

VIEW Benchmark™ XLT

Extra large area dimensional metrology systems

The VIEW Benchmark XLT from QVI® delivers the performance and reliability you expect in a large travel, non-contact metrology system. The XLT offers extended travel ranging from 900 mm x 1500 mm to 1500 mm x 2000 mm to handle large area parts or nested groups of smaller parts. Advanced optics, illumination, and image processing make the Benchmark XLT a world-class metrology system.

- Moving bridge design features an open work envelope
- Advanced image processing for high speed, accuracy and robustness
- Choice of powerful metrology software and data analysis tools
- High-precision optical system

Travel (mm)	X	Y	Z
B-1500	900	1500	150
B-1550	1250	1500	150
B-1552	1500	1500	150
B-2250	1250	2000	150
B-2500	1500	2000	150



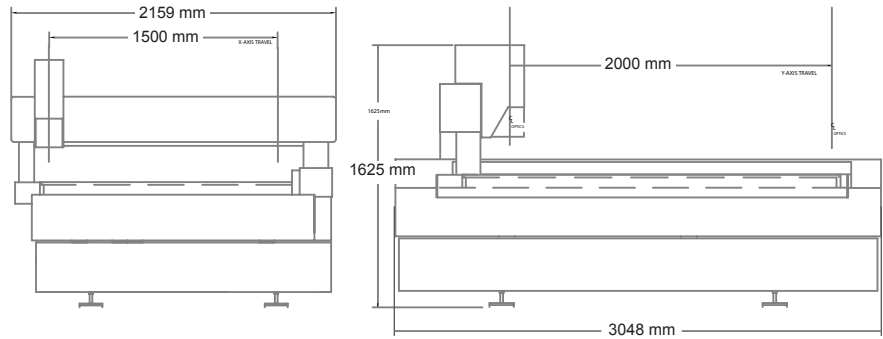
VIEW Benchmark™ XLT

Metrology Software:

- VIEW Metrology Software (VMS)
- Optional: Elements® metrology software
- Optional: VMS Off-Line Workstation Software

Available Optional Software Modules:

- Area Multi-Focus
- Continuous Image Capture (CIC)
- Advanced image filtering, image stitching, custom UI
- MeasureFit® Plus
- SmartProfile® 3D GD&T evaluation software
- Digital IO



2500 model shown

Uncrated: 6355 kg

	Standard		Optional		
X,Y,Z Travel (mm)	900 x 1500 x 150 1250 x 1500 x 150 1500 x 1500 x 150 1250 x 2000 x 150 1500 x 2000 x 150		Y-axis - 2000 mm Z-axis - 200		
X,Y,Z Scale Resolution	0.5 μm				
Stage Drive System	DC Servo Motor, X,Y,Z				
Max Velocity	X,Y - 200 mm/sec Z- 100 mm/sec				
Max Recommended Load	100 kg				
Imaging Optics	Dual magnification, fixed lens optics with field interchangeable front lens options		Single magnification, fixed lens optics with factory configurable back-tube and field interchangeable front lens options		
	Lens	FOV (mm)	Lens	FOV (mm)	FOV (mm)
Front Lens (Field Interchangeable)	VIEW 2.5X microscope objective	2.78 x 2.07* 0.64 x 0.48** *single mag or low mag **high mag on dual mag	VIEW 0.8 X VIEW 1.0 X VIEW 5.0 X (TTL Laser) VIEW 10.0 X VIEW 25.0 X	8.34 x 6.23* 6.46 x 4.82* 1.35 x 1.01* 0.69 x 0.52* 0.28 x 0.21* *single mag or low mag	1.91 x 1.43** 1.59 x 1.19** 0.31 x 0.23** 0.16 x 0.12** 0.06 x 0.05** **high mag on dual mag
Back Tube (Single Mag Only)	200 mm (2X) back tube		100 mm (1X) back tube		
Metrology Camera	1.4 megapixel (1392 x 1040), 1/2-inch, digital, monochrome		1.4 megapixel (1392 x 1040), 2/3-inch, digital, monochrome 2.0 megapixel (1628 x 1236), digital, monochrome 5.0 megapixel (2592 x 1944), digital, monochrome		
Illumination	Green LED profile light and white LED coaxial surface light		Multi-color programmable ring light with motorized incidence angle control, grid autofocus system		
Sensor Options			Through-the-lens (TTL) laser Spectra Probe white light range sensor		
Measurement Modes	High Speed Move And Measure (MAM)		Continuous Image Capture (CIC)		
System Controller	Quad core processor, Windows® 7 Operating System and on-board networking and communication ports				
Controller Accessory Package	3-axis joystick for manual stage control, with E-stop and start buttons.		Single LCD flat panel display, computer keyboard and mouse Dual LCD flat panel displays, computer keyboard and mouse		
Power Requirements	115/230 VAC, 50/60 Hz, 1-Phase, 1000W				
Rated Environment	Temperature: 18°-22° C Relative Humidity: 30% - 80% Vibration below 15Hz: <0.0015g				
XY Area Accuracy ^{1,2,3}	E _z : (8.0+8L/1000) μm				
Z Linear Accuracy ^{1,2,4}	E _x : (3.0+8L/1000) μm				
Notes: All specifications apply to a thermally stable machine and a certified artifact at 20°C	<div>1. Maximum rate of temperature change: 1° C/Hour</div> <div>2. Maximum vertical temperature gradient: 1° C/Meter</div> <div>3. XY area accuracy artifact: QVI® grid reticle, or QVI linescale, or laser interferometer in the standard measuring plane. Standard measuring plane is defined as within 25 mm of the worktable surface</div> <div>4. Z-axis accuracy artifact: QVI step gage, interferometer or master gage blocks</div>				

VIEW

MICRO-METROLOGY



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