 1x lens)			
Imaging Optics	Fixed lens optics with factory configurable back tube and field interchangeable front lens options			
Front Lens (Field Interchangeable)	Lens	FOV (mm)	Lens	FOV (mm) (with standard 1X back tube)
	1.0X	6.46 x 4.82	2.5X	2.58 x 1.93
			5.0X	1.29 x 0.96
Back Tube (Factory Installed)	1X	2X		
Metrology Camera	QVI Digital, Megapixel Metrology Camera	QVI High Density Megapixel Black & White Metrology Camera		
Magnification on 24" LCD Monitor	24x to 370x on-screen digital/optical magnification standard with full feature Measure-X layout	12x to 740x on-screen digital/optical magnification with optional add-on lenses and dual monitor user interface		
Sensors		Through-the-lens (TTL) laser TP20 touch probe and change rack		
Illumination	LED coaxial surface light, LED backlight, VectorLight™ programmable LED ring light with 5 rings and 8 sectors	Vu-Light™, high intensity white LED ring light with 6 rings and 8 sectors; Grid projector for focusing		
Controller	Windows™ Controller with Speed/Bus Core i5 Processor, 4 GB RAM, 160 GB hard drive	Single flat panel LCD monitor, or dual flat panel LCD monitors; keyboard, mouse		
Temperature	20 ± 1° C (rated), 15-30° C (safe operating)			
Power	100/240 VAC, 50/60 Hz, 1 phase, 100W			
XY Area Accuracy (at 20°C) ^{1,3}	E ₂ : (3.0 + 8L/1000) μm			
Z Linear Accuracy (at 20°C) ^{2,3,4}	E ₁ : (4.0 + 8L/1000) μm			
Notes	1. Where L = length in mm, with evenly distributed 5 kg load in the standard measuring plane, depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. XY axis artifact: 25 intersection grid reticle in the standard measuring plane. The standard measuring plane is defined as a plane that is 25 mm above the worktable. All optical accuracy specifications at maximum zoom lens setting. 2. Z axis artifact: QVI step gage or master gage blocks. 3. E ₁ , Z axis linear and E ₂ , XY area accuracy standards are described in QVI Publication Number 790762. 4. E ₁ , Z axis accuracy specifications tested with optional 2.0X add-on lens.			



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