# **QT Instant Video Measuring Machine - Flat Dimensional Fast Measurement Solution**

QT200 measuring range: 200x200 mm QT200 measuring range: 300x300 mm

QT Instant measuring instrument is an optical measuring instrument designed for fast plane measurement. The measurement system is easy to use with fast speed, can measure multiple pieces of products at one time, while ensuring the accuracy and full size measurement, greatly reduce the measurement time, improve the measurement efficiency.

### • The machine architecture

The gantry consists of a solid aluminum frame and a moving platform, with a gantry structure mounted directly on the main body of the frame and specially reinforced in structural strength. CCD and telecentric optical system are fixed to prevent vibration while the machine is in operation

The parallel light source is installed directly below the CCD and fixed on the main structure of the machine to ensure that the CCD receives the parallel light. The workpiece is scanned vertically to complete the size measurement.

## Measuring platform

The loading platform of the machine is designed to open on three sides, which is convenient for placing multiple pieces of parts with both hands at the same time. The measuring platform can be extended 100% out of the protective shell for easy integration with the robotic arm. When the machine is not in use for a long time, the measuring platform can also be completely moved into the protective shell to prevent dust accumulation.

### Software

Intuitive measurement interface, convenient for the operator to immediately find the workpiece failed detection, and products beyond the tolerance range.

- \* No need to accurately place the workpiece under test, the operator can quickly load multiple pieces of workpiece, and the system automatically identifies and measures the product under test. Automatically collect all necessary data for statistics, and create a report for each single piece of measurement without extra time.
- \* Measuring elements: length, distance, inner diameter, outer diameter, Angle, parallelism, symmetry, orthogonality, any geometric measurement of contour, DXF comparison, etc

QT uses a non-contact optical system, composed of CCD and parallel contour light, and carries out vertical scanning of the measured workpiece to complete the size measurement. The system generates a high-resolution image, which is then analyzed and measured using powerful software.



# **QM Instant Video Measuring Machine Flat Dimensional Fast Measurement Solution**

Can complete all the required measurement with a key, including distance, radius, diameter, Angle, true straightness, true roundness, directly feedback on the machine panel whether the measurement results are qualified, accurate and objective quality testing of the production workpiece. Suitable for bearing size, gasket, o-ring size, magnetic material measurement, gear, taper thread, mechanical parts

## QM series specification:

Model	QM40	QM60	QM90	QM110	QM180	
Measuring vision field (mm)	42*35mm	65*43mm	90*60mm	110*75mm	180*130m	
Contour measuring accuracy	1.5um	2.0um	2.5um	3.0um	3.5um	
Surface measurement accuracy	2um	2.5um	3.5um	4.5um	5.0um	
Z-axis focusing range	45mm	55mm	55mm	100mm	100mm	
Move device	Z axis electric lifting					
Image sensor	20 megapixel ultra HDMI CMOS sensor					
Display	27 inch HDMI monitor (1920*1024)					
Optical lens barrel	double telecentric lens					
Measurement speed	≤1s(within 20 inch) ≤3s(within 50 inch)					
	circular LED reflective light source					
Light source	coaxial reflection source					
	coaxial transmission light source					

### Large field telecentric lens

- Large measuring range
- ●20.0megapixel ultra HDMI CCD
- Advanced light source system, 8 sector surface light, coaxial light, contour light
- Automatic recognition of workpiece
- Simultaneous measurement of multiple workpieces.

## QT series specification:

Model		QT200	QT300	QT400			
Measuring range(mm)		200*200*100	300*300*100	400*300*100			
Field of vision		44*29mm	65*43mm	90*60mm			
Accuracy	In-field measurement	2.5um	2.5um	3.0um			
	Coordinate movement	3.5+L/200um	3.5+L/200um	4.5+L/200um			
Repeatability	In-field measurement	2.0um	2.0um	2.0um			
	Coordinate movement	3.0+L/200um	3.0+L/200um	3.5+L/200um			
Move device		XYZ fully automatic					
XY max spee			300mm/s				
Image senso		20.0Mpexl ultra HDMI CMOS sensor					
Display		27 inch HDMI monitor(1920*1024)					
Optical lens	barrel	double telecentric lens					
Resolution		0.0005mm meta linear scale					
Z axis stroke		100mm					
		LED reflective ring light source					
Light source		coaxial reflection source					
		coaxial transmission light source					
Optional		support high precision measurement mode					