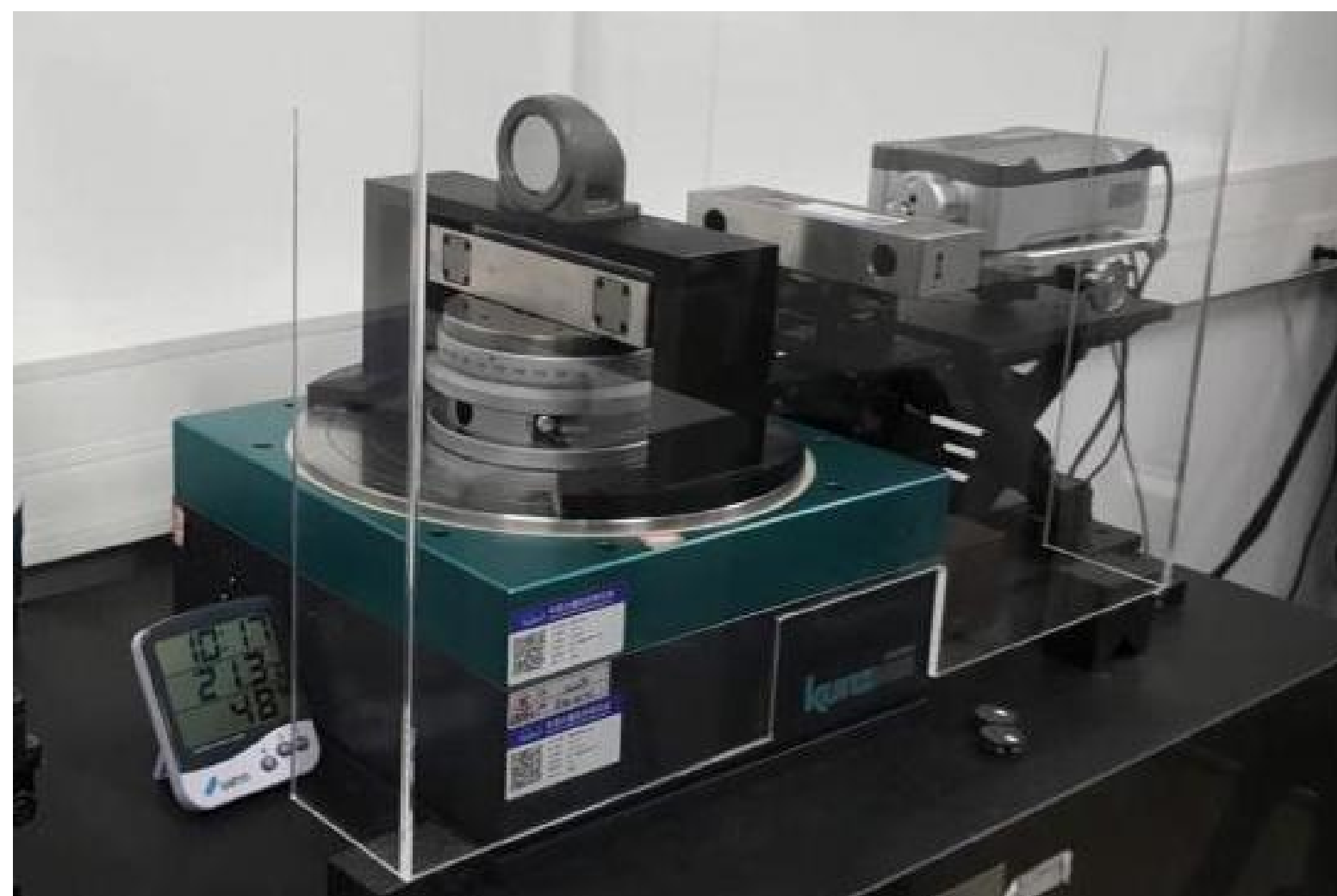
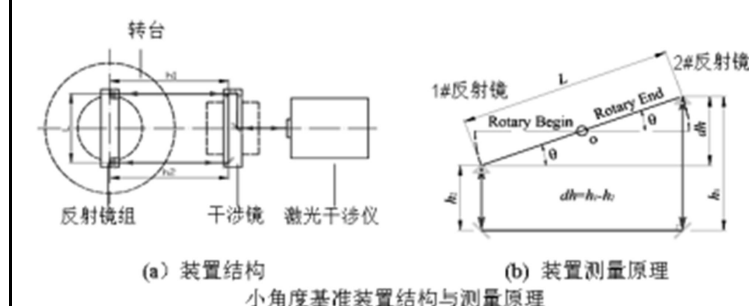


BWSENSING's Accuracy Traceability System



H29862 Laser small Angle reference device

Structure and measuring principle of the device	
Measurement model	$\theta = \arcsin\left(\frac{dh}{L}\right)$
Measurable instruments	Physical standard: optical Angle gauge Measuring instrument: Autocollimator
Indicators	Measurement range: $-5^{\circ} \sim +5^{\circ}$ Measurement uncertainty: $U=0.05^{\circ} (-1^{\circ} \sim +1^{\circ})$, $U=0.10^{\circ} (-5^{\circ} \sim +5^{\circ})$, $k=3$

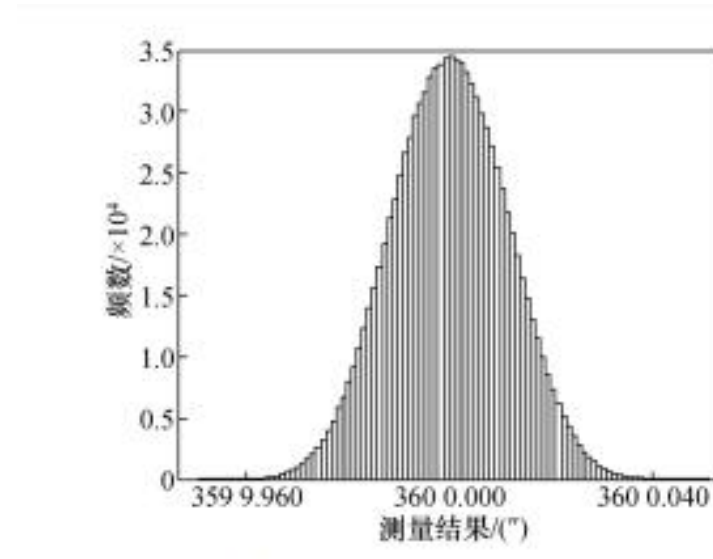


图 5 1°角测量结果分布

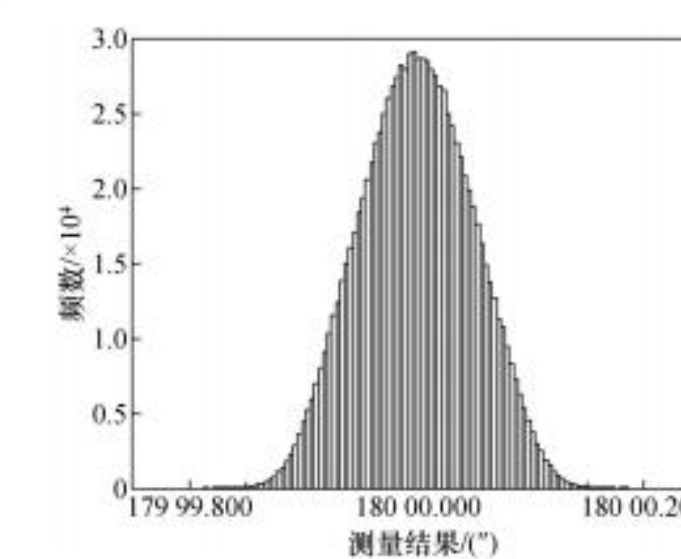


图 6 5°角测量结果分布

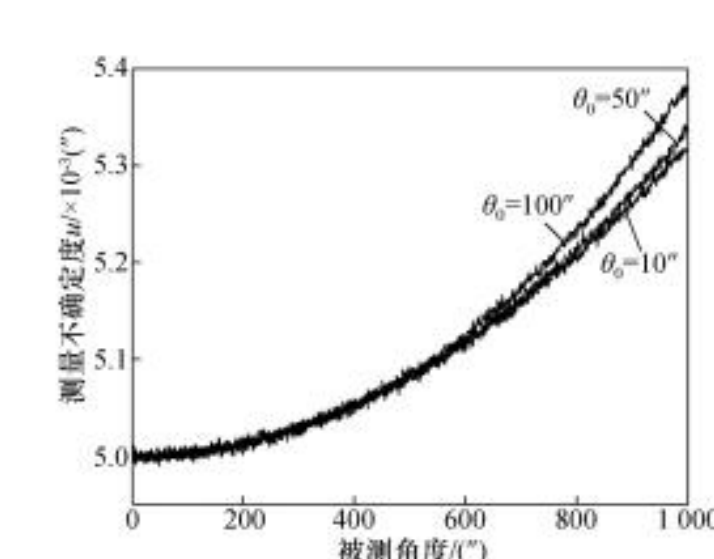


图 8 0°~1000° 测量不确定度

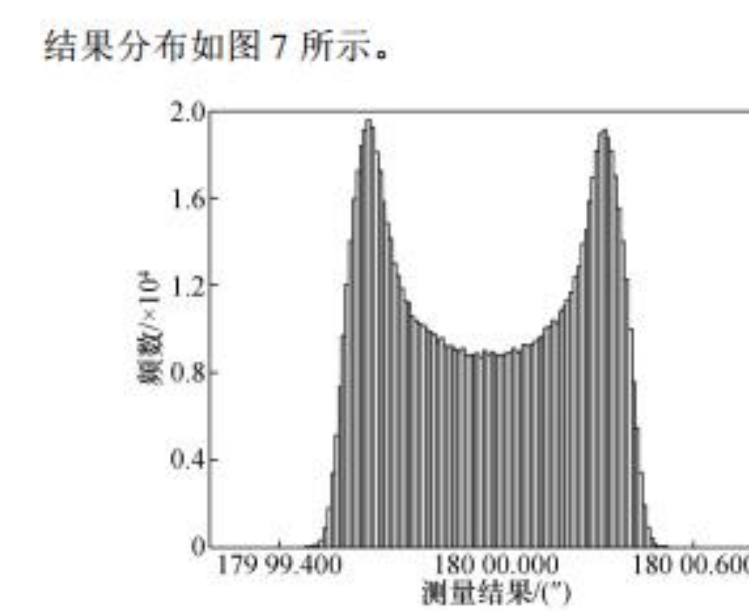


图 7 未精确调整零位角时,5°角测量结果分布

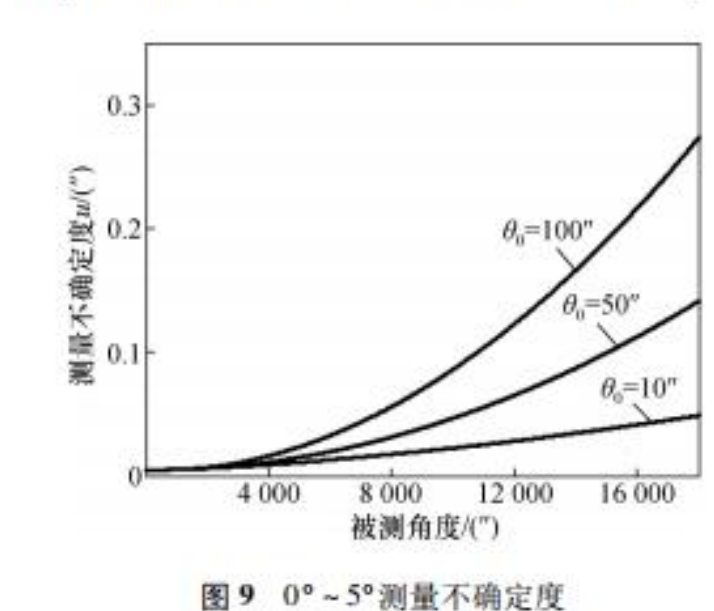
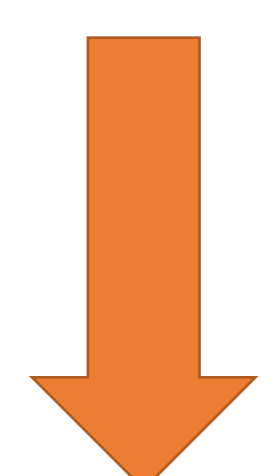
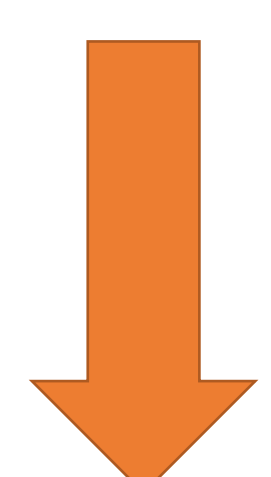


图 9 0°~5° 测量不确定度



ELCOMAT3000 Photoelectric autocollimator

Accuracy (arcsec)	± 0.1 over any 20" range ± 0.25 over total range
Number of measuring axes	2
Measuring range, (X) x (Y) (arcsec)	2000 x 2000 up to 2.5 m 1770 x 1770 at 3 m 1320 x 1320 at 4 m 1030 x 1030 at 5 m 850 x 850 at 6 m 730 x 730 at 7 m 640 x 640 at 8 m 570 x 570 at 9 m 510 x 510 at 10 m 340 x 340 at 15 m 260 x 260 at 20 m
Acquisition (arcsec)	ca. 3600 both axes
Resolution (arcsec)	0.005 up to 10; selectable
Reproducibility (arcsec)	0.05
Computer interface	RS-232 / USB
Mains voltage	90...250 V / 50...60 Hz
Scope of delivery	Autocollimation sensor, display unit, INCOLINK software interface, AC-adaptor power supply, IR-remote control, RS-232 cable, USB-cable, transportation and storage box



AVIC SGT-320E three-axis multi-function turntable

Inner frame position accuracy	$+1.4^{\circ}$	-0.6°	
Medium frame position accuracy	$+2.9^{\circ}$	-0.7°	
Frame position accuracy	$+0.0^{\circ}$	-2.6°	
Inside frame position repeatability	$\pm 0.6^{\circ}$		
Mid frame position repeatability	± 0.811		
Frame position repeatability	$\pm 0.7^{\circ}$		
Inner frame rate accuracy and rate stability	$ \omega \geq 10^{\circ}/s$	1.7×10^{-4}	8.3×10^{-4}
	$1^{\circ}/s \leq \omega < 10^{\circ}/s$	2.9×10^{-5}	1.7×10^{-3}
	$ \omega < 1^{\circ}/s$	6.5×10^{-4}	1.2×10^{-1}
Medium frame rate accuracy and rate stability	$ \omega \geq 10^{\circ}/s$	1.1×10^{-3}	2.0×10^{-1}
	$1^{\circ}/s \leq \omega < 10^{\circ}/s$	3.1×10^{-4}	2.4×10^{-2}
	$ \omega < 1^{\circ}/s$	1.5×10^{-4}	2.6×10^{-1}
Frame rate accuracy and rate stability	$ \omega \geq 10^{\circ}/s$	3.8×10^{-5}	3.2×10^{-3}
	$1^{\circ}/s \leq \omega < 10^{\circ}/s$	2.3×10^{-5}	3.4×10^{-2}
	$ \omega < 1^{\circ}/s$	6.7×10^{-5}	7.5×10^{-1}



BWS5700 High Accuracy Modbus Dual-Axis Inclinometer

Accuracy	0.001°(max)
Resolution	0.0001°
Measuring axis	X-Y
Measuring range	$\pm 15^{\circ}$
Power supply DC	9-35VDC
Wide operating temperature	$-40^{\circ}C \sim +85^{\circ}C$
Store temperature	$-55^{\circ}C \sim +100^{\circ}C$
Zero temperature drift	$\pm 0.0003^{\circ}/^{\circ}C$

