

Gantry Structure Fully-Auto Video Measuring Machine

EVA Series



High Accuracy

$\leq 2.2 + L/200\mu\text{m}$



Real-Time Navigation

Rapid Locating of Sample Position



Less Error

Within 2 μm



Advance Software

EV Measuring



Intelligent Illumination

8-Division LED Ring Light



Auto Measurement

Fast Operation of Measurement



Auto Focus

Reduce Time and Effort



Characteristics

High precision Grade 00 granite base and column, with stable expansion of the physical properties, to ensure high stability and accuracy.

High precision optical grating ruler from the world's top brand from Germany, Heidenhain with the accuracy of 0.001mm. High accuracy that comes with great stability.

Precision linear guide, grinding ball screw and full closed-loop servo motor to ensure smooth operation and precise positioning. The motor is noise-free during operation.

High definitive automatic continuous 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	EVA-5040	EVA-6050	EVA-7060	EVA-8070	EVA-10080	EVA-120100	EVA-160120	EVA-180120	EVA-200150
X/Y-Axis Travel	500 x 400mm	600 x 500mm	700 x 600mm	800 x 700mm	1000 x 800mm	1200 x 1000mm	1600 x 1200mm	1800 x 1200mm	2000 x 1500mm
Glass Table	560 x 460mm	660 x 560mm	760 x 660mm	860 x 760mm	1060 x 860mm	1260 x 1060mm	1760 x 1360mm	2060 x 1560mm	2700 x 1560mm
Workbench	660 x 560mm	760 x 660mm	860 x 760mm	960 x 860mm	1160 x 960mm	1360 x 1160mm	1860 x 1460mm	2160 x 1760mm	2860 x 1660mm
Dimension (W x D x H)	1150 x 910 x 1920mm	1350 x 1110 x 1920mm	1550 x 1310 x 1920mm	1750 x 1510 x 1920mm	1950 x 1810 x 1920mm	2150 x 1910 x 1920mm	2350 x 2110 x 1920mm	2350 x 2310 x 1920mm	3000 x 2510 x 1920mm
Load Capacity	50kg								
Net Weight	500kg	650kg	750kg	850kg	1050kg	1250kg	1450kg	1650kg	2000kg
Z-axis Travel	High-precision Linear Guide, Working Travel 200mm								
X/Y/Z-axis Travel	0.001mm; Optional 0.0001mm								
Accuracy	X/Y-Axis Accuracy: $\leq 2.2 + L/200$ (μm); Z-Axis Accuracy: $\leq 4 + L/50$ (μm) [L= Length (mm)]								
Repeatability	2 μm								
Main Structure	High Stability Grade 00 Granite								
Grating Scale	Heidenhain (GERMANY) RSF high precision grating scale, with the accuracy of 0.001mm								
Motor	Three-axis Servo Motor; Optional: Joystick								
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



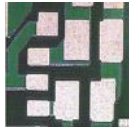
After the equipment is installed with probe, it can be used to measure the following parameters:

- 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.

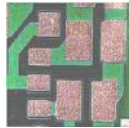
● Coaxial Light Source with Different Effect



Strong three-dimensional effect vertical light



Strong contrast ring light



Bright overall effect

● Joystick Controller

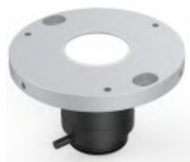


Part Accessories

● 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



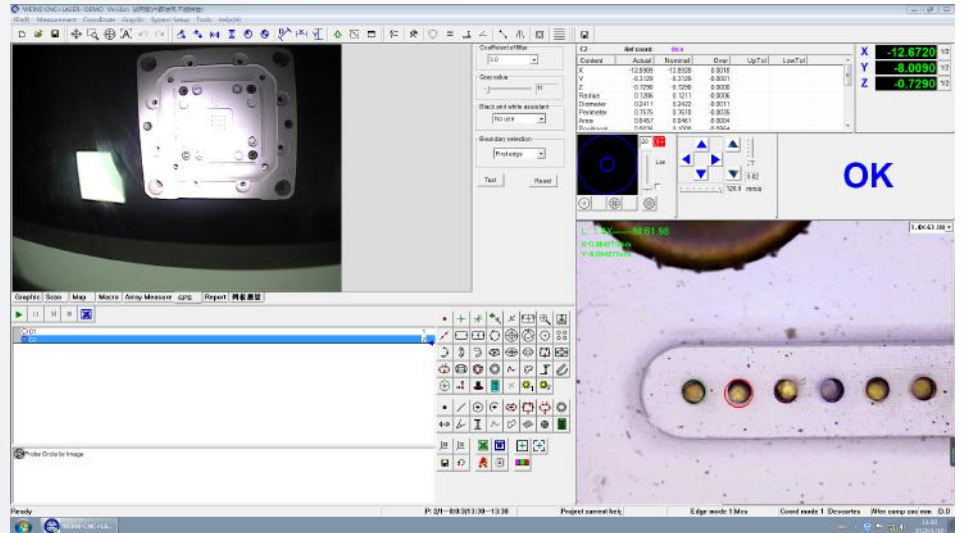
● AV Cable



Software Interface

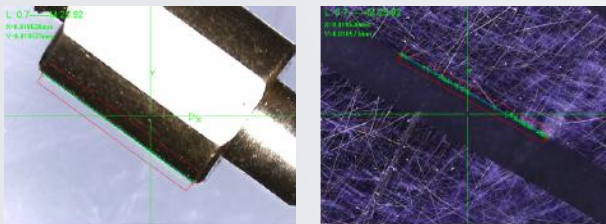
Introduction

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.

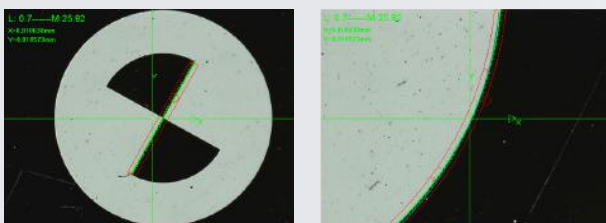


Software Function

- 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.

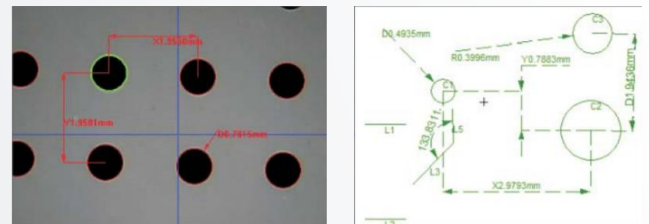


- Support with multiple language, no need to install language pack and change the software which is convenient to local customers.
- The same model of software will be permanent free to update, it can help to reduce other trouble to customer.
- The software could automatically recognize and measure line, 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	元	内	1	2	3	4	5	6
1	CT100	半径	0.2982	0.2987	0.2982	0.2984	0.2983	0.2983
2	CT100	半径	0.2981	0.2982	0.2981	0.2982	0.2982	0.2982
3	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
4	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
5	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
6	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
7	CT100	半径	0.2981	0.2981	0.2981	0.2981	0.2981	0.2981
8	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
9	CT100	半径	0.2982	0.2982	0.2982	0.2982	0.2982	0.2982
10	CT100	半径	0.2981	0.2981	0.2981	0.2981	0.2981	0.2981
11	CT100	半径	0.2987	0.2987	0.2987	0.2987	0.2987	0.2987
12	CT100	半径	0.2988	0.2988	0.2988	0.2988	0.2988	0.2988



- 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.