

Model	W200	W300
Measuring range(mm)	200*100*200	300*200*200
Machine size(mm)	950*845*1285	1050*845*1285
Weight (kg)	150	190
Max. load (kg)	20	20
Accuracy of X-Y axis	3+L/200μm	
Accuracy of Z axis	5+L/200μm	
XYZ resolution	1.0μm (option 0.5um, 0.1um scale)	
Repeatability (mm)	0.003	
Linear encoder	glass linear scale	
Camera type	SBK-HC536 1/3 inches 600 lines industrial color camera	
Liner guide	Z axis: Taiwan "HIWIN" P grade linear guideway; XY use "V" type linear guideway	
Optics	6.5:1 continual zoom step lens	
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X	
Software	SBK-E manual 2.5D measure software	
Control system	SBK3000 control box, USB port, adjustable light	
Profile illumination	LED cold lighting, 256 level programmable brightness adjustment	
Surface illumination	LED cold lighting with segmented independent control & 256 level programmable brightness adjustment	
Operated mode	handle wheel	
Option device	0.5X, 2X extend lens	



E-W Horizontal manual image measuring instrument

Application area

Applied to include electronics, metal, plastic, mold, clocks and watches, auto parts, ceramics, PCB and other industries.



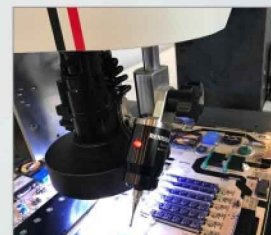
Automobile manufacturing



The LCD panel



precision hardware gear



P-CNC



mechanical processing injection mold



Magnetic materials



Electronics manufacturing terminals are made by plugins



Electronics manufacturing terminals are made by plugins



car manufacturing



PCB



Automobile manufacturing



machine box body



Dongguan City BiGa Grating Machinery Co.Ltd is a 15 years experience, pioneering and innovative spirit of the instrument industry elite team of high-tech joint-stock enterprises, independent research and development, production, sales and all kinds of high precision optical measuring instruments used in industry. Precision manufacturing specializing in providing products and solutions of industrial automation and intelligent, mainly for product size measurement, surface defect detection, automatic production assembly and so on each link, help customers to improve quality, improve efficiency, reduce cost, thus to promote the customer enterprise competitiveness.

Bica currently has precision image measuring instrument, image measuring automation equipment, image detection automation equipment and video assembly automation equipment And the four products. The precision measuring instruments and equipment and solutions have been successfully applied to include electronics, metal, plastic, mold, clocks and watches, auto parts, ceramics, PCB and other industries.

东莞市必嘉光栅机械有限公司是一家具有15年从业经验、具有开拓创新精神的仪器行业精英团队组建的高科技股份制制造企业，自主研发、生产、销售、各类工业用高精度光学测量仪器。在台湾设立一个研发中心，在大陆拥有六大营销售后服务中心和一个海外事业部。致力于为精密制造客户提供工业自动化与智能化的产品与解决方案，主要针对产品尺寸测量，表面缺陷检测，自动化生产装配等各环节，帮助客户提升质量，改善效率，降低成本，从而推进客户企业的竞争力。

必嘉 (Bica) 目前拥有精密影像测量仪器，影像测量自动化设备，影像检测自动化设备和影像组装自动化设备等四大产品系列。其中精密测量仪器设备与解决方案已成功运用到包括电子，五金、塑胶、模具、钟表、陶瓷、PCB板、汽车零件等行业。

Model	A300CNC	A400CNC	A500CNC
Measuring range(mm)	300*200*180	400*300*180	500*400*180
Machine size(mm)	1450*1050*1650	1600*1200*1650	1800*1400*1650
Weight (kg)	450	500	650
Max.load (kg)	20	25	25
Accuracy of X-Y axis	3+L/200μm		
Accuracy of Z axis	5+L/200μm		
XYZ resolution	1.0μm		
Repeatability (mm)	0.003		
Linear encoder	glass linear scale		
Moving speed (mm/s)	X-Y: 400 Z: 100		
Camera type	SBK-HC536 1/2 inches 700 lines industrial color camera		
Liner guide	Taiwan "Hiwin" P grade linear guideway		
Screw rod	"TBI" ground ball screw rod		
Optics	6:5:1 continual zoom step lens		
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X		
Software	SBK-CNC full-automatic measuring software		
Control system	SBK4000 fully closed-loop control		
Profile illumination	LED cold lighting,256 level programmable brightness adjustment		
Surface illumination	4 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment		
Motor	China "Tiger" synchronous AC servo motor		
Operated mode	software + joystick		
Option device	Renishaw MCP probe, Keyence laser measure probe, Auto zoon GPS lens		



E-A-CNC-Standard automatic image measuring instrument

Model	AC300CNC	AC400CNC	AC500CNC
Measuring range(mm)	300*200*180	400*300*180	500*400*180
Machine size(mm)	850*130*1550	1000*1400*1550	1200*1500*1550
Weight (kg)	260	350	450
Max.load (kg)	20	25	25
Accuracy of X-Y axis	3+L/150μm		
Accuracy of Z axis	5+L/100μm		
XYZ resolution	1.0μm		
Repeatability (mm)	0.005		
Linear encoder	glass linear scale		
Moving speed (mm/s)	X-Y: 200 Z: 100		
Camera type	SBK-HC536 1/2 inches 700 lines industrial color camera		
Liner guide	Z axis:"Hiwin" P linear guideway, XY use "V" type linear guideway		
Screw rod	Z axis:"TBI" ground ball screw rod, XY use normal screw rod		
Optics	6:5:1 continual zoom step lens		
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X		
Software	SBK-CNC full-automatic measuring software (simply versions)		
Control system	SBK4000 fully closed-loop control		
Profile illumination	LED cold lighting,256 level programmable brightness adjustment		
Surface illumination	4 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment		
Motor	China "Tiger" synchronous AC servo motor		
Operated mode	software, can option standard CNC software with "joystick"		
Option device	Renishaw probe,Auto zoon GPS lens, standard CNC software,joystick		



E-AC-CNC-Economical automatic image measuring instrument

Model	AM500CNC	AM500CNC	AM500CNC	AM500CNC	AM500CNC
Measuring range(mm)	500x400x200	500x400x200	500x400x200	500x400x200	500x400x200
Weight (kg)	1100	1100	1100	1100	1100
Max.load (kg)	30	30	30	30	30
Accuracy of X-Y axis	3+L/200μm				
Accuracy of Z axis	5+L/200μm				
XYZ resolution	0.1μm				
Repeatability (mm)	0.003				
Linear encoder	"RENISHAW" metal linear				
Moving speed (mm/s)	X-Y: 500 Z: 100				
Camera type	SBK-HC600 1/2 inches 700 lines industrial color camera				
Liner guide	Taiwan "HIWIN" P grade linear guideway				
Optics	6:5:1 continual zoom lens				
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X				
Software	SBK-CNC full-automatic measuring software				
Control system	SBK4000 fully closed-loop control				
Profile illumination	LED cold lighting,256 level programmable brightness adjustment				
Surface illumination	4 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment				
Motor	"PANASONIC" synchronous AC servo motor				
Operated mode	software + joystick				
Option device	Renishaw MCP probe, Keyence lase measure probe, Auto GPS lens				



E-AM-CNC longmen automatic image measuring instrument

Model	AZ300CNC	AZ400CNC	AZ500CNC
Measuring range(mm)	300*200*180	400*300*180	500*400*180
Machine size(mm)	1450*1050*1650	1600*1200*1650	1800*1400*1650
Weight (kg)	450	500	650
Max.load (kg)	20	25	25
Accuracy of X-Y axis	2+L/200μm		
Accuracy of Z axis	5+L/200μm		
XYZ resolution	0.5μm		
Repeatability (mm)	0.002		
Linear encoder	"RENISHAW" metal linear		
Moving speed (mm/s)	X-Y: 400 Z: 100		
Camera type	SBK-HC536 1/2 inches 700 lines industrial color camera		
Liner guide	Japan "THK" SP grade linear guideway		
Screw rod	"THK" ground ball screw		
Optics	6:5:1 continual zoom Auto GPS lens		
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X		
Software	SBK-CNC full-automatic measuring software		
Control system	SBK4000 fully closed-loop control		
Profile illumination	LED cold lighting,256 level programmable brightness adjustment		
Surface illumination	4 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment		
Motor	"PANASONIC" synchronous AC servo motor		
Operated mode	software + joystick		
Option device	Renishaw MCP probe, Keyence laser measure probe		



E-AZ-CNC-Automatic image measuring instrument

Model	E200	E300	E400	E500
	/	S300 Z axis auto	S400 Z axis auto	S500 Z axis auto
	EP200 3D probe	EP300 3D probe	EP400 3D probe	EP500 3D probe
Measuring range(mm)	200*100*200	300*200*200	400*300*200	500*400*200
Machine size(mm)	750*1300*1500	750*1300*1500	900*1400*1500	1100*1125*1650
Weight (kg)	300	300	400	530
Max.load (kg)	20	20	25	30
Accuracy of X-Y axis	3+L/200μm			
Accuracy of Z axis	5+L/200μm			
XYZ resolution	1.0μm			
Repeatability (mm)	0.003			
Linear encoder	glass linear scale			
Camera type	SBK-HC536 1/3 inches 600 lines industrial color camera			
Liner guide	Z axis: Taiwan "HIWIN" P grade linear guideway; XY use "V" type linear guideway			
Optics	6:5:1 continual zoom step lens			
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X			
Software	SBK-E manual 2.5D measure software			
Probe	Renishaw MCP probe (EP model)			
Z axis motor	China "Tiger" synchronous AC servo motor (S model)			
Control system	SBK3000 control box, USB port, adjustable light			
Profile illumination	LED cold lighting,256 level programmable brightness adjustment			
Surface illumination	LED cold lighting with segmented independent control & 256 level programmable brightness adjustment			
Operated mode	handle wheel			
Option device	Renishaw MCP probe, 0.5X, 2X extend lens			



E-E Manual image measuring instrument

Model	S500	S600	S800
Measuring range(mm)	500*400*200	600*500*200	800*600*200
Machine size(mm)	1200*900*1500	1200*1100*1500	1800*1400*1500
Weight (kg)	300	350	400
Max.load (kg)	20	25	25
Accuracy of X-Y axis	3+L/150μm		
Accuracy of Z axis	5+L/150μm		
XYZ resolution	1.0μm		
Repeatability (mm)	0.005		
Linear encoder	glass linear scale		
Moving speed (mm/s)	X-Y: manual Z: 100		
Camera type	SBK-HC536 1/2 inches 700 lines industrial color camera		
Liner guide	Z axis:"Hiwin" P linear guideway, XY use "V" type linear guideway		
Screw rod	Z axis:"TBI" ground ball screw rod, XY use normal screw rod		
Optics	6:5:1 continual zoom step lens		
Magnification	optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X		
Software	SBK-JCNC semi-automatic measuring software (simply versions)		
Control system	SBK3000 control box		
Profile illumination	LED cold lighting,256 level programmable brightness adjustment		
Surface illumination	LED cold lighting with segmented independent control & 256 level programmable brightness adjustment		
Z axis Motor	China "Tiger" synchronous AC servo motor		
Operated mode	software, can option standard CNC software with "joystick"		
Option device	0.5X, 2X extend lens		



E-S Semi-automatic image measuring instrument