

Wireless Ballbar MT21

Fast Diagnosis for Machine Tools

MT21 Wireless Ballbar is a simple, fast, economical and efficient solution to diagnose performance of machine tools, and helps to improve the machining quality of machine tools.



Feature

Simple, Fast

The measurement software with guided operation can generate the machine running program automatically. With simple setting, the round track test on three orthogonal planes can be completed in 10~15 minutes.

Powerful Function

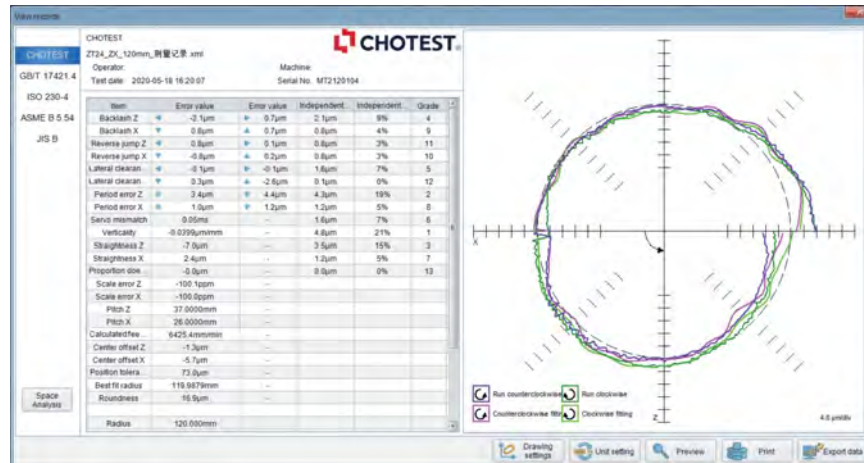
Comprehensive diagnosis report provides a full and professional assessment of machine performance. Taking 360 degree measurement at the XY plane as an example, it can analyze: backlash X, backlash Y, reverse jump X, reverse jump Y, lateral gap X, lateral gap Y, period error X, period error Y, servo Mismatch, perpendicularity, straightness X, straightness Y, proportional mismatch, scale error X, scale error Y, thread pitch X, thread pitch Y, feed rate, center offset X, center offset Y, position tolerance, the best fitting radius, roundness.

Wireless

Data is transmitted to the laptop computer via Bluetooth in real time.

Software

MT21 software with guided operation can implement the round track test on three orthogonal planes quickly and simply. After measurement, software calculates the overall measurement values (roundness, roundness deviation) of the positional accuracy automatically, then generates the analysis report with the graphic format according to GB17421-4, ISO230-4. MT21 achieves the real spatial diagnosis for machine tools.



Error Analysis Report

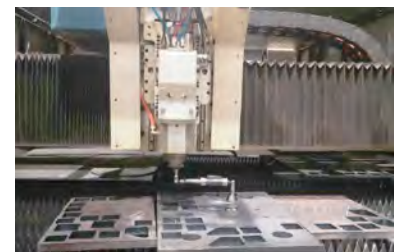
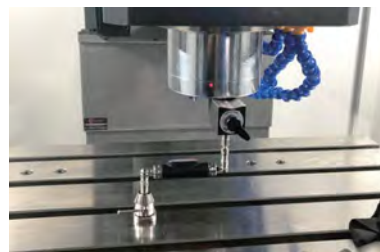
Parameters

Communication: Bluetooth(Typical 10m)
Power supply: Li-battery
Resolution: 0.1µm
Measuring accuracy: $\pm(0.7+0.3\%L)\mu\text{m}$
Measuring range: $\pm 1.0\text{mm}$
Sensor range: $\pm 2.0\text{mm}$
Sample rate: 1000Hz
Working Temperature: (0~40)°C
Size: 120×26×21mm

Configuration

1. MT21 Wireless Ballbar	1pc
2. Master gauge	1pc
3. Offset setting ball	1pc
4. Centric holder	1pc
5. Tool cup	1pc
6. Extension bar 50, 100, 150mm	1pc of each
7. Software	
8. Portable suitcase	
9. User Manual	

Application



Roundness inspection of machine tools