

# More Than 15 Years Experience In Video Measuring Machine

Quick Response /Free On-Site Installation & Training / Technology Support



## Measurement application

- 1.Connector
- 2.Sheet Metal Part
- 3.Spring
4. Display
- 5.PCB
- 6.Precision Mechanical part
- 7.Electrical Part
- 8.Car part
- 9.Mould
- 10.Gaskets & Seals
- 11.Plastic Product
- 12.SMD Bracket
- 13.Insulation Materials
14. Cell Phone Pane
15. LED Pane



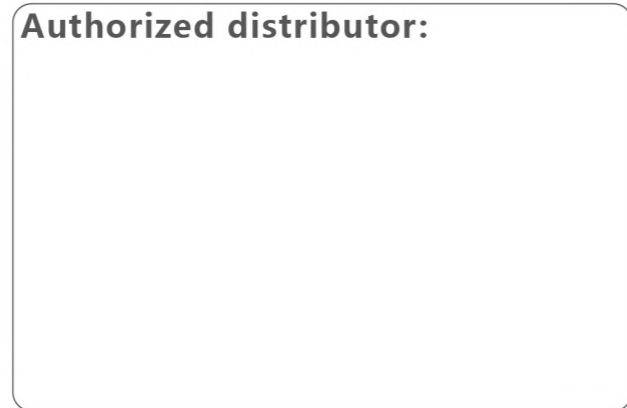
Experience SOBEKK High Precision VMM

# SOBEKK

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# SOBEKK

To Be Most Stable VMM Supplier In China



# PRODUCT CATALOG

SOBEKK PRECISION INSTRUMENT CO.,LTD





### China Sales Network

More Than 20 Sales & Service Center: Shanghai, Jiangsu, Tianjin, Chongqing, Wuhan, Ningbo, Taiwan

### Global Sales Network

More than 30 Sales & Service Center :USA, Mexico, Korea, Poland, Hungary, Malaysia, Thailand, Vietnam ...



### Purchase By Fortune 500 Companies:

SYTECH, HAN'S Laser, TPK, WISTRON, FOUNDER...  
Support third-party detection: SGS, ilac MRA



### • Brand Meaning:

People-oriented, pioneering and innovative, mastering core technology, permanent management

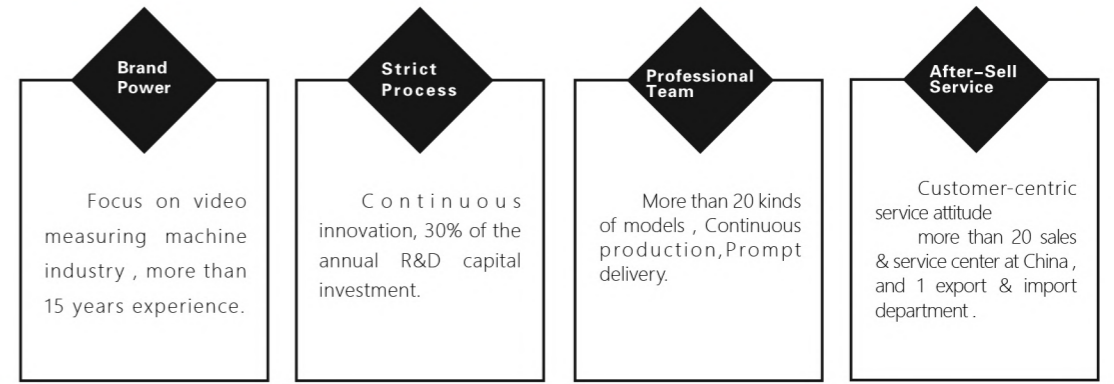
### • Business philosophy:

Technical innovation, advocating quality, honesty and trustworthiness, five-star after-sales service

### • Company Mission:

Adhering to traditional culture, promoting entrepreneurship, advocating service quality, pursuing excellent quality, advancing with the times, pioneering and innovative

### • Product Application:



BRAND STRENGTH



# AM-CNC Series

## Bridge Style Full Automatic Video Measuring Machine

AM-CNC Series , measuring range from (500\*400mm) to (2500\*1600mm), you can select suitable range according to your product situation

### Features:

- All machine adopt same software (SBK-IN-SPEC), simply operation
- Lifetime software upgrade without cost
- Special move control system ,the fastest measuring speed can reach 600mm/s
- Adopt Germany "RSF" resolution 0.0005mm metal linear scale
- Adopt auto GPS lens ,User-friendly measurement experience



### Technical Parameter:

Model	AM500CNC	AM600CNC	AM800CNC	AM1000CNC
Travel Range ( mm )	400x500x200	500x600x200	600x800x200	800x1000x200
Dimension ( mm )	1268x1431x1742	1337x1530x1783	1437x1730x1783	1766x2200x1833
Weight ( kg )	1100	1250	1450	2110
Max load ( kg )	30			
XYaxis accuracy ( μ m )	3.0+L/200			
z axis Accuracy	5.0+L/200(objective lens ration ≥3X)			
Repeatability ( μ m )	≅3			
CCD	1.3M digital color camera (resolution 1920*1080)			
Fastest move speed (mm)	600mm/s			
Operation Mode	joystick+software			
Resolution	Germany "RSF" metal linear scale resolution 0.0005mm			
magnification	optic 0.7-4.5x ; vision 44.96-258.63X			
illumination	profile illumination system /surface illumination system /4 ring 8 segment LED cold light			
Motor	Japan Panasonic AC servo motor, position accuracy ≤0.002mm			
guideway /Screw	Taiwan "Hiwin" precision linear guideway / Taiwan "TBI" Grinding ball screw			

### Laser Measuring

None-contact measuring for height & flatness

\*Specification :2 kinds of laser can optional according to usage

Model	Measuring range	Spot size	Resolution	Usage
Laser ZW-5000	10mm	φ9	0.25 μm	Rough surface or shiny products: LED packaging, circuit board soldering, connector coplanarity, lens thickness, glass surface curvature, segmentation, wafer height, camera module, etc.
	20mm	φ13		
	30mm	φ18		
Laser ZW-7000	10mm	φ50	0.25 μm	
	20mm	φ70		
	30mm	φ100		



### W axis rotary measuring

Can place work to the relative position of the current position( such as 90-180 degree direction to rotary product )

Product pressure plate device can be set(After the product is measured, the pressure plate is automatically raised and lowered)

### Probe contact measuring

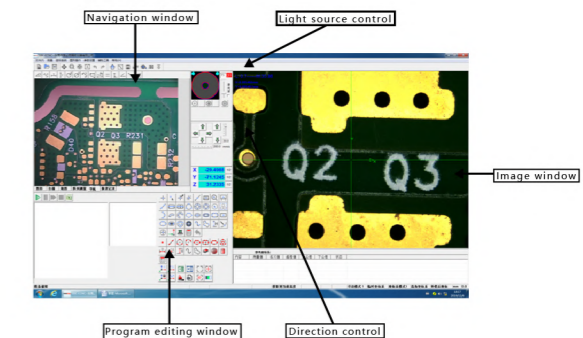
for hole or groove measuring

\*can optional Extension rod according to measure requirement

Model	Stylus diameter	Stylus length	calibration block	accuracy
Renishaw MCPProbe	φ1(standard)	20mm	50mm	Static accuracy: ± 1.5 μm Measure accuracy: ± 3 μm
	φ2(standard)			
	φ3(optional)			



- Measure element :length ,width , height , hole distance , spacing, pin distance, thickness, arc, diameter, radius ,groove, angle
- Support WIN7 7 WIN10 microsoft OS
- Can import CAD , and output DXF, EXCEL ,WORD
- Automatic contour scanning,With reference and non-reference contour scanning function
- The software calculation function combined with the function formula directly performs complex calculations on the measurement results and automatically calculates the maximum and minimum values.
- Multiple data output methods: output all elements, output tolerance elements, output out-of-tolerance elements
- Geometric tolerance values such as position, concentricity, roundness, straightness, flatness, verticality, etc.
- Provide multiple levels of password protection to protect the integrity of the workpiece program and measurement data



Model	AM1200CNC	AM1500CNC	AM2000CNC	AM2500CNC
Travel Range ( mm )	1000x1200x200	1200x1500x200	1500x2000x200	1600x2500x200
Dimension ( mm )	1966x2400x1834	2234x2800x1834	2500x3200x1834	2600x3800x1834
Weight ( kg )	3100	4300	5500	6100
Max load ( kg )	30			
XYaxis accuracy ( μ m )	3.0+L/200			
z axis Accuracy	5.0+L/200(objective lens ration ≥3X)			
Repeatability ( μ m )	≅3			
CCD	1.3M digital color camera (resolution 1920*1080)			
Fastest move speed (mm)	600mm/s			
Operation Mode	joystick+software			
Resolution	Germany "RSF" metal linear scale resolution 0.0005mm			
magnification	optic 0.7-4.5x ; vision 44.96-258.63X			
illumination	profile illumination system /surface illumination system /4 ring 8 segment LED cold light			
Motor	Japan Panasonic AC servo motor, position accuracy ≤0.002mm			
Guideway /Screw	Taiwan "Hiwin" precision linear guideway / Taiwan "TBI" Grinding ball screw			

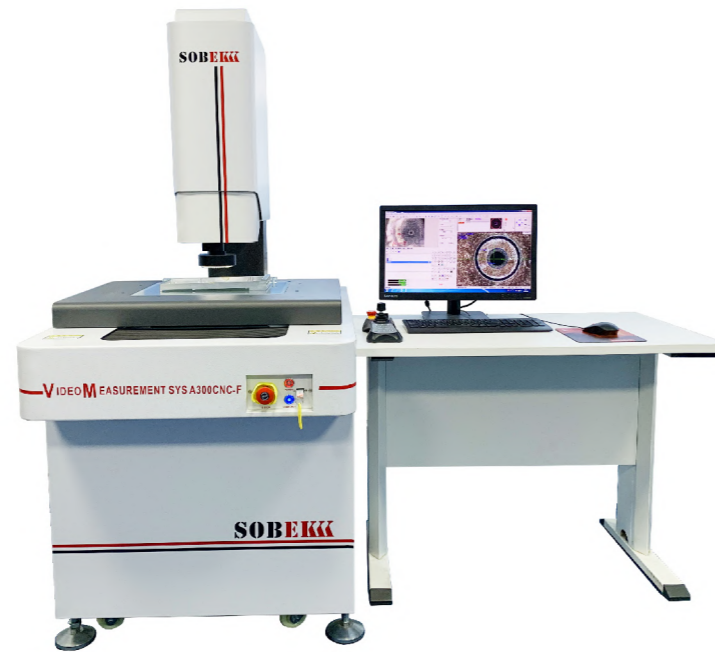


# A-CNC Series

## High Precision Style Full-Automatic Video Measuring Machine

### Features :

- All machine adopt same software (SBK-IN-SPEC), simply operation
- Lifetime software upgrade without cost
- High performance, high precision, fast measuring speed, simply operation, high cost performance.



### Laser measurement

Quick point measurement, non-contact measurement of height and flatness

\*Specifications: according to the use of a variety of laser models

model	Measuring range	Spot size	Resolution	Usage
Laser ZW-5000	10mm	φ 9	0.25 μm	Rough surface or shiny products LED packaging, circuit board soldering, connector coplanarity, lens thickness, glass surface curvature, segmentation, wafer height, camera module, etc.
	20mm	φ 13		
	30mm	φ 18		
Laser ZW-7000	10mm	φ 50	0.25 μm	
	20mm	φ 70		
	30mm	φ 100		

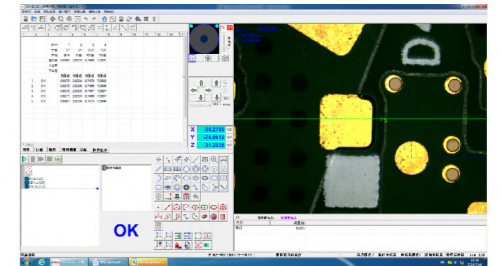


### Technical Parameter:

Model	A300CNC	A400CNC	AG300CNC	AG400CNC
Travel range	300x200x200	400x300x200	300x200x200	400x300x200
Dimension	820x1104x1745	975x1313x1750	820x1104x1745	975x1313x1750
Machine weight	490	656	490	656
Max Load	30			
Camera	1.3M digital color camera (resolution 1920*1080)			
XY axis accuracy	2.5+L/200		1.8+L/200	
Z axis accuracy	5.0+L/200(objective lens ration ≥ 3X)		2.0+L/200	
Repeatability	≅ 3		≅ 2	
Max Move speed	300mm/s		100mm/s	
Operate style	joystick+software		joystick+software	
Resolution	0.0005mm		0.0001mm	
Optical magnification	0.7-4.5X;		0.7-4.5X	
Vision magnification	44.96-258.63X		213.-1238.71x( 10X Metallographic objective lens )	
Optical lens	Automatic zoom navigation lens tube		Auto zoom coaxial lens tube	
Illumination	LED cold light source, 256 level brightness programmable adjustable		Another coaxial surface light source	
Motor	Japan "Nidec" AC servo motor		Japanese "Panasonic" servo motor	
Guideway /screw	Taiwan "Hiwin" precision linear guideway / Taiwan "TBI" Grinding ball screw			

### Measurement software:

- Measure element :length ,width , height , hole distance , spacing, pin distance, thickness, arc, diameter, radius ,groove, angle
- Support WIN7 7 WIN10 microsoft OS
- Can import CAD , and output DXF, EXCEL ,WORD
- Automatic contour scanning,With reference and non-reference contour scanning function
- The software calculation function combined with the function formula directly performs complex calculations on the measurement results and automatically calculates the maximum and minimum values.
- Multiple data output methods: output all elements, output tolerance elements, output out-of-tolerance elements
- Geometric tolerance values such as position, concentricity, roundness, straightness, flatness, verticality, etc.
- Provide multiple levels of password protection to protect the integrity of the workpiece program and measurement data.

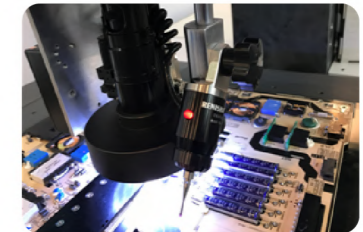


### Probe contact measuring

for hole or groove measuring

\*can optional Extension rod according to measure

model	Stylus diameter	Stylus length	calibration block	accuracy
Renishaw MCPprobe	φ 1 ( standard ) φ 2 ( standard ) φ 3 ( optional )	20mm	50mm	Static accuracy: ± 1.5 μm Measure accuracy: ± 3.0 μm



Model	AZ300CNC	AZ400CNC	AGF300CNC	AGF400CNC
Travel range	300x200x200	400x300x200	300x200x200	500x400x200
Dimension	820x1104x1745	975x1313x1750	820x1104x1745	1024x1181x1732
Machine weight	490	656	490	656
Max Load	30			
Camera	1.3M digital color camera (resolution 1920*1080)			
XY axis accuracy	1.8+L/200		1.3+L/200	
Z axis accuracy	3.5 + L / 200 (more than 3x objective)		2.0+L/200	
Repeatability	≅ 3		≅ 2	
Max Move speed	300mm/s		100mm/s	
Operate style	joystick+software		joystick+software	
Resolution	"RSF" 0.0001mm		"RSF" 0.0001mm	
Optical magnification	0.7-4.5X;		0.7-4.5X	
Vision magnification	44.96-258.63X		213.-1238.71x( 10X Metallographic objective lens )	
Optical lens	Automatic zoom navigation lens tube		Auto lens+Coaxial light	
Illumination	LED cold light source, 256 level brightness programmable adjustable		Another coaxial surface light source	
Guideway /screw	Japan "THK" precision linear guideway		Japan "THK" precision linear guideway	
Screw	Taiwan "TBI" grinding ball screw			
Motor	Japan "Panasonic" AC servomotor			



# AC-CNC Series

## Economic Style Full Automatic Video Measuring Machine

### Features :

- All machine adopt same software (SBK-IN-SPEC), simply operation
- Lifetime software upgrade without cost
- High performance, high precision, fast measuring speed, simply operation, high cost performance.



### Laser Measuring

None-contact measuring for height & flatness

\*Specification :2 kinds of laser can optional according to usage

Model	Measuring range	Spot size	Resolution	Usage
Laser ZW-5000	10mm	φ 9	0.25 μm	Rough surface or shiny products LED packaging, circuit board soldering, connector coplanarity, lens thickness, glass surface curvature, segmentation, wafer height, camera module, etc.
	20mm	φ 13		
	30mm	φ 18		
Laser ZW-7000	10mm	φ 50	0.25 μm	
	20mm	φ 70		
	30mm	φ 100		

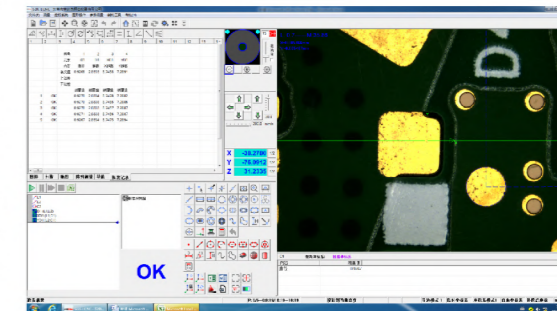


### Technical Parameter:

Model	AC300CNC	AC400CNC	AF300CNC	AF400CNC	AF500CNC
Travel range	300x200x200	400x300x200	300x200x150	400x300x150	500x400x150
Dimension	697x787x1660	794x963x1660	697x787x1660	794x963x1660	900x1100x1700
Machine weight	490	656	490	656	800
Max Load	30				
Camera	1.3M digital color camera (resolution 1920*1080)				
XY axis accuracy	3.0+L/200		2.5+L/200		
Z axis accuracy	5.0+L/200(objective lens ration ≥ 3X)		5.0+L/200(objective lens ration ≥ 3X)		
Repeatability	≤ 3		≤ 3		
Max Move speed	200mm/s		200mm/s		
Operate style	joystick(without lock axis function)+software		joystick(with lock axis function)+software		
Resolution	0.001mm		0.0005mm		
Optical magnification	0.7-4.5X		0.7-4.5X		
Vision magnification	44.96-258.63X		44.96-258.63X		
Optical lens	manual lens		Manual lens +coaxial light		
Illumination	LED cold light source 256 level brightness programmable		Another coaxial surface light source		
Motor	China "Hcfa" servo motor		Japan "Nidec" AC servo motor		
Guideway /screw	precision cross guideway/Taiwan "TBI" Grinding ball screw				

### Measurement software:

- Measure element :length ,width , height , hole distance , spacing, pin distance, thickness, arc, diameter, radius ,groove, angle
- Support WIN7 7 WIN10 microsoft OS
- Can import CAD , and output DXF, EXCEL ,WORD
- Automatic contour scanning,With reference and non-reference contour scanning function
- The software calculation function combined with the function formula directly performs complex calculations on the measurement results and automatically calculates the maximum and minimum values.
- Multiple data output methods: output all elements, output tolerance elements, output out-of-tolerance elements
- Geometric tolerance values such as position, concentricity, roundness, straightness, flatness, verticality, etc.
- Provide multiple levels of password protection to protect the integrity of the workpiece program and measurement data.



### Probe contact measuring

for hole or groove measuring

\*can optional Extension rod according to measure requirement

Model	Stylus diameter	Stylus length	calibration block	accuracy
Renishaw MCPprobe	Φ 1 ( standard )	20mm	50mm	Static accuracy: ± 1.5 μm Measure accuracy: ± 3.0 μm
	Φ 2 ( standard )			
	Φ 3 ( optional )			



Model	AJ300CNC	AJ400CNC	AJ500CNC
Travel range	300x200x150	400x300x150	500x400x150
Dimension	820x1104x1745	975x1313x1750	900x1100x1700
Machine weight	490	656	700
Max Load	30		
Camera	1.3M digital color camera (resolution 1920*1080)		
XY axis accuracy	2.0+L/200		
Z axis accuracy	3.0+L/200		
Repeatability	≤ 2.5		
Max Move speed	100mm/s		
Operate style	joystick(with lock axis function)+software		
Resolution	0.0001mm		
Optical magnification	10X0.7-4.5X		
Vision magnification	213.-1238.71x( 10X Metallographic objective lens )		
Optical lens	Auto lens+Coaxial light		
Illumination	LED cold light source, 256 level brightness programmable, with coaxial meter light source		
Guideway /screw	precision cross guideway/Taiwan "TBI" Grinding ball screw		
Motor	Japan "Nidec" AC servo motor		



## DX-CNC Series

Double Fields Full-Automatic Video Measuring Machine

DX-CNC series adopt the most advance coaxial light double optic lens software of SBK-INSPEC ,with these function :Program automatic switching,Template measurement,Array shift measurement,Parallel measurement of multiple workpieces ,instant ,measurement of large field of view,realise instant and high accuracy measuring.

### Features :

- Perfectly solve the limitation of traditional one-key instant measuring machine of fixed stroke and fixed magnification
- New design, high precision, high efficiency.



### Parameter:

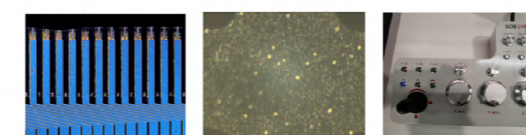
Model	DX400CNC	DX500CNC	DXF300CNC	DXF400CNC	DXF500CNC
Travel range	400x300x200	400x300x200	300x200x200	400x300x200	500x400x200
Dimension	794x963x1660	1024x1181x1732	697x787x1660	794x963x1660	1024x1181x1732
Machine weight	537	800	400	537	800
Max Load	25				
Camera	1.3M digital color camera		1.3M digital color camera		
Camera	1.3M digital color camera		5.0M digital color camera		
XY axis accuracy	( 3.5+L/200 ) /(5.0+L/200)		(2.5+L/200)/(6.0+L/200)		
Repeatability	≤4		≤5		
Max Move speed	200mm/s		200mm/s		
Operate style	joystick (lock axis )+software		joystick (lock axis )+software		
Resolution	0.0005mm		0.0005mm		
Optical magnification	0.2x/0.8x coaxial lens		0.1x/0.7x auto lens		
Vision magnification	14.34X/58.02X		44.96-258.63X/2.5X		
Field of view	32x24/8x6mm		9.1x6.85-1.40x1.06mm/64x48mm		
Optical lens	coaxial double Fixed magnification lens		coaxial auto lens /fixed magnification lens		
illumination	Single 5 rings LED Programmable light source		double light Programmable light source		
Motor	Japan "Nidec" ac servo motor				
Guideway /screw	precision cross guideway/Taiwan TBI Ground ball screw				

## ME-CNC Series

Full Automatic Tool-Makers Metallographic Microscope

### Features :

- Auto focus+Manual pulse(Min travel 0.0001mm)
- Joystick with lock axis and speed can control
- Digital readout display , XYZ axis manual plus , emergency switch.



### Parameter

Model	ME300CNC		
Travel range	300*300*150		
Dimension	610*850*1600		
Machine weight	220		
Max Load	20		
Camera	1.3M Pixel digital color CCD		
Data processor	DP-10 3 axis DRO, RS232 output		
XY axis accuracy	1.5+L/200		
Z axis accuracy	2.0+L/200		
Repeatability	≤2		
Max Move speed	100mm/s		
XY axis operate style	joystick +manual plus		
z axis operate style	auto focus+manual plus (min travel range 0.0001mm)		
Optical magnification	optical 50x 100x 200x 500x vision 162.5x 314.9x 640.4x 1570.5x		
Resolution	0.0001mm		
Metallographic objective lens	illumination	21v 150w Halogen light box illumination and reflection illumination	
	Transfer	5-hole objective lens turntable	
	Metallographic Trinocular optical tube	Trinocular optical tube	
	Trinocular optical tube	CSIC optical system	
	Eyepiece	WF10X/22	
	Bright & dark Objective lens	infinite working distance flat field achromatic metallographic objective 5x-dic, Impl5x / 0.15 wd10.8mm	
		infinite working distance flat field achromatic metallographic objective 10x-dic, Impl10x / 0.3 wd10mm	
		infinite working distance flat field achromatic metallographic objective 20x-dic, Impl20x / 0.45 wd4mm	
		infinite working distance flat field semi apodized metallographic objective 50x, Impl50x / 0.55 wd7.8mm	
	Options	1. Optional Olympus metallographic Series 2, 100x metallographic objective	



# E Series

## Manual Style Video Measuring Machine

### Features:

- SBK-INSPEC software , powerful function , easy to operate
- Free software upgrades for life
- Fortune 500 corporate procurement

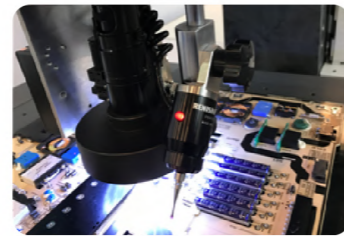


### Probe contact measuring

for hole or groove measuring

\*can optional Extension rod according to measure requirement

Model	Stylus diameter	Stylus length	calibration block	accuracy
Renishaw MCPprobe	Φ1 (standard) Φ2 (standard) Φ3 (optional )	20mm	50mm	block gauge : ± 1.5 μm Measure accuracy: ± 3.0 μm



### Parameter:

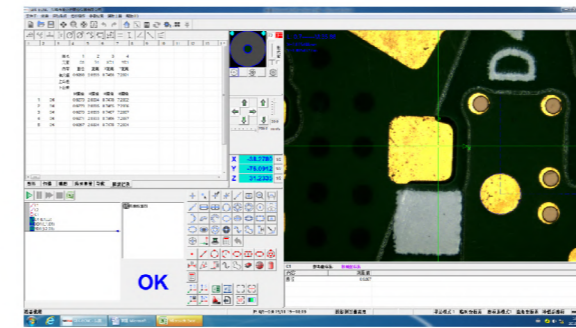
Model	E200	E300	E400	E500
Travel range	300x200x200	300x200x200	400x300x200	500x400x200
Dimension	697x787x1660	697x787x1660	794x963x1660	900x1100x1600
Machine weight	160	230	300	500
Max Load	30			
Camera	1.3M digital color camera (resolution 1920*1080)Any adjustable window			
XY axis accuracy	3.0+L/200			
Working distance	90			
Operate style	Manual			
Resolution	0.001mm			
Optical magnification	0.7-4.5X			
Vision magnification	44.96-258.63X			
Optical lens	0.7-4.5x continuous zoom manual clamping barrel			
Contour light source	LED cold light source, 256 level brightness programmable adjustable (independent R & D patent product)			
Surface light source	LED cold light source 256 level brightness programmable			
Data control	Independent research and development of programmable data source integrated control			
Guideway /Polished rod	10. Y-axis precision crossed roller guide z-axis Taiwan "Shangyin" linear guide / imported toothless screw drive			

# S Series

## Semi Automatic Video Measuring Machine

### Features :

- SBK-INSPEC software , powerful function , easy to operate
- Free software upgrades for life.
- Fortune 500 corporate procurement.



### Parameter:

Model	S300	S400	S500	S600	S800
Travel range	300x200x200	400x300x200	500x400x200	600x500x200	800x600x200
Dimension	697x787x1660	794x963x1660	900x1100x1600	1870x1000x1813	2270x1144x1813
Machine weight	160	230	500	590	710
Max Load	30				
Camera	1.3M digital color camera (resolution 1920*1080)				
XY axis accuracy	3.0+L/200				
Z axis accuracy	5.0 + L / 200 (objective lens above 3x)				
Working distance	90				
Operate style	X,Y-axis manual, Z-axis automatic				
Resolution	0.001mm				
Optical magnification	0.7-4.5X				
Vision magnification	44.96-258.63X				
Optical lens	0.7-4.5x continuous zoom manual clamping barrel				
Profile light source	LED cold light source, 256 level brightness programmable adjustable				
Surface light source	LED cold light source 256 level brightness programmable				
Data control	Self developed program controlled semi-automatic motion control (Z-axis servo motor)				
Guideway	Precision grade cross guideway / "Hiwin" linear guideway		"Hiwin" linear guideway		



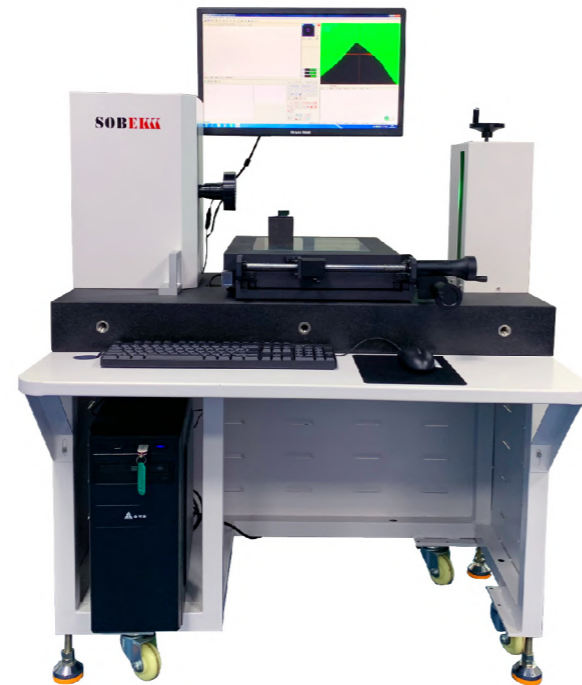
# W Series

## Horizontal Style Video Measuring Machine

Widely used in CNC milling cutters, taps, drills, grinding wheels, etc., convenient to measure the rake angle, back angle, R angle and other special tool angles of the cutting-tool

### W-series Feature:

- Horizontal style , special for cutting-tools
- Offer Provide free lifetime software upgrades
- Profile light and the surface light move synchronously, clear imaging and accurate measurement



### W-series Technical parameter

Model	W300
Dimension ( mm )	300x200x100
External dimension ( mm )	794x963x1660
Weight ( kg )	230
XY axis accuracy ( μ m )	3.0+L/200
Repeatability ( μ m )	≤3



### MC-series features

- Suitable for LED display, semiconductor packaging, welding observation, loop height and other fields
- With brightfield objective (5x,10x,20x,50x) suitable for normal use
- Z axis auto focus , with auto focus measuring height function
- With linear scale resolution 0.0001mm, Manual pulse fine adjustment 0.0003mm
- High resolution 1.3M-500M pixel digital color CCD , suitable for different product measuring and observe

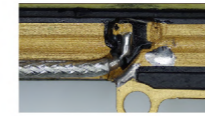
### Parameter:

Model	MC300	MC400	MC500
Travel range ( mm )	300x200x150	400x300x150	500x400x200
Dimension	900x700x1660	1000x800x1660	1100x1200x1600
Weight ( kg )	230	350	500
XY axis accuracy ( μ m )	2.0+L/200		
Minimum display value	0.0001		
X / Y operation mode	Manual		
Z-axis operation mode	Auto focus + manual pulse (minimum travel range 0.0003)		
lighting	Illumination bottom 21v 150w Cold fiber transmission illumination, surface LED coaxial light.		

# Microscope

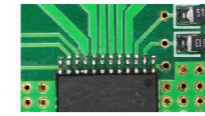
### vision microscope / metallographic microscope

M100 auto focus vision microscope ,with these function light control ,continue zoom , auto focus , picture & video save.



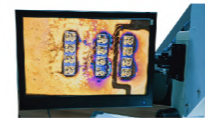
### Great improve working efficiency

no need eyepiece , display more suitable for observe ,auto focus & continue zoom , reduce time .



### Find more details

Special HDR function edge enhance function ,picture more clearly ,vision magnification ration can reach 277X, 2M pixel digital CCD ,60 frames/s take picture



### More convenient

with memory card, can save picture & video, can offer kinds of light according to product.



### SK-606 Continue zoom Stereo microscope

A wide range of eyepieces and auxiliary objective lenses, and a wealth of accessories can meet the expansion of various functions, suitable for industrial assembly and inspection, teaching and basic research.

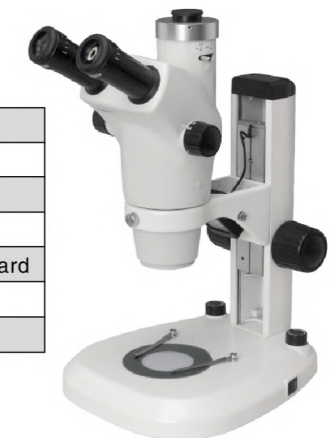


Observe tube	Binocular, trinocular and digital	
Eyepiece	Large field plan eyepiece WF10X/Φ22	
Working distance	115mm	
Zoon lens	0.8X-5X	6.3:1
Stage insert circular plate	diameter 100mm glass plate	
CCD system	can optional CCD and measuring software	

### SK-608T series continue zoom stereo microscope

advanced model , continue zoom ratio 1:8.3, focus range 0.6x-5x, suitable big range observe , large field , max can reach Φ76mm.

Observe tube	Trinocular, Tilt angle 30°	
Eyepiece	Large field plan eyepiece WF10X/Φ23	
Working distance	115mm	
Zoon lens	0.6X-5X	1: 8.3
Stage insert circular plate	Diameter 100mm glass plate	diameter 100mm white black board
Camera measurement system	Can optional CCD and measuring software	
Focusing stroke	105mm	





### SK-820 Serial metallographic microscope

Check the structural integrity of the PCB board, including copper thickness, inner and outer layer ring width

**Application areas:** Semiconductor inspection, FPD, circuit board packaging, circuit substrates, castings and other industry research system metallographic microscopes, covering bright field, dark field, polarized light and other methods.

Upright observation head	Hinged trinocular observation head, 30° tilt, interpupillary distance 48–75mm	
Max height of sample	50mm	
Stage	No hole rectangular double deck movable platform 186x138mm / 74mmx50mm	
Infinite flat field Achromatic objective	10X/0.25/∞/–(BF/DF) (Bright and dark field sharing)	WD 10.0mm
	20X/0.4/∞/0(BF/DF) (Bright and dark field sharing)	WD 4.30mm
	2.5X/0.08/∞/–(BF) (Mingchang)	WD 11.7mm
	5X/0.12/∞/–(BF/DF) (Bright and dark field sharing)	WD 12mm
	40X/0.6/∞/0(BF/DF) (Bright and dark field sharing)	WD 2.90mm
	50X/0.75/∞/0(BF/DF) (Bright and dark field sharing)	WD 0.32mm
	100X/0.8/∞/0(BF/DF) (Bright and dark field sharing)	WD 2mm
Eyepiece	(Large field eyepiece EW10X/22m )	Tube Φ30
Focus system	Coaxial coarse and fine focusing, fine adjustment scale value 1um, coarse and tight adjustment, with limit device, moving range 30mm.	
Camera measure system	can connect CCD and measuring software system(measuring accuracy 2–5um	



### SK-5000 Metallographic microscope

high performance optics system , easy operate, new technology , perfect function , stable performance, realize DIC observe.



Inverted viewing head	Hinged trinocular observation head, 30° tilt, interpupillary distance 48–75mm	
Max sample height	50mm	
Stage	Rectangular double deck movable platform 226x178mm, moving range 40mmx40mm	
Infinity plan, Achromatic objective	5X/0.12/∞/0(BF/DF) LWD 10mm	WD 10.0mm
	10X/0.25/∞/0(BF/DF) LWD 10mm	WD 4.30mm
	20X/0.4/∞/0(BF/DF)LWD 5mm	WD 11.7mm
	50X/0.75/∞/0(BF/DF) LWD 1.3mm	WD 12mm
	100X/0.9/∞/0(BF/DF)LWD 0.7mm	WD 2.90mm
Large field eyepiece	WF10X/22	WF10X/20, (Cruciform eyepiece)
Focus system	Coaxial coarse and fine focusing, fine adjustment scale value 2um, coarse and tight adjustment, with limit device, moving range up 1mm,down 7mm	
Camera measure system	can connect CCD and measuring software system (measuring accuracy 2–5um )	

## BX Series

### 3D Line Laser Flatness Measuring Machine

Model	BX500	
Travel range	500X400mm	
Measure function	Height difference, flatness	
Application	Cell phone	Height difference , flatness
	LED	Height difference , flatness
	New energy battery	Height difference , flatness
	Connector	Height difference , flatness
laser system	3D line laser	
Measuring range	30–200mm(can optional )	
Repeatability	0.003mm	
Test speed	2s–3s/PC	



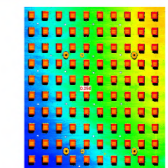
#### Cellphone industry

5G communication module shell, 90X camera mount, CG screen, mobile phone screen cover, TP frame, LCD compartment, mobile phone back cover camera, etc. flatness and level difference.



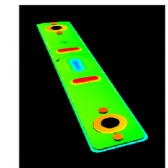
#### LED industry

LED filament height difference, PCBA appearance inspection, component circuit board measurement height difference and flatness, etc.



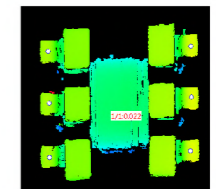
#### Battery industry

Battery welding quality inspection, battery plane recess extraction, battery corner recess extraction, pole recess extraction, shrapnel height difference detection, etc.



#### connector industry

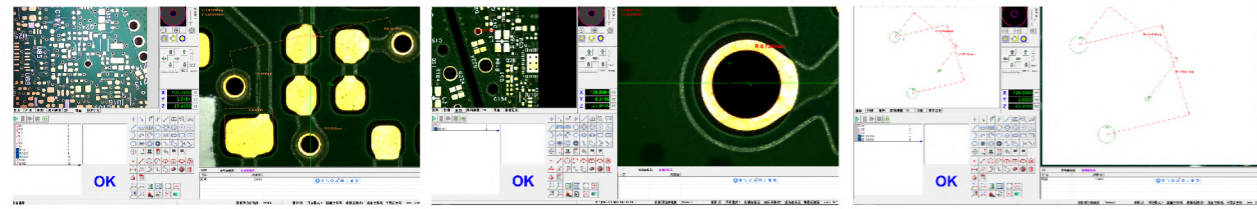
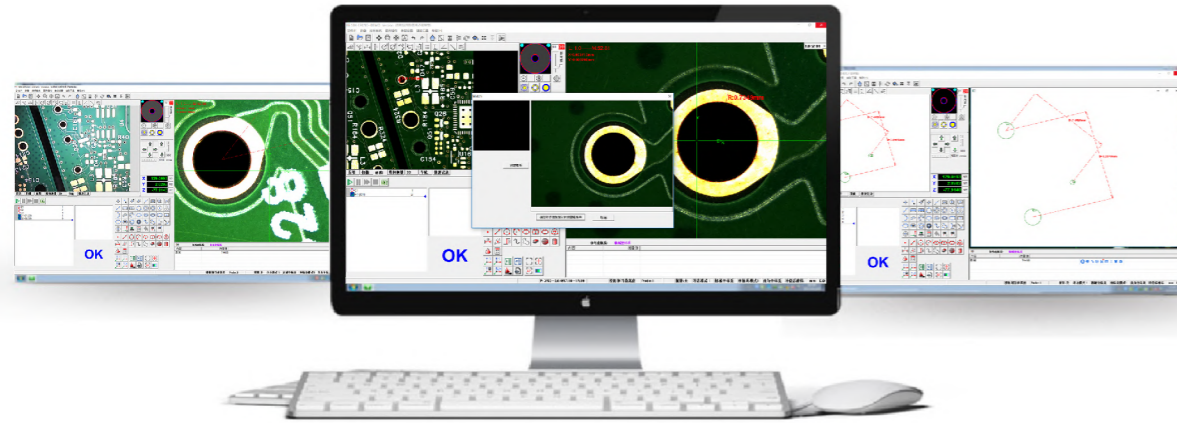
Pin coplanarity, pin flatness, pin height difference, etc.





## Self-developed professional measurement software

The SBK-INSPEC measurement software provides professional software support and authoritative measurement reports for the measurement field of precision manufacturing industry. SBK has been recognized by a lot of well-known enterprises around the world.



## Software features (No additional cost)

**Fast navigation**—Realize fast positing the measuring location while accurate measurement 30\*20mm wide-field navigation lens enables fast and accurate positioning, which improves the efficiency of programming and measurement process by two times

**Full scene HD map photograph**—Realize the scanning of all scene pictures of working parts and the saving of HD pictures. Quickly photograph, measure and label products. It will take pictures first and then measure the parts, and find the measuring position quickly.

**Automatic contour scanning**—The rapid contour scan can be imported into CAD for drawing comparison, and the dimensions can be marked directly after scanning. Manually set the initial and final points of contour extraction, and the software will automatically control the platform to extract edge points along the fixed direction until the work is completed.

**One-click measurement**—Products can be placed arbitrarily and measured directly without establishing coordinate system. After establishing the template of the products, the products can be measured by putting them into the field of view of the machine. No need to set up coordinates or place the product horizontally, just run the program to measure.

## Significantly reduce measurement time and cost in production

『SBK-INSPEC』The software uses the click mode to establish the measurement program, and the user controls the movement of the measuring platform with the mouse or joystick to complete the measurement and program editing. Users can choose to customize printing, saving and data transfer.

## 『SBK-INSPEC』 Powerful and intuitive automatic video measurement software

The full range of products use the same software, program sharing, simple operation, aggregation so convenient functions, this is the industry's high level of measurement software.

## 『SBK-INSPEC』 Lifetime free upgrade

A one-time purchase lifetime free upgrade.

## 『SBK-INSPEC』 for Windows

『SBK-INSPEC』 The software easy to operate and compatible with Windows(Win7,Win10) operating system.

## 『SBK-INSPEC』 Enter CAD documents and convert them into executable programs

『SBK-INSPEC』 The software supports the import of file formats such as DXF,DRL,Gerber, which is convenient for users to set up quickly.

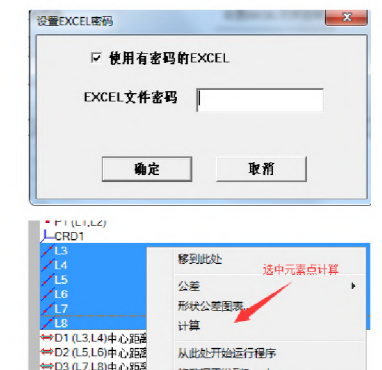
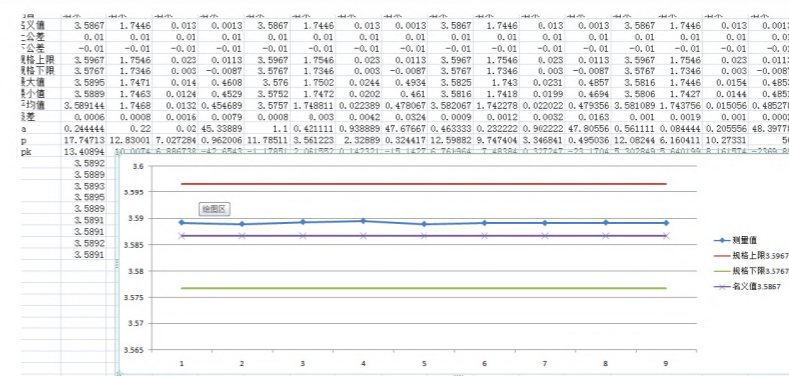
## 『SBK-INSPEC』 Automatic contour scan, reverse scan, automatic shape recognition and direct measurement

Set the starting point and the machine will automatically scan the entire outline. The scanned point cloud can directly construct points, arcs, straight lines and so on in the software.

## 『SBK-INSPEC』 Automatic lighting function, light source rotation and recording function

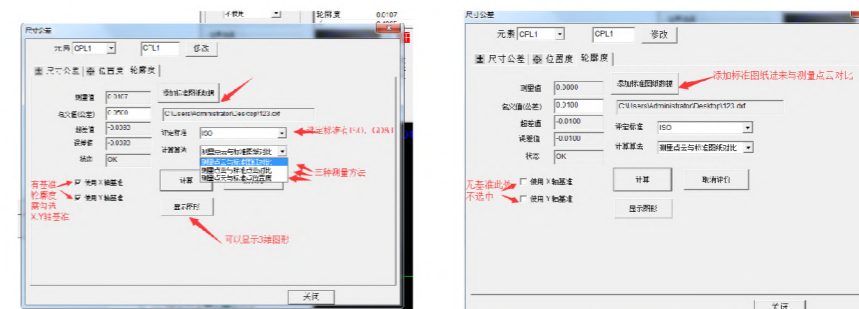
『SBK-INSPEC』 It will adjust the brightness of the light source according to the definition of the image, and select the optimal measurement light source brightness through intelligent identification, which is convenient for users to adjust quickly. After the software is turned off, the restart will automatically adjust to the brightness of the light source before the last software is turned off.

## 『SBK-INSPEC』 Report output function, calculation function, password protection



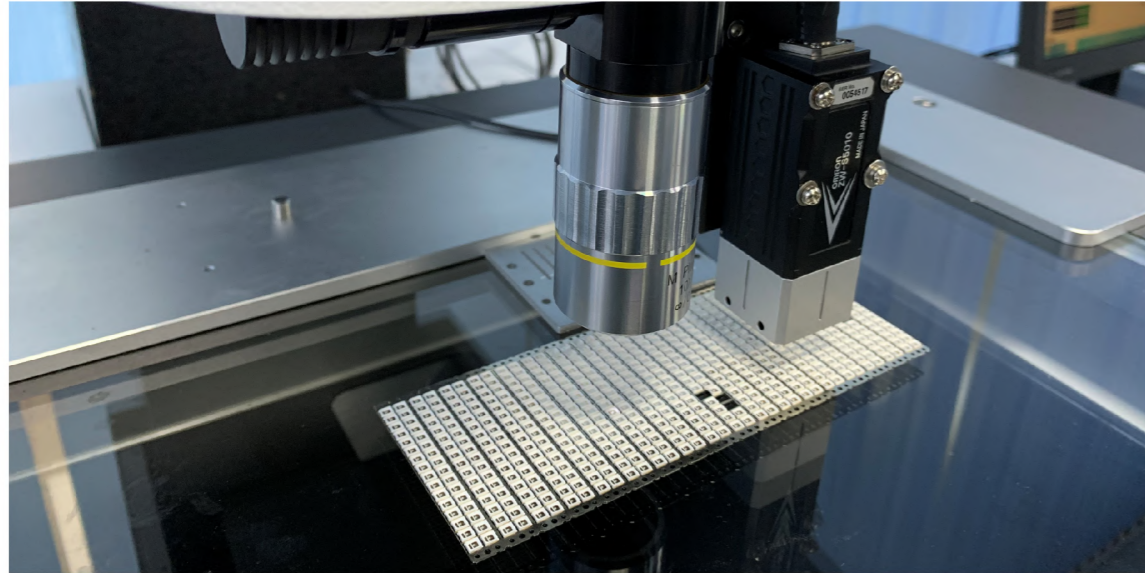
## 『SBK-INSPEC』 Geometric tolerance detection, including the reference contour and no reference contour calculation

『SBK-INSPEC』 Geometric tolerances such as position, concentricity, roundness, straightness, contour, flatness and perpendicularity are included. Profilometry can be measured with and without reference profilometry. There are two evaluation standards, ISO and GD. There are three methods for measuring datum profilometry: comparison of measuring point cloud with standard drawing, comparison of measuring point cloud with standard point cloud, and comparison of measuring point position degree with standard point.





## Laser + Video measuring machine



## Mobile phone panel

With touch screen mobile phone and the popularity of electronic products such as tablets, 5 g network development, China's average improvement of living standards, labor costs increased, manufacturers are looking for a variety of effective means of technology upgrading and methods, with the latest technology and the best quality to win in the fierce market competition as a mobile phone touch screen mobile phone panel, one of the most important part of the plane dimension and flat degree of geometrical quantity is higher and higher demands are proposed such as reproduction in manufacturing process, in order to ensure the qualified rate of relative size, must ensure that measuring equipment running speed, stable and accurate measurement data.

### User's detection requirements

Flatness, R-angle, geometric dimensioning, Touch controlled conduction particles

### Measuring the difficulty

1. The traditional optical focusing mode is used to measure flatness, which leads to slow speed, poor accuracy and poor repeatability.
2. The circuits in the touch screen are so tiny that they are difficult to measure with a normal lens
3. Products often need to be all tested, measurement efficiency is not enough.

### Solutions

1. The automatic video measuring machine is equipped with high-precision point laser to measure flatness, with the precision up to 0.0003mm, and the measuring speed is 5 times that of the image measuring instrument
2. Provide laser scanning point cloud for flatness calculation, high point, low point and average point to achieve good repeatability accuracy and intelligent extraction
3. It can be equipped with a metallographic lens, high magnification of conductive particles, image distortion is not distorted, height difference measurement can be up to 0.0002mm
4. Can be multi-product program batch measurement, and can directly output NG or OK



## Large size, high precision is no longer a problem



## LCD panel, PCB, back light panel, LCD display frame

With LCDS and OLED TVS dominating the living room, the OLED panel industry offers more opportunities for many panel makers, with brighter, thinner, firmer and sharper images.

### Measuring the difficulty

1. Large size, high precision, small stroke video measuring machine can not meet the demand
2. The LCD panel size is large but the conductive particle size is small, so it is not easy to measure and observe
3. Many sizes need to be magnified hundreds of times to be observed without any slight shaking
4. Products with partial softness

### Solutions

1. The maximum trip of the product is 2500\*1800mm, it can meet all kinds of requirements
2. Shockproof device can be installed to solve the problem of shaking under high magnification
3. It can be equipped with a metallographic lens to measure the conductive particles
4. Glass pressing device can be installed to prevent the product from warping

## Insulation material & Thin sheet of battery

With the continuous development of national science and technology, the battery industry has developed rapidly, and insulation materials have penetrated into all fields of electrical appliances. For example, due to the design and manufacturing accuracy of aluminum foil, cloth and other products, there may be too thin thickness, excessive peripheral burr, too narrow width, so the requirements for their measurement accuracy are increasingly high.

### Testing requirements

Observe and measure burrs

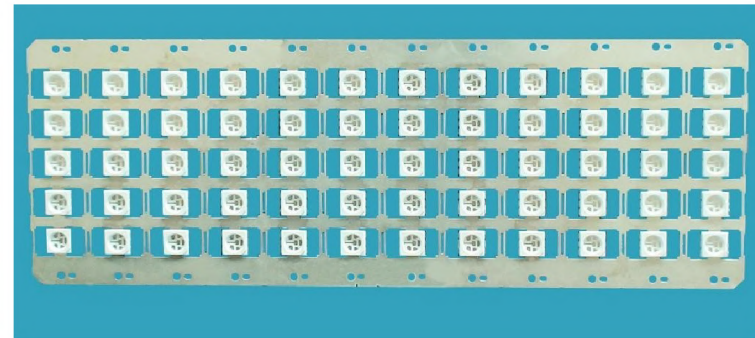
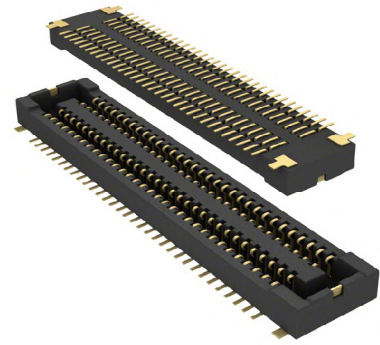
### Measuring the difficulty

1. Different product specifications
2. 180° both sides are measured and required to measure speed

### Solutions

1. Equipped with professional wafer clamp with motor drive
2. The software adds W axis to realize 180° any Angle measurement



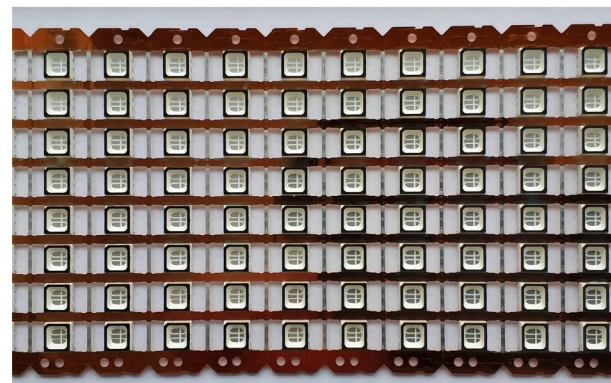


## Connector

Connectors are widely used in aerospace, national defense, automobile industry, computer industry, etc., as the exchange parts to transmit current or signal connection, the technical requirements of connectors are getting higher and higher

## LED bracket

LED lighting started in the 1970s, and a relatively complete industrial chain has been formed in the production of extension chips and the manufacturing and packaging of LED chips. At present, SMD stent is the most widely used stent in the manufacturing industry, and the quality requirements of products are getting higher and higher.



## Testing requirements

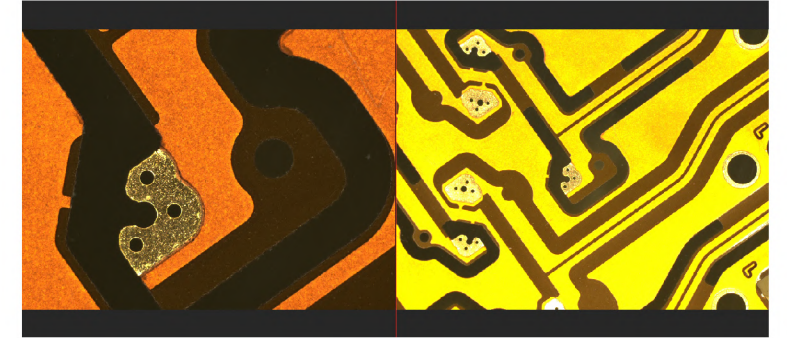
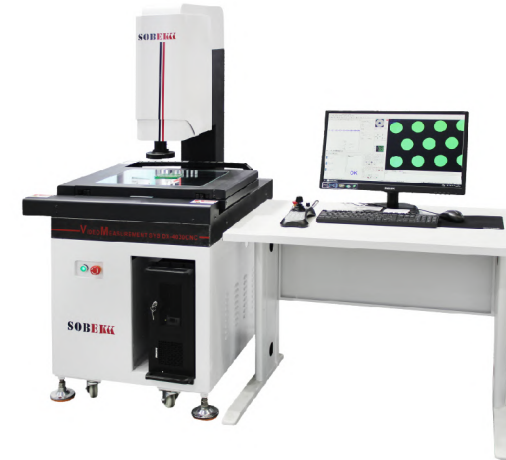
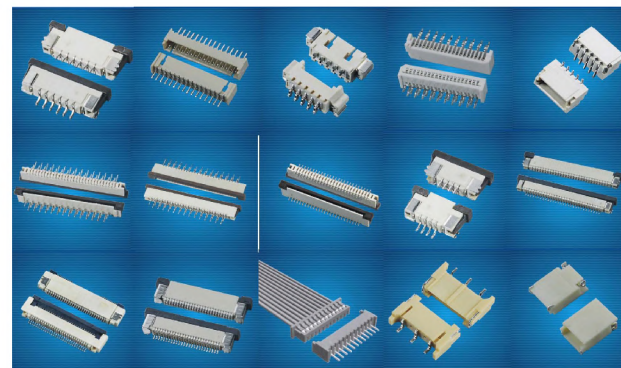
Array measurement, contour size and measurement speed fast.

## Measuring the difficulty

- 1.The connecting hole or needle is usually in array, so it is inconvenient to extract and measure one by one
- 2.The surface image of solid color product is not clear, and it is difficult to grasp with the instrument
- 3.The product may be measured inside a deep hole and cannot be observed with ordinary light sources

## Solutions

- 1.SOBEKK products can be equipped with coaxial light source and customized high depth of field optical lens.
  - 2.SOBEKK Software with matrix, ring array, mirror, such as array, programming simple, easy to operate.
- Multi-function light source system can be installed to achieve arbitrary Angle lighting.



As the modern manufacturing industry puts forward higher and higher requirements for manufacturing efficiency and parts quality, it is necessary to realize the measurement and verification of parts in a very short time. After years of research and testing, SOBEKK has launched a dual-field coaxial concentric mobile measuring instrument, which can meet the requirements of high efficiency detection of users and also solve the problem of instant video measuring machines that cannot measure large size, high precision and surface size.

## Testing requirements

Multi - part measurement at the same time, high speed and precision.

## Measuring the difficulty

- 1.Ordinary video measuring machines measure short dimensions
- 2.Under high magnification, instant video measuring machine is impossible to measure the fine

## Solutions

- 1.SOBEKK's newly developed large diameter dual lens can capture the overall image of a part and measure the position of the whole part at one time. Meanwhile, it is equipped with continuous variable hd lens, which can measure the part with high precision.
- 2.Equipped with array translation function, it can perform array programming measurement and template matching measurement of product double field.
- 3.Realize flash measurement of small size parts such as small parts, gears, springs, screws and magnetic materials, and can also flash measurement of external dimensions of circuit board connectors and other products, and high-precision measurement of micro dimensions.

