



FlexPoint

Flexible Multisensor Coordinate Measuring Systems

Floor Model Series

QVI FlexPoint

Coordinate Measuring Systems

QVI® FlexPoint™ is the new generation of large format multisensor coordinate measuring systems. FlexPoint offers a unique blend of precision, flexibility, and speed, to solve a wide variety of dimensional measurement problems for large format parts.

The Multisensor Advantage

FlexPoint systems are true multisensor systems, supporting a range of tactile and non-contact sensors including TP20 / TP200, SP25, point and line scan lasers, white light sensors, and a unique QVI video sensor, all powered by QVI ZONE3® 3D CAD based metrology software.

The VersaFlex™ multisensor head offers up to three simultaneously available sensors on an articulating probe head. With several sensors simultaneously available, there is no down time while individual sensors are exchanged from a change rack, and no need to recalibrate each time a sensor is used.

Powerful ZONE3 Software

QVI ZONE3 3D CAD based metrology software provides complete flexibility for multisensor measurements – with or without a CAD model. An entirely graphical user interface, visual validation for every step, and graphical reporting make ZONE3 the easiest and most intuitive 3D metrology software available.

High Quality Construction

FlexPoint systems feature a stable transport design with carefully selected materials, rigid body members, air bearings on all axes, and active temperature compensation, to perform in shop floor environments. Unique and patented design features enable a larger measuring volume within a compact footprint.

Precise Calibration

Factory volumetric calibration using the Etalon® Trac-Cal laser system reduces measurement uncertainty. In the field, machine accuracy verification is performed according to ISO 10360-2:2009.

FlexPoint is offered in three base configurations, each with a choice of Y-axis range to suit a wide variety of manufacturing needs.



System Performance and Accuracy Specifications

Motion Dynamics

Velocity (mm/s)	Joystick (Each Axis)	300
	CNC (3D Vector)	500
Acceleration (mm/s ²)	Each Axis	1200
	3D Vector	2000
Measuring Speed (mm/s)		max. 8
Move and Measure Time per ISO 10360-4:2000 Scanning Test (sec.)		50

With TP20 / TP200

		7.7.6 - 7.15.6	9.12.8 - 9.20.8	12.15.10 - 12.30.10
Volumetric length meas. error, MPE per ISO 10360-2:2009 (μm)	$E_{0, MPE}$	2.1 + 3L/1000	2.4 + 3L/1000	2.7 + 3L/1000
Repeatability range, MPL per ISO 10360-2:2009 (μm)	$R_{0, MPL}$	1.9	2.1	2.3
Single stylus form error, MPE per ISO 10360-5:2010 (μm)	PFTU	1.9	2.1	2.3

With SP25

		7.7.6 - 7.15.6	9.12.8 - 9.20.8	12.15.10 - 12.30.10
Volumetric length meas. error, MPE per ISO 10360-2:2009 (μm)	MPE	1.9 + 3L/1000	2.2 + 3L/1000	2.5 + 3L/1000
Repeatability range, MPL per ISO 10360-2:2009 (μm)	R_0	1.7	1.9	2.2
Single stylus form error, MPE per ISO 10360-5:2010 (μm)	PFTU	1.9	2.1	2.4
Single stylus form error, scanning. MPE per ISO 10360-4:2000 (sec.)	THP_{MPE}	2.9	3.4	3.6
	τ_{MPT}	55	55	55
Form measurement error (μm) per ISO 12181	RONt (MZCI)	1.9	2.1	2.4

With QVI Video Sensor

MPE_{UV} (μm) per ISO 10360-7	3.0
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Conditions to Assure Above Specified Performance

	Ambient T1*	Ambient T2*
Measuring Reference Temperature	18°C to 22°C	16°C to 26°C
Maximum air temperature variations	1.0°C/h - 2.0°C/24h	1.0°C/h - 5.0°C/24h
Maximum vertical gradient	0.8°C/m	1.0°C/m

T1 - Standard Linear Temperature Compensation

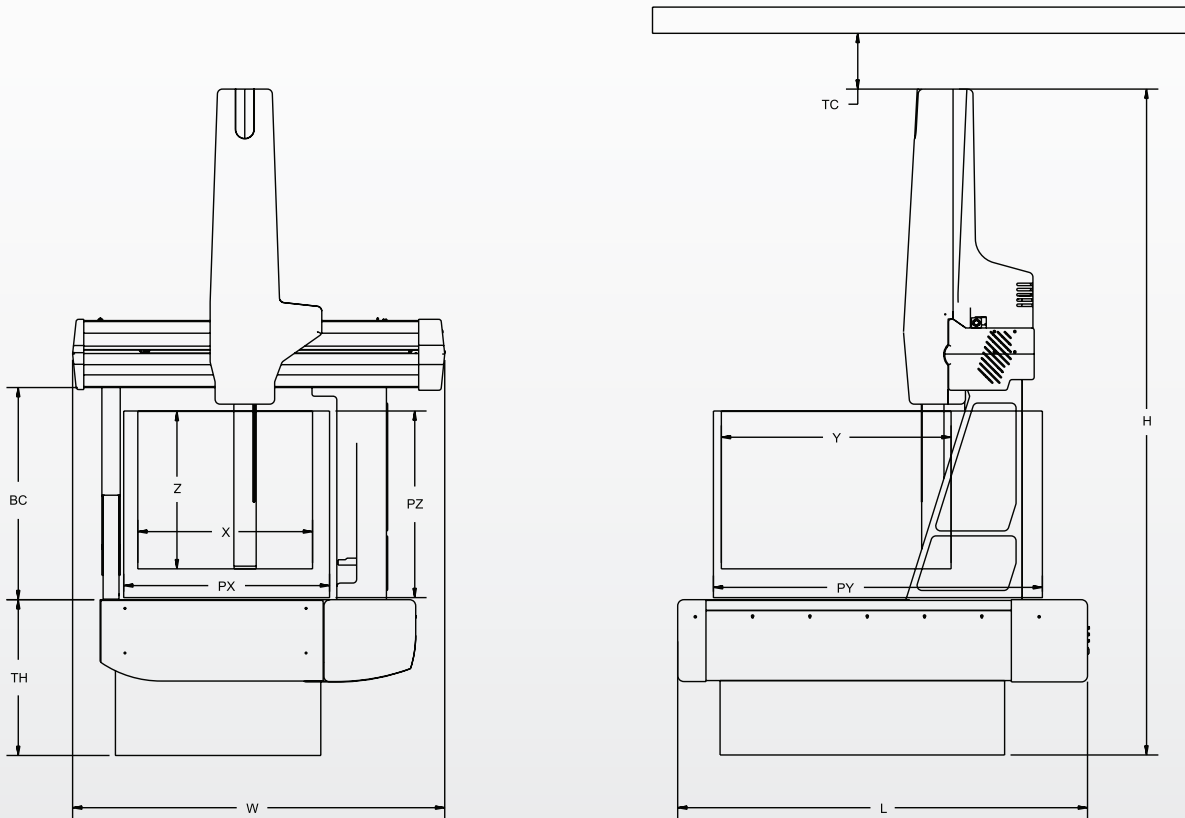
T2 - Optional Advanced Instrumentation Package and Thermal Compensation

System Dimensions

All dimensions in MM

Model	Measuring Range			Overall Dimensions			Maximum Workpiece Size			Bridge Clearance	Table Height	Min. Top Clearance	Machine Weight	Maximum Workpiece Weight*
	X	Y	Z	W	L	H	PX	PY	PZ	BC	TH	TC		
7.7.6	700	700	600	1500	1650	2680	825	1230	780	854	625	100	1130	500
7.11.6	700	1100	600	1500	2050	2680	825	1630	780	854	625	100	1430	800
7.15.6	700	1500	600	1500	2450	2680	825	2030	780	854	625	100	1730	1000
9.12.8	900	1200	800	1700	2450	3170	1020	1980	980	1054	675	100	2400	1200
9.16.8	900	1600	800	1700	2850	3170	1020	2380	980	1054	675	100	2800	1500
9.20.8	900	2000	800	1700	3250	3170	1020	2780	980	1054	675	100	3200	1800
12.15.10	1200	1500	1000	2000	2750	3700	1320	2280	1180	1254	775	100	4170	2000
12.20.10	1200	2000	1000	2000	3250	3700	1320	2780	1180	1254	775	100	5000	2500
12.30.10	1200	3000	1000	2000	4250	3700	1320	3780	1180	1254	775	100	6680	3000

*Evenly distributed load



QUALITY VISION INTERNATIONAL – Precision for People®

Quality Vision International (QVI®) is the world's largest vision metrology company. Founded in 1945, QVI is the world leader in optical, electronic and software technologies for vision and multisensor measuring systems.

Precision for People is more than just our slogan. It's our commitment to delivering our worldwide customers precision metrology systems, designed with the people who use them in mind. Precision for People - it's what we stand for.

