

# VIDEO MEASURING MACHINE SLA - CNC

Automatic high accuracy parts measurement solution

## VIDEO MEASURING MACHINE



### SLA 300

1.8 + L/200 high accuracy  
0.5 um resolution metal scale  
4 axis (XYZU) full automatic  
Z axis 200 mm height range  
Ultra-silence gantry structure  
Follower transmission pointolite

## Features

- High-performance servo motor, position accuracy can reach 0.0001 mm, with high precision, high repeatability, and high quietness performance.
- Column and base adopt high-precision granite structure, stable & reliable.
- Resolution 0.0005 mm metal scale, stable and high-precision.
- Custom date report: Excel, PDF, CAD.
- Special functions such as automatic contour scanning, contour tracking.
- 13: 1 continue zoom Auto lens with coaxial light.
- 2.0M pixel digital color CCD, to meet the needs of clear observation and stable measurement.
- Super accuracy linear guideway, move parallel accuracy  $\leq 0.0001$  mm
- SBK-INSPEC 2.5D software, support Probe laser.

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Model	Voltage input	Power
SLA300-CNC	220V	1500W
SLA400-CNC	220V	1500W
SLA500-CNC	220V	1750W

## Technical Parameter














Model	SLA300	SLA400	SLA500
Measuring Range (mm)	300*300*200	400*400*200	500*500*200
Weight (kg)	750	1000	1250
X, Y axis precision(μm)	1.8+L/200	1.8+L/200	2.0+L/200
Z axis accuracy (μm)	4.5+L/200	4.5+L/200	4.5+L/200
loadweight (kg)	30		
repeatability (μm)	0.002		
X, Y movement speed	≥400mm/s		
Optical Lens	0.6-5X		
Vision magnification	24-200X		
Z axis movement speed	≥50mm/s		
operating way	Rocker + software		
Motion controller	SBK-CNC (full closed loop controller)		
Magnification	Optics magnification :0.6 ~ 5 x; Image magnification: 24 ~ 200x		
Software	SBK - INSPEC CNC automatic measurement software		
Power	220 V/ 50 Hz (Note: Grounding wire with resistance ≤ 4 Ω is required) +20A		
Working environment	Temperature: 20 °C± 2 °C, temperature change < 2 °C / hr, Humidity:30 ~ 75%		
Special table for machine	built-in switching power supply, controller, motor drive, power supply control switch, indicator light, abrupt stop switch, move the wheel		
Warranty period	12 months		

(\* L means measuring length, unit: millimeter)

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## Main Parts

Name	Picture	Name
CCD		2.0M pixel digital CCD, high color reduction degree, provide a high-definition image quality of measurement products
Optics Lens		1:8 continue zoon Auto lens with coaxial light Optical magnification :0.6-5X
Surface illumination		4 rings 8 segment LED programmable cold light ,
Surface illumination		2 rings LED light can go up and down (optional)
Bottle illumination		*LED cold light *Parallel light *256 level programmable Brightness adjustable
Linear Guide		<ul style="list-style-type: none"> <li>Super accuracy linear guideway, move parallel accuracy <math>\leq 0.0001\text{mm}</math></li> </ul>
Controller		5 axis control, with light control & probe control
XY Motor		Japan synchronous AC servo motor
Z motor		Japan synchronous AC servo motor
Screw Rod		Taiwan "TBI "C0 level grinding ball screw
Limit switch		Japan's original "Omron" photoelectric limit switch, responsive, low failure rate
Linear scale		Germany "RUS" metal linear Resolution 0.0005um
Joystick		With German "MEGATRON" three-axis external regulation hall joystick, IP level is above 65, long service life, high cost performance.

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LAS IMAGENES PUEDEN VARIAR DEL ORIGINAL; INFORMACIÓN SUJETA A CAMBIO SIN PREVIO AVISO

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## Computer System

<b>Brand:</b>	Industry computer	
<b>CPU :</b>	i5	
<b>RAM:</b>	8G	
<b>Hard disk :</b>	240G SSD	
<b>Display</b>	21.5inch LED	
With mouse & keyboard		

## Optional Part

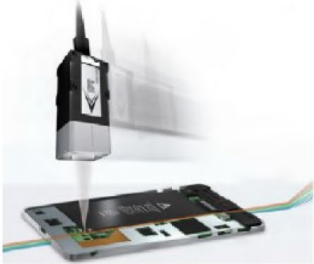
### 1. Renishaw MCP probe

For hole or groove measure, contact measure style

	<b>RENISHAW</b>	
	Stylus diameter	Φ1 Φ2 Φ3(optional )
	Stylus Length	200mm
	Calibration block	50mm
	Static accuracy	±1.5um
	Measure accuracy	±3.0um
	Can optional extension road according to measure requirement	

### 2. Omron laser measure probe

None-contact measure for height or flatness

	<b>OMRON</b>		
	Model	ZW5000	ZW7000
	Measure range	10mm /20mm /30mm	10mm/20mm /30mm
	Sop size	9um /13um /18um	50um/70um/100um
	Resolution	0.25um	0.25um

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## 2. Objective Lens



Long working distance metallographic objective lens :5X, 10X ,20X

## 3. Original Windows OS

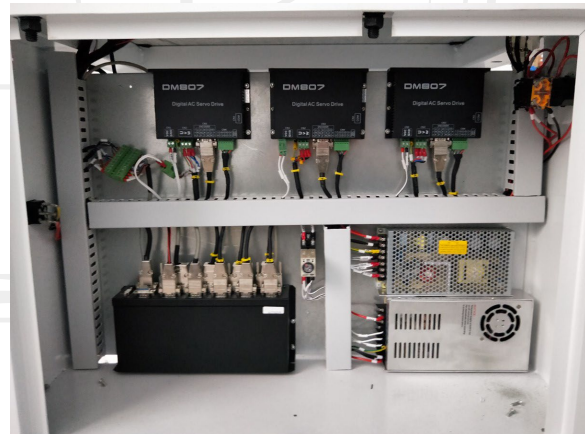


Original Win10 or Win7 professional English version



## Machine Display

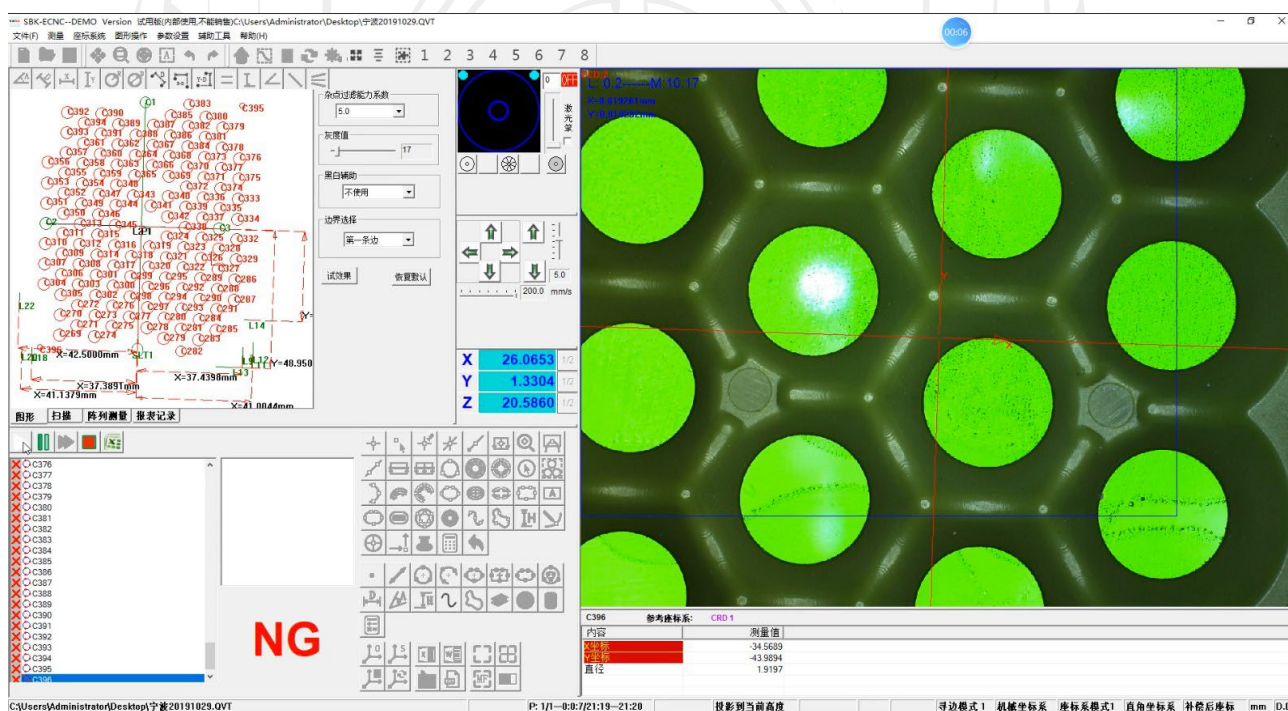
## Inner Wiring



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## Software (SBK-INSPEC Full Automatic measuring software)

### Software Interface



### About software main functions

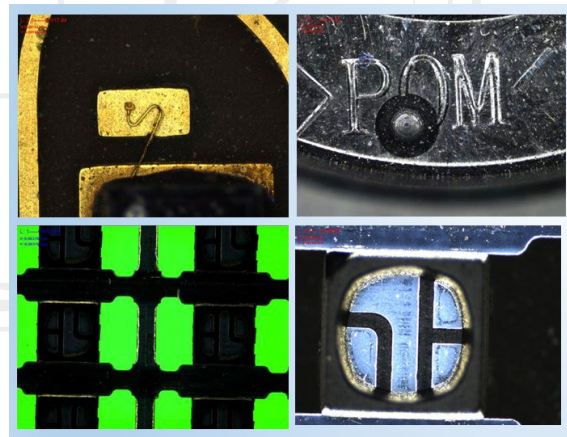
- Automatic measurement function: using the mouse to automatically find a straight line, click on the circle, box selected area, arc.
- Automatic CNC: with the help of the fixture can be fully automatic measurement (measuring efficiency is much higher than the peers).
- Quick optical measuring height function, measuring a height within 3 seconds.
- Optical measurement of flatness.
- Auxiliary focus: to help find the Z position when image most clearly (auxiliary focus to improve accuracy of measurement).
- Image output: the measurement result can be output in the format of image (equal the digital camera functions).

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- Shape tolerance, roundness, straightness, parallelism and perpendicularity, concentricity.
- Set the tolerance: can set the product's actual size that out of range, beyond the background with red warning
- CCD correction: correction image distortion.
- Contour tracking: through the software automatically calculate the outline of work piece and display (display measuring location).
- Vector graphics function: primitive font can be magnification or shrink without a limit.
- Mark function: dra, diameter, Angle, linear dimension, alignment, text annotations, coordinates.
- The command line: can either enter the coordinates directly from the command line, involves, line, circle, arc, etc., to meet special needs.
- Map measurements: local photos that take from the workpiece can accurate integrate a complete workpiece photo, and save in a high-resolution photos. Can also open the map previously took, Direct drawing, marking, modification, etc., (synthetic big picture).
- Virtual measurements: The virtual measurement technology enables the image measurement software to disengage from the hardware platform, the software also can measure the size of the products without the platform and products (can be offline measurement).
- Two-dimensional copy number: product appearance can be trace, the trace of graphics can be formed into AutoCAD engineering diagram, can do reverse engineering.
- SPC analysis: can calculate, CA, CP and CPK, DRL, DRR, DR, MAX, MIN, AVG, RANGE, STD, and can draw X - R diagram, scatter diagram, line chart, histogram, etc.

## CCD Image display



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## Standard Configuration List

Models and Specifications	Quantity
SLA-CNC host	1 set
SBK-INSPEC software	1 pc
Pixel calibration block	1 pc
16G U disk (inner software manual )	1 pc
Computer System ( with host ,display ,mouse keyboard)	1 set
Table	1 pc
Warranty card	1 pc

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