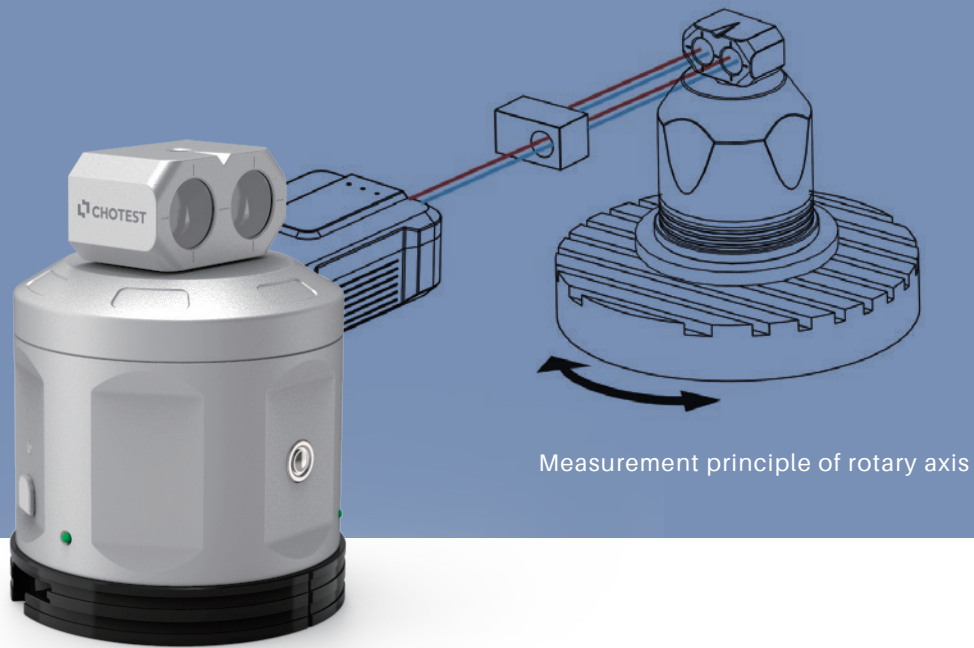


# Rotary Axis Calibrator WR 50



## Measurement Principle

Equipped with Rotary axis calibrator WR50 and Angle prism, Laser interferometer SJ6000 is capable to calibrate rotary axis 0~360°. Rotary axis calibrator WR50 is intalled to the rotary axis as an angle master.

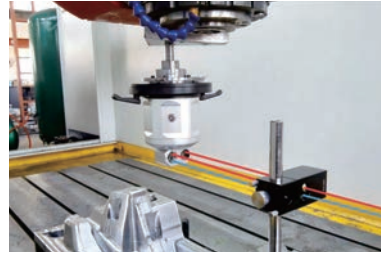
## Parameters

Model No.	WR50	Weight	1.9kg
Measuring Range	(0~360)°	Height	148mm
Measuring Accuracy	±1"	Diameter	112mm
Resolution	0.01"	Communication Type	Bluetooth
Max Axis Rotation Speed	10rpm	Power Supply	Li-battery
Max Tracking Speed	2rpm		

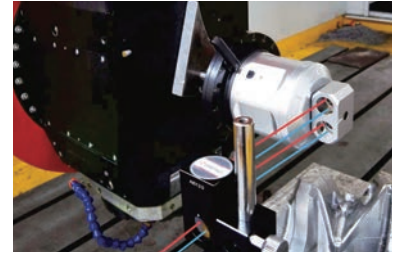
## Application



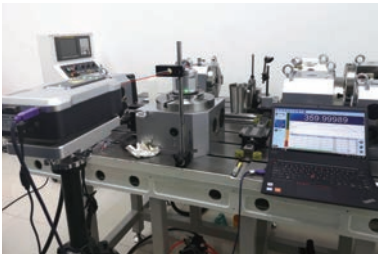
Rotary axis measurement of CNC



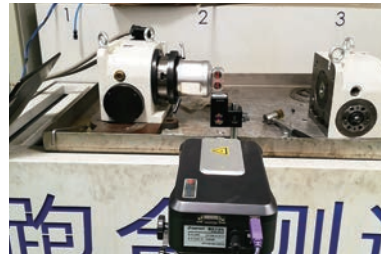
Electric spindle measurement of CNC



Swing axis measurement of CNC



Angle measurement of CNC index plate



Angle measurement of turntable



Angle measurement of CNC turntable

## Software

The software interface, titled 'ChotestRotary V3.0', features a toolbar with icons for motion control (C, P, home, stop, etc.) and tools (load, save, settings, etc.). The main display area shows a large numerical value '320.0031' in the 'Value window'. Below this is a 'Data curve' graph showing a fluctuating line over a range of 1 to 37 points. At the bottom, a 'Sampling window' displays a table of data points.

Times(Total times: 1)	Direction	Point No.(Total: 74)	Position(°)	Error(°)
1	+	34	330.0000	6.03
1	+	35	340.0000	3.77
1	+	36	350.0000	1.35
1	+	37	360.0000	-2.37
1	+	38	360.0000	-4.62
1	-	39	350.0000	1.02
1	-	40	340.0000	4.94
1	-	41	330.0000	6.35
1	-	42	320.0000	NA
1	-	43	310.0000	NA

## Eccentric Axis Measurement

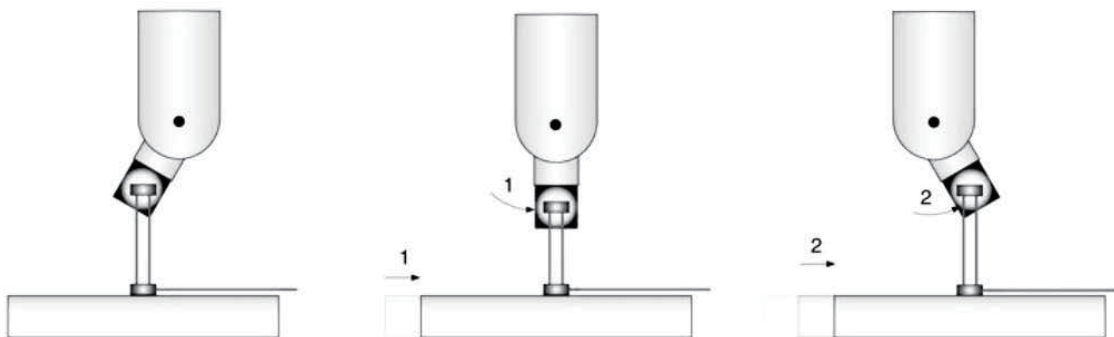
Equipped with angle prism, precision turntable WR50, dedicated jig and dedicated software, SJ6000 is capable to calibrate eccentric axis rotation accuracy.

Eccentric axis meas. kit:

- 1. Magnet, 3pcs
- 2. 90° Jig
- 3. Dedicated software

## Measurement Principle

The measurement principle is to use the synchronous movement of the object table and the main spindle, as shown in the figure below. It is important to make sure that angle prism should be always aligned with WR50.



## Software Settings

The 'Center Offset' window displays the following settings:

- Rotary axis: 0 ° Linear axis: 0 mm
- Rotary axis: 60 ° Linear axis: 121 mm
- Rotary axis: 120 ° Linear axis: 158 mm
- Rotate to: 120 °
- Rotary axis offset: 124.005 mm

The 'Generate program of CNC' window shows the following settings:

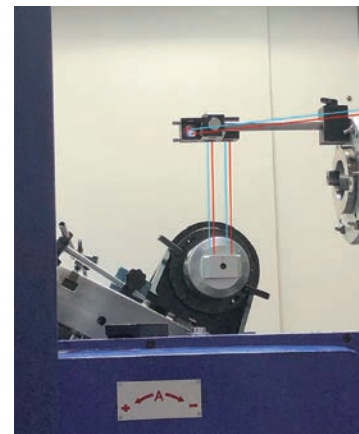
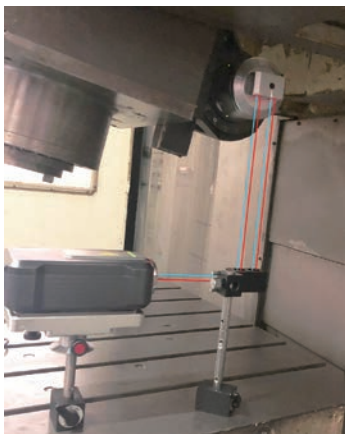
- Controller: Siemens
- Program No.: 0023
- Rotary Axis: B
- Linear Axis: Y
- Pause Time: 3 s
- Moving Time: 4 s
- Overrun: 2 mm
- Exclude rotary axis

The generated CNC program code is as follows:

```

:0023
G90 G64
G71
G93
G01 F12.0 Y-0.000 B0.000
M00
G01 F60.0 Y-4.108 B-2.000
G04 F3.0
G01 F60.0 Y-0.000 B0.000
G04 F3.0
G01 F45.0 Y6.944 B3.333
G01 F45.0 Y13.991 B6.667
G01 F45.0 Y21.115 B10.000
G04 F3.0
G01 F45.0 Y28.292 B13.333
G01 F45.0 Y35.500 B16.667
G01 F45.0 Y42.712 B20.000
G04 F3.0
G01 F45.0 Y49.905 B23.333
G01 F45.0 Y57.054 B26.667
G01 F45.0 Y64.135 B30.000
G04 F3.0
G01 F45.0 Y71.125 B33.333
G01 F45.0 Y77.999 B36.667
G01 F45.0 Y84.735 B40.000
G04 F3.0
G01 F45.0 Y91.309 B43.333
G01 F45.0 Y97.699 B46.667
G01 F45.0 Y103.883 B50.000
G04 F3.0
G01 F45.0 Y109.842 B53.333
    
```

## Application



Eccentric axis measurement