

➤➤➤ 网址 : <http://www.wentaozd.com/>

Technology Changes the Future



东莞市文涛自动化有限公司
Dongguan Wentao Automation Co., Ltd.

东莞市文涛精密仪器有限公司
Dongguan Wentao Precision Instrument Co., Ltd.



在机测量专家
In machine measurement experts



**专业从事数控机床在机测量产品的研发、
生产、销售为一体的高新技术企业。**

A high-tech enterprise specializing in the research and development,
production, and sales of CNC machine tool in machine
measurement products.

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Dongguan Wentao Precision Instrument Co., Ltd.

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Wentao Company Official Web site

PROFILE Company Introduction >>>>

Dongguan Wentao Automation Co., Ltd. (herein after referred to as Wentao) is a high-tech enterprise integrating independent research and development, production, sales, and service.

Founded in 2014, Wentao mainly produces in-machine measurement products such as machine tool automation tool setters and workpiece probes. Our products are positioned in the machinery manufacturing and processing industry, leading the market share among domestic brands in the field of in-machine measurement, and have received unanimous praise from manufacturers in the industry!

After nearly a decade of development, we now have a factory of nearly 5,000 square meters, complete independent production equipment, various technical talents, and an excellent after-sales service team, as well as multiple utility model patents and invention patents.

The company will continue to adhere to the principle of "Quality First, Service Foremost" and contribute to the globalization of domestic measurement products!



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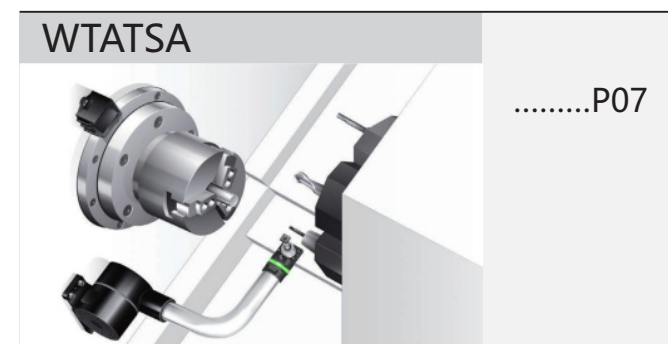


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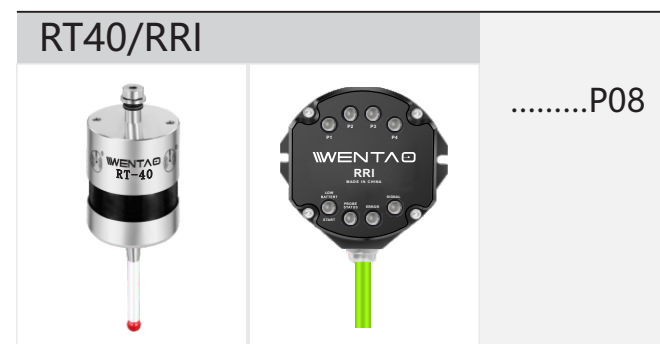
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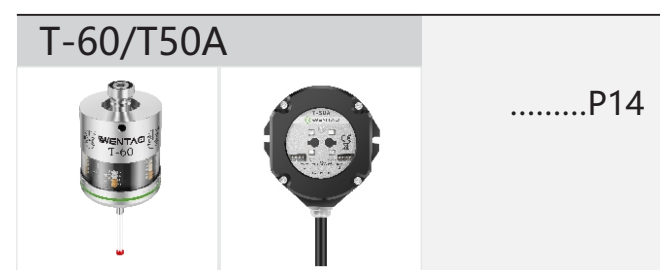
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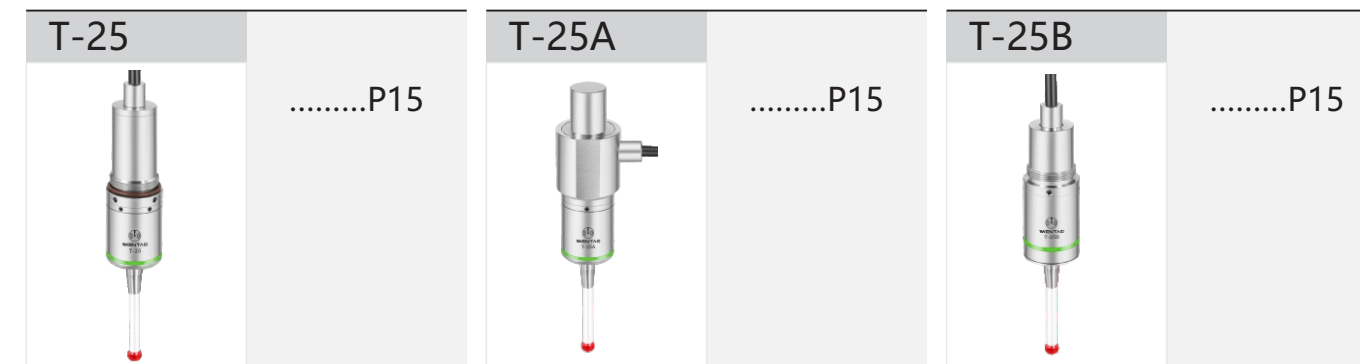


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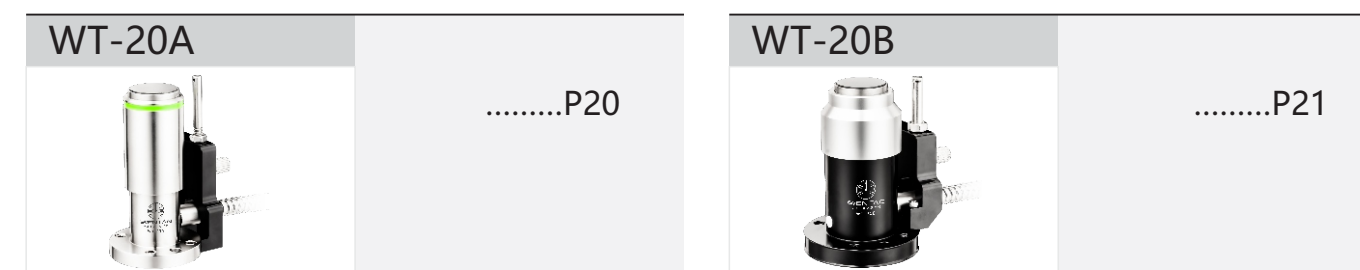
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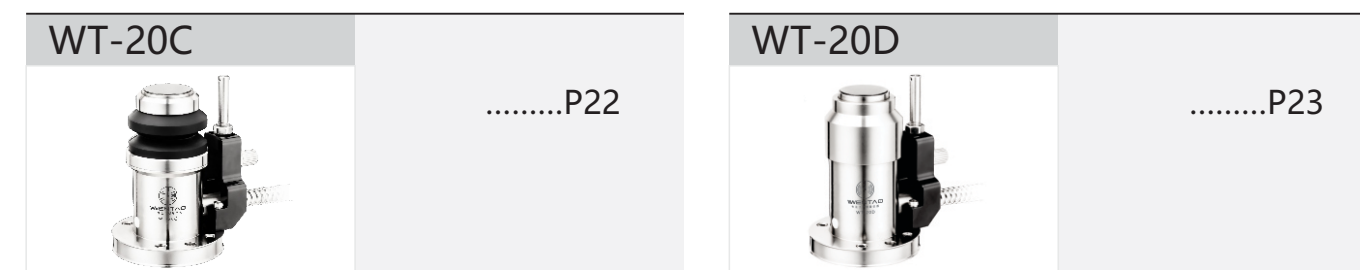
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Wentao's 10-Year Journey

文涛的十年历程

公司 历史沿革 >>>
Company History

2013-Dream Takes Off

Wentao took its first firm step in the field of tool setters, embarking on this extraordinary journey with visions for the future and a commitment to innovation.



2021-Innovative Breakth roughs

After eight years of accumulation and exploration, Wentao introduced more diversified new products.



2021-Forging Ahead

Wentao continuously optimizes its main products , constantly updates and upgrades them technologically , and has established a good reputation in the industry .



2024-Looking Forward

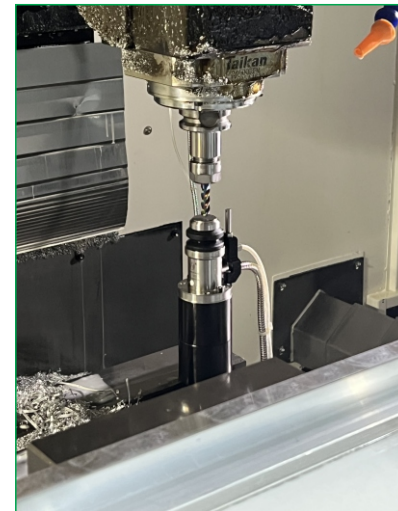
Wentao will continue to uphold the principles of professionalism , innovation ,and quality supremacy , providing customers with higher - quality products and services ,and writing a more brilliant chapter in the field of in - machine measurement .



COMPANY

公司介绍应用

INTRODUCE THE APPLICATION



The factory is located in Shatian Town , within the Guangdong-Hong Kong-Macao Greater Bay Area , boasting a strategically advantageous location . It is closely adjacent to Shenzhen in the south and echoes Guangzhou

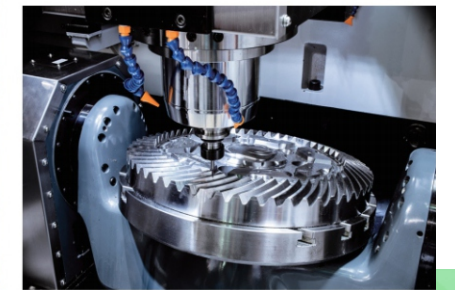
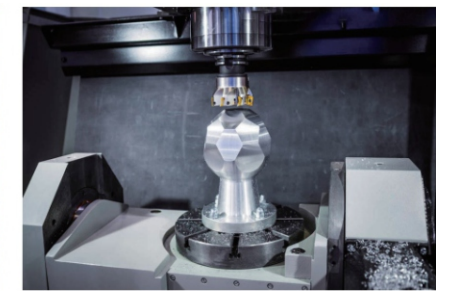
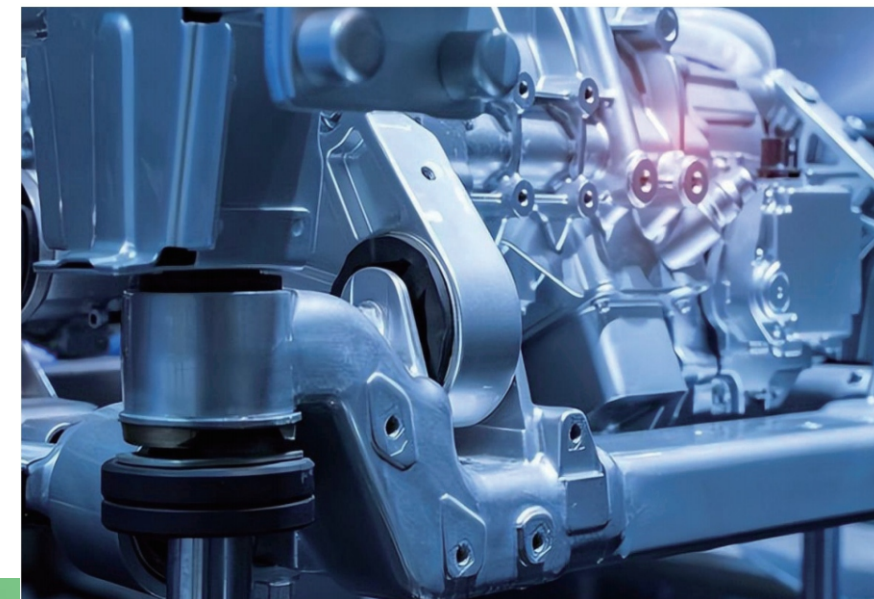
In the north. The factory is equipped with a complete set of advanced processing and testing equipment ,

Including CNC machining centers , CNC lathes , CNC grinding machines , polishing machines , laser machines , probe testers , circuit testers , and coordinate measuring machines , among others .

The entire factory is equipped with central air conditioning , providing a more comfortable working environment . At the same time , the company has carefully deployed the Kingdee ERP system , committed to providing customers with higher-quality and more efficient services

Application Scope

Aerospace,medicalequipment,automobilemanufacturing,precisionmoldprocessing,etc



Customer Cases

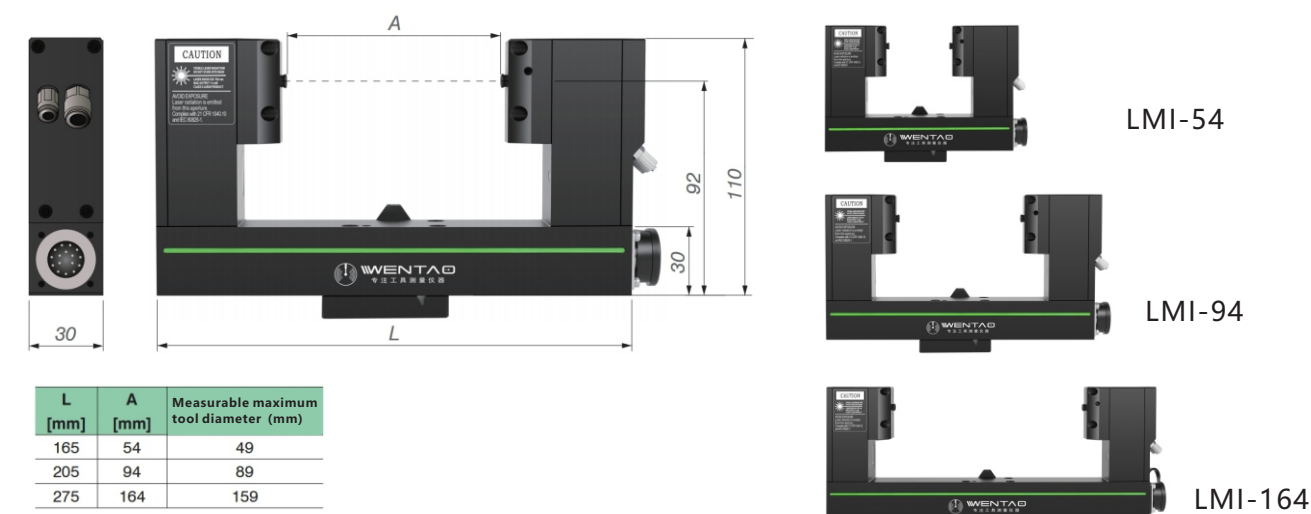
COMPANY CULTURE

Compatible Systems and Some Customer Applications...



LASER TOOL SETTER

LaserToolSetter(DimensionsDiagram)



Brief Introduction of Laser Tool Setter

The LMI-54/94/164 series laser tool setters are high-quality tool measurement systems designed for extreme working environments inside machine tools. They are used for non-contact physical dimension measurement and tool breakage detection. Their main applications are in CNC machine tools for tool measurement and breakage monitoring, capable of monitoring breakage of very small tools and achieving micrometer-level measurement of tool length and diameter for both rotating and non-rotating tools. The laser tool setter also features high efficiency, precision, and reliable processes.

Advantages of Laser Tool Setter Products

- Non-contact setting for rotating and non-rotating tools.
- Monitoring runout errors of high-speed rotating tools.
- Precise breakage monitoring during rapid positioning.
- Single cutting edge breakage monitoring.
- Compensation for temperature drift of machine tool axes.
- Customizable based on customer application requirements.
- Non-contact measurement of rotating axis runout value (analog).

Laser Tool Setter Technical Para

Product Models	Laser Tool Setter LMI Series
Laser Safety Class	Class II
Laser Type	Wavelength range: 630-700 nm / <1mW
Protection Class (EN 60529)	Ip68 (under working air supply conditions)
Input/Output	3 optically isolated inputs/3 optically isolated outputs , 1 analog output
Repeatability	1μm 2σ*
Minimum Measurable Tool Diameter	0.03mm
Tool Diameter Range	0.03- 159mm
Power Supply	DC 20V~26V
Air Supply	6.0mm diameter air tube , 5.0 meters long , 0.4MPa-0.6MPa , the air source must comply with GB/T13277-91 air quality standards (no water , oil contamination , or dust particles larger than 0.1 micrometers are allowed to enter the product through the air source) .
Storage/Operating Temperature	-10°C~+70°C/+5° C ^ +45°C

RT-40 Radio Probe

[illegible]

Model	Rear Cable Exit Type	Side cable exit type
Main Applications	Used for tool measurement and tool breakage detection on two- or three-axis CNC lathes .	
Transmission Type	Hardwired Transmission	
Weight	≈5 kg	
Probe	T30 (注1)	
Compatible Interface	WT-TSI	
Cable Specifications (to Interface)	6.8 mm diameter, 7-core shielded cable	6.8 mm diameter, 7-core shielded cable
Length	2 m、 5 m、 10 m	7 m
Sensing Direction	±X、 ±Z、 -Y	
Typical Positional Repeatability (see Note 2)	5.00μ m 2σ	
Probe Trigger Force (see Notes 3 and 4) XY Low Force XY High Force + Z Direction	1.50 N, 153 gf /3.50 N, 357 gf/ 12.00 N, 1224 gf	
Tool Changer Arm Rotation Time	MRO→ ARO ≈ 3sec/ARO→ MRO ≈ 3sec	
Tool Changer Arm Swing Angle	90°/91° (Note: If a special probe guard is not used , the maximum swing angle is 91° .)	
Protection Class	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)	
Installation	M8bolts (3 pieces)	
working temperature	+5 °C to +55 °C	
Selection Dimensions	6inches、 8inches、 10inches、 12inches	



- ★ RT-40 is a radio communication measurement product with a maximum transmission distance of 15M, unafraid of obstructions, good sealing performance, and high measurement accuracy.
- ★ Suitable for measuring workpieces in large-scale machine tools.

Used for automatic setting of workpiece datum in mass production:

- ① Reduces production auxiliary time and improves production capacity;
- ② Increases automation;
- ③ Reduces labor costs and human intervention;

Used for precision control of workpieces during production:

- ① Updates the tool offset of the machining coordinate system based on actual allowances;
- ② Improves the stability of mass-produced products;
- ③ Reduces rework rates and improves qualification rates.

Model	RT-40/RRI
Unidirectional repeatability	2σ1μm
Recommended probing speed	180mm/min-1000mm/min
Trigger direction	±X, ±Y, Z
Maximum overtravel	XY±10°, Z 5mm
Trigger force (with 50mm stylus)	XY=0.5N, Z=5N
Power supply	2 x 3.6V batteries
Protection Class	IP68 : EN60529
Weight (excluding tool holder and battery)	260g
Temperature range	0°C-50°C
Material	SUS304
Transmission frequency range	2432.99MHZ-2459.1 9MHZ
Transmission range	10 M
Battery continuous use	More than 60 days
Probe diameter	Φ40mm
Probe length (excluding stylus)	50.5mm
Signal indication	Trigger signal, low voltage detection signal

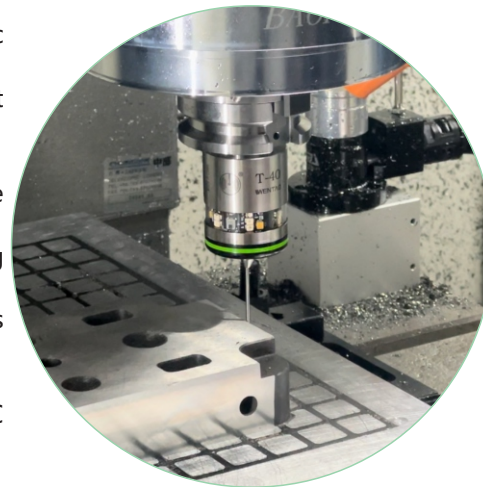
⬇️ T-50 Receiver ➡️➡️➡️➡️➡️

Technical drawing of the M4stylus probe assembly. The drawing shows the probe tip, the M4stylus body, the probe status LED indicator, the battery box, and the probe holder. Key dimensions and labels include:

- Window**: The top opening of the probe holder.
- Battery box**: The rectangular component housing the battery.
- Wentao provides a special tool holder for the probe**: The conical component at the end of the assembly.
- M4stylus**: The stylus tip.
- X Y overtravel**: The distance from the stylus tip to the center of the probe body.
- Emitting diode**: The LED indicator on the side of the probe body.
- Probe status LED indicator**: The circular indicator on the front of the probe body.
- MADE IN CHINA**: Text on the front of the probe body.
- Dimensions**:
 - Overall length: 50
 - Probe body length: 50
 - Probe body diameter: $\varnothing 40$
 - Probe body width: 12.5
 - Probe body width: 12.5



- 1、 Precise measurement, positioning of workpieces, and automatic correction of coordinate systems;
- 2、 Quick positioning of fixture locations, reducing manual adjustment time;
- 3、 Simplifies fixture design and reduces fixture costs;
- 4、 Conducts first-piece on-machine measurement checks without the need for a machine;
- 5、 Improves productivity and consistency of batch processing dimensions;
- 6、 Measures during cyclic processing, monitors workpiece dimensions and positions, and automatically corrects
- 7、 Shortens machine auxiliary time and improves production efficiency;
- 8、 Easy installation, suitable for all domestic and international CNC control systems: Fanuc, Siemens, Mitsubishi, Xindai, Huazhong, Weihong, Baoyuan, Fagor, etc.



Product Models	T-40
Dimensions	Φ40mm*L50mm
Weight (excluding tool holder)	260g
Signal transmission type	360°infrared optical transmission
Working distance	Up to 5m
Activation method	M-code/automatic
Speed limit	Max 1000 RPM
Probing direction	Omnidirectional ±X/±Y/+Z
Unidirectional repeat trigger accuracy 28 (Note 1)	1μm
Maximum over travel limit with 50mm stylus	XY: 12.5mm+Z: 6mm
"XY Trigger (Note 2) 50MM Probe"	0.5N~0.9N
"Z-axis Force/N"	5.85N

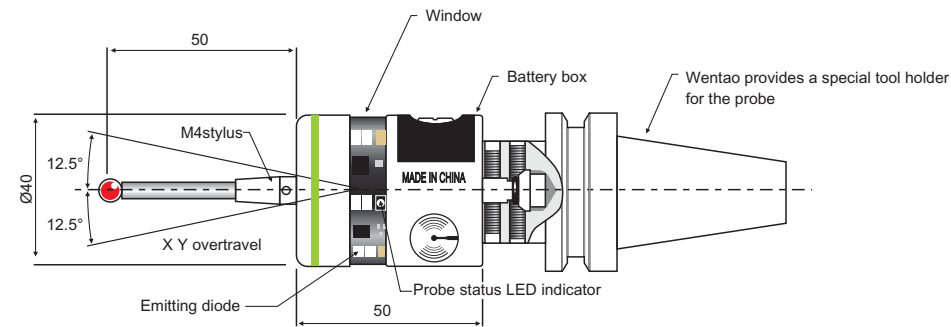
Note 2: Tested using a $\phi 6$ 50mm stylus at a probe speed of 480mm/min.



- 1) Transmission type: Infrared optical modulation, 360°without dead angle;
- 2) Working range: Max 6m
- 3) Weight: 926g
- 4) Power supply voltage: 12V~30V
- 5) Power supply current: Transmission <100mA, Reception <40mA;
- 6) Cable (to machine control): Dedicated 13PIN shielded cable, 6m/10m/15m;
- 7) Storage temperature (-25~70)°C, operating temperature (5~55)°C;

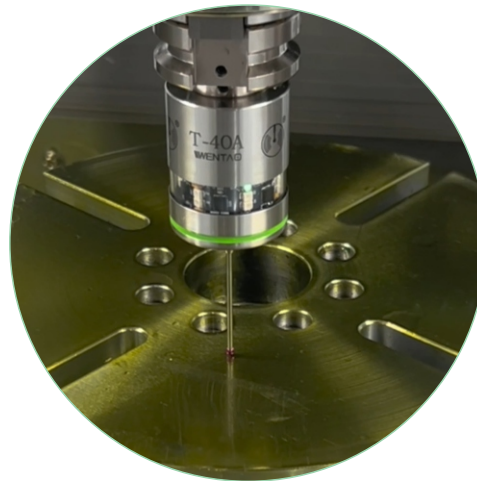
▼ T-40A Infrared Probe >>>>>>>

T-40A Infrared Probe Dimension Drawing and Overview



Feature Description

- 1、Precise measurement, positioning of workpieces, and automatic correction of coordinate systems;
- 2、Quick positioning of fixture locations, reducing manual adjustment time;
- 3、Simplifies fixture design and reduces fixture costs;
- 4、Conducts first-piece on-machine measurement checks without the need for a machine;
- 5、Improves productivity and consistency of batch processing dimensions;
- 6、Measures during cyclic processing, monitors workpiece dimensions and positions, and automatically corrects
- 7、Shortens machine auxiliary time and improves production efficiency;
- 8、Easy installation, suitable for all domestic and international CNC control systems: Fanuc, Siemens, Mitsubishi, Xindai, Huazhong, Weihong, Baoyuan, Fagor, etc.



T-40A Probe Technical Parameters

Product Models	T-40A
Dimensions	Φ40mm*L50mm
Weight (excluding tool holder)	260g
Signal transmission type	360°infrared optical transmission
Working distance	Up to 5m
Activation method	M-code/automatic
Speed limit	Max 1000 RPM
Probing direction	Omnidirectional $\pm X/\pm Y/\pm Z$
Unidirectional repeat trigger accuracy 28 (Note 1)	1μm
Maximum over travel limit with 50mm stylus	XY: 12.5mm+Z: 6mm
"XY Trigger (Note 2) 50MM Probe"	0.5N~0.9N
"Z-axis Force/N"	5.85N

Note 1: The test results were obtained under the conditions of using a φ6.5mm probe, a feed height of 480mm/min. *

Note 2: Tested using a φ6 50mm stylus at a probe speed of 480mm/min. .

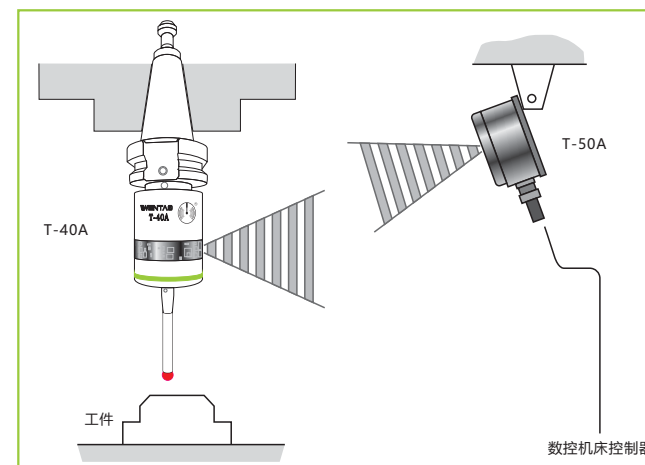
▼ T-50A Receiver >>>>>>>



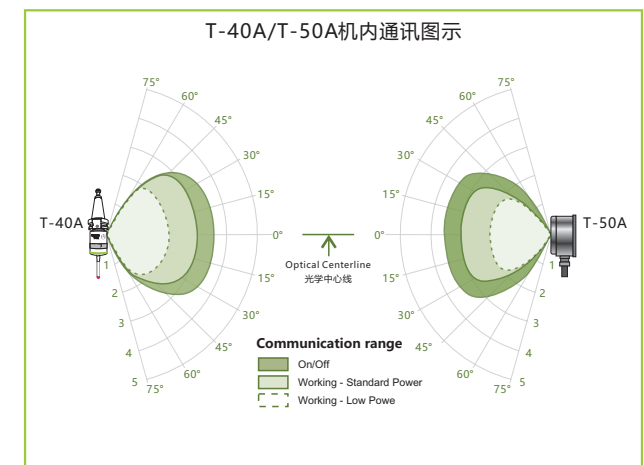
Receiver Technical Parameters

- 1) Transmission type: Infrared optical modulation, 360°without dead angle;
- 2) Working range: Max 6m
- 3) Weight: 926g
- 4) Power supply voltage: 12V~30V
- 5) Power supply current: Transmission <100mA, Reception <40mA;
- 6) Cable (to machine control): Dedicated 13PIN shielded cable, 6m/10m/15m;
- 7) Storage temperature (-25~70)°C, operating temperature (5~55)°C;

T-50A Receiver Transmission Principle Diagram



In-machine communication diagram for T-40A/T-50A



T-60 Infrared Probe

Main Applications	Used for workpiece detection and alignment on large-scale machining centers and turning-milling composite machines.		
Dimensions	Length 76mm	Diameter 63 mm	
Weight (excluding tool holder)	885g with battery	836g without battery	
Transmission Type	360°infrared optical transmission (modulated mode)		
Activation method	Optical/rotary activation	Closing method	Optical/Rotary/Delay
Spindle speed (max)	1000 rev/min	Working range	Up to5-8 m
Unidirectional repeat accuracy	1.00 μm 2σ	Sensing Direction	±X 、 ±Y 、 +Z
Stylus trigger force (adjustable)	XY low trigger force 0.50 N , 51 gf~2N , 204gf 0.90 N , 92 gf ~3.5N, 357gf		
XY high trigger force	Ztrigger force 3.50 N , 597 gf~14N , 1428gf		
Stylus overtravel	X Yplane+Zplane	±18° 11 mm	
Environment	IP rating	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)	
	IK rating (T-60)	I K01 (EN/IEC 62262: 2002) [suitable for glass windows]	
	IK rating (T-50A)	I K02 (EN/IEC 62262: 2002) [suitable for glass windows]	
	Storage temperature	-25 °C to+70 °C	
	Operating Temperature	+5 °C to+55 °C	

▼ Wired Probe T-25/T-25A/T-25B ▶▶▶▶▶▶▶▶

Wired Probe T-25/T-25A/T-25B Technical Parameters



T - 2 5
Perfect replacement for imported
products, adjustable force



T - 2 5 A
Tail clamping,
convenient for wiring



T - 2 5 B
Integrated
economical model

WiredProbeTechnicalParameters

Model	T-25/T-25A/T-25B
Main Applications	Used for workpiece detection and alignment on various types of lathes, machining centers, and CNC grinding machines .
Transmission Type	Hardwired connection, or used in conjunction with optical transceiver modules.
Recommended stylus	50 mm to 100 mm Stylus material depends on specific application.
Sensing Direction	±X、±Y、+Z
Unidirectional repeat accuracy	1.00 μm 2σ (see Note 1)
Stylus trigger force XY low force XY high force +Z direction	0.50 N, 51 gf 0.90 N, 92 gf 5.85 N, 597 gf
Stylus overtravel limit ±X / ±Y Z	14.87 mm ±12.5° 5.0 mm
Protection Class	IPX8, BS EN 60529:1992+A2:2013 (IEC 60529:1989+A1:1999+A2:2013)
Storage temperature	-25 °C to +70 °C
Operating Temperature	+5 °C to +55 °C

Note1: Performance indicators are tested with a 35mm stylus at a standard test speed of 480mm/min. Speed can be significantly increased depending on the application.

▼ Wired Probe T-25/T-25A/T-25B ▶▶▶▶▶▶▶▶

T-25/T-25A/T-25B Wired Probe Features

Features:

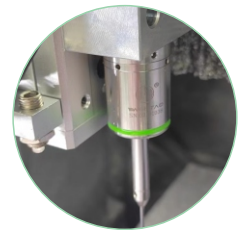
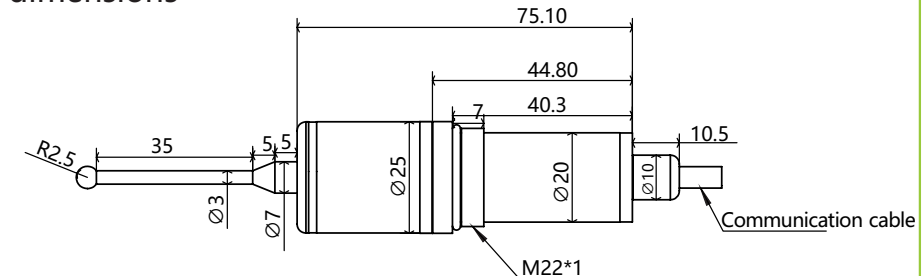
- 1、Wired probes are compatible with various standard components and can be used with various transmission systems to select the best application solution.
- 2、It is widely used in the field of precision parts processing for 3C electronics, automobiles, aerospace, military, medical, and more.
- 3、By automatically detecting machine tool coordinates, this probe can achieve both workpiece positioning and precise measurement.
- 4、Its compact design and ultra-high precision also make it capable of providing the right solution for various applications.

Advantages:

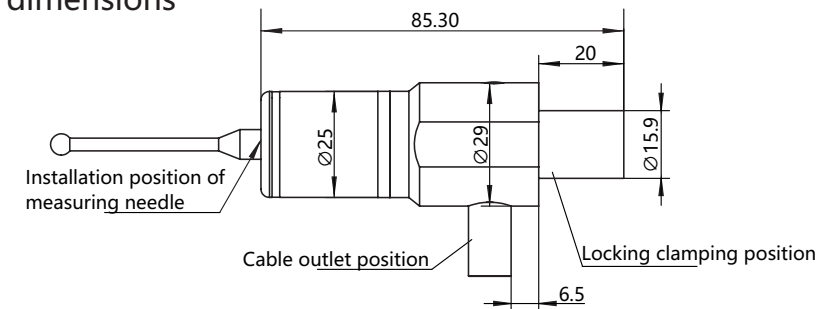
- Significantly increased productivity
- Ultra-high precision greatly reduces waste
- Extremely high immunity to interference, resistant to noise and vibration
- Unaffected by harsh machine tool processing environments
- Significantly improved production quality
- Compact size and excellent mechanical robustness

T-25/T-25A/T-25B Wired Probe Dimensions

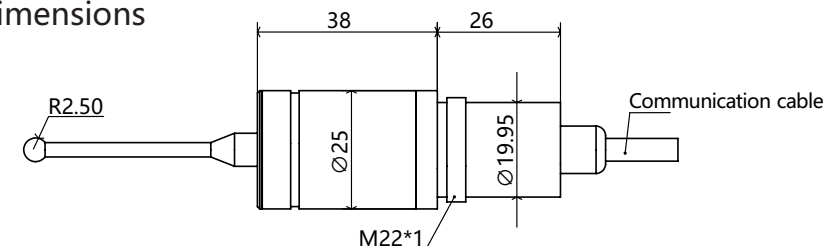
T-25 dimensions



T-25A dimensions



T-25B dimensions



▼ T-12.7Five-direction Tool Setter >>>>>>>

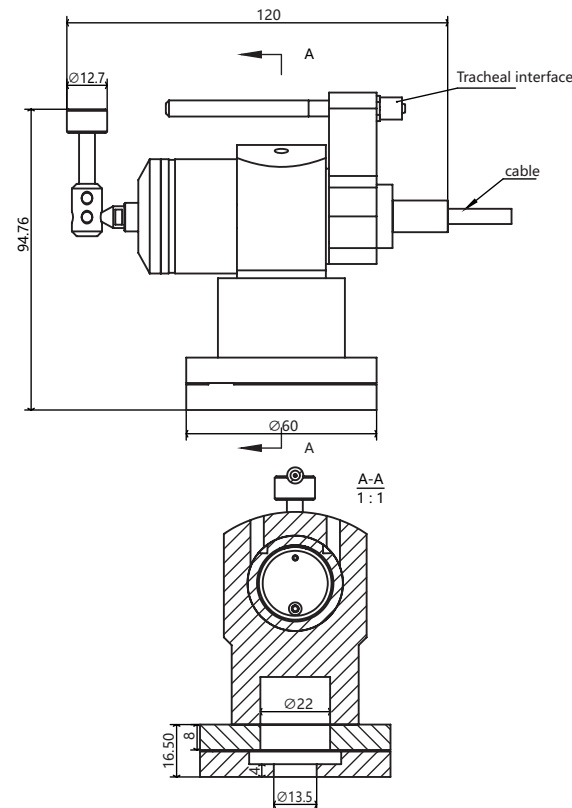
T-12.7 Brief Description and Dimension Drawing



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Suitable for various models of vertical machining centers and horizontal gantry-type machining centers.



T-12.7Five-direction Tool Setter Technical Paramet

Product Models	T-12.7
Main Applications	Applied to CNC machining centers, drilling and tapping centers, and other CNC equipment for tool measurement and tool breakage detection.
Trigger lifespan	Over 3 million times
Operation mode	Automatic
Recommended stylus	Round stylus12.7
Cable length	5meters, 4-core cable
Probe trigger direction	$\pm X$, $\pm Y$, $+Z$
Probe material	Ultra-hard alloy
Protection Class	IP67
Installation accessories	Comes with bracket base and air blowing device
Tool setter accuracy	Tool setter one-way accuracy 0.001mm

▼ WT-10 Tool Setter >>>>>>>

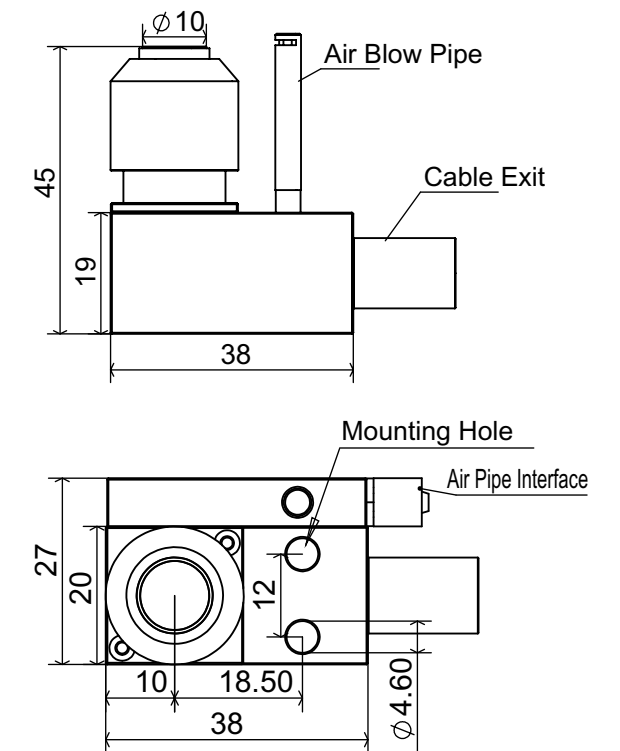
Brief Description and Dimension Diagram of WT-10



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for small mini engraving machines,jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.



Technical Parameters of WT-10 Tool Setter

Model	WT-10
Output	NC (normally closed)
Pre-travel	None
Travel	5
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Tungsten carbide alloy
Surface finish	Ground4S
Contact rating	DC24V \pm 10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	3m oil-resistant 4-core ϕ 3.7 tensile strength 30N, minimum bending radius R7
Protective tube	1m minimum bending radius R25
Output	Nc (normally closed) [distance detection signal approx 2.5mm]
Contact rating	DC24V 20mA (MAX) (recommended value10mA) resistive load

▼ WT-14 Tool Setter ▶▶▶▶▶▶▶▶

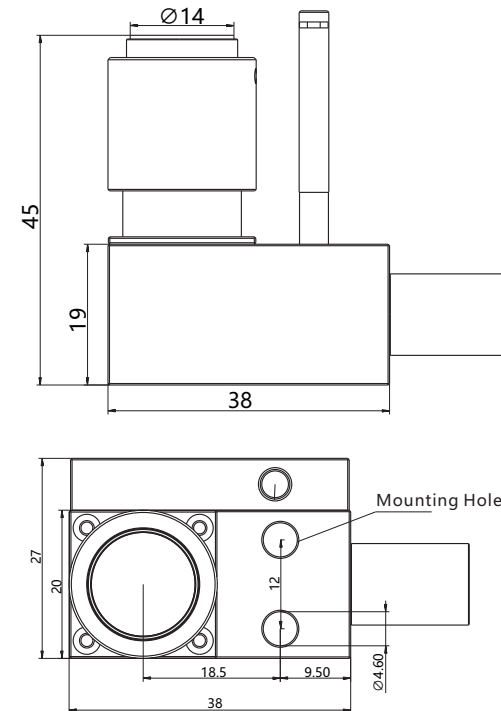
Brief Description and Dimension Diagram of WT-14



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for small mini engraving machines, jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.



WT-14对刀仪技术参数

Model	WT-14
Output	NC (normally closed)
Pre-travel	None
Travel	6
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Tungsten carbide alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	3m oil-resistant 4-core φ3.7 tensile strength 30N, minimum bending radius R7
Protective tube	1m minimum bending radius R25
Output	Nc (normally closed) [distance detection signal approx 2.5mm]
Contact rating	DC24V 20mA (MAX) (recommended value10mA) resistive load

▼ WT-20A Tool Setter ▶▶▶▶▶▶▶▶

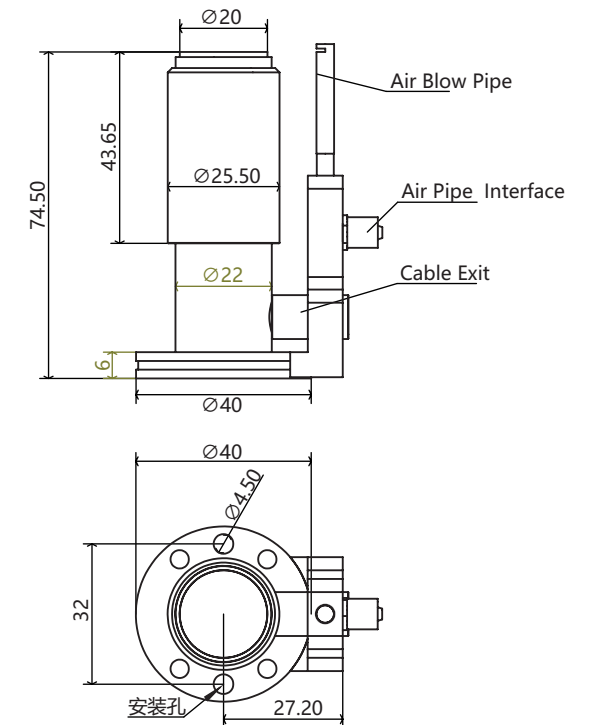
Brief Description and Dimension Diagram of WT-20A



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for machining centers, engraving and milling machines, highlighting machines, glass and jade machines, etc.



Technical Parameters of WT-20A Tool Setter

Product Models	WT-20A
Diameter of Tool Setting Surface	Φ20
Tool Setting Trigger Direction	+Z
Output	NO/NC Optional
Pre-travel	None
Travel	7
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Ultra-hard alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	5m Oil-resistant 6-core φ4.8 Tensile Strength 30N, Minimum Bending Radius R7
Protective tube	2.5m Minimum Bending Radius R25
LED Light	Normally Off, Lights Up During Operation
Output	Nc (normally closed) [distance detection signal approx. 2.5mm]
Contact rating	DC24V 100mA (Resistive Load)

▼ WT-20B Tool Setter ▶▶▶▶▶▶▶▶

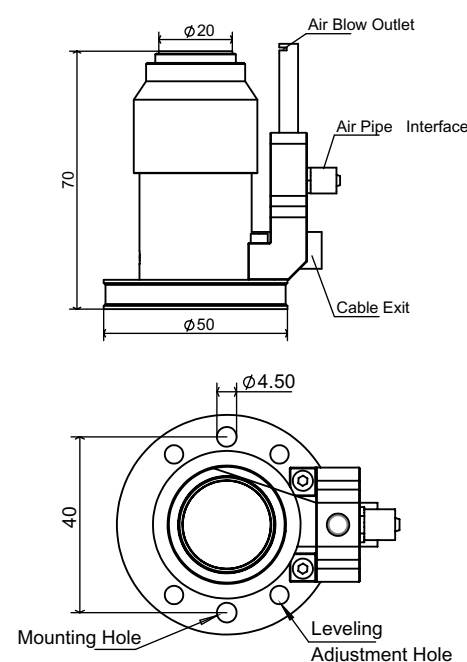
Brief Description and Dimension Diagram of WT-20B



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for small mini engraving machines, jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.



Technical Parameters of WT-20B Tool Setter

Product Models	WT-20B
Diameter of Tool Setting Surface	Φ20
Tool Setting Trigger Direction	+Z
Output	NO/NC Optional
Pre-travel	None
Travel	6
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Ultra-hard alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	5m Oil-resistant 6-core φ4.8 Tensile Strength 30N, Minimum Bending Radius R7
Protective tube	2.5m Minimum Bending Radius R25
LED Light	Normally Off, Lights Up During Operation
Output	Nc (normally closed) [distance detection signal approx. 2.5mm]
Contact rating	DC24V 100mA (Resistive Load)

▼ WT-20C Tool Setter ▶▶▶▶▶▶▶▶

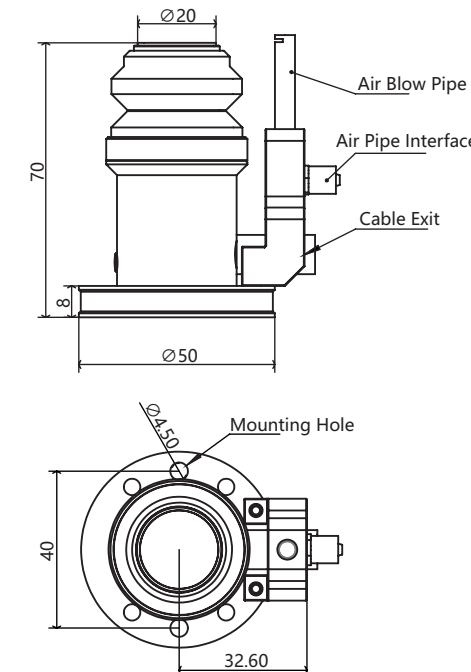
Brief Description and Dimension Diagram of WT-20C



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for small mini engraving machines, jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.

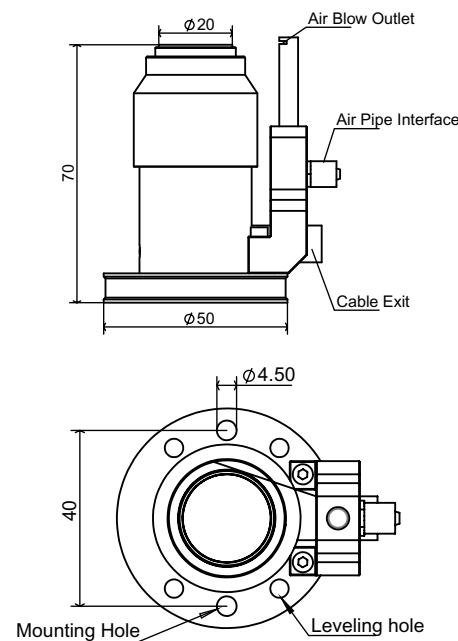


Technical Parameters of WT-20C Tool Setter

Product Models	WT-20C
Diameter of Tool Setting Surface	Φ20
Tool Setting Trigger Direction	+Z
Output	NO/NC Optional
Pre-travel	None
Travel	6
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Ultra-hard alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	5m Oil-resistant 6-core φ4.8 Tensile Strength 30N, Minimum Bending Radius R7
Protective tube	2.5m Minimum Bending Radius R25
LED Light	Normally Off, Lights Up During Operation
Output	Nc (normally closed) [distance detection signal approx. 2.5mm]
Contact rating	DC24V 100mA (Resistive Load)

▼ WT-20D Tool Setter ▶▶▶▶▶▶▶▶

Brief Description and Dimension Diagram of WT-20D



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

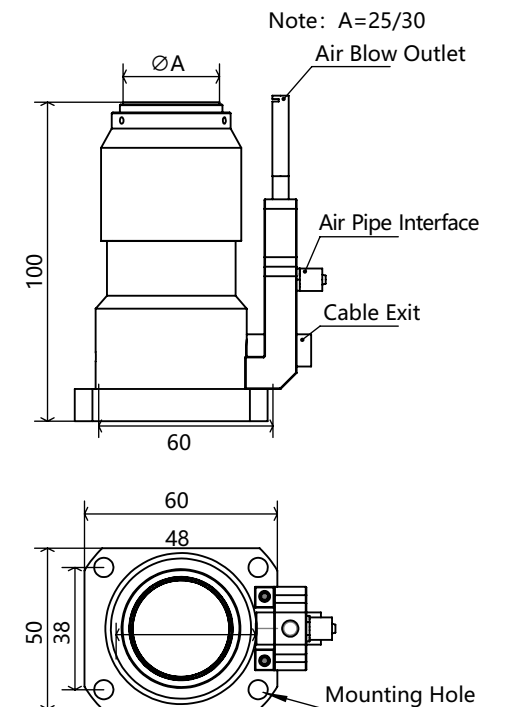
Mainly used for small mini engraving machines, jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.

Technical Parameters of WT-20D Tool Setter

Product Models	WT-20D
Diameter of Tool Setting Surface	Φ20
Tool Setting Trigger Direction	+Z
Output	NO/NC Optional
Pre-travel	None
Travel	6
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	1.5N (installation condition: vertical)
Tool setting surface material	Ultra-hard alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	5m Oil-resistant 6-core φ4.8 Tensile Strength 30N, Minimum Bending Radius R7
Protective tube	2.5m Minimum Bending Radius R25
LED Light	Normally Off, Lights Up During Operation
Output	NC (normally closed) [distance detection signal approx. 2.5mm]
Contact rating	DC24V 100mA (Resistive Load)

▼ WT-25/30Tool Setter ▶▶▶▶▶▶▶▶

WT-25/30 Brief Description and External Dimension



●Brief Description:

Used for online detection of tool length, wear, breakage, etc. on CNC machines, and for automatic compensation.

Mainly used for small mini engraving machines, jade engraving machines, dental machines, dispensing machines, dental carving machines, glass machines, etc.

Technical Parameters of WT-30 Tool Setter

Product Models	WT-25/WT-30
Diameter of Tool Setting Surface	Φ25/Φ30
Tool Setting Trigger Direction	+Z
Output	NO (Normally Open)
Pre-travel	Approx. 0.5
Travel	7
Repeatability	0.001 (condition: operating speed 50~200mm/min)
Contact accuracy lifespan	Over 3 million times
Protection structure	IP67
Contact force	2.5N (installation condition: vertical)
Tool setting surface material	Ultra-hard alloy
Surface finish	Ground4S
Contact rating	DC24V±10%、20mA (MAX) , operating current 10mA, do not exceed20mA
Electric wire	5m Oil-resistant 6-core φ5.5 Tensile Strength 30N, Minimum Bending Radius R7
Protective tube	4m Minimum Bending Radius R25
LED Light	Normally Off, Lights Up During Operation
Output	NC (normally closed) [distance detection signal approx. 6mm]
Contact rating	DC24V 100mA (Resistive Load)

▼ Wentao's New Products Coming Soon >>>>>>>>

T-250 Strain Gauge Probe



▼ Overview of On-Machine Measurement >>>>>>>>

On-Machine Measurement (OMI): On-Machine Measurement refers to using machine tool hardware as the carrier, supplemented by corresponding measurement tools (hardware includes machine tool probes, tool setters, etc.; software includes macro programs, dedicated 3D measurement software, etc.),

to perform real-time geometric feature measurements on the machine tool during the workpiece processing, and to guide the improvement of subsequent processes based on the measurement results.

Advantages of On-Machine Measurement

1. Improved Machining Accuracy

- Real-time monitoring of workpiece dimensions allows for timely detection of machining errors and adjustments, thereby effectively improving machining accuracy.
- Reduces the generation of scrap products due to the accumulation of machining errors.

2. Enhanced Production Efficiency

- Eliminates the need to remove the workpiece from the machine for measurement, saving time and enhancing production efficiency.
- Allows for prompt adjustment of machining parameters and optimization of processing techniques based on measurement results during the machining process.

3. Cost Reduction

- Reduces the cost associated with secondary clamping and measurement.
- Lowers the scrap rate, conserving raw materials and reducing machining costs.

II. Methods of Implementing On-Machine Measurement

1. Trigger-type Probe

- When the probe contacts the workpiece, it triggers a signal, and the machine tool control system records the probe's position coordinates, enabling the measurement of workpiece dimensions.
- Suitable for measuring geometric elements such as points, lines, and surfaces.

III. Applications of On-Machine Measurement

1. Mold Manufacturing

- Performs on-machine measurement of critical dimensions of molds to ensure mold accuracy and quality.
- Allows for timely adjustment of machining parameters during the processing, enhancing the processing efficiency of molds.

2. Aerospace

- Used for the machining and inspection of high-precision workpieces such as aircraft components and engine blades.
- Ensures dimensional accuracy and shape accuracy of workpieces to meet the high standards of the aerospace industry.

3. Automobile Manufacturing

- Implements on-machine measurement during the machining of automotive components, improving production efficiency and product quality.
- Measures complex-shaped automotive parts such as engine blocks and crankshafts.

4. Precision Machining

- In the field of precision machining, on-machine measurement technology can be used to measure the shape, size, trajectory, and surface quality of complex workpieces. It accurately detects minor defects on the workpiece surface and enables prompt repairs, enhancing product quality and reducing production costs.