

3D Fully Auto Vision Measuring Machine

MVA Series



Four-axis Motorized



Auto Zoom



Auto Focus



Auto Light



Auto Measurement



MCP Probe

+ Introduction

MVA is a classical Fully Auto Vision Measuring Machine, it is equipped with four-axis motorized control and auto zoom lens and probe, powerful function, simple operation, widely application.

+ Characteristic

- Four-axis CNC fully auto close loop control, auto measurement;
- "00" grade "JINANQING" marble base and pillar, stable and reliable;
- Precision linear guide, grinding ball screw and AC servo motor, ensure accuracy stability of system position;
- High precision linear scale, resolution is 0.5um, high accuracy, great stability;
- Imported high definition color industry digital camera, ensure clear observation and stable measurement requirement;
- 6.5X continue auto zoom lens, precision auto zoom, only need to make pixel calibration once time;
- Programmable 5-ring 8-division LED surface illumination, contour parallel LED illumination, can realize 256 grade brightness adjustment intelligently;
- With proprietary powerful function fully auto measuring software iMeasuring 4.2;
- With imported touch probe, realize 3D measurement;
- Can set auto measurement, and finish batch measurement with high efficient;
- Laser, coaxial illumination and other parts are optional;
- Optional FexQMS Measuring Data Analysis and Real-time monitoring software which enhance program control and reduce material consumption.

+ Specifications

Product Name		3D Fully Auto Vision Measuring Machine						
Model		MVA-3020P			MVA-4030P			
X/Y-axis Travel		300x200mm			400x300mm			
Load Capacity		25Kg			25Kg			
Dimension		1200x780x1650mm			1350x880x1650mm			
Packing Dimension		1360x1030x1900mm			1460x1100x1900mm			
Weight		380Kg			450Kg			
Z-axis Travel		200mm						
X/Y/Z 3-axis Linear Scale		High precision linear scale , resolution : 0.0005mm						
Guidance Mode		Precision linear guide, double-track double slider guide						
Operation Mode		Joystick controller, Mouse operation, automatic detection program						
Measurement Accuracy*		XY-axis : $\leq 3 + L/200(\mu\text{m})$ Z-axis : $\leq 5 + L/200(\mu\text{m})$						
Repeatability		$\pm 2\mu\text{m}$						
Video System**		High definition 1/3" Color CCD Camera 6.5X continue click zoom lens; optical magnification: 0.7X-4.5X; video magnification:26X~172X(21.5" monitor)						
Field of View(mm)	Lens Magnification	0.7X	1X	2.0X	3.0X	4X	4.5X	
(Diagonal * Horizontal*Vertical)	1/3" CCD	8.57x6.86x5.14	6.00x4.80x3.60	3.00x2.40x1.80	2.00x1.60x1.20	1.50x1.20x0.90	1.33x1.07x0.80	
Illumination	Contour	LED Parallel Contour Illumination						
	Surface	5-ring 8-division 0~255 grade continue adjustable						
Software System		iMeasuring 4.2 Fully Auto Measuring Software						
Working Environment		Temperature 20°C \pm 2°C, Humidity Range <2°C/hr, Humidity 30~80%, Vibration <0.002g, <15Hz						
Power		220V/50Hz/10A						

* L is measuring length, unit is mm, the mechanical accuracy of Z-axis and focus accuracy is greatly related to the surface of the workpiece.

**Magnification is approximate value, it is related to the dimension of monitor and resolution.

Customers can choose 0.5X or 2X optional objective, and realize image magnification: 13X~86X or 52X~344X.