

QV ACCEL

SERIES 363 – CNC Vision Measuring System

- A 3D CNC Vision Measuring System in the 1.8-2.5 μm accuracy class (measuring 100 mm).
- The primary focus is on measurement efficiency, with the moving-bridge design eliminating the need for a moving stage. This allows a more simplified design of the workpiece fixture, resulting in a significant reduction in the time required for fixture fabrication and inspection.
- A programmable power turret provides control of magnification for optimal viewing.
- The exceptionally rigid construction allows a drive speed in X and Y of 400 mm/s, approximately 30% faster than standard QV Apex models, therefore minimizing non-productive time during the measuring cycle.

QV ACCEL808PRO



QV ACCEL1212PRO



SPECIFICATIONS

Model		QV ACCEL 808		QV ACCEL 1010		QV ACCEL 1212		QV ACCEL 1517	
		PRO	PRO3	PRO	PRO3	PRO	PRO3	PRO	PRO3
Code No.		363-311	363-313	363-331	363-333	363-351	363-353	363-371	363-373
Measuring range	X	800 mm		1000 mm		1250 mm		1500 mm	
	Y	800 mm		1000 mm		1250 mm		1750 mm	
	Z	150 mm		150 mm		100 mm		100 mm	
Resolution		0.1 μm							
High-resolution CCD camera		B&W	Colour	B&W	Colour	B&W	Colour	B&W	Colour
Accuracy* ¹	E _{1xy}	±(1.5+0.3L/100) μm				±(2.2+0.3L/100) μm			
	E _{1z}	±(1.5+0.4L/100) μm				±(2.5+0.5L/100) μm			
	E _{2xy}	±(2.5+0.4L/100) μm				±(3.5+0.4L/100) μm			
Illumination	Surface	LED, RGB	Halogen	LED, RGB	Halogen	LED, RGB	Halogen	LED, RGB	Halogen
	Contour	LED, white	Halogen	LED, white	Halogen	LED, white	Halogen	LED, white	Halogen
	Programmable ring light	LED, RGB	Halogen	LED, RGB	Halogen	LED, RGB	Halogen	LED, RGB	Halogen
Magnification changing system		Programmable power turret							
Max. drive speed	X/Y axes	400 mm/s				300 mm/s			
	Z-axis	150 mm/s							
Stage glass size		883 x 958 mm		1186 x 1186 mm		1440 x 1440 mm		1714 x 1968 mm	
Dimensions (W x D x H)		1475 x 1860 x 1578 mm		1912 x 2086 x 1603 mm		2166 x 2340 x 1554 mm		2440 x 2868 x 1554 mm	
Mass* ²		2570 kg		2950 kg		3600 kg		4500 kg	

*¹ Programmable power turret: 1X, objective set: 2.5X, L = measured distance between two arbitrary points (mm).

*² Including machine stand.

FEATURES

Image Multi-Auto Focus

The optimal focus can be selected for each surface texture and measured feature, realizing high reproducibility and reliable edge detection.



Pattern focus



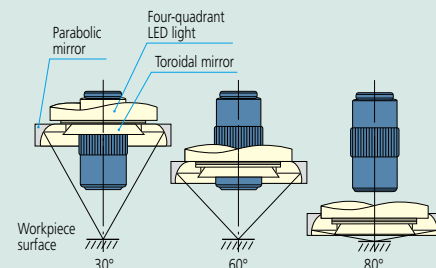
Surface focus



Edge focus

Programmable Ring Light (PRL)

Fine control of angle and direction provides optimum illumination for measurement. Angle can be arbitrarily set in the range from 30° to 80°. This type of illumination is effective for enhancing the edge of inclined surfaces or very small steps. Illumination can be controlled independently in every direction, back and forth, right and left. Measurement with edge enhancement is possible by forming a shadow by lighting from only one direction.



RGB Colour LED Illumination

Changing the illumination colour to red, green, blue, or white (synthesized) allows detection of edges which could not be measured with conventional white light.

