E-MANUAL



Features:

- ✓ "HIWIN" P level linear guideway and precision cross roller guideway for increased accuracy & working life
- ✓ Integrated granite base and column ensures good machine stability.
- Supplied with SBK-E multifunctional 2.5D measuring software, automatic edge detection and video height measurement
- Supplied with removable & dismountable console base
- ✓ High-definition detent zoom lens and CCD performs high-definition measurement.
- Supports different file formats of data output such as Word, Excel, CAD etc.
- ✓ Supports DXF data import for quick inspection



شرکت دقیق پرتو تامین کننده تجهیز ات آرمایشگاهی و کنترل کیفی ۶۹۳۷۲۱۴ ه ۲۰ ۲۰

Model	E200	E300	E400
Measuring range X-Y-Z(mm)	200 x 100 x 200	300 x 200 x 200	400 x 300 x 200
Dimensions (mm)	750 x 1300 x 1500	750 x 1300 x 1500	900 x 1400 x 1500
Weight (kg)	160	170	250
Max. work-piece load (kg)	20	25	25

E-MANUAL

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/200

Repeatability (mm): 0.003

Linear encoder: exposed glass linear encoder with resolution of 1.0µm

Guideway: X-Y axis: precision cross roller guideway

Z axis: "HIWIN" P level linear guideway

Drive

Drive type: manual

Control system: SBK-3000 data controller, USB interface, software controlled lighting

Optics

Camera type: SBK-HC536 1/3 inches 600 lines industrial color camera Body tube: 6.5:1 continual zoom detent body tube Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment



شرکت دقیق پرتو تامین کننده تجهیزات آزمایشگاهی و کنترل کیفی ۲۹۳۷۲۱۴ ۹۳۷۲۱۴

E-MANUAL

Surface illumination: 48 LEDs cold lighting with 256 level programmable brightness adjustment

Measuring Software

Software: SBK-E 2D measuring software

Operated mode: Vision Inspection



شرکت دقیق پرتو تامین کننده تجهیز ات آزمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ه ۶۶۹۳۷۲۱۴

EP-MANUAL



Features:

- ✓ "RENISHAW" probe system performs simple 3D contacted measurement.
- ✓ Vision measurement along with a touch probe solves the problems of geometrical measurement
- ✓ "HIWIN" P level linear guideway and precision cross roller guideway for increased accuracy & working life
- ✓ Integrated granite base and column ensures good machine stability.
- Supplied with SBK-EP multifunctional 3D measuring software, automatic edge detection and programmable lighting
- Supplied with removable & dismountable console base
- ✓ High-definition detent zoom lens & CCD performs high-definition measurement.
- Supports different file formats of data output such as Word, Excel, CAD etc.



شرکت دقیق پرتو تامین کننده تجهیزات آرمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ۶۹-۲۱ م

Model	EP200	EP300	EP400
Measuring range X-Y-Z(mm)	200 x 100 x 200	300 x 200 x 200	400 x 300 x 200
Dimensions (mm)	750 x 1300 x 1500	750 x 1300 x 1500	900 x 1400 x 1500
Weight (kg)	160	170	250
Max. work-piece load (kg)	20	25	25

EP-MANUAL

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/200

Repeatability (mm): 0.003

Linear encoder: exposed glass linear encoder with resolution of 1.0µm

Guideway: X-Y axis: precision cross roller guideway

Z axis: "HIWIN" P level linear guideway

Probe: "RENISHAW" MCP probe system

Drive

Drive type: manual

Control system: SBK-3000 data controller, USB interface, software controlled lighting

Optics

Camera type: SBK-HC536 1/3 inches 600 lines industrial color camera

Body tube: 6.5:1 continual zoom detent body tube

Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X

دقيق پر تو даднідн рагто شرکت دقیق پرتو تامین کننده تجهیزات آزمایشگاهی و کنترل کیفی ۲۹۳۷۲۱۴ ۹۳۷۲۱۴ ۹

EP-MANUAL

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment

Surface illumination: 48 LEDs cold lighting with 256 level programmable brightness adjustment

Measuring Software

Software: SBK-EP 3D measuring software

Operated mode: Vision Inspection & Probe Measurement



A-CNC



Features:

- Measuring table is made of aerospace aluminum alloy with high rigidity. Suitable for high-speed movement, this material is very light and with low inertia to ensure the long-term stability of the machine.
- Imported key components with rigorous, normative assembling & adjustment
- ✓ 3-axis CNC controls; full-automatic measurement.
- Being equipped with a navigational body tube realizes the function of map navigation.
- Adopting high-definition frame grabber ensures image sharpness of measurement.
- "HIWIN" SP level precision linear guideway and "TBI" ground ball screw
- ✓ High-resolution exposed linear encoder with resolution of 1µm



Model	A300CNC	A400CNC	A500CNC
Measuring range X-Y-Z(mm)	300 x 200 x 180	400 x 300 x 180	500 x 400 x 180
Dimensions (mm)	1450 x 1050 x 1650	1600 x 1200 x 1650	1800 x 1400 x 1650
Weight (kg)	450	550	650
Max. work-piece load (kg)	20	25	25

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/200

Accuracy of Z axis (µm): 5+L/200

Repeatability (mm): 0.002

Linear encoder: exposed glass linear encoder with resolution of 1.0µm

Guideway: "HIWIN" SP level linear guideway

Ball screw: "TBI" ground ball screw

Drive

Motor: "TIGER" synchronous AC servo motor

Moving speed (mm/s): X-Y: 0~400 Z: 0~100

Control system: SBK4000 fully closed-loop control

Optics

Camera type: SBK-HC536 700 lines industrial color camera Frame grabber: "DAHENG" dual channel color frame grabber with high definition Body tube: 6.5:1 continual zoom navigational body tube Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X



شرکت دقیق پرتو تامین کننده تجهیزات آرمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ۹۳۷۲۶ ما

A-CNC

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment Surface illumination: 4 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment

Measuring Software

Software: SBK-CNC full-automatic measuring software

Operated mode: Software



AC-CNC



Features:

- X-Y-Z 3-axis CNC full-automatic measuring system
- Imported key components with rigorous, normative assembling & adjustment
- ✓ 3-axis CNC controls, full-automatic measurement
- Equipped with high-definition detent body tube
- High-definition frame grabber
- Precision "HIWIN" P level linear guideway & cross roller guideway;
- High-precision linear drive nut made by Germany
- ✓ High-resolution exposed linear encoder with resolution of 1µm



Model	AC300CNC	AC400CNC	AC500CNC
Measuring range X-Y-Z(mm)	300 x 200 x 180	400 x 300 x 180	500 x 400 x 180
Dimensions (mm)	850 x 1300 x 1550	1000 x 1400 x 1550	1200 x 1500 x 1650
Weight (kg)	250	350	450
Max. work-piece load (kg)	20	25	25

AC-CNO

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/150

Accuracy of Z axis (µm): 5+L/100

Repeatability (mm): 0.005

Linear encoder: exposed glass linear encoder with resolution of 1.0µm

Guideway: X-Y axis: precision cross roller guideway

Z axis: "HIWIN" P level linear guideway

...

Ball screw: X-Y axis: linear drive nut

Z axis: "TBI" ground ball screw

Drive

Motor: "TIGER" synchronous AC servo motor Moving speed (mm/s): X-Y: 0~150 Z: 0~100 Control system: SBK4000 fully closed-loop control

Optics

Camera type: SBK-HC536 700 lines industrial color camera Frame grabber: "DAHENG" dual channel color frame grabber with high definition



شرکت دقیق پرتو تامین کننده تجهیزات آرمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ۹۳۷۲۱۶ م

.....

AC-CNC

Body tube: 6.5:1 continual zoom detent body tube

Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment

Surface illumination: 4 rings 8 segments LED cold lighting with segmented independent control & 256 level

programmable brightness adjustment

Measuring Software

Software: SBK-JCNC full-automatic measuring software

Operated mode: Software



AZ-CNC



Features:

- Measuring table is made of aerospace aluminum alloy with high rigidity. Suitable for high-speed movement, this material is very light and with low inertia to ensure the long-term stability of the machine.
- Imported key components with rigorous, normative assembling and adjustment
- 4-axis controls, full automatic measurement
- Equipped with full automatic zoom body tube performs 4-axis auto-measurement.
- ✓ Adopting high-definition "DAHENG" frame grabber ensures the image sharpness of measurement
- "THK" high precision linear guideway and ground ball screw
- ✓ "RENISHAW" metal linear encoder with high resolution of 0.5µm
- Adopting "RENISHAW" probe system realizes 3D contacted measurement



شرکت دقیق پرتو تامین کننده تجهیزات آزمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ م

Model	AZ300CNC	AZ400CNC	AZ500CNC
Measuring range X-Y-Z(mm)	300 x 200 x 180	400 x 300 x 180	500 x 400 x 180
Dimensions (mm)	1450 x 1050 x 1650	1600 x 1200 x 1650	1800 x 1400 x 1650
Weight (kg)	450	550	650
Max. work-piece load (kg)	20	25	25

AZ-CNO

Measuring Stage

Accuracy of X-Y axis (µm): 2+L/200

Accuracy of Z axis (µm): 5+L/100

Repeatability (mm): 0.002

Linear encoder: "RENISHAW" metal linear encoder with resolution of 0.5µm

Guideway: "THK" SP level precision linear guideway

Ball screw: "THK" ground ball screw

Drive

Motor: "PANASONIC" synchronous AC servo motor

Moving speed (mm/s): X-Y: 0~400 Z: 0~100

Control system: SBK4000 fully closed-loop control

Optics

......................

Camera type: SBK-HC600 1/2 inches 700 lines industrial color camera Frame grabber: "DAHENG" color frame grabber with high definition Body tube: 6.5:1 continual automatic zoom body tube Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X



شرکت دقیق پرتو تامین کننده تجهیزات آرمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ۹۳۷۲۶ ما

AZ-CNC

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment Surface illumination: 6 rings 8 segments LED cold lighting with segmented independent control & 256 level programmable brightness adjustment

Measuring Software

Software: SBK-CNC full-automatic measuring software

Operated mode: Software & Joystick



S-BRIDGE



Features:

- Z-axis adopts servo motor driving, to realize motorized autofocus & improve the manual operability of machine.
- ✓ Granite base with sturdy frame construction
- ✓ Bridge type construction for large work-piece that requires small measuring range
- Autofocus & semi-automatic measurement solve the problems of geometrical measurement
- "HIWIN" P level linear guideway and precision cross roller guideway for increased accuracy & working life
- ✓ High-definition detent zoom lens and CCD performs high-definition measurement.
- Supports different file formats of data output such as Word, Excel, CAD etc.



Model	S500	S600	S800
Measuring range X-Y-Z(mm)	500 x 400 x 200	600 x 500 x 200	800 x 600 x 200
Dimensions (mm)	1200 x 900 x 1500	1400 x 1100 x 1500	1600 x 1400 x 1500
Weight (kg)	300	350	400
Max. work-piece load (kg)	20	25	25

S-BRIDGE

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/150

Accuracy of Z axis (µm): 5+L/150

Linear encoder: exposed glass linear encoder with resolution of 1.0µm

Guideway: X-Y axis: precision cross roller guideway

Z axis: "HIWIN" P level linear guideway

Ball screw: X-Y axis: linear drive nut

Z axis: "TBI" ground ball screw

Drive

Motor: "TIGER" synchronous AC servo motor

Moving speed of Z-axis (mm/s): 0~100

Control system: SBK-3000 data controller, USB interface, software controlled lighting

Optics

Camera type: SBK-HC536 700 lines industrial color camera Frame grabber: "DAHENG" color frame grabber with high definition Body tube: 6.5:1 continual zoom detent body tube



شرکت دقیق پرتو تامین کننده تجهیزات آزمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ ۹۳۷۲۱۶ م

S-BRIDGE

Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment

Surface illumination: LED cold lighting with segmented independent control & 256 level programmable

brightness adjustment

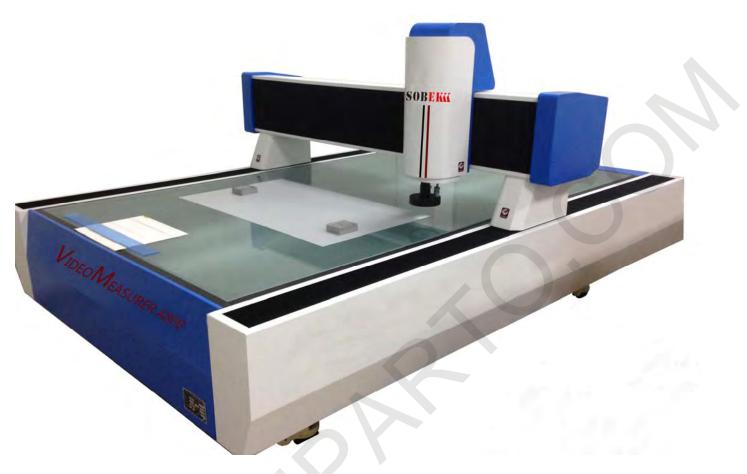
Measuring Software

Software: SBK-S semi-automatic measuring software Operated mode: Software



AM-BRIDGE-

Video Measuring System



Features:

- ✓ Sturdy bridge type construction with long-travel automatic vision measurement.
- ✓ Granite base keeps machine movement steadily.
- ✓ Auto-focus for height measurement, touch probe can be fixed.
- ✓ 4-axis CNC controls, full-automatic measurement
- Being equipped with navigational body tube performs a function of map navigation. (automatic zoom lens optional)
- ✓ Programmable 6 rings 8 segments ring light for surface illumination, LED light for profile illumination
- ✓ "RENISHAW" metal linear encoder with high resolution of 1.0µm
- "HIWIN" precision linear guideway & "TBI" ground ball screw
- "DAHENG" special frame grabber with high-definition ensures the image sharpness of measurement



شرکت دقیق پرتو تامین کننده تجهیزات آزمایشگاهی و کنترل کیفی ۲۹۳۷۴۱۴ میز ۲۰ ۲۰

Model	AM500CNC	AM600CNC	AM800CNC
Measuring range X-Y-Z(mm)	500 x 400 x 200	600 x 500 x 200	800 x 600 x 200
Dimensions (mm)	1150 x 1500 x 1700	1250 x 1700 x 1700	1425 x 2100 x 1700
Weight (kg)	1100	1450	1800
Max. work-piece load (kg)		60	

AM-BRIDGE

Model	AM1000CNC	AM1500CNC	
Measuring range X-Y-Z(mm)	1000 x 800 x 200	1500 x 1200 x 200	
Dimensions (mm)	1825 x 2400 x 1700	2050 x 2800 x 1700	
Weight (kg)	3300	4300	
Max. work-piece load (kg)	6	0	

Measuring Stage

Accuracy of X-Y axis (µm): 3+L/200
Accuracy of Z axis (µm): 5+L/200
Repeatability (mm): 0.003
Linear encoder: "RENISHAW" metal linear encoder with resolution of 1.0µm
Guideway: "HIWIN" linear guideway
Ball screw: "TBI" ground ball screw

Drive

Motor: "PANASONIC" synchronous AC servo motor

Moving speed (mm/s): X-Y: 0~500 Z: 0~100



شرکت دقیق پرتو تامین کننده تجهیز ات آزمایشگاهی و کنترل کیفی ۶۶۹۳۷۲۱۴ م

AM-BRIDGE

Control system: SBK4000 fully closed-loop control

Optics

Camera type: SBK-HC600 1/2 inches 700 lines industrial color camera Frame grabber: "DAHENG" color frame grabber with high definition Body tube: 6.5:1 continual zoom detent body tube Magnification: optics zoom ratio: 0.7-4.5X; image zoom ratio: 24-158X

Illumination

Profile illumination: LED cold lighting with 256 level programmable brightness adjustment

Surface illumination: 6 rings 8 segments LED cold lighting with segmented independent control & 256 level

programmable brightness adjustment

Measuring Software

Software: SBK-CNC full-automatic measuring software

Operated mode: Software & Joystick

