

2.5D Auto Vision Measuring Machine

**MVS** Series



Three-axis Motorized



Click Zoom Lens



Auto Focus



Auto Light



Auto Measurement



## Introduction

MVS is an economic Fully Auto Vision Measuring Machine for basic measurement, three-axis motorized control, with click zoom lens, accurate manual zoom, high configuration, to meet with different application. It is widely used in Metal mold, electronic industry, medical equipment and flat panel display industry, as well as research institutes, colleges and universities, metrology institutions and dimension inspection on production line.

## Characteristic

- High precision X/Y/Z-axis CNC fully auto control, high position accuracy;
- "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;
- 0.5um high precision linear scale, ensure position and measurement accuracy;
- Imported high definition color industry digital camera, ensure clear observation and stable measurement requirement;
- 6.5X click zoom lens, precision manual 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 4.1;
- Can set auto measurement, and finish batch measurement with high efficient;
- Laser, probe, 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		2.5D Auto Vision Measuring Machine					
Model		MVS-3020			MVS-4030		
Code#		523-360			523-370		
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 : $\pm 3 + L/200(\mu\text{m})$					
		Z-axis : $\pm 5 + L/200(\mu\text{m})$					
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(m)	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 4.1 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.