

High Precision Manual Video Measuring Machine

EVM Series



High Accuracy

$\leq 3 + L/200\mu\text{m}$



Less Error

Within $2\mu\text{m}$



Real-Time Navigation

Rapid Locating of Sample Position



Intelligent Illumination

8-Division LED Ring Light



Advance Software

EV Measuring



Characteristics

- High precision Grade 00 granite base and column, with stable expansion of the physical properties, to ensure high stability and accuracy
- The workbench is high temperature back fire spheroidal graphite cast iron, which is featured with light weight, fast operation and non-deformation.
- High precision grating scale with precision working stage, to ensure the accuracy is within $\leq 3 + L/200\mu\text{m}$
- High definitive automatic zoom lens and high resolution color digital camera, to ensure clear image without distortion
- With programmable 4-ring 8-division LED cold illumination and contour LED parallel illumination and internal intelligent light adjustment, it can automatic control the brightness of the light



Specifications

Model	EVM-2010	EVM-3020	EVM-4030
X/Y-Axis Travel	200 x 100mm	300 x 200mm	400 x 300mm
Glass Table	260 x 160mm	360 x 260mm	460 x 360mm
Workbench	360 x 260mm	460 x 360mm	560 x 460mm
Dimension (W x D x H)	610 x 510 x 1720mm	710 x 510 x 1720mm	910 x 710 x 1720mm
Load Capacity	35kg		
Net Weight	160kg	260kg	360kg
Z-axis Travel	High-precision Linear Guide, Working Travel 200mm		
X/Y/Z-axis Travel	0.001mm; Optional 0.0001mm		
X/Y-axis Accuracy	$\leq 3 + L/200 (\mu\text{m})$		
Repeatability	2 μm		
Main Structure	High Stability Grade 00 Granite		
Grating Scale	High Precision Grating Scale, with the Accuracy of 0.001mm		
Illumination System (Programmable)	Surface: Stepless Adjustable 4 -ring 8-division LED Cold Illumination		
	Contour: LED Parallel Illumination		
CCD	High Resolution 520TV Color CCD Camera (SONY Sensor)		
Motorized Zoom Lens	MT High Resolution Automatic Zoom Stereo Lens		
	Magnification: 0.7X ~ 4.5X; Video Magnification: 30X ~ 225X		
Working Distance	90mm		
Field-of-View	10.6 – 1.6mm; Optional Lens 0.5X & 2X		
Measuring Software	EV Measuring		
Power Supply	220V \pm 10% (AC) 50Hz		

Optional Accessories

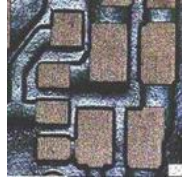
● Touch Probe



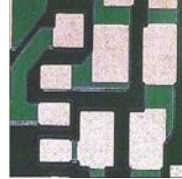
After the equipment is installed with probe, it can be used to measure the following parameters:

- Height, width, length
- The angle between the two sides
- Vertical angle of cone
- Diameter of cylinder
- Chamfer
- Straightness, flatness, roundness, cylindricity
- Verticality, parallelism, inclination, and so on.

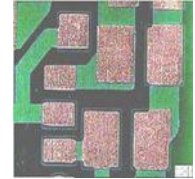
● Coaxial Light Source with Different Effect



Strong three-dimensional effect vertical light



Strong contrast ring light



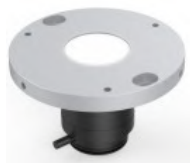
Bright overall effect

Part Accessories

● 4-ring 8-division LED Surface Illumination



● LED Parallel Contour Illumination



● Zoom Lens



● Video Capture Card



● CCD Camera



● Calibration Glass Stage



● Data Integration Box



● Software Dongle



● Workbench



● Computer System



● Linear Scale



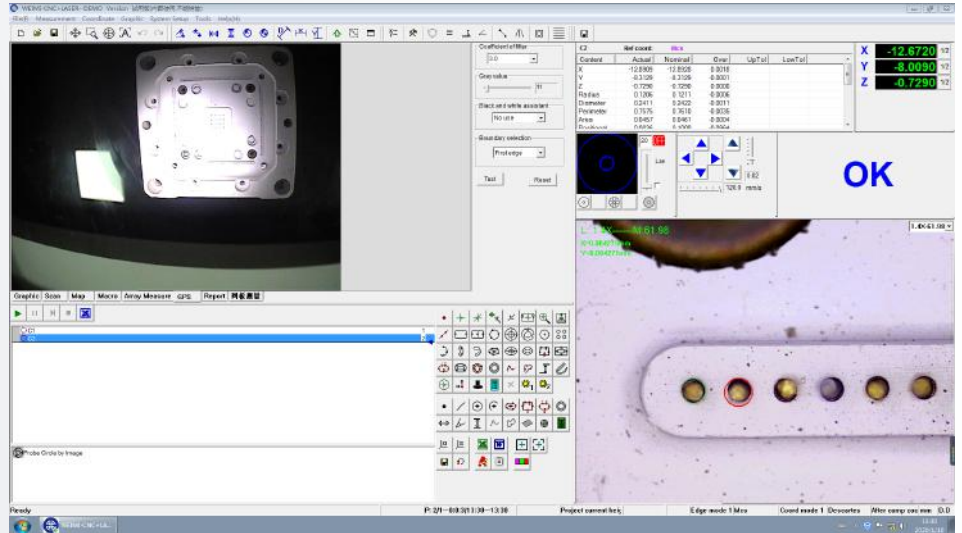
● AV Cable



Software Interface

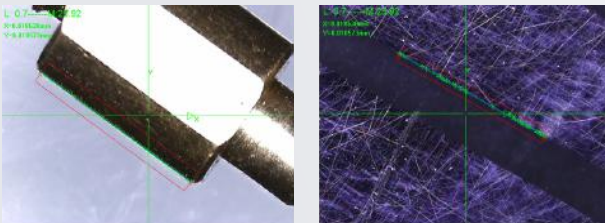
Introduction

EV Measuring is a professional multisensor measuring software which combined with the developers years of experience in the measuring and software research industry. The design principle is friendly operation, powerful function, high accuracy and stability, simple maintenance.

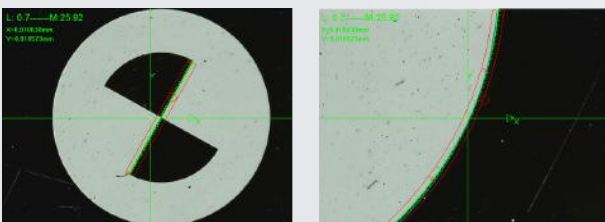


Software Function

- Excellent software architecture design and fully objectoriented, to ensure the software is stable and reliable.
- Professional SPC statistical analysis software connected to measuring software, to realize that the data could automatically export to SPC database without manual operation.
- With powerful edge finder algorithm, which can help to get the edge of the shadow or dark image and ensure high accuracy.

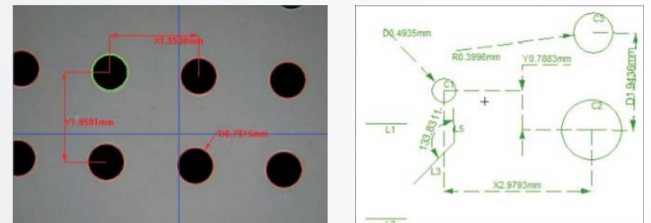


- Support with multiple language, no need to install language pack and change the software which is convenient to local customers.
- The same model of software will be permanent free to update, it can help to reduce other trouble to customer.
- The software could automatically recognize and measure line, circle, arc and other elements.



- The measuring data can auto export to TXT, WORD, EXCEL, and SPC software database without the third party software conversion and manual operation.
- The image window and drawing window can display the measured elements and marking 2D dimension, which will get the result directly.

序	名称	类型	1	2	3	4	5
1	1 C1802	圆环	0.396	0.392	0.392	0.394	0.397
2	2 C1802	圆环	0.396	0.392	0.392	0.395	0.392
3	3 C1802	圆环	0.392	0.392	0.392	0.392	0.392
4	4 C1804	圆环	0.392	0.392	0.392	0.392	0.392
5	5 C1805	圆环	0.399	0.399	0.399	0.399	0.399
6	6 C1805	圆环	0.399	0.399	0.399	0.399	0.399
7	7 C1807	圆环	0.391	0.391	0.391	0.391	0.391
8	8 C1805	圆环	0.395	0.395	0.395	0.395	0.395
9	9 C1809	圆环	0.393	0.393	0.393	0.393	0.393
10	10 C1809	圆环	0.394	0.394	0.394	0.394	0.394
11	11 C18011	圆环	0.3907	0.3907	0.3907	0.3907	0.3907
12	12 C18012	圆环	0.3918	0.3918	0.3918	0.3918	0.3918



- The software can photograph mosaic the workpiece to get a large map, then marke and measure it.



- The software can support to add simple probe based on the video measurement, to realize 3D measurement.