

AC-CNC SERIES
VIDEO MEASURING MACHINE



specialize manufacture 15 years



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AC-CNC Vision Measuring Machine



FULL AUTOMATIC MEASUREMENT

2D AND 2.5D MEASUREMENT

XYZ MOVING SPEED CAN BE ADJUSTABLE

HIGH-DEFINATION IMAGE DIAPLAY

VISION MEASURING HEIGHT

AUTO EDGE DETECT FUNCTION

ONLINE SPC FUNCTION

Features

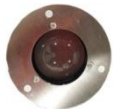
- Imported key components with rigorous, normative assembling & adjustment
- 3-axis CNC controls, full-automatic Measurement
- Equipped with high-definition detent Lens
- High-definition frame grabber
- Precision “HIWIN” P level linear guideway & V type cross roller guideway; high-precision linear drive screw rod made by Germany
- High-accuracy linear scale with resolution of 1μm

Model	Voltage input	Power
AC300-CNC	220V(can optional 110V)	1200W
AC400-CNC	220V(can optional 110V)	1200W

Specification

Model	AC300	AC400
Measuring range(mm)	300*200*180	400*300*180
Machine size(mm)	850*1300*1550	1000*1400*1550
Weight(kg)	260	350
Max. load(kg)	20	25
Accuracy of X-Y axis	3+L/150μm	
Accuracy of Z axis	5+L/100μm	
XYZ resolution	1.0μm	
Repeatability(mm)	0.005	
Moving Speed(mm/s)	X-Y:200 Z:100	
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X	
Control system	SBK4000 fully closed-loop control	
Operated mode	software, can option standard CNC software with "joystick"	

Main Parts

Name	Picture	Name
CCD		SBK-HC 1/2 inches 700 line CCD
Optics		6.5:1 continual zoom step lens
Surface illumination		*LED cold light*256 level programmable *Brightness adjustable *segmented independent control
Bottle illumination		*LED cold light*Parallel light *256 level programmable *Brightness adjustable
Linear Guide (Z-axis)		"Hiwin" P linear guideway
Motor		China "Tiger" synchronous AC servo motor
Screw Rod (Z-axis)		"TPI" ground ball screw rod
Linear scale		Glass linear scale resolution 1.0um

Optional Part

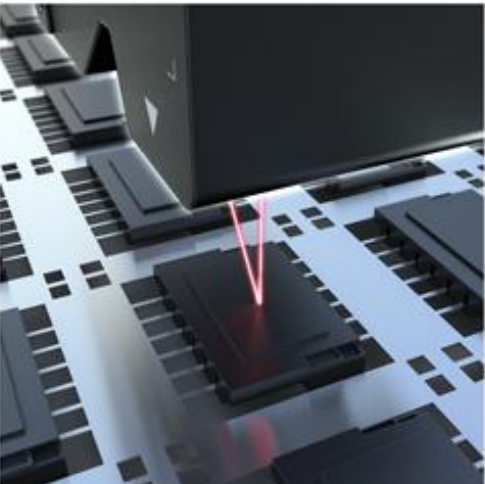
1. Renishaw MCP probe

It's mainly used for the measurement such as: Spatial height, spatial flatness, cylinder, cone, spherical point, spatial surface, it's contact measurement.

		
	MCP Parameters	
	Induction direction	$\pm X, \pm Y, +Z$
	Positioning repeatability	$\pm 1.5\mu m$
	induction force	12g
	Probe connector	M3
	Working range	Z direction 5mm, XY direction $\pm 20^\circ$
	probe model	$\phi 1 \times 21mm, \phi 2 \times 21mm, \phi 3 \times 21mm$

2. Keyence laser measure probe

It's mainly used for the measurement such as Mobile panel, LCD backlight module, as well as automotive and mold parts for high-precision measurement requirements, it's non-contact measurement.

		
	Parameters	
	Reference distance	30 mm 1.18"(Diffuse reflection), 23.5mm 0.93"(Specular reflection)
	Measuring range	$\pm 5\text{ mm} \pm 0.2''$ (Diffuse reflection), $\pm 4.5\text{mm} \pm 0.18''$ (Specular reflection)
	Linearity	$\pm 0.05\%$ of F.S. (F.S.= $\pm 5\text{ mm} \pm 0.2''$)*1
	Spot diameter (at standard distance)	Approx. $\phi 30\text{ }\mu m \phi 0.001181''$

3. Auto zoom GPS lens

Change optical room ratio by software(automatic), also realize navigation function

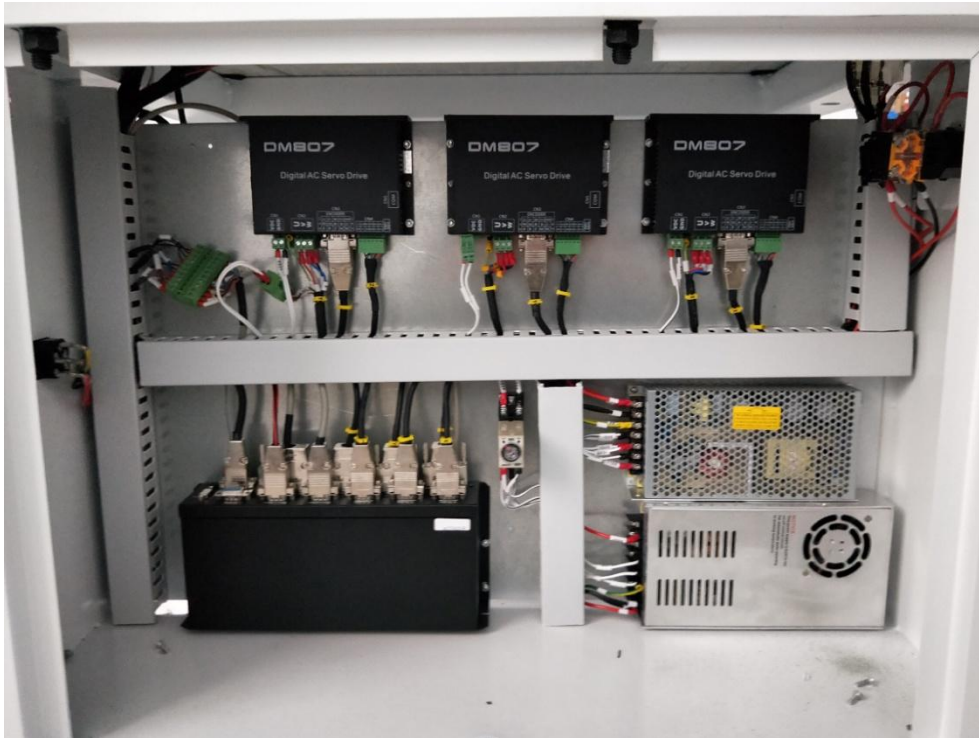


4. Joystick

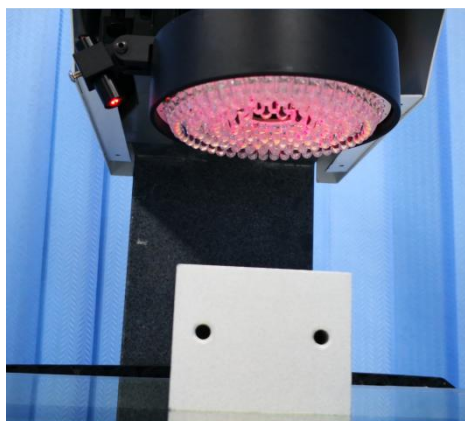
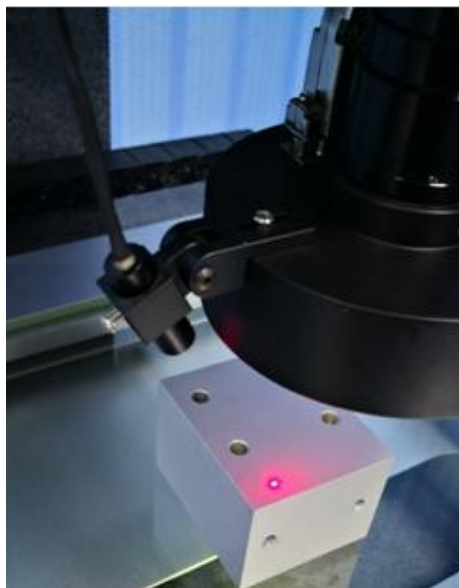
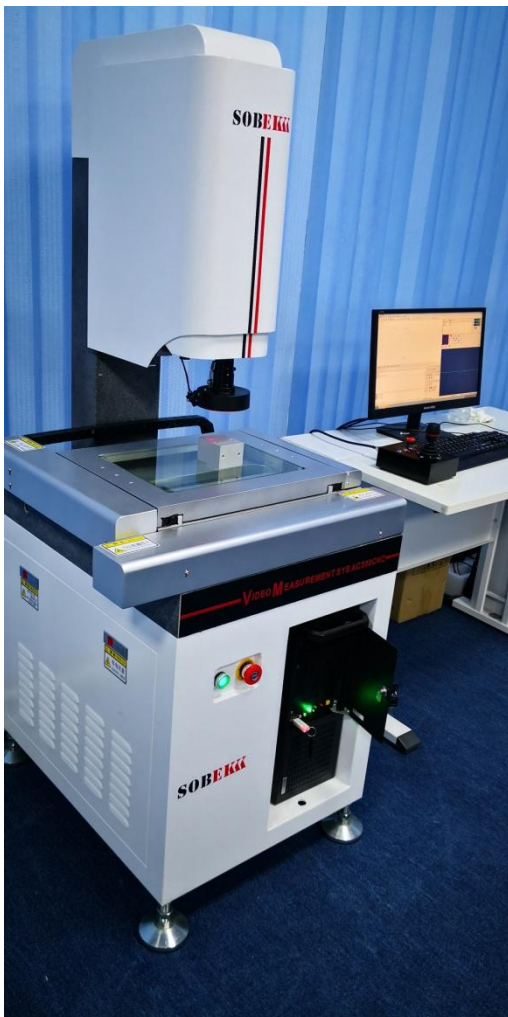
X Y Z axis working more than 5 million
More than 5 million times



Inner wiring

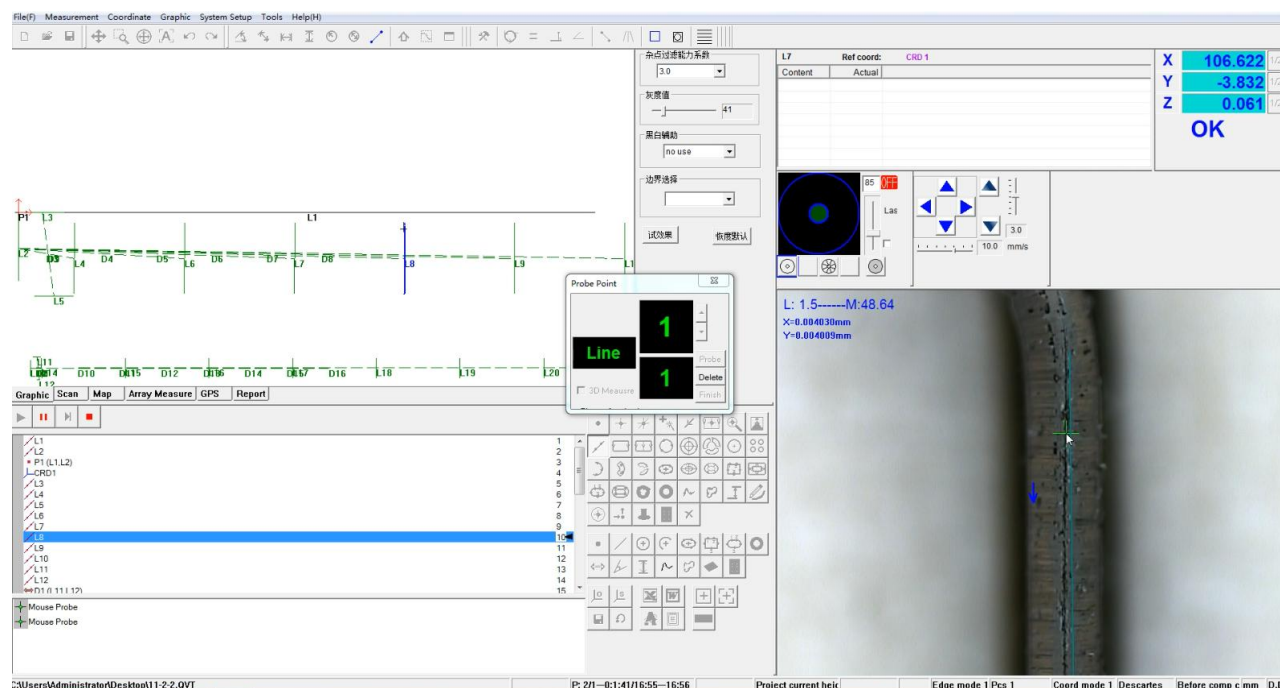


Machine Display



Software (SBK-CNC Full Automatic Simply Vision)

Software interface



Software main function

(Compare with the standard CNC measuring software , this software without navigation function and joystick function)

- **Element measurement**, It can measure 12 elements (point, line, circle, arc, ellipse, rectangle, groove, ring, distance, angle, open cloud line, closed cloud line)
- **Macro measurement function**, to associate some of the measurement construction commands to a button, reduce the number of users to operate the mouse, improve work efficiency.
- **Automatic capture measurement**, using the mouse circle to hold the edge of the workpiece, the line, circle, or arc can be obtained automatically
- **Element structure**, The construction of elements provides 10 construction methods: translation, rotation, extraction, combination, parallelism, image recognition, symmetry, intersection.
- **Rich display results**, The measurement results of various elements show that the amount of information is large enough to meet the needs of various customers
- **Can display optical magnification and screen magnification**,
- **Coordinate system**, the multiple coordinate system can be set up according to the drawing, and the coordinate transformation of each coordinate system can be realized.
- **User program**, Unrestricted user program recording, editing, saving, and exhaling function, The user program can record and edit all the user actions to achieve the replication measurement and greatly improve the measurement efficiency.
- **Auxiliary dimming**, The dimming indicator will indicate to the user what time the best light intensity, measuring error caused by light is avoided
- **Graphic function**, With perfect graphics processing and display function (zoom, translation, window display, partial enlargement and full screen display)
- **Annotation function**, It can directly mark the angle, distance, X direction distance, Y direction distance,

circle (ARC) radius, circle (ARC) diameter and arc length in the drawing area and image area element graphics

- **System error correction**, The software has a system error correction function.
- **Scan function**
- **Large MAP function**, The workpiece can be divided into many areas to take pictures, form a large map, and can be tagged on the map.
- **Language conversion**, Support all languages
- **Report function**, The measurement data can be exported to Excel, Word, AutoCAD and TXT.

(More software function please check the software manual)

Computer

Brand: Industry Computer	
CPU: I3-3240	
RAM: 4G	
Hard Disk: 240G SSD	
Monitor: 21.5 inch	

Packaging (Wooden Case)



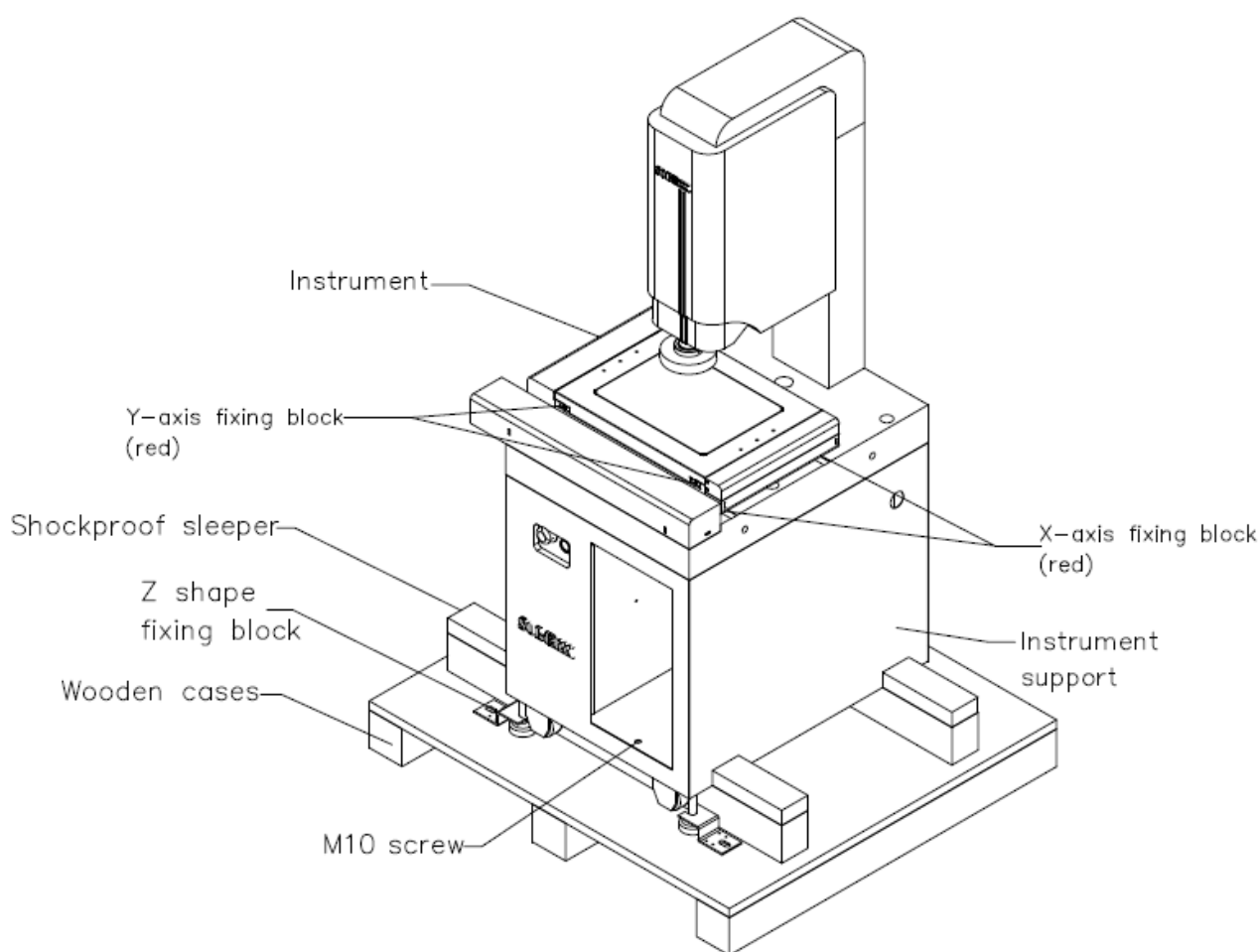
Model	Packaging Size (mm)	Gross Weight (kg)
AC300	1380*1220*1830	335
AC400	1380*1220*1830	386

Standard Configuration List

Models and Specifications	Quantity
A300-CNC host	1PC
SBK - CNC automatic measuring software version combination lock	1PC
SBK - CNC automatic version of the measuring software installation CD	1PC
Pixel correction block	1PC
Industry computer: CPU Intel Dual Core 2.5G, 120 G SSD, 4 GB of memory, 23 inches LCD, DVD drive	1PC
Instrument use manual	1PC
Software specification	1PC
Instrument factory certificate	1PC
Host power	1PC
Table	1PC

Disassembly of Wooden Box and Installation of Instrument

1. AC system with image measuring instrument of the main body of the instrument and the instrument table main body is not removable, the transport process in two separate fixed and transport packaging dwelling Wooden box will be relatively high, transport process should note box rollover.
2. remove the wooden outer packaging, remove M10 screw and red Z shaped fixed angle should be used forklifts for moving the instrument as a whole under the wooden base.
3. is used in the ground casters should be formed, such as the boss had casters sink ditch should pay attention to whether the instrument will fall.
4. take down the "work table Y X axis fixed block" after the original fixed screw should be turned back to the mobile station, otherwise it will cause damage to the work table.
5. AC series image instrument Z axis with self locking function, no use of E system with the same image measurement of the same "Z axis fixed block (red)".



Company Detail

Establish time: Found in 2014, 7 sale centers and after-sale service centers, 1 R&D development center

Production capacity: 1000 set/year

Sales area: more than 30 countries and regions (Thailand, Vietnam ,Malaysia, Korea, Canada, Indian, UK, Poland, US, Mexico...)

Goal: to be the most stable video measuring machine in china

Value: customer-focus & striver-orientend

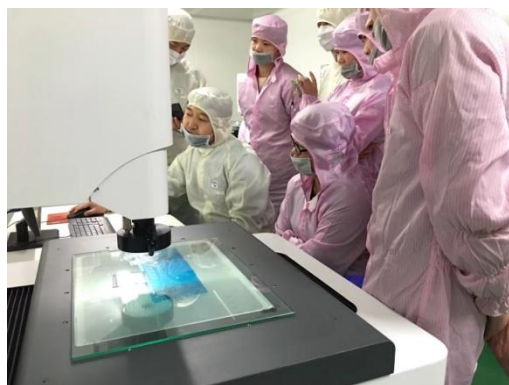
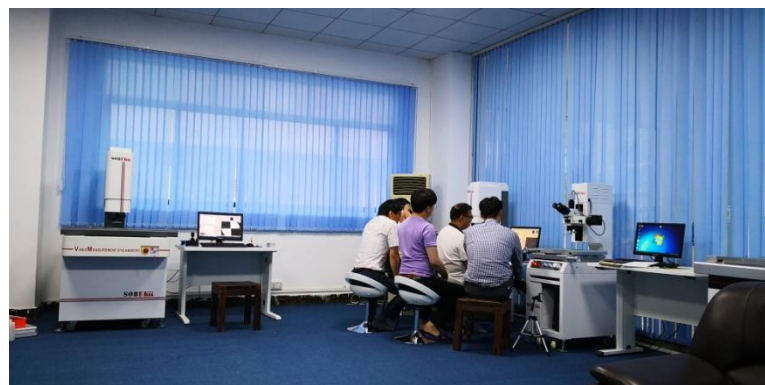
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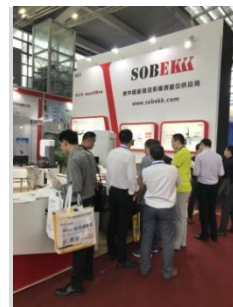
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our customer:



our exhibition:





our workshop plant:

