

QVI® SNAP™ 350

Large Area Digital Measuring Machine

RAM

SNAP 350 offers up to a 100 mm field of view with expansive XY stage travel to measure dimensions of large parts with critical details or numerous small parts automatically.

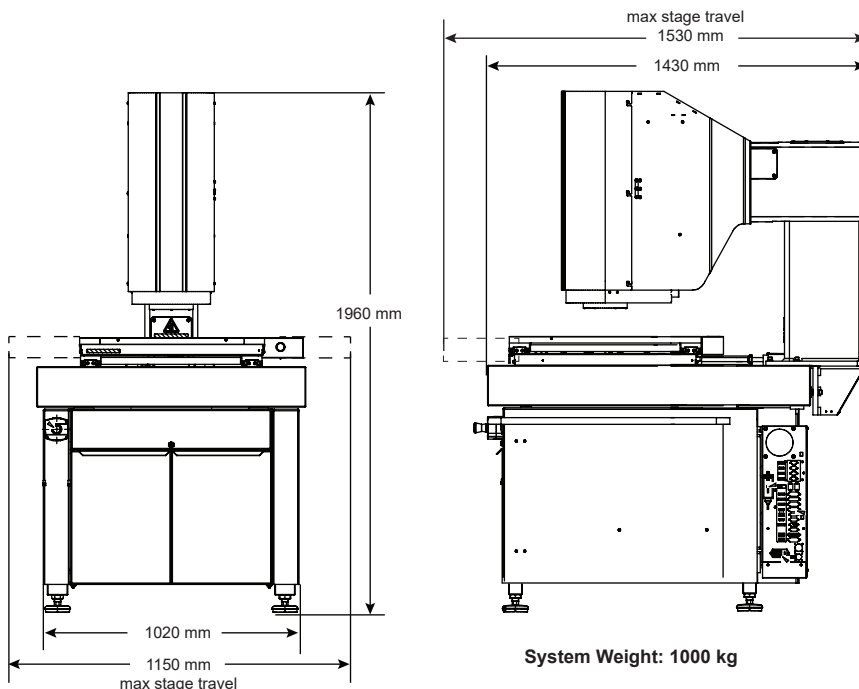
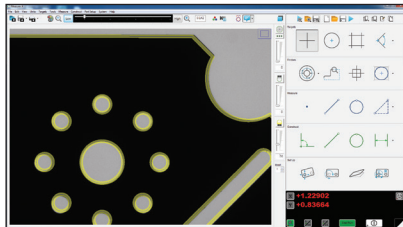
- 350 x 350 mm XY stage travel for large parts
- AutoID recognizes and measures all parts within its measuring area - even multiple different parts
- Zoom Anywhere™ technology lets you zoom in to measure fine details anywhere in the field of view
- Optional motorized 150 mm Z-axis with video autofocus
- Optional touch probe for high accuracy Z-axis measurements



Measurement Software

SNAP™ measurement software provides a full range of feature measurements with an unlimited number of points and measurement steps in a routine. SNAP software makes it easy for QVI SNAP to accurately identify the part and its orientation.

Programming is simple too. Work from a CAD file, sample part, or just walk up and measure. **To run a part routine, just place the part on the stage and press the ► button.**



	Standard	Optional
Measuring Unit	Rugged steel frame and column with granite surface plate	
Stage	Precision motorized compound X,Y stage with DC servo drives	Precision motorized Z-axis stage with DC servo drives
Stage Motion Range	X,Y: 380 x 360 mm Z: 75 mm (manual preset)	X,Y: 510 x 360 mm Z: 150 mm (motorized with automatic focus)
Maximum Measuring Range (X,Y)	440 x 400 mm	480 x 460 mm (with optional Large Field Camera) 570 x 400 mm (with optional extended X-axis travel) 610 x 460 mm (with optional Large Field Camera and extended X-axis travel)
Maximum Recommended Stage Load	30 kg	
Optics	Fully telecentric, single optical magnification	Fully telecentric, dual optical magnification
Camera	QVI High Density Megapixel Metrology Camera	QVI Large Field Megapixel Metrology Camera
Maximum Field of View (diagonal)	<i>Single Mag / High Density Camera:</i> 78 mm	<i>Single Mag / Large Field Camera:</i> Low Mag 100 mm <i>Dual Mag / High Density Camera:</i> Low Mag 78 mm, High Mag 19.5 mm <i>Dual Mag / Large Field Camera:</i> Low Mag 100 mm, High Mag 24.5 mm
Digital Zoom Range	<i>Single Mag / High Density Camera:</i> 8 Digital Zoom Steps	<i>Single Mag / Large Field Camera:</i> 3 Digital Zoom Steps (3:1 total zoom range) <i>Dual Mag / High Density Camera:</i> 10 Digital Zoom Steps (16:1 total zoom range) <i>Dual Mag / Large Field Camera:</i> 6 Digital Zoom Steps (12:1 total zoom range)
Depth of Field	<i>Single Mag / High Density Camera:</i> 40 mm	<i>Single Mag / Large Field Camera:</i> 50 mm <i>Dual Mag / High Density Camera:</i> Low Mag 40 mm, High Mag 5 mm <i>Dual Mag / Large Field Camera:</i> Low Mag 50 mm, High Mag 10 mm
Sensor Options		Touch probe and change rack; DRS™ Laser (both require optional motorized Z-axis)
Illumination	All LED, green substage profile light and programmable 8-sector green ring light	LED green coaxial surface light
Image Processing	SNAP advanced image analysis, 256 level grayscale, with 10:1 - 50:1 sub-pixel resolution	
User Control Unit	Multi-function hand controller with joystick and lighting controls	
System Controller	QVI standard system controller with networking and communication ports*	Single flat panel LCD monitor, or dual flat panel LCD monitors; keyboard, mouse
Rated Environment	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
Power	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 400W	
XY Stage Accuracy (E₂)^{1,2,3,4,5}	(5.0 + 8L/1000) μm	
Z Accuracy (E_z)^{1,2,3,4,5}		(25.0 + 6L/1000) μm (with optional dual magnification optics and motorized Z-axis) (5.0 + 6L/1000) μm (with optional touch probe or DRS laser)
XY FOV Accuracy (E₂)^{1,3,4}	Low Digital Mag	High Digital Mag
	10 μm	5 μm

1. Where L = Measurement length in mm. Applies to the entire field of view at the highest digital zoom level at each optical magnification over the full range of X,Y travel. | 2. With evenly distributed 5 kg load. | 3. All specifications apply to a thermally stable system operated in the rated environment. | 4. QVI calibration artifact P/N 638696 for standard camera; 640685 for optional camera, and 623850 for stage calibration. | 5. Calibration artifacts are described in QVI publication number 790762.



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