



INSIZE INDIA LLP

www.insize.in

V.1 08.2026

INSIZE - Founded in 1995, is a dedicated supplier of measuring instruments. To enable us to serve the world-wide market, we are setting up an INSIZE distribution network on a global basis. INSIZE headquarter is located in China. We have branch companies in Canada, USA, Mexico, Brazil, India, Bangladesh, Pakistan, Vietnam, Thailand, Malaysia, Indonesia, Turkey, Taiwan, China, Italy, Czech Republic, France, UK, Romania, Slovenia, Poland, Australia and distributors in over 120 countries. We ensure that wherever you are, our INSIZE products have service and support that are within hands reach. Our dedication to Quality, Innovation, Service and Value has created a worldwide demand for the INSIZE products.



is our standard quality, made in China



is our premium quality, made in Europe



To become the world's leading supplier of
industrial measurement solutions,
providing measurement products and services for
industrial production,
addressing measurement challenges,
continuously innovating, and contributing to social
development.



Customized Services





1 Data Output And Software



2 Smart Measurement



3 Automatic Inspection



4 Automatic Tool Compensation System



5 Measuring Tools



6 Levels



7 *On-Machine Measurement*



8 *Linear Probes And Scales*



9 *Roundness, Profile And Roughness Testers*



10 *3D Measurement*



11 *Profile Projectors, Quick Measurement Systems, Vision Measuring Systems*



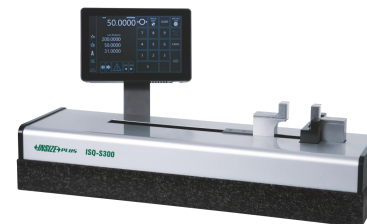
12 *Cutting Tools Inspection*



13 *Microscopes, Magnifiers*



14 *Videoscopes*



15 *Other Dimension Measuring Instruments*



16 *Hardness Testers*



17 *Metallography Preparation And Analysis*



18 *Flaw Detectors*



19 Testing Machines, Force Gauges, Tension Meters



20 Torque Testers, Torque Wrenches



21 Component Analysis



22 Coating And Paint Testing



23 Other Instruments

Data Output And Software

Wireless Data Transmission



Wired Data Transmission



Measurement Data Management and Analysis Software



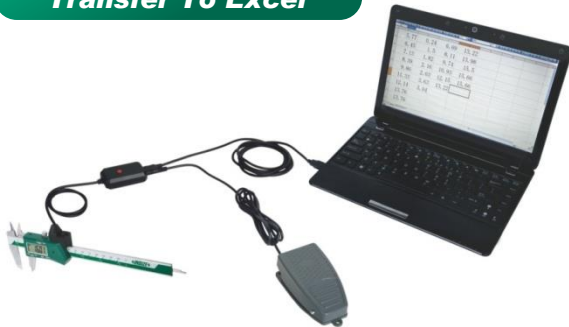
Inspection Table



Data Transmission And Management **— Improve productivity**

Supports multiple measurement tools for real-time data collection. One-click transfer of measurement data to Excel, measurement software or mobile APP after measurement. This process is efficient and accurate, and facilitates data management and sharing to improve productivity.

Transfer To Excel



Transfer To Data Management Software

Transfer To Phone APP



Advantages of Data Transmission (P1)

Traditional Measurement



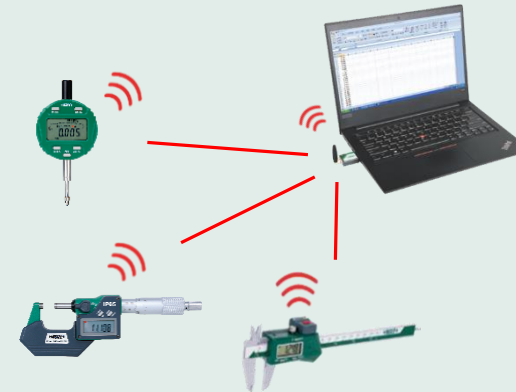
Traditional measurement is manual recording is inefficient, you need to measure and record at the same time; sometimes you need two operators for operation, one to measure and the other to record.

Traditional measurements are made by manually recording data to a paper file or manually entering it into a computer, which inevitably results in recording errors.

Traditional measurements use paper forms, which are difficult to save , circulate and trace at a later stage.

VS

Communication Transfer Data



Data can be transmitted directly to a computer /phone through wired or wireless data transmission, improving efficiency.

The direct transmission of measurement data to the computer, eliminating human error and ensuring that the data is true.

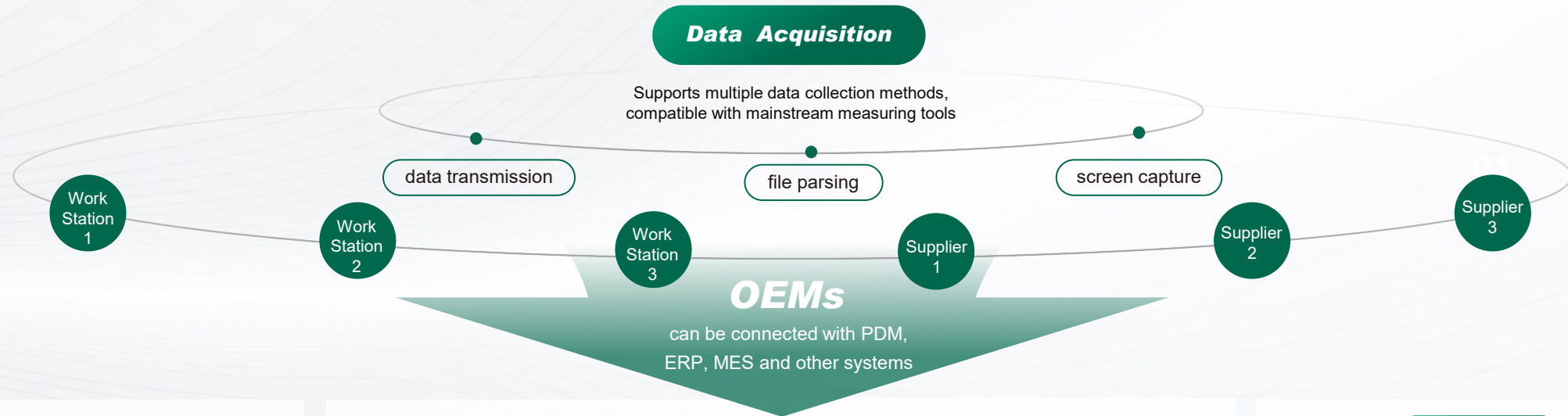
Compared to paper forms, electronic forms of data transmission are more convenient for storage, transferring between each other and later reference.

Timeliness

Validity

Paperless

Advantages of Data Management (P2)



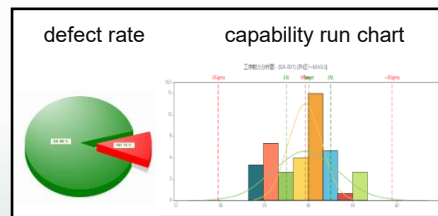
Data Management

Manages measurement data for easy traceability and review.

Structure Tree	Seq	Manag...	List Item Code	List Item Name	Creation User	Creation Time
INSIZE	1	Store	001	Drawing A	Administrator	2022-06-07 09:45:24
ITL	2	Store	002	Drawing B	Administrator	2022-06-07 14:50:44
Workpiece A	3	Store	003	Drawing C	Administrator	2022-06-07 14:50:46
ME	4	Store	004	Drawing A	Administrator	2022-06-07 14:50:52
Workpiece A	5	Store	005	Drawing B	Administrator	2022-06-07 14:50:55
Workpiece C	6	Store	006	Drawing B	Administrator	2022-06-07 14:51:28
	7	Store	007	Drawing B	Administrator	2022-06-07 14:51:28

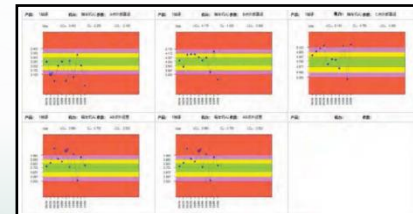
SPC analysis

Analyzes measurement data to identify production inefficiencies and optimize workflows.



Panel

Real-time monitoring of process quality to address risks promptly.



Reports

Provides inspection reports upon production completion, enhancing quality credibility.

INSIZE									
E.I.S.S.									
Item No.	Item Name	Item Code	Item Description	Item Category	Item Status	Item Date	Item Time	Item User	Item Remark
1	Item 1	1001	Item 1 Description	Item 1 Category	Item 1 Status	Item 1 Date	Item 1 Time	Item 1 User	Item 1 Remark
2	Item 2	1002	Item 2 Description	Item 2 Category	Item 2 Status	Item 2 Date	Item 2 Time	Item 2 User	Item 2 Remark
3	Item 3	1003	Item 3 Description	Item 3 Category	Item 3 Status	Item 3 Date	Item 3 Time	Item 3 User	Item 3 Remark
4	Item 4	1004	Item 4 Description	Item 4 Category	Item 4 Status	Item 4 Date	Item 4 Time	Item 4 User	Item 4 Remark
5	Item 5	1005	Item 5 Description	Item 5 Category	Item 5 Status	Item 5 Date	Item 5 Time	Item 5 User	Item 5 Remark
6	Item 6	1006	Item 6 Description	Item 6 Category	Item 6 Status	Item 6 Date	Item 6 Time	Item 6 User	Item 6 Remark
7	Item 7	1007	Item 7 Description	Item 7 Category	Item 7 Status	Item 7 Date	Item 7 Time	Item 7 User	Item 7 Remark
8	Item 8	1008	Item 8 Description	Item 8 Category	Item 8 Status	Item 8 Date	Item 8 Time	Item 8 User	Item 8 Remark
9	Item 9	1009	Item 9 Description	Item 9 Category	Item 9 Status	Item 9 Date	Item 9 Time	Item 9 User	Item 9 Remark
10	Item 10	1010	Item 10 Description	Item 10 Category	Item 10 Status	Item 10 Date	Item 10 Time	Item 10 User	Item 10 Remark

OEMs can conduct random inspections to verify if results align with those from suppliers and ensure full production traceability.

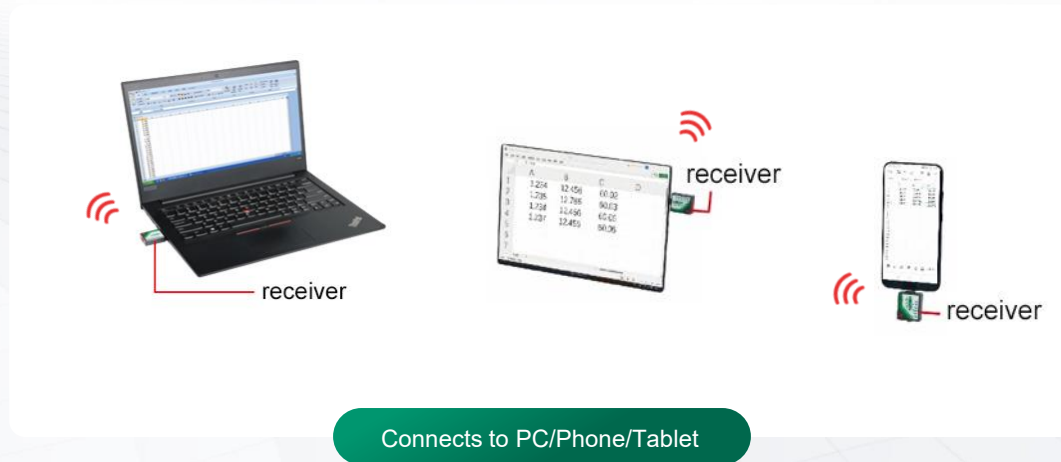
1

Wireless Data Transmission



Wireless Data Transmission System External Transmitter

- Measuring tool connects to a transmitter to send data , and receiver received data
- Trigger the transmit button of transmitter to wirelessly transfer measurement data to a computer /phone
- Transmission distance : 15m (unobstructed, no electromagnetic interference)
- Customizable AES128 data encryption to enhance data security



01
Transmitter
Connecting to indicator



02
Transmitter
Connecting to micrometer

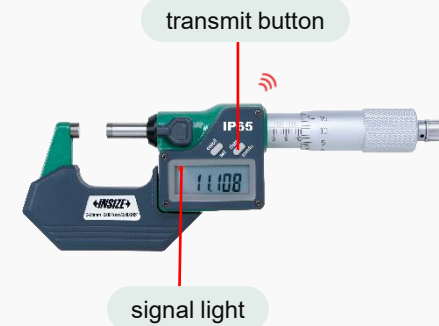
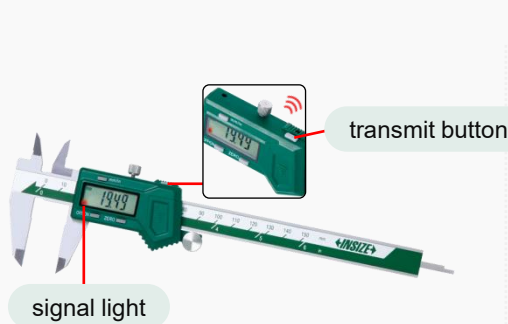


03
Transmitter
Connecting to caliper



Wireless Data Transmission System Built-in Wireless

- The built-in wireless measuring tool sends data, and receiver received data
- Transmission distance 10m(unobstructed, no electromagnetic interference)
- Trigger the transmit button of measuring tool to wirelessly transfer data to the PC/phone



Receiver

- The receiver connects to the transmitter or built-in wireless measuring tool, receiving data wirelessly.



Single Channel Receiver (Keyboard Signals)

can be connected to 1 transmitter

- For computers and mobile phone with Windows, Android, and iOS system
- Recognized as HID keyboard device, the transmitted data is recognized by computers or mobile phones as keyboard input data and press enter key, such as 12.34 ✓
- No need to install drivers and softwares.
- Data can be transmitted to excel, word, txt etc.
- For any softwares which can receive keyboard signal.



Multichannel Receiver (Keyboard Signals)

can be connected to 6 transmitters



Multichannel Receiver (virtual com port)

can be connected to 16 transmitters, each has an unique identification code

- For computers with windows system.
- Outputs serial port signals, to be used with software.

The data entry jump direction can be switched according to needs, either downwards or to the right.
Custom output formats can also be tailored.

Excel Directional Input Software (7315-2 Receiver Included)

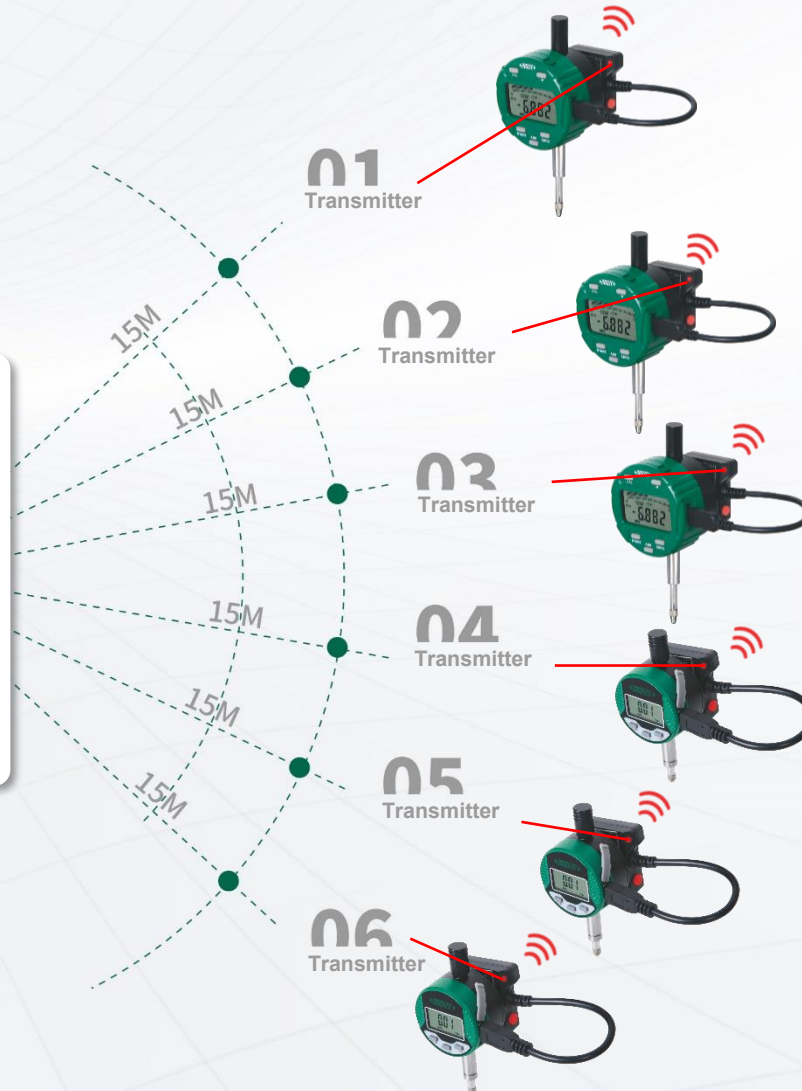
- The readings of measuring tools can be transmitted to the designated area of excel, which facilitates data management and improves efficiency.

Projects	External diameter1	Height2	External diameter3	Internal diameter4	Internal diameter5
Specifications	60±0.5	45±0.5	21±0.05	30±0.06	15±0.1
Measuring tool	Built-in Wireless Transmission Caliper	Caliper	Micrometer	Bore gauge	Bore Plug Gauge
Transmission Type	Wireless Data Transmission				
1	60.19	45.20	20.967	30.012	14.996
2	60.49	45.24	20.945	30.235	14.996
3	60.13	45.32	20.956	30.145	15
4	60.45	45.22	20.945	30.233	14.996
5	60.45	45.21	20.975	30.141	15
6	60.44	45.08	20.847	30.000	14.993
7	60.44	45.03	20.955	30.056	14.993
8	Channel1 to be written	Channel2 to be written	Channel3 to be written	Channel4 to be written	Channel5 to be written
9					

Projects	External diameter1	External diameter3	Height2	Internal diameter4	Internal diameter5
Specifications	60±0.5	21±0.05	45±0.5	30±0.06	15±0.1
Measuring tool	Micrometer	Micrometer	Caliper	Bore Plug Gauge	Bore Plug Gauge
Transmission Type	Wireless Data Transmission				
1	60.19	20.967	45.20	30.012	14.996
2	60.49	20.945	45.24	30.235	14.996
3	60.13	20.956	45.32	30.145	15
4	60.45	20.945	45.22	30.233	14.996
5	60.45	20.975	45.21	30.141	15
6	60.44	20.847	45.08	30.000	14.993
7	60.44	20.955	45.03	30.056	14.993
8	60.34	Channel1 to be written	Channel2 to be written	30.036	Channel3 to be written
9					

Wireless Data Transmission System of Digital Indicators (Remote control) 7213

- Digital indicator connects to a transmitter to send data, and receiver received data
- Trigger the transmit button of receiver to transfer data from multiple digital indicators to computer/phone



	channel 1	channel 2	channel 3	channel 4	channel 5	channel 6
	A	B	C	D	E	F
1	24.35	0.4045	57.72	1.949	0.4075	0.03568
2	24.45	0.5045	57.82	2.049	0.5075	0.13568
3	26.35	0.4045	57.72	1.949	0.4075	0.00078
4	27.35	0.4045	57.72	1.7575	0.4075	0.0762
5	28.35	0.4045	57.72	1.7575	0.4075	0.0762
6	29.35	0.4045	57.72	1.7575	0.4075	0.07618
7	30.35	0.4045	57.72	1.7575	0.4075	0.55334
8	31.35	0.4045	57.72	1.7575	0.4075	0.61198
9	24.35	0.4045	57.72	1.7575	0.4075	0.6172

The button on receiver is pressed once, the readings of all digital indicators are transmitted

Wireless Data Transmission VS. Competitor Brands Advantages

High Compatibility

1

Our receivers feature multiple interfaces (USB, Type C, Micro USB, and Lightning), compatible with various system terminals such as computers, tablets, or phones running Windows, Android, or iOS.

Diverse Communication Protocols

3

Supports both emulated keyboard signals and serial port signals to accommodate varied industrial scenarios.

Persistent Binding Mechanism

5

Single-pairing ensures continuous data transmission—no re-pairing required when replacing terminals, instruments, or batteries.

Data Format

7

Supports multiple data formats: e.g., Value + Enter, Value + TAB, ID number + Value + Enter, etc.

Deep Customization

9

Provides bespoke data transmission solutions tailored to client specifications.

Comprehensive Coverage

2

Three product categories: built-in wireless transmitters, external wireless transmitters, and all-in-one transmitters. our wireless data transmission capability comprehensively covers commonly used measuring tools and instruments.

User-Friendly Operation

4

Simplified device pairing, unpairing, and data transfer processes for effortless setup.

Ultra-Low Power Consumption

6

Operates for over 400,000 transmissions on a single CR2032 battery.

Data Security

8

Optional AES128 encryption for critical data protection.

Advanced Analytics Capabilities

10

Mature supporting software collects, aggregates, and analyzes measurement data, enabling streamlined, intelligent, and visualized data management.

2

Wired Data Transmission

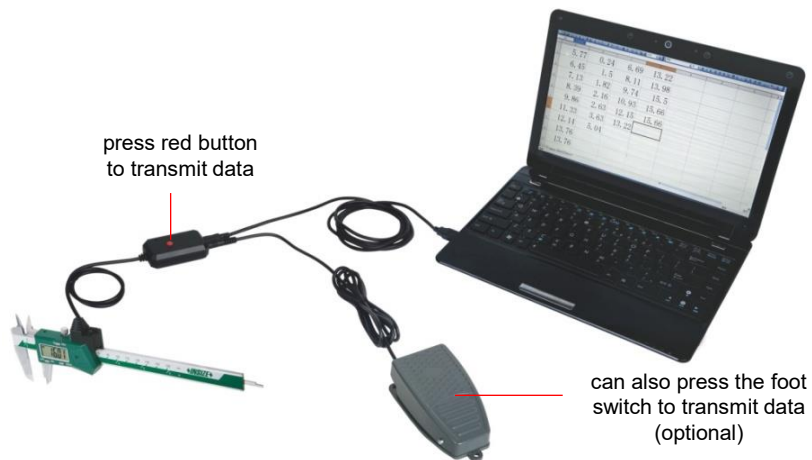


Wired Data Transmission 7302、7305

- Measuring tool connects to the data output cable, and trigger the transmit button to wired transfer data to a computer/tablet

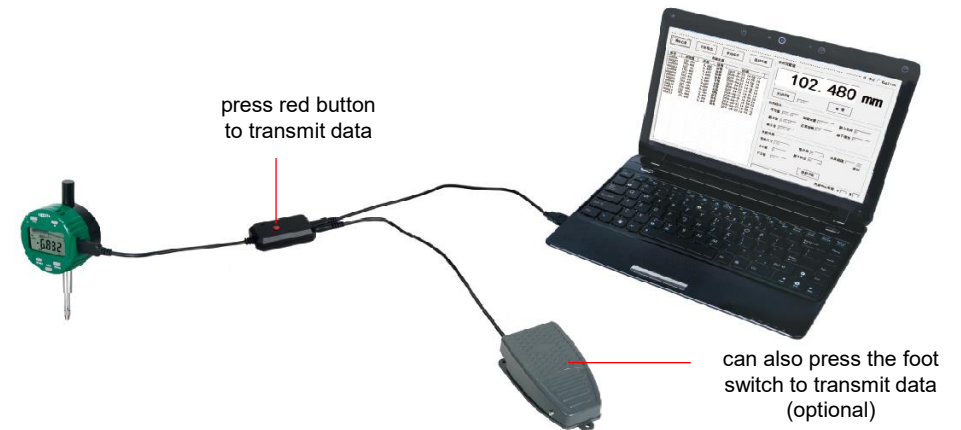
7302 series Data Output Cables (Keyboard Format)

- Recognized as HID keyboard device by computer, no need to install drivers and softwares.
- Data can be transmitted to Excel, Word, txt and other files (press transmit button, which is recognized by the computer as keyboard input data and press enter key, such as 12.34 ↵).
- For any softwares which can receive keyboard signal.
- Cursor movement direction after data input can be switched (down/right).
- Supports output of ID numbers if needed, e.g., 2023032265 12.34.



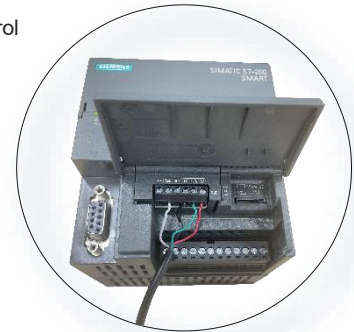
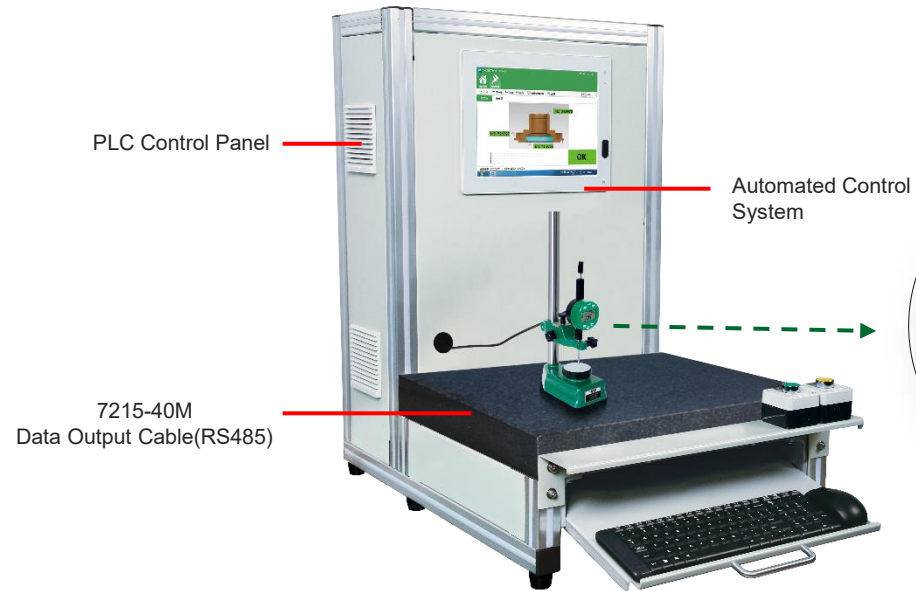
7305 series Data Output Cables (Text Format, Virtual Com Port)

- Output serial signals to transfer data to serial communication software.
- Supports output of ID numbers if needed.
- The optional 7210_2 multiplex interface boxes can transmit data to the designated area in Excel, facilitating data management and boosting work efficiency.



485 Data Output Cables 7215

- Connect the measuring instrument to the data cable, and connect the data cable to the PLC to enable automated control of the measurement data.



Application

Modbus-RTU Protocol

- Configurable baud rates (9600, 19200, 38400)
- Can set communication address

Wired Data Transmission VS. Competitor Brands Advantages

1

Adapted Terminals

- Adaptable to multiple acquisition terminals
 - a. Computers or tablets with Windows, Android or iOS systems
 - b. PLC

2

Communication types

- Multiple data communication types to meet various production application scenarios:
 - a. (Simulated keyboard signal) Directly transfer data to Excel reports or customer measurement software, MES, or ERP systems
 - b. (Output serial port signal) Interface with serial communication software, or transfer measurement data from multiple gauges to the designated area of Excel for easier data management
 - c. (485) Can be connected to a PLC to enable automated control of measurement data

3

Data Format

- Supports multiple data formats: e.g., Value + Enter, Value + TAB, ID number + Value + Enter, etc.

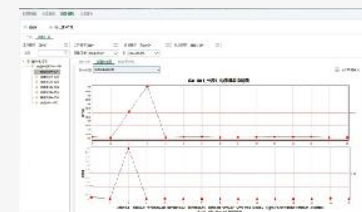
3

Measurement Data Management and Analysis Software





1. 主成分分析 (PCA) 结果											
主成分提取方法: 主成分分析 (PCA)											
主成分提取标准: 特征值大于 1											
主成分提取结果:											
主成分	主成分名称	主成分解释方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)	主成分解释总方差 (%)
1	主成分 1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	主成分 2	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
3	主成分 3	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
4	主成分 4	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
5	主成分 5	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
6	主成分 6	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
7	主成分 7	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
8	主成分 8	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
9	主成分 9	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
10	主成分 10	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
11	主成分 11	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
12	主成分 12	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
13	主成分 13	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
14	主成分 14	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
15	主成分 15	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
16	主成分 16	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
17	主成分 17	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
18	主成分 18	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
19	主成分 19	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
20	主成分 20	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
21	主成分 21	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
22	主成分 22	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
23	主成分 23	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
24	主成分 24	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
25	主成分 25	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
26	主成分 26	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
27	主成分 27	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
28	主成分 28	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999
29	主成分 29	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999

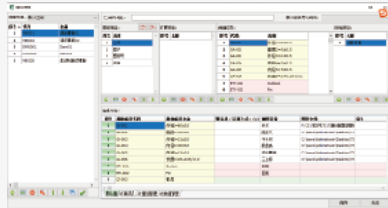
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Generate quality reports with control plan information, SPC parameters, and measurement data, can export Excel.

Measurement Data Management and Analysis Software -- 7317

Make inspection plan

Define the dimensions, tolerances, control range and other parameters of workpieces



Inspection plan management

Follow company workflow
Test item management

序号	检测项目	检测点	检测工具	检测频率	检测标准	检测结果
1	尺寸检测	长度	卡尺	100%	100mm ±0.05mm	合格
2	尺寸检测	直径	千分尺	100%	10mm ±0.01mm	合格
3	尺寸检测	深度	深度规	100%	10mm ±0.01mm	合格
4	尺寸检测	宽度	卡尺	100%	10mm ±0.05mm	合格
5	尺寸检测	高度	卡尺	100%	10mm ±0.05mm	合格
6	尺寸检测	厚度	千分尺	100%	10mm ±0.01mm	合格
7	尺寸检测	圆度	圆度规	100%	10mm ±0.01mm	合格
8	尺寸检测	圆柱度	圆柱度规	100%	10mm ±0.01mm	合格
9	尺寸检测	平面度	平面度规	100%	10mm ±0.01mm	合格
10	尺寸检测	垂直度	垂直度规	100%	10mm ±0.01mm	合格
11	尺寸检测	平行度	平行度规	100%	10mm ±0.01mm	合格

Data acquisition

Supports multiple data acquisition methods:

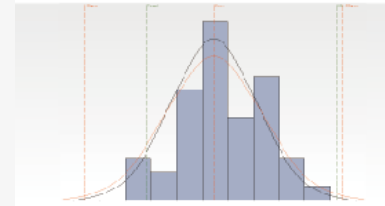
- Manual input
- Data transmission
- File parsing
- Screen capture



Can Be Connected With PDM, ERP, MES And Other Systems

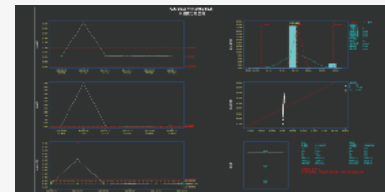
SPC Analysis

Measurement data analysis helps identify engineering limitations and optimize workflows.



Real Time Monitoring

Quality control personnel can monitor real-time quality status for each process and address risks promptly.



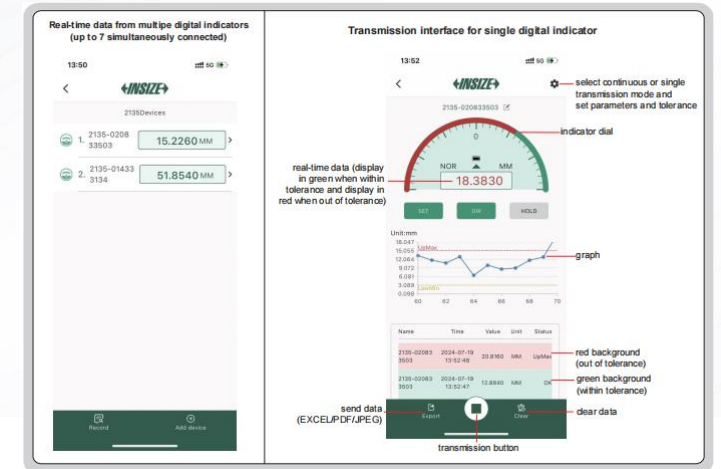
Reports

Quality reports increase quality credibility, reduce acceptance workload, and ensure traceable quality control.



Data Management APP

- Measuring tools connects to the mobile APP by Bluetooth for real-time data collection
- Displays synchronized data with automatic judgment (red display for out-of-tolerance)
- Data trend charts help quickly identify abnormal fluctuations
- Export data as PDF, JPEG, or Excel files
- Transmission distance: 10 meters



4

Inspection Table



Inspection Table

- Customers can choose the suitable inspection table based on different measurement applications.



7906-06C



7901



7911



7923

SPC Inspection Station Case

1. Customer needs to quickly measure the inner and outer diameters of automotive differentials.
2. Measuring tools were selected for quick on-site measurements and to minimize human errors: 4653 precision Bore plug gauge, 2186 quick dial snap gauge, and 4659 ring type inner/outer diameter plug gauge.
3. The 7315 wireless data transmission system was selected, and transmit data to the 7317 software.



Ring Outer Diameter Plug Gauge 4659-D250g6
(For measuring $\varnothing 250g6-0.015/-0.044$)

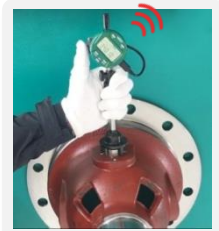


transmitter

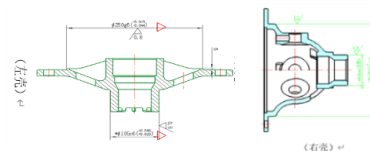
receiver



Dial snap Gage 2186-125/275
(For measuring $\varnothing 105n6+0.045/+0.023/ \varnothing 270h7 0/-0.052$)



Bore Plug Gage 4653-B34J8
(For measuring $\varnothing 34J8+0.024/-0.015$)



Using the 7315 wireless transmission system, measurement data is directly transferred to the 7317 software.

2 *Smart Measurement*



SPC Measurement Station



SPC Measurement Station CMW-□□□



graphical guide for
measurement in software

operation button

- Flexible instrument configuration: selection of air gauges, inductive probes (LVDT), and measuring tools (e.g., digital calipers, micrometers, digital Indicators) and Go/No-Go gauges based on specific requirements
- Visual software guidance: graphical interface functionality that provides step-by-step instructions and highlights the specific location of each dimension to be measured
- Light indicator guidance: signal lights to guide the operator to the specific gauge or instrument required for each measurement step
- Data analysis & reporting: software equipped with modules for real-time data processing and professional report generation

Optional measuring tools and instruments



air gauges



inductance probes

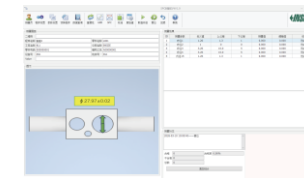


measuring tools

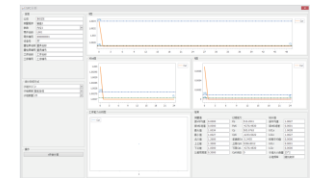


Go/No-Go gauges

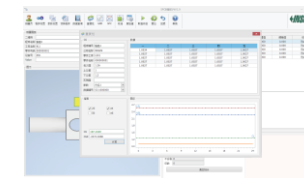
SPC measurement software system (customizable)



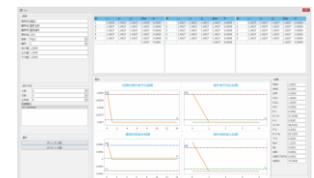
measurement interface



SPC analysis



CG analysis



GRR analysis

3

Automatic Inspection



***Robotic Arm-integrated
Measuring System***



Automatic Inspection System



Semi-auto Measurement Stations



***Workpiece Torsion Fatigue
Testing Machine***



***Automatic Vision
Inspection Machine***



Robotic Arm-integrated Measuring System (P1)



Automatic Measurement System
RBT-CMM01



Automatic Scanner Measuring
System RBT-LSM01



Automatic Quick Measurement
System RBT-VIM40

**CUSTOM-
MADE**



Workshop CMM Automatic
Measurement System RBT-CMM02



Automatic Quick Measurement
System RBT-QM01



Automatic Vision Measuring
System RBT-ISO01

Robotic Arm-integrated Measuring System (P2)



Automatic Profile Measurement
System RBT-SPM01



Automatic Roundness
Measurement System RBT-RCT01



Automatic Roughness
Measuring System RBT-ISR01

**CUSTOM-
MADE**



Automatic Laser Diameter
Measuring System RBT-LDM01



Automatic Hardness Test
System RBT-HDT01



Automatic XRF Plating Thickness
Measurement System RBT-XRF01

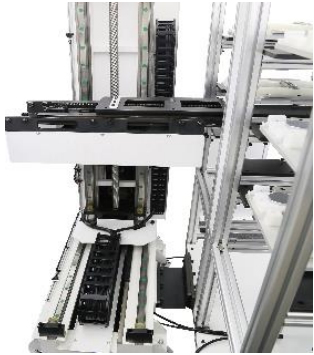
Automatic Inspection System ATU-MHV35 (P1)

- Automatic inspection system: delivers unmanned inspection and automatic data collection, fundamentally cutting labor costs, maximizing equipment utilization, enhancing efficiency, ensuring quality, and ultimately achieving visual management of production progress and quality status

**CUSTOM-
MADE**



Automatic Inspection System ATU-MHV35 (P2)



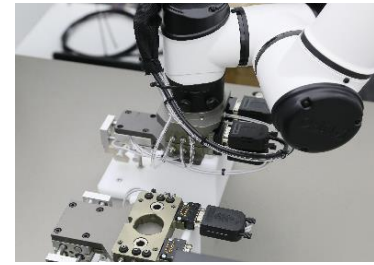
The palletizing elevator automatically takes the workpiece pallets from vertical storage system



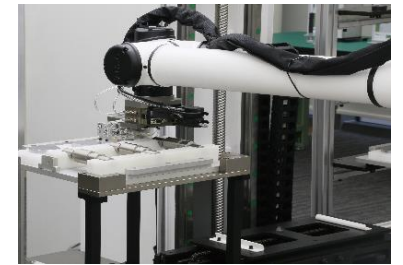
The palletizing elevator automatically conveys the workpiece pallets to the vision positioning station



The vision positioning station automatically verifies the workpiece placement position



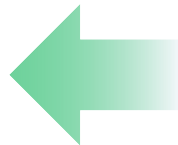
The robot automatically changes grippers



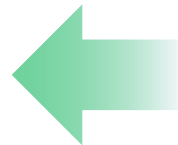
The robot automatically grips the workpiece on the vision positioning station



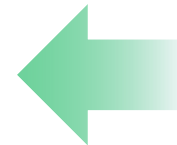
The robot automatically places the workpiece into OK or NG positions on the servo stacking/unloading



The robot automatically places the workpiece on the hardness tester station for automatic measurement



The robot automatically places the workpiece on the CMM station for automatic measurement



The robot automatically places the workpiece on the CNC vision measuring station for automatic measurement

Semi-auto Measurement Stations

Semi-auto Measurement Station ATU-01A

CUSTOMIZED ACCORDING
TO WORKPIECES



Measurement device



inductive probe



Workpiece fixing device

- Repeatability: 3 μ m
- Measurement cycle time: 8s

Semi-auto Rotary Measurement Station ATU-01B

CUSTOMIZED ACCORDING
TO WORKPIECES



Measurement device



inductive probe



Workpiece fixture and rotating plate

- Repeatability: 10 μ m
- Measurement cycle time: 46s

Workpiece Torsion Fatigue Testing Machine ITU-A102

CUSTOMIZED ACCORDING
TO WORKPIECES



built-in dynamic torque sensor
IST-TA10



workpiece fixture

Main unit

- Servo control mode: torque, angle and speed
- Range of test torque: 20%-100%FS
- Range of torsion angle: 0-9999°
- Max. Test RPM: 100rpm

Dynamic torque sensor

- Torque capacity: 10N.M
- Accuracy: 0.1%fs
- Hysteresis: 0.5%f.S.

Automatic Vision Inspection Machine AVIM

- For testing fasteners, mobile phone parts, plastical products, electronic components and special-shaped hardware, etc.



**AUTOMATIC INSPECTION OF LARGE
QUANTITIES OF WORKPIECES**

**AUTOMATIC
SORTING**

**SIZES MEASUREMENT AND
DETECTION OF SURFACE DEFECTS**

**CUSTOM-
MADE**

Automatic Tool Compensation System

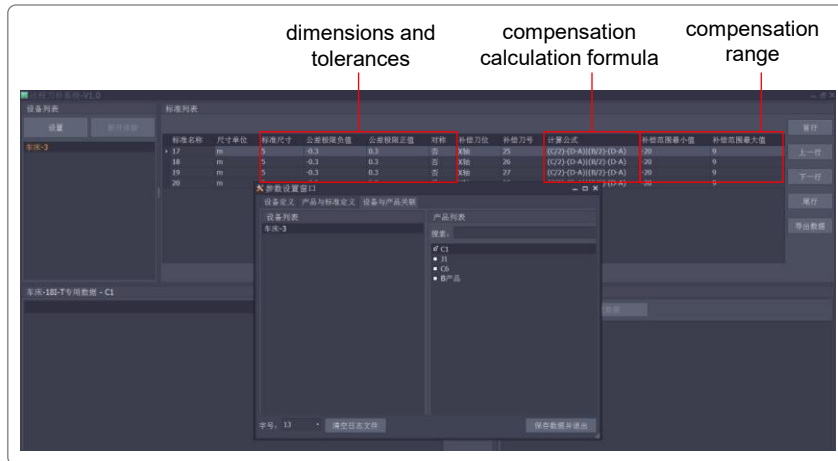
Automatic Tool Compensation System



Automatic Tool Compensation System ATU-03A

- Improve production efficiency, reduce human misjudgment, lower product reject rate and maintain stable controllable machining quality
- Auto-measure workpieces, transmit measured data to the CNC, auto-calculate compensation values and update CNC tool compensation

CUSTOMIZED ACCORDING
TO REQUIREMENTS



Tool compensation software (included)

- Measuring range*: workpiece length: 100mm
workpiece diameter: 1~30mm
- Accuracy (at 25°C): $\pm(0.5+10\%D)\mu\text{m}$, D is measuring diameter in mm
- Repeatability (at 25°C): $(0.3+5\%D)\mu\text{m}$, D is measuring diameter in mm
- CNC system type*: FANUC, Siemens etc.

* can be customized according to customer workpieces and CNC systems

Calipers**Depth Measuring Tools****Height Measuring Tools****Comparison Measuring Tools****Micrometers****Bore Diameter And Circumference Measuring Tools****ARC Radius Measuring Tools****Keyway And Chamfer Measuring Tools**

Indicators And Dial Indicator Stands



Indicating Measuring Tools



Standards And Gauge Blocks



Angle, Straightness, Flatness Measuring Tools



Concentricity And Runout Testers



Simple Measuring Tools



Set-up Tools



Calipers



Digital Calipers



Vernier Calipers



Dial Calipers



Caliper/Height Gauge Checkers



Caliper End Grinding Machines



Depth Base Attachments



Accessory Sets For Digital Calipers



Groove Points For Digital Calipers



Universal Calipers



Digital Calipers With Interchangeable Points



Special Purpose Calipers

Digital Calipers



Digital Calipers (Standard Type) 1108



IP67 Waterproof Digital Calipers 1195



Wireless Digital Calipers 1113



Digital Calipers 1114



Left Hand Digital Calipers 1130



Digital Calipers With Ceramic Tipped Jaws 1193



Digital Calipers With Carbide Tipped Jaws 1110



Mini Digital Calipers 1111



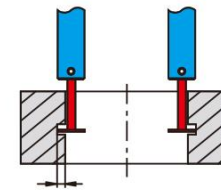
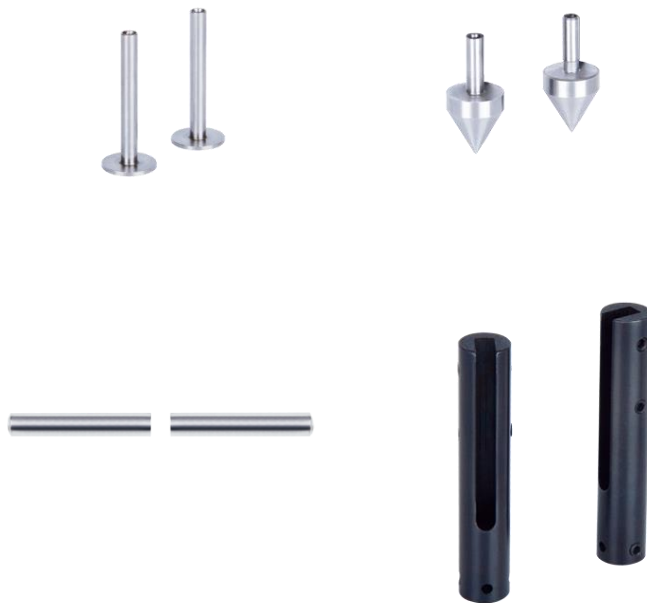
Plastic Digital Caliper 1139



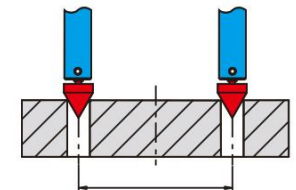
Digital Calipers 1106

Accessory Set For Digital Calipers 6144

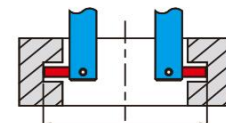
- Suitable for 0-150mm and 0-200mm digital calipers (thickness of lower jaws<3.7mm)
- Suitable for 0-300mm digital calipers (thickness of lower jaws<4.0mm)



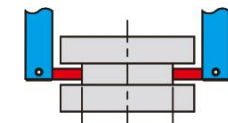
measuring internal
groove diameter



measuring center
distance



spherical points for groove diameter
(inside hole) measurement



flat points for external
groove diameter measurement

Universal Calipers 1125

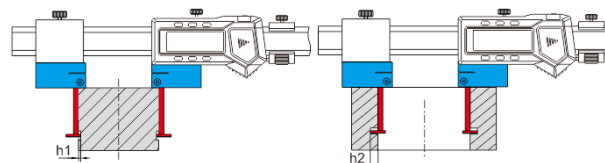
Working with stands



Working with measuring jaws



Half Disk Points

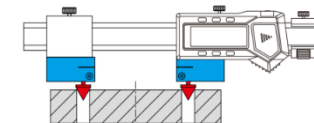


measuring external
groove diameter with
flat measuring face

measuring internal
groove diameter with
spherical measuring face



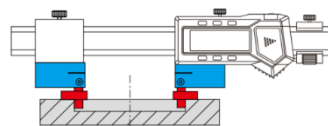
Conical Points



measuring center
distance



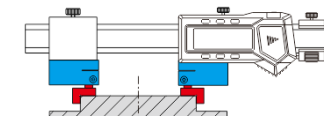
Round Shoulder Points



measure inside
diameter of shallow hole



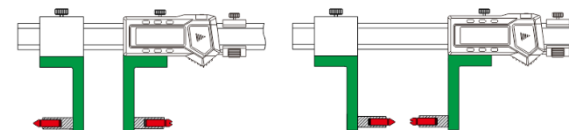
Flat Shoulder Points



measure outside
diameter of low boss



Point Sleeve



working with multifunctional points,
ball points and screw thread points

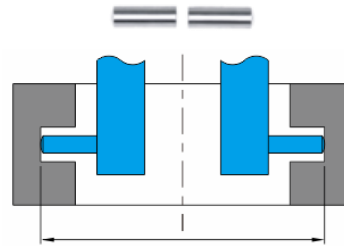
- Range: 0-1000mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.05\text{mm}/\pm 0.07\text{mm}$

Digital Calipers With Interchangeable Points

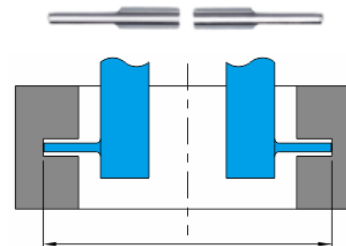
1526



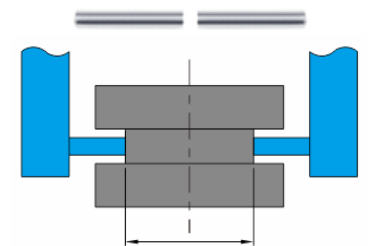
- Range: 0-200mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.03\text{mm}$



spherical points for groove
(inside hole) measurement



spherical blade points for
narrow groove (inside hole)
measurement



flat points for external
groove measurement

1124



- Range: 0-300mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.04\text{mm}$

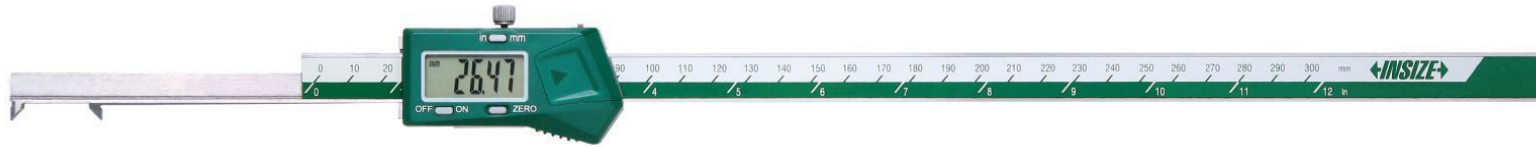
Multifunctional Points



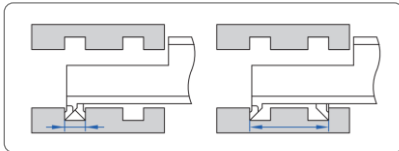
depth
stop

Digital Hook Calipers 1122 / 1164

Measure width and distance of grooves inside bores

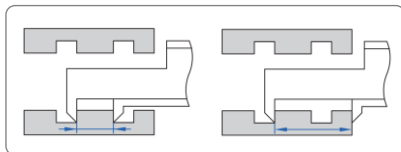


**DATA
OUTPUT**



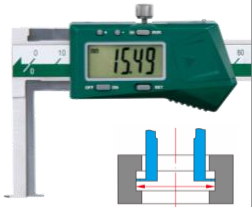
- Range: 3-300mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.03\text{mm} / \pm 0.04\text{mm}$

Measure width and distance of grooves inside bores



- Range : 0-300mm
- Resolution : 0.01mm
- Accuracy : $\pm 0.03\text{mm} / \pm 0.04\text{mm}$

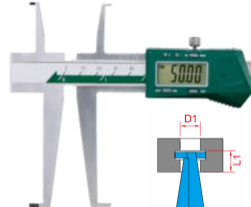
Special Purpose Calipers



Digital Inside Groove Calipers



Digital Inside Point Calipers



Digital Inside Groove Calipers



Digital Outside Point Calipers



Digital Small Point Jaws



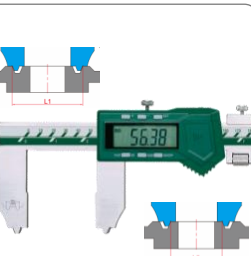
Digital Inside Knife-edge Calipers



Digital V Shape Caliper



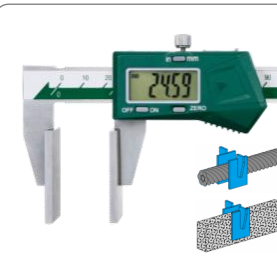
Digital Offset Calipers



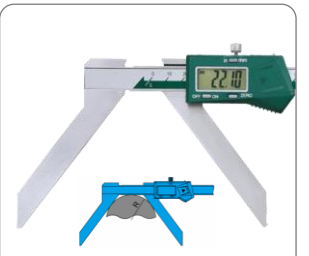
Digital Rtj Ring Groove Calipers



Digital Crimp Height Calipers



Digital Calipers With Large Measuring Faces

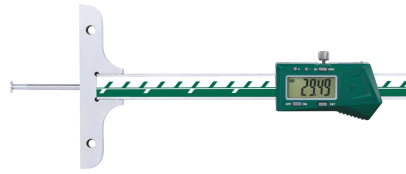


Digital Arc Radius Calipers

Depth Measuring Tools



Digital Depth Gauges



Digital Depth Gauges With Round Depth Bar



Dial Depth Gauges



Vernier Depth Gauges



Extension Bases



Mini Depth Gauges



Depth Gauges



Depth Micrometers



Measuring Tools Dynamometers



Depth Micrometer Checkers

Digital Depth Gauges



IP67 Waterproof Digital Depth Gauges 1149



Digital Depth Gauges (Standard Type) 1141



Digital Hook Depth Gauges 1142



Digital Double Hook Depth Gauges 1144



Digital Double Hook Depth Gauge 1540



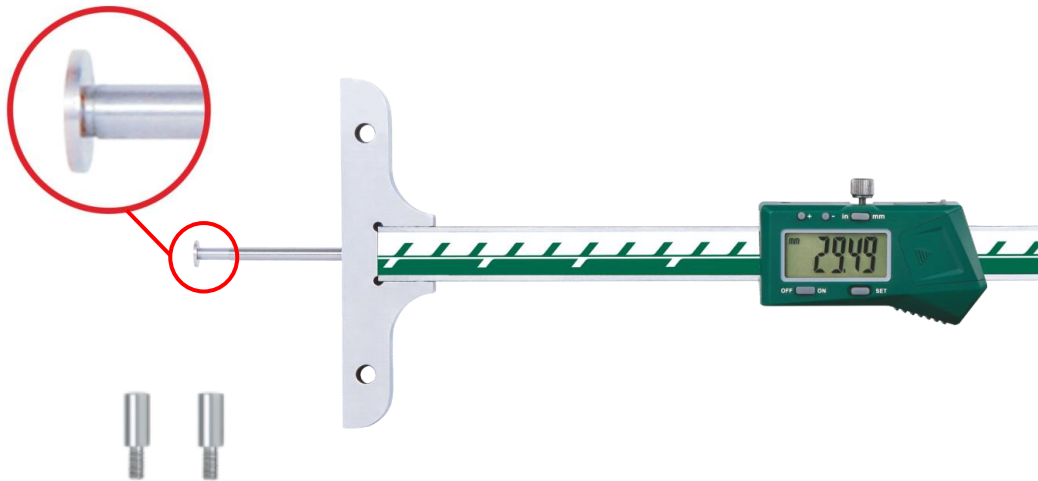
Digital Point Depth Gauges 1143



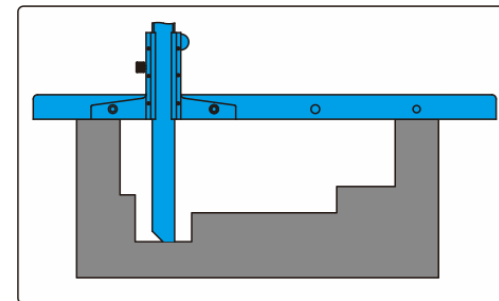
Mini Digital Depth Gauges With Round Bar 1140

Digital Depth Gauges With Round Depth Bar 1148

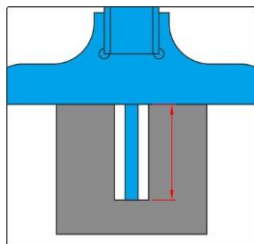
- Range: 0-100mm, 0-120mm (one-hand use), 0-200mm, 0-300mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm} \sim \pm 0.03\text{mm}$



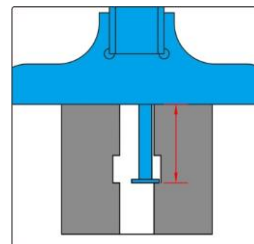
Extension base (optional)



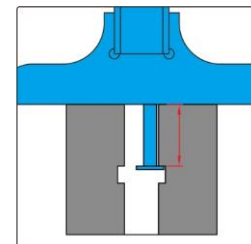
Measure depth of small holes ($>\phi 4\text{mm}$)



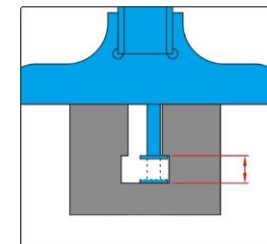
Measure depth of grooves inside bore



Measure depth of grooves inside bore



Measure width of grooves inside bore



Height Measuring Tools



Manual Height Gauges



Digital Height Gauges



Dial Indicator Stands



Height Gauges



Height Gauge Checkers

Manual Height Gauges

2D



DHG-V410/V710

with air cushion

- Measuring range: 0-407mm/0-711mm
- Expandable measuring range: 719mm/1023mm
- Accuracy(at 20°C): 4.5µm/6µm

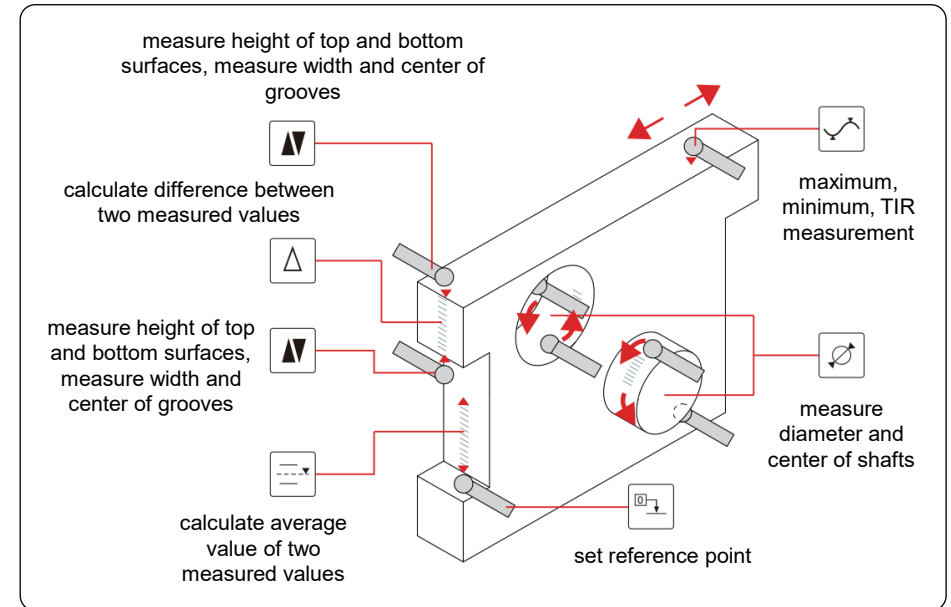
1D



ISHH-V400/V700

without air cushion

- Measuring range: 0-407mm/0-711mm
- Expandable measuring range: 508mm/812mm
- Accuracy(at 20°C): 5µm/6µm



Digital Height Gauges

High Precision Digital Height Gauges 1155



- Range: 0-50mm
- Resolution: 0.5 μ m(can switch to: 1 μ m) / 0.1 μ m(can switch to: 1 μ m)
- Accuracy (20°C): 1.5 μ m/1 μ m

Digital Height Gauges 1157



- Range: 0-50mm
- Resolution: 1 μ m
- Accuracy (20°C): 3 μ m

Large Range Digital Height Gauge 1158



- Range: 0-100mm
- Resolution: 0.1 μ m (can switch to: 1 μ m)
- Accuracy (20 °C): 3 μ m

Height Gauges



Digital Height
Gauges 1150



Digital Height Gauges
With Driving Wheel
1156



Digital Height
Gauges 1151



Dial Height
Gauges 1351



Mini Digital Height
Gauges 1154



Vernier Height
Gauges 1250

Comparison Measuring Tools



Universal Comparison Gauges



Carbon Fiber Comparison Gauges



Horizontal Measuring Bench



Internal Comparison Measuring Bench



Universal Comparison Measuring Benches



Digital Comparison Gauges



Comparison Gauges



Internal/External Measuring Gauges



Digital Measuring Gauges (Large Range)



Ball Screw/Ball Nut Pitch Circle Diameter Comparators

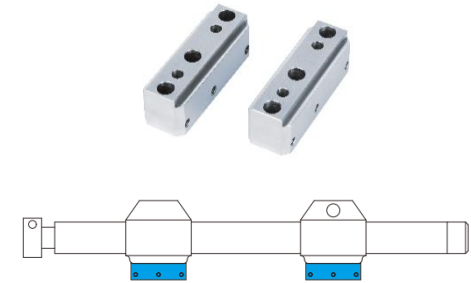


Screw Thread Comparators

Universal comparison Gauge 2927 (P1)



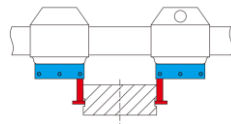
internal/external diameter measurement switch



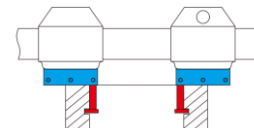
Stands (Optional, Supplied In Pair)



Half Disk Points (Optional, Supplied In Pair)



measuring external groove diameter with flat measuring face (depth≤2.5mm)



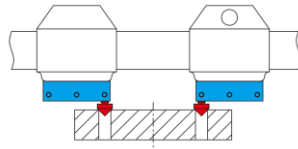
measuring internal groove diameter with spherical measuring face (depth≤7.5mm)

- Range of external diameter: 0-200mm
- Range of internal diameter: 30-250mm
- Maximum measuring range: 500mm (optional extension rods)
- Repeatability: 2μm
- Accuracy: ±5μm

Universal comparison Gauge 2927 (P2)



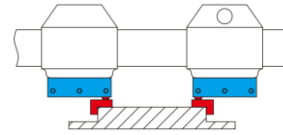
Conical Points



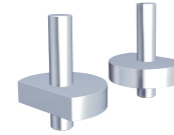
measuring center distance



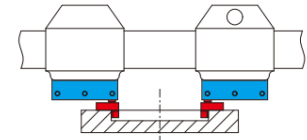
Flat Shoulder Points



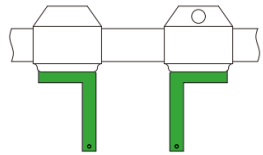
measure outside diameter of low boss



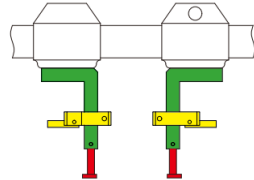
Round Shoulder Points



measure inside diameter of shallow hole



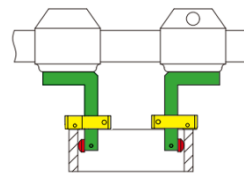
Measuring Jaws



Depth Stop



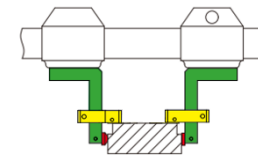
Spherical Point



measure inside diameter (2 spherical points)



Flat Point



measure outer diameter (1 spherical point, 1 flat point)



V-shaped Placement Brackets



Points



Multifunctional Points



Ball Points



External Thread Points

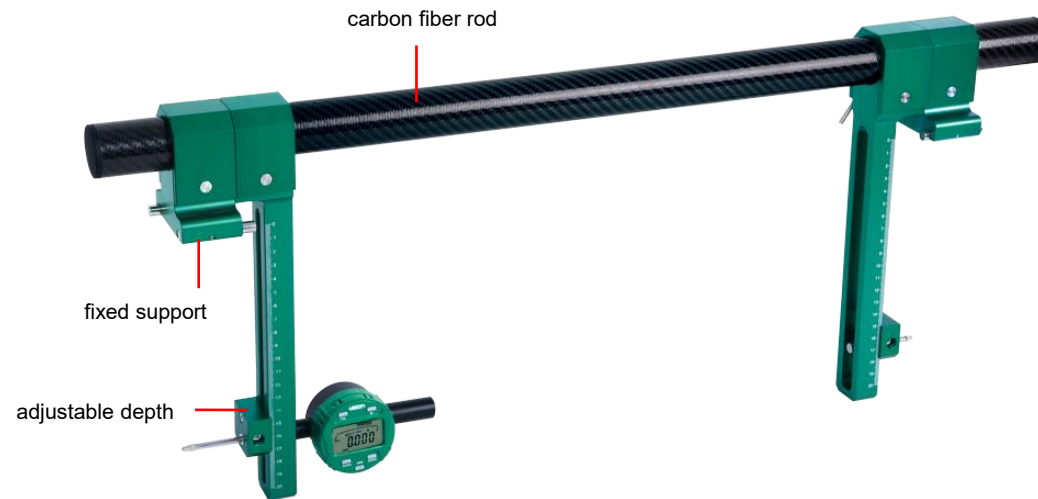


Internal Thread Points

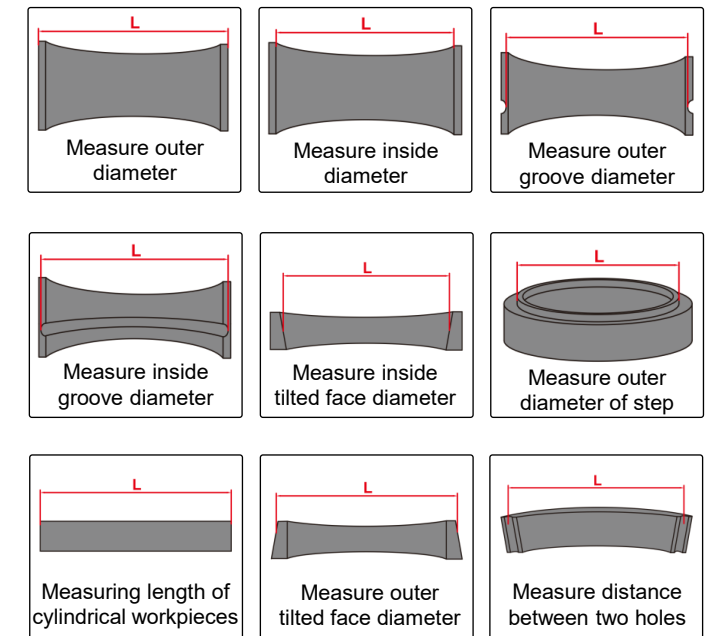
Carbon Fiber Comparison Gauges 2931

Measure outer diameter, inside diameter, holes distance and cylindrical workpiece length

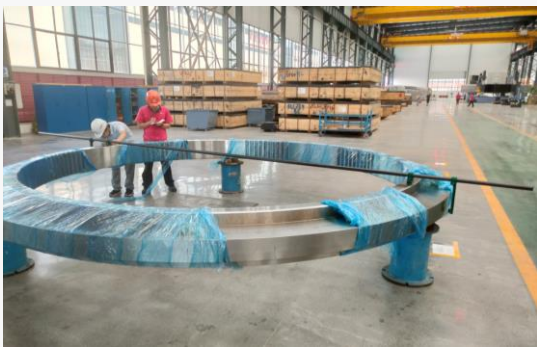
CARBON FIBER RODS, LIGHT WEIGHT, NOT EASY TO DEFORM, NO TEMPERATURE EXPAND, SUITABLE FOR THIN-WALL WORKPIECES AND LARGE-SIZE WORKPIECES



- Maximum measuring range (L): 9000mm
- Measuring depth (H): 0-300mm
- Repeatability: 5μm-120μm



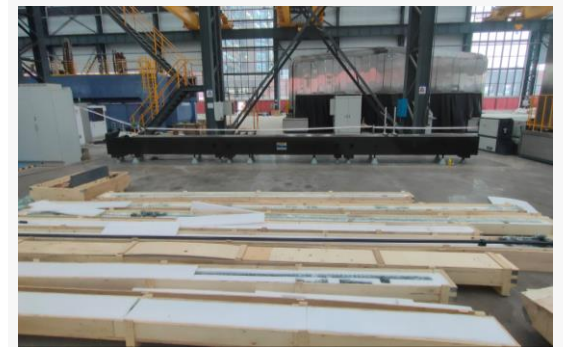
Carbon Fiber Comparison Gauges 2931--Application



Measure outer diameter



Measure inside diameter



Set zero

Measurement of the inner and outer diameter of bearings, measuring dimensions 3m, 4m, 6m.

Horizontal Measuring Bench 6849

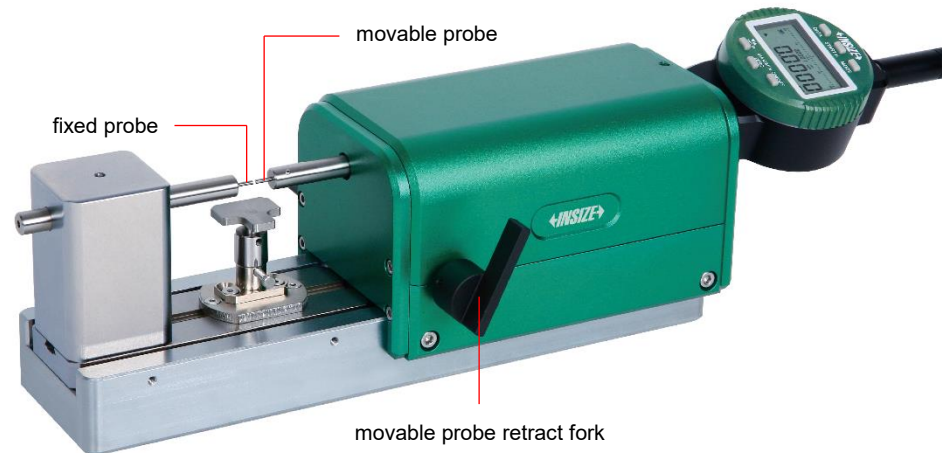
- Quickly measure outside diameters
- The platform can move horizontally and the height is adjustable
- For left and right hand operation
- Carbide probes
- Digital indicator uses linear ball bearings and can be used ten million times

MEASURING FORCE CAN BE CUSTOMIZED,
MINIMUM MEASURING FORCE IS 2N

DATA
OUTPUT

DIGITAL INDICATOR USES ABSOLUTE ENCODER,
THE ORIGINAL DATA REMAINS AFTER POWER OFF

PROBE AND PLATFORM
CAN BE CUSTOMIZED

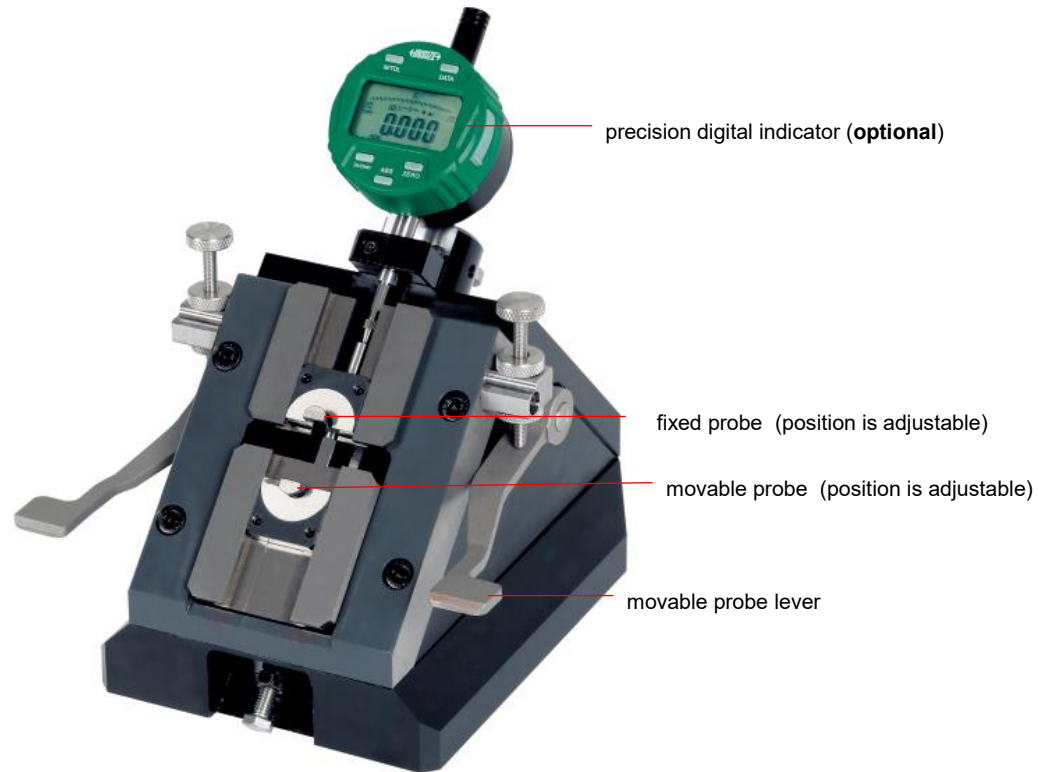


- Range: 0-50mm
- Movable probe travel: 20mm
- Resolution: 0.0002mm
- Accuracy: 5 μ m

Internal Comparison Measuring Bench 6831

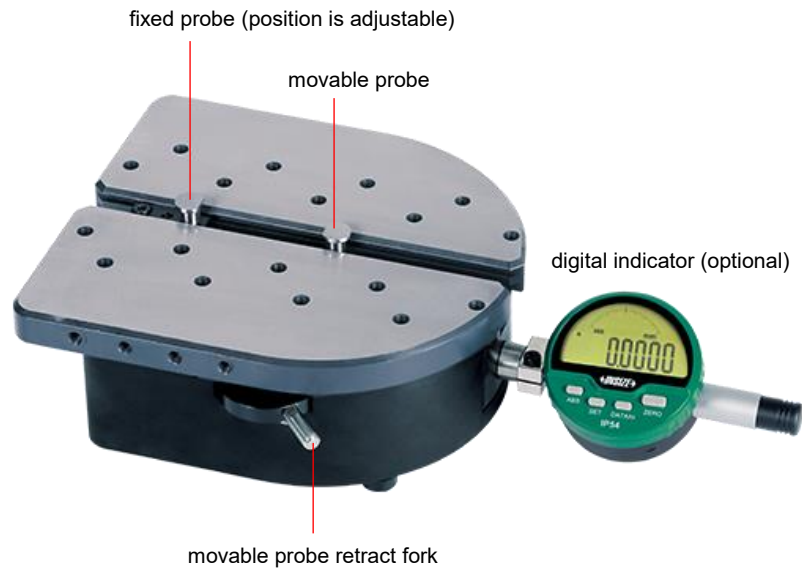
PROBE
CAN BE CUSTOMIZED

Application



- Range (ØD): 12-80mm
- Movable probe Stroke: 5mm
- Accuracy: 5µm
- Repeatability: 2µm

Universal comparison Measuring Bench 6848



- Range of external diameter: 0-100mm
- Range of internal diameter: 25-120mm
- Repeatability(without digital indicator) : 2μm
- Accuracy(without digital indicator): 5μm



Internal groove probes



Internal groove probes holders



Disk probes



Probe holders



Thread rollers



Probes



Multifunctional probes



Ball probes



External thread probes



Internal thread probes



Stop block



Spacer blocks

Comparison Gauges 2252



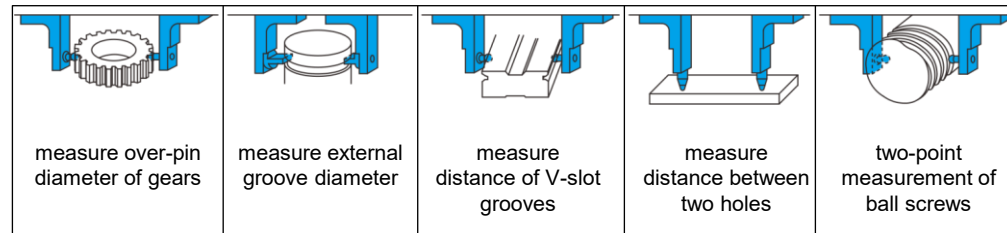
Measure external diameter



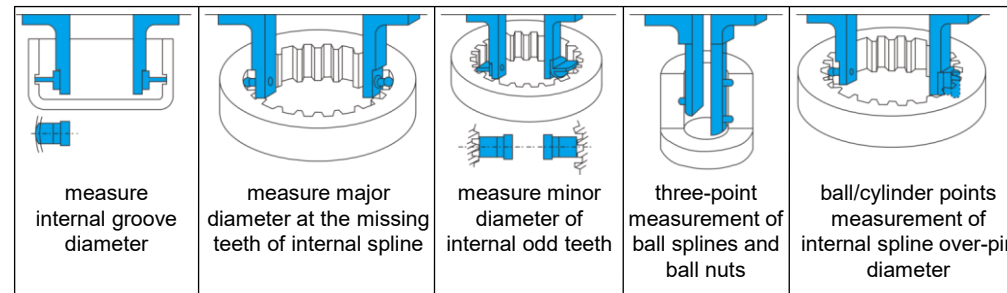
Measure internal diameter

External diameter measurement application

**CUSTOMIZABLE MEASURING
JAWS AND POINTS**



Internal diameter measurement application



- Range of external diameter: 0-90mm
- Range of internal diameter: 40-150mm
- Repeatability: 2µm
- Measure external diameter, internal diameter and over-pin diameter of gears
- Accuracy: ±5µm
- Movable point stroke: 8mm
- Effective range of movable point: ±1mm

Digital Measuring Gauges (Small Range)

DATA
OUTPUT

Digital Internal Measuring Gauges 2932



Digital External Measuring Gauges 2934



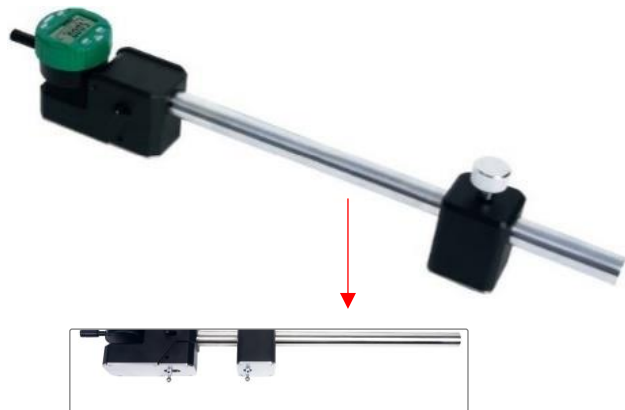
- Measuring range: External: 13-38mm
Internal: 24-50mm
- Movable point stroke: 5mm
- Accuracy: 5µm

- Resolution: 0.001mm
- Point height is adjustable, h=2-25mm
- Repeatability: 1µm

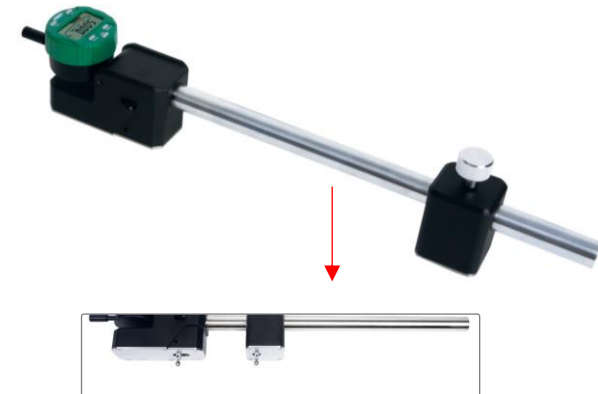
Digital Measuring Gauges (Large Range)

DATA
OUTPUT

Large Range Digital Internal Measuring Gauges 2933



Large Range Digital External Measuring Gauges 2935



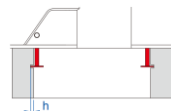
- Measuring range: External: 35-320mm
Internal: 48-330mm
- Movable point stroke: 5mm
- Accuracy: 5 μ m

- Resolution: 0.001mm
- Point height is adjustable, h=2-25mm
- Repeatability: 1 μ m

Digital Measuring Gauges (Optional Probe)



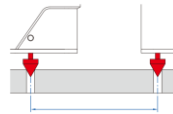
Disk Points



measuring internal groove diameter



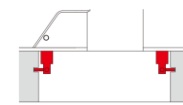
Conical Points



measuring center distance



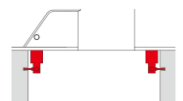
Spherical Points



spherical points for groove (inside hole) measurement



Spherical Blade Points



spherical blade points for narrow groove (inside hole) measurement



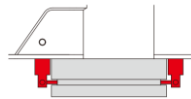
Ball Points



ball points for internal diameter measurement



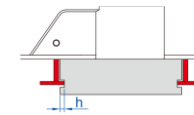
Spherical/Flat Points



flat points for external groove diameter measurement



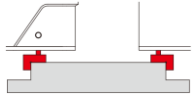
Disk Points



measuring external groove diameter

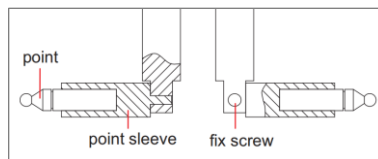


Flat Shoulder Points



measure outside diameter of low boss

installation



Point Sleeve



Screw Thread Points



Screw Thread Points



Ball Points



Multifunctional Points



Ball Screw/Ball Nut Pitch Circle Diameter Comparators

PROBE AND CALIBRATION PLUG GAUGE
NEED TO BE CUSTOMIZED ACCORDING TO THE WORKPIECE

DATA
OUTPUT

Ball Screw Pitch Circle Diameter
Comparators 2677

- Range: 6-50mm
- Contact point opening range: 6-15mm
- Effective stroke of anvil: 0.1mm
- Accuracy: 0.005mm
- Repeatability: 0.002mm
- Adjustable resolution: 0.0005mm/ 0.001mm/ 0.01mm



PROBE AND CALIBRATION RING GAUGE
NEED TO BE CUSTOMIZED ACCORDING TO THE WORKPIECE

DATA
OUTPUT

Ball Nut Pitch Circle Diameter
Comparators 2678

- Range: 6-50mm
- Contact point opening range: 6-15mm
- Effective stroke of anvil: 0.1mm
- Accuracy: 0.005mm
- Repeatability: 0.002mm
- Adjustable resolution: 0.0005mm/ 0.001mm/ 0.01mm



Micrometers (P1)



Digital Micrometers/Snap Gauges



Wireless Waterproof Digital Outside Micrometers



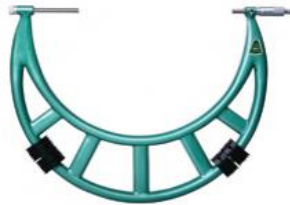
Quick Feeding Digital Outside Micrometers



Digital Micrometers



Outside Micrometers



Large Outside Micrometers



Indicating Micrometers



Micrometers With Dial Indicator



Groove Micrometers



3-Wires



Screw Thread Micrometers



Gear Tooth Micrometers

Micrometers (P2)



Disk Micrometers



Special Purpose Micrometers



Optical Parallels



Parallelism Inspect Devices For Outside Micrometers



Measuring Tools Dynamometers



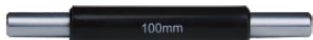
Micrometer Measuring Force Detectors



Micrometer Inspection Gauge Block Sets



Micrometer Stands



Micrometer Setting Standards



Micrometer Lapping Machines



Micrometer Heads

Digital Micrometers/Snap Gauges

ABSOLUTE ENCODER, THE ORIGINAL DATA REMAINS AFTER POWER OFF

MEASUREMENT ACCURACY IS NOT AFFECTED BY THE USE OF SLEEVE

NON-ROTATING SPINDLE



High Precision Digital Micrometer/Snap Gauges 3359

- Resolution: 0.0001mm
- Range: 0-25mm
- Accuracy: $\pm 0.5\mu\text{m}$
- Repeatability: 0.3 μm



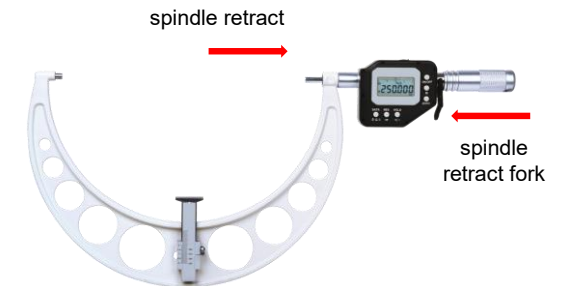
Digital Micrometers/Snap Gauges 3358

- Resolution: 0.001mm
- Range: 0-100mm
- Accuracy: 2 μm /3 μm
- Repeatability: 1 μm



Digital Micrometers/Snap Gauges 3350

- Adjustable resolution: 0.0002mm/0.001mm/0.01mm
- Range: 0-100mm
- Accuracy: 1.4 μm -2 μm
- Repeatability: 0.6 μm /1 μm



Digital Micrometers/Snap Gauges 3351

- Adjustable resolution: 0.0002mm/0.001mm/0.01mm
- Range: 100-300mm
- Accuracy: 3 μm -6 μm
- Repeatability: 1 μm

Outside Micrometers



Waterproof Digital Outside Micrometers 3101



Digital Vertical Micrometers 3565



Outside Micrometers 3203



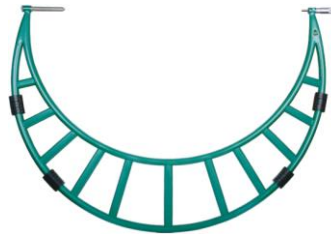
Outside Micrometer With Counter 3400



Outside Micrometers For Left or Right Handers 3236



Digital outside Micrometers with Interchangeable Anvils 3506



Outside Micrometer With Extension Anvil collar 3205



Indicating Micrometers 3332



Micrometers With Dial Indicator 3331

Digital Indicating Micrometers

IP54
WATERPROOF

BUILT-IN
BLUETOOTH

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF



Bluetooth Digital Indicating Micrometers 3507

Micrometer head
• Range: 0-100mm
• Accuracy: 3μm

Digital indicator
• Range: $\pm 0.04\text{mm}$
• Accuracy: $\pm 1\mu\text{m}$

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

IP54
WATERPROOF



Digital Indicating Micrometers(Without Data output) 3508

Micrometer head
• Range: 0-100mm
• Accuracy: 3μm

Digital indicator
• Range: $\pm 0.04\text{mm}$
• Accuracy: $\pm 1\mu\text{m}$

3-WIRES

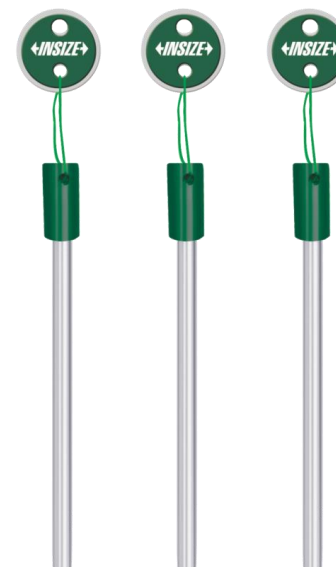
3-wires 7382



- Pin gauge diameter: $\varnothing 0.170\text{mm}-\varnothing 3.200\text{mm}$
- Diameter accuracy: $\pm 0.5\mu\text{m}$
- Cylindricity: $1\mu\text{m}$
- Hardness: HRC60

3-wires (Made Of Alloy Steel) 7394

CUSTOMIZABLE
DIAMETER $\varnothing d$



- Diameter ($\varnothing d$): $0.170\text{mm}-3.200\text{mm}$
- Hardness:
 - HRC60: $\varnothing d \leq 0.3\text{mm}$, made of alloy steel
 - HRA90: $\varnothing d > 0.3\text{mm}$, made of carbide
- Diameter accuracy: $\pm 0.5\mu\text{m}$
- Cylindricity: $0.5\mu\text{m}$

Screw Thread Micrometers



External Screw Thread Micrometers 3680

- Graduation: 0.01mm
- Range: 0-300mm



Digital External Screw Thread Micrometers 3680

- Graduation: 0.01mm
- Range: 200-2000mm



Screw Thread Micrometers 3281

- Graduation: 0.01mm
- Range: 0-300mm



Digital Screw Thread Micrometers 3581

- Resolution: 0.001mm
- Range: 0 -300mm

Gear Tooth Micrometers



External Gear Tooth Micrometers 3636

- Graduation: 0.01mm
- Range: 0-600mm



Gear Tooth Micrometers 3291

- Graduation: 0.01mm
- Range: 0-275mm



Digital Gear Tooth Micrometers 3591

- Resolution: 0.001mm
- Range: 0-275mm

Disk Micrometers



Disk Micrometers 3676



Large Range Disk Micrometers 3677



Disk Micrometers 3282



Digital Non-Rotating Spindle Disk Micrometers 3594



Digital Disk Micrometers/snap Gauges 3353

Special Purpose Micrometers



Digital Point Micrometers
3530



Digital Crimp Height
Micrometers 3566



Digital Spline Micrometers
3533



Digital Disk Brake
Micrometers 3588



Digital sheet Metal
Micrometers 3539



Digital Interchangeable
Anvil Micrometers 3562



Digital Large Anvil
Micrometers 3534



Digital V-Anvil
Micrometers 3590



Digital Universal
Micrometers 3580



Digital Jaw Type
Micrometers 3583



Sheet Metal
Micrometers 3263



Hub Micrometers
3292



Wire Micrometer
3285



Can seam
Micrometers 3293

Bore Diameter And Circumference Measurement Tools (P1)



Inside Micrometers



Internal Gear Tooth Micrometers



Inside Micrometers



Digital Tubular Inside Micrometers With Interchangeable Points



Pistol Grip Three Points Bore Gauges



Pistol Grip Internal Thread Micrometers



Snap-Open Digital Three Points Bore Gauges



Three Points Internal Micrometers



Bore Plug Gauges



Stand For Split Type Dial Bore Gauges



Gear Bore Gauges



Split Type Dial Bore Gauges

Bore Diameter And Circumference Measurement Tools (P2)



Bore Gauges



Carbon Fiber Bore Gauges



Large Range Bore Gauges



Bore Gauge Setters



Internal Groove Bore Gauges



Rotary Bore Gauges



Pistol Grip Groove Bore Gauges



Internal Chamfer Gauges

Bore Diameter And Circumference Measurement Tools (P3)



Telescoping Gauge Sets



Tape Bore Meters



Diameter Meters



Diameter Meters



Circumference Meters

Internal Gear Tooth Micrometers



Internal Gear Tooth Micrometers 3678

- Range: 25-75mm
- Graduation: 0.01mm



Internal Gear Tooth Micrometers 3638

- Range: 100-1150mm
- Micrometer head Range: 100-175mm
- Micrometer head Graduation: 0.01mm



Ball Tips For Gear Tooth Micrometers (optional)

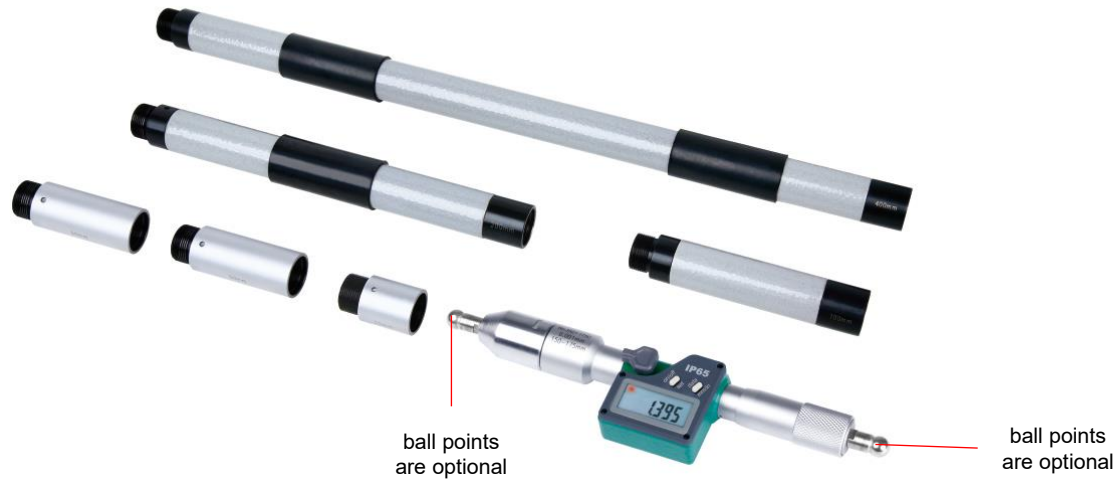
- Ball dia. (SØD): SØ1-16mm
- Accuracy: $\pm 1\mu\text{m}/\pm 1.5\mu\text{m}$

Digital Tubular Inside Micrometers With Interchangeable Points 3525

**DATA
OUTPUT**

**IP65
WATERPROOF**

**POINTS CAN BE
CUSTOMIZED**



- Range: 200-2050mm
- Travel of micrometer head: 25mm
- Resolution: 0.001mm
- Accuracy: $(3+n+L/50)\mu\text{m}$
n=number of rods
L=maximum measuring length (mm)

Pistol Grip Three Points Bore Gauges 2124



digital indicator is optional



Extension rod (included)



Setting ring

6-100mm: included
100-300mm: optional

- Range: 6-300mm
- Accuracy (without digital indicator): 4μm-9μm

Pistol Grip Internal Thread Micrometers 3126



digital indicator is optional

Extension rod (included)



- Range: M7-8x1~M68-75x6
- Accuracy: 8μm

Snap-Open Digital Three Points Bore Gauges 3129



**IP54
WATERPROOF**

**BUILT-IN
BLUETOOTH**



extension rod (included)



setting ring

6-100mm: included
100-300mm: optional

- Range: 6-300mm
- Accuracy: 4 μ m-9 μ m

Two Points/Three Points Internal Micrometers

Digital Two Points/Three Points Internal Micrometers 3127



- Resolution: 0.001mm
- Range: 2-300mm
- Accuracy: 4 μ m-9 μ m

Two Points/Three Points Internal Micrometers 3227



- 2-12mm: graduation 0.001mm
12-300mm: graduation 0.005mm
- Range: 2-300mm
- Accuracy: 4 μ m-9 μ m

Bore Plug Gauges 4653



- Range: 2-130mm
- Repeatability: 0.0005mm/0.001mm



- Range: 130.1-300mm
- Repeatability: 0.002mm



Handle (retraction button)



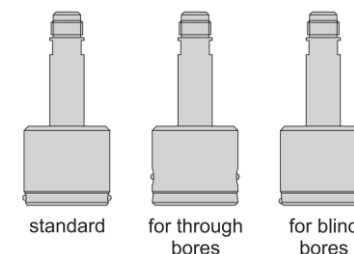
Depth stop (set measuring depth)



90° Adapter



Handle for inductive probe



| **Bore Plug Gauges 4653--Application**



Quickly measure the internal diameter of the differential and upload the data

Gear Bore Gauges 2428



- Range: 8-510mm
- Accuracy (without dial comparator): $2\mu\text{m}$
- Repeatability (without dial comparator): $0.5\mu\text{m}$

ball points (optional)

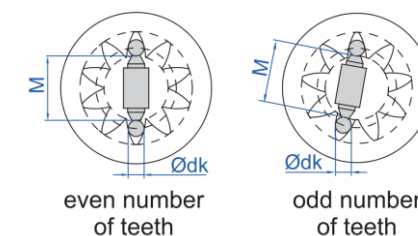


Ball Points (Optional)



- Ball point diameter $\varnothing dk$: 1-10mm
- in pair

Method of measurement



| Gear Bore Gauges 2428 --Application



Measure the span measurement of the internal spline gear

Split Type Dial Bore Gauges

Split Type Dial Bore Gauges 2426

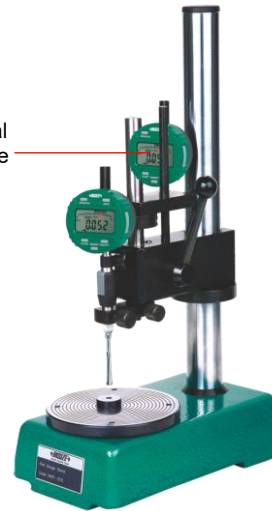


Split Type Dial Bore Gauges For Blind Holes 2427

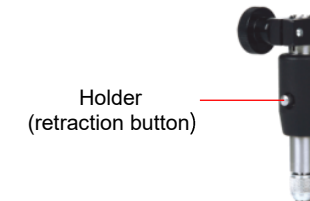


Stand For Split Type Dial Bore Gauges 2491

Can hold digital/dial indicator to read the measuring value



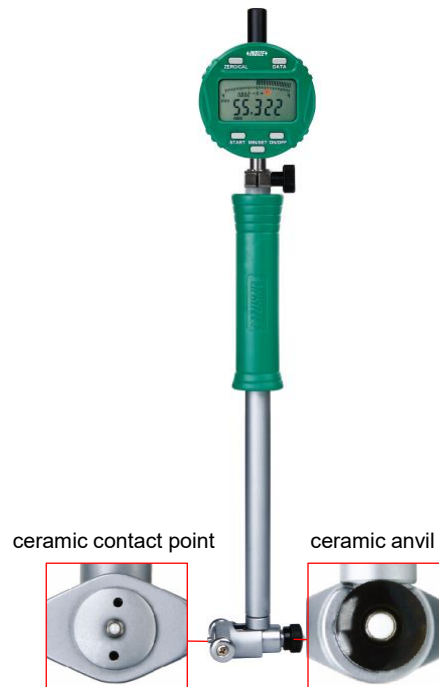
Floating holder—Suitable for automatic measurement



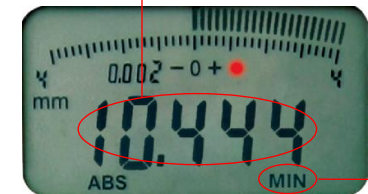
- Measuring range: 0.95-20.6mm
- Accuracy (without indicator): 3μm/4μm/4.5μm/6μm
- Repeatability (without indicator): 1μm
- Split type contact points

Bore Gauges (P1)

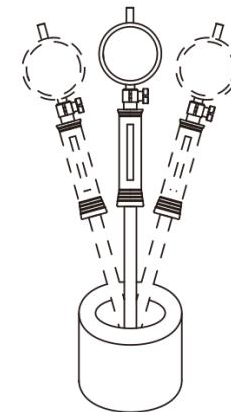
Bore Gauges (With Digital Indicator)



read the diameter directly, after inputting the size of setting ring

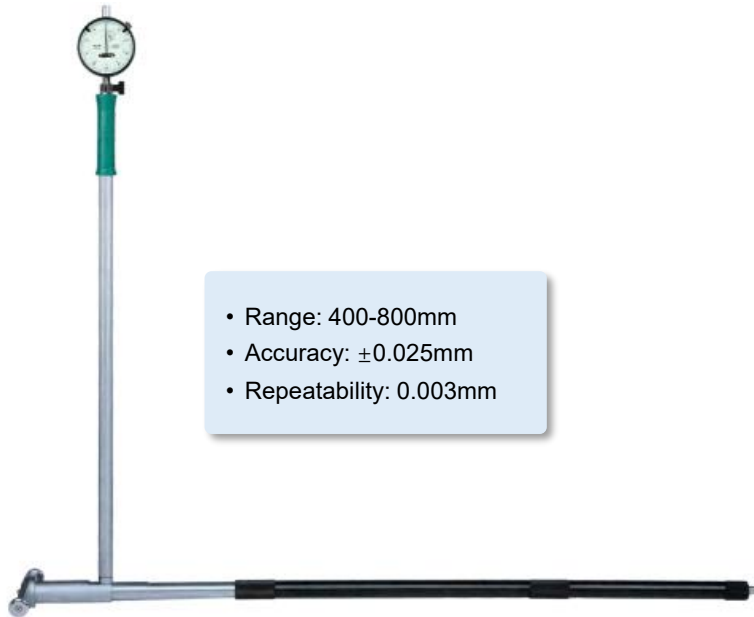


the minimum value tracking function can find the diameter automatically



Bore Gauges (P2)

Bore Gauges (With Dial Indicator) 2828

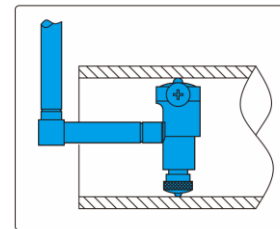


- Range: 400-800mm
- Accuracy: $\pm 0.025\text{mm}$
- Repeatability: 0.003mm

Bore Gauges (with Dial Indicator) 2827



Application



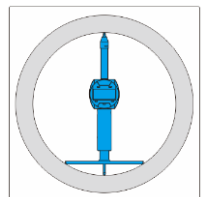
- Range: 35-450mm
- Accuracy: $\pm 0.018\text{mm}$
- Repeatability: 0.003mm

Large Range Bore Gauges 2330



extension rods

Application



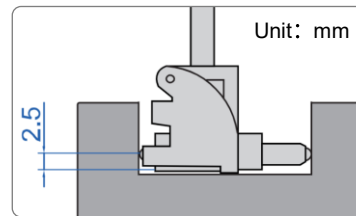
- Range: 180-1000mm
- Accuracy (without dial indicator): $7\mu\text{m}$
- Repeatability (without dial indicator): $2\mu\text{m}$

Bore Gauges (P3)

Bore Gauges For Blind Holes 2420/2220



Application

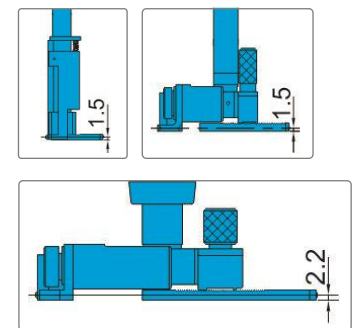


- Range: 35-60mm
- Accuracy: $\pm 0.018\text{mm}$
- Repeatability: 0.003mm

Bore Gauges For Blind Holes 2424



Application



- Range: 20-600mm
- Accuracy (without dial indicator): 4 μm
- Repeatability (without dial indicator): 1 μm

Bore Gauges (P4)

Bore Gauges For Barrier Inside Bores 2432



Application

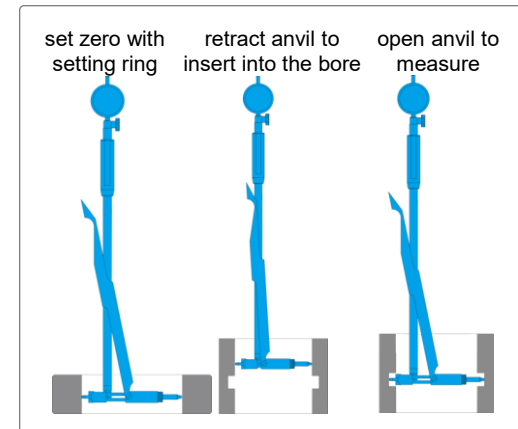


- Range: 25-500mm
- Accuracy (without dial indicator): 0.01-0.02mm

Internal Groove Bore Gauges 2433



Application



- Measure diameter of internal grooves (width of groove > 3mm)
- Range: 60-300mm
- Accuracy (without dial indicator): 2µm
- Repeatability (without dial indicator): 1µm

Carbon Fiber Bore Gauges With Interchangeable Points 3526

POINTS CAN BE
CUSTOMIZED

SPRING LOADED
MEASURING POINT

DATA
OUTPUT

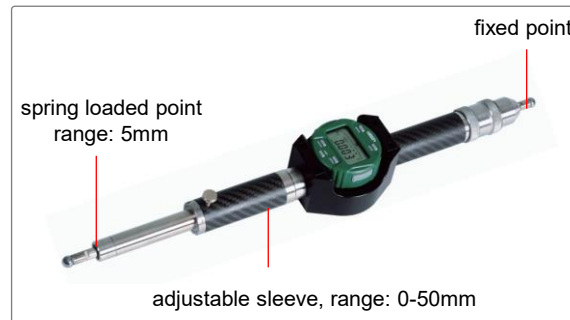
CARBON FIBER EXTENSION RODS, LIGHT WEIGHT,
NOT EASY TO DEFORM, LOW THERMAL EXPANSION



430mm standard setting gauge (included)
for micrometer head zero setting



spring loaded point, and max./min. value tracking
make it easy to find the right measuring position



- Range: 430-6430mm
- Micrometer head Range: 430-480mm
- Micrometer head Resolution: 0.001mm/0.00005"
- Micrometer head Accuracy: $\pm 6\mu\text{m}$
- Micrometer head Repeatability: $\pm 3\mu\text{m}$

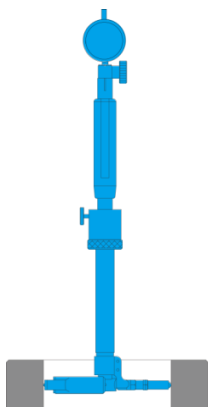
Rotary Bore Gauges 2921



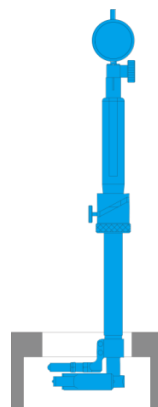
180° rotatable fixed anvil

Application

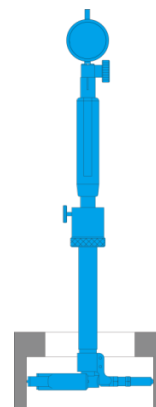
set zero with
setting ring



retract anvil to insert
into the bore



open anvil
to measure



- With rotary anvil, applicable to measure bores with large inner diameter and small opening
- Range: 30-530mm
- Accuracy (without dial indicator): 2µm/3µm
- Repeatability (without dial indicator): 1µm/1.5µm

Pistol Grip Groove Bore Gauges 2436



**FAST MEASURING INNER
DIAMETER OF DEEP GROOVES**

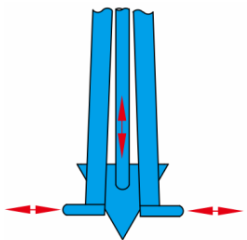


Depth stop (optional)

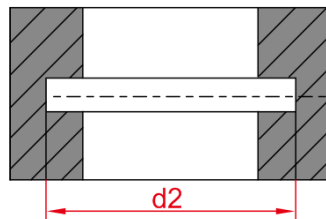


Extension rods (optional)

principle of measurement



applicable
workpieces



- Range: 6-200mm
- Repeatability: 0.01mm
- Accuracy: 2% of deviation between workpiece size and setting ring, for example, when measuring Ø21mm inner groove, use a Ø20mm setting ring for calibration, accuracy is $(21-20) \times 2\% = 0.02\text{mm}$

Bore Gauge setters 7353



Application



Horizontal use



Gauge blocks for 7353-160



- Range: 0-160mm
- Repeatability: 1.2 μ m

Chamfer Gauges



2942

- Range: 0.5-40mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm}/\pm 0.04\text{mm}$



2962

- Range: 1-120mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm}$



2937 type A

- Range: 1-40mm
- Accuracy: $\pm 0.02\text{mm}/\pm 0.03\text{mm}$
- Resolution: 0.01mm



2937 type B

- Range: 20-40mm
- Accuracy: $\pm 0.02\text{mm}/\pm 0.03\text{mm}$
- Resolution: 0.01mm

Tape Bore Meters/Circumference Meters

Tape Bore Meters 2430



- Range ØD: 14-330mm
- Graduation: 0.1mm
- Accuracy: $\pm 0.2\text{mm}$

Circumference Meters 7116



- Range: Ø20-620mm
- Graduation: 0.05mm
- Accuracy: $\pm 0.10\text{mm} \sim \pm 0.20\text{mm}$

Diameter Meters 7135



- Diameter range: Ø9-9300mm
- Graduation: 0.01mm- 0.05mm

Arc Radius Measuring Tools



Outside Diameter Variation Measuring Instruments



Outside Diameter Measuring Instruments



Digital Radius Gauges



Digital Radius Gauges



Large Range Digital Radius Gauges



Digital Arc Radius Calipers

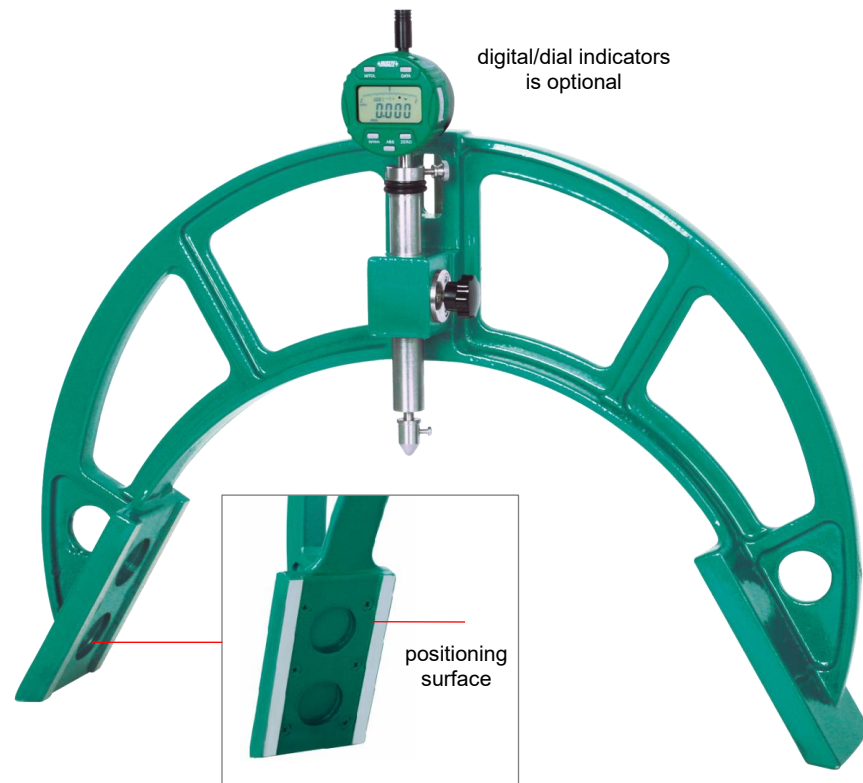


Digital Radius Calipers



Radius Gauges

Outside Diameter Measuring Instruments 2716

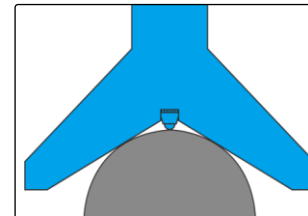


- Range (diameter): 18-2000mm
- Repeatability: 0.01mm
- The frame is made of aluminum magnesium alloy with light weight and high strength

Digital Radius Gauges 2188



Application



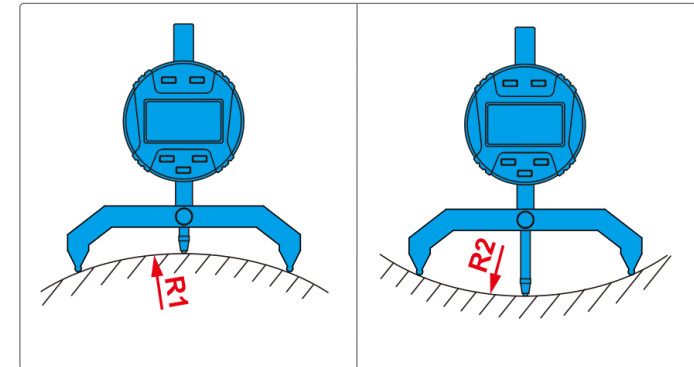
Setting standards



Application

- Range (radius): 4-323mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm} \sim \pm 0.04\text{mm}$
- Measure radius of external arc, arc angle of measured surface should be larger than 60°
- Display radius value, no need to calculate
- Stainless steel base

Digital Radius Gauge 2511



- Range of external radius (R1): 5-910mm
- Range of internal radius (R2): 7-910mm
- Accuracy (mm): $\pm 0.005R$
- Resolution: 0.01mm
- Measure radius of internal or external arcs
- Supplied with 5 jaws for different sizes of arc

Digital Radius calipers 1501



1501-25



1501-10

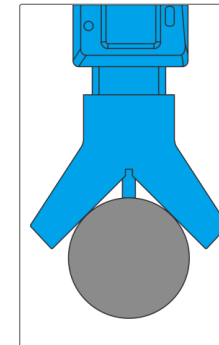
DIRECT READING,
CALCULATION IS NOT REQUIRED

DATA
OUTPUT

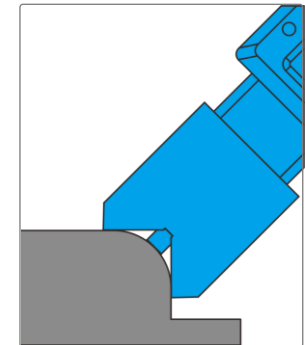
Pin gauge (included)



Application



1501-10 Can measure small workpieces
or workpieces with steps



Code	Range (radius)
1501-25	2-25mm
1501-10	2-10mm

- Measure radius of external arc, arc angle of measured surface should be larger than 90°
- Resolution: 0.01mm
- Accuracy: $\pm 0.05\text{mm}$

Keyway And Chamfer Measuring Tools



Keyway Symmetry Gauges



Keyway Symmetry Digital Calipers



Digital Keyway Depth Gauges



Digital Keyway Depth Gauges



Groove Micrometers



Digital Chamfer Gauges



Chamfer Gauges



Digital Chamfer Gauges

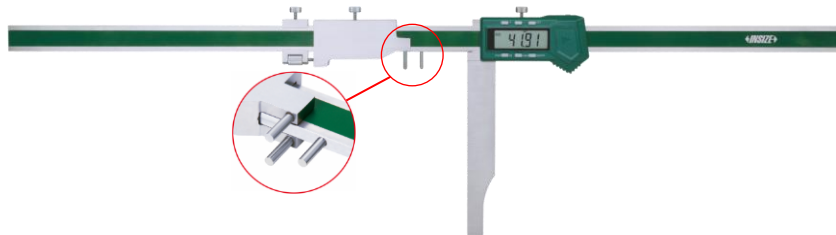


Chamfer Height Gauges

Keyway Symmetry Digital Calipers 1531

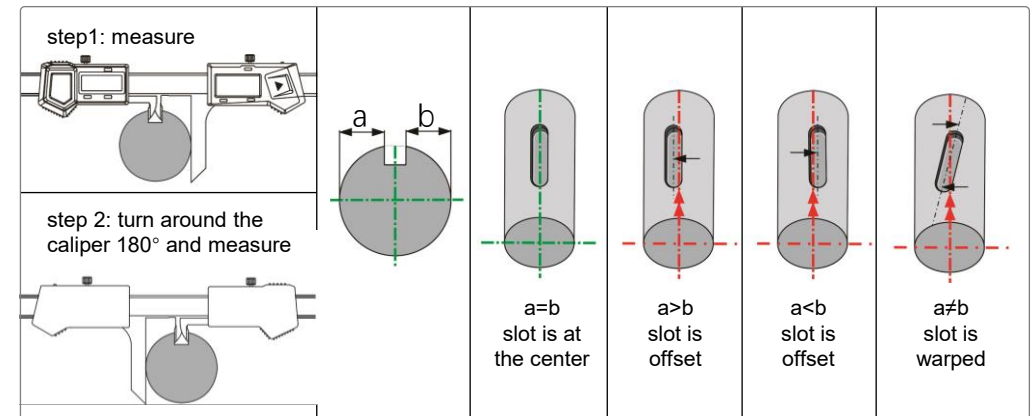


- Width of keyway: 6-45mm
- Resolution: 0.01mm
- Can measure keyway width
- Diameter of shaft: Ø10-120mm
- Accuracy: $\pm 0.05\text{mm}$
- Used to measure the symmetry of shaft keyways



- Width of keyway: 3-250mm
- Resolution: 0.01mm
- Cannot measure keyway width
- Diameter of shaft: Ø6-350mm
- Accuracy: $\pm 0.05\text{mm}$
- Used to measure the symmetry of shaft keyways

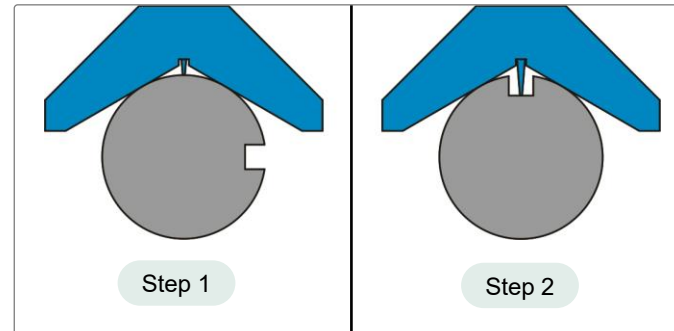
**DATA
OUTPUT**



Digital Keyway Depth Gauge 2182



DATA
OUTPUT



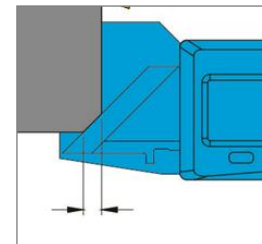
- Range: 0-25.4mm
- Resolution: 0.01mm
- Accuracy: $\pm 0.02\text{mm}$
- Measure keyway depth of cylindrical workpieces with diameter $\varnothing 10\text{-}100\text{mm}$

Digital Chamfer Gauges 1180

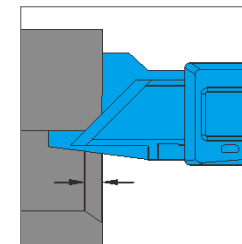


DATA
OUTPUT

External chamfer



Internal chamfer



- Measure 15°/20°/30°/45°/60° chamfer dimension
- Resolution: 0.01mm
- Range: 0-10mm
- Accuracy: $\pm 0.06\text{mm}$

Digital chamfer Gauges 1537



1537-20

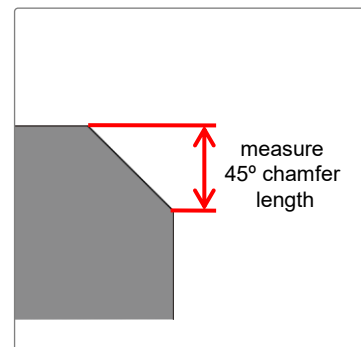
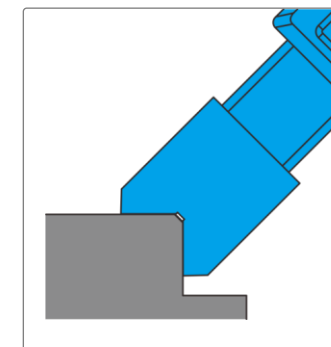


1537-8

Pin gauge (included)



Application

1537-8 Can measure small workpieces
or workpieces with steps

Code	Range
1537-20	0-20mm
1537-8	0-8mm

- Measure 45° chamfer length
- Resolution: 0.01mm
- Accuracy: $\pm 0.05\text{mm}$

DATA
OUTPUT

Indicators And Dial Indicator Stands (P1)



Dial Test Indicators



Styli For Dial Test Indicators



Digital Indicators



Zeroing Foot Switches



High Precision Digital Indicators



Digital Comparators



Dial Indicators



Points



Lifting Levers



Spindle Lift Knob



Shaft Sleeve



Backs

Indicators And Dial Indicator Stands (P2)

←/N/SIZE→



Measuring Tools Dynamometers



Dial Indicator Tester/Extensometer Tester



Dial Indicator Testers



Dial Test Indicator Holders



Magnetic Stands



Dial Indicator Stands (Non-magnetic)



Dial Indicator Stands

Dial Test Indicators



Precision Dial Test Indicators 2880



Dial Test Indicator 2895



Long Stylus Dial Test Indicator 2896



Vertical Type Long Stylus Dial Test Indicator 2899



Side Type Dial Test Indicator 2898



Tilted Face Type Dial Test Indicator 2399



Large Range Dial Test Indicator 2386



Large Range Vertical Type Dial Test Indicator 2480

Digital Indicators



Digital Indicators (Standard Type) 2112



Digital Indicators (Advanced Type) 2103



Waterproof Digital Indicators 2115



Adjustable Coefficient Digital Indicators 2501



Compact Digital Indicators 2114



Back Plunger Type Digital Indicators 2118



Large Stroke Digital Indicators 2117



High Precision Digital Indicators 2133



High Precision Digital Indicators 2140

Digital Indicators For Bore Gauges

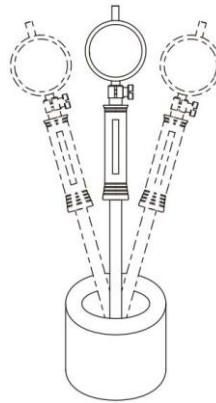
2108 (With Transmission Button and Signal Light)



read the diameter directly,
after inputting the size of
setting ring.



the minimum value
tracking function can find
the diameter automatically.



2137



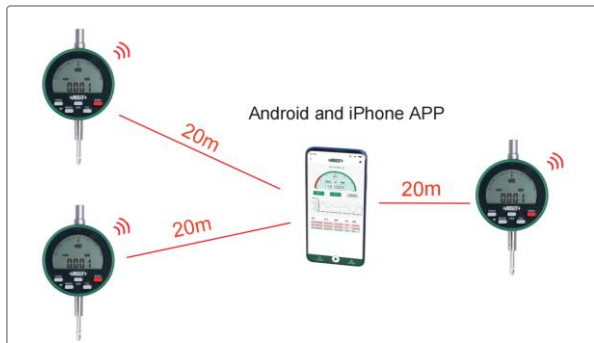
**IP54
WATERPROOF**

**THE ORIGINAL DATA
REMAINS AFTER POWER OFF**

- Range: 12.7mm
- Accuracy: 5μm/20μm
- Hysteresis: 2μm/10μm
- Resolution: 0.001mm/0.002mm(can switch to: 0.01mm)

Built-In Bluetooth Digital Indicators 2510

Application



HIGH PRECISION

BUILT-IN
BLUETOOTH

over upper limit



within tolerance



over lower limit

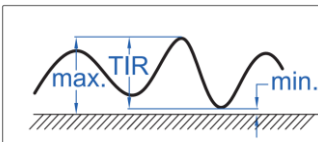


alarm when over tolerance

analog pointer



analog pointer



max./min./TIR measurement

- Range: 12.7mm
- Accuracy: 10µm/3µm
- Hysteresis: 10µm/2µm
- Resolution: 0.01mm/0.001mm
- Maximum measuring force: 1.5N

Precision Digital Indicators

High Precision Digital indicators 2140

DATA
OUTPUTLINEAR BALL BEARINGS
FOR TEN MILLION TIMES USEØ28MM STEM SUITABLE FOR
REINFORCED CLAMPINGABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF

	2140	2150
Range	0-6mm	0-5mm
Adjustable resolution	0.2µm, 1µm, 10µm	0.1µm, 1µm, 10µm
Accuracy	1.6µm	0.5µm
Hysteresis	0.8µm	0.3µm
Other	Can choose Built-in wireless	

Built-in Wireless Smart High Precision Digital Indicators 2150

DATA
OUTPUT

THE MEASURING TIME PERIOD CAN BE SET (1-99S IS ADJUSTABLE),
THE MAX./MIN./TIR/AVG. CAN BE MEASURED AUTOMATICALLY DURING
THIS PERIOD, AND THE DATA CAN BE TRANSMITTED AUTOMATICALLY
AFTER EACH MEASUREMENT

PRESS BUTTON OR PROBE MOVEMENT CAN START AUTOMATIC MEASUREMENT,
THE MEASUREMENT CAN BE DELAYED (1-99S IS ADJUSTABLE)

Dial Indicators



Dial Comparator 2881



Precision Dial Indicators 2830



High Precision Compact Dial Indicators 2890



Compact Dial Indicators 2887



Dial Indicators 2892



Large Dial Face Dial Indicator 2888



Back Plunger Dial Indicator 2893



Waterproof Dial Indicator 2894



One Revolution Dial Indicators 2882

Contact Points



Universal Stands



Hydraulic Universal
Magnetic Stands 6229



Magnetic Stands
6200



Magnetic Stand For Uneven
Surfaces 6215



Mini Magnetic
Stand 6211



Flex Arm Magnetic
Stand 6207



Vacuum Stand
6217



Universal Stand
6214



Universal Dial Indicator
Stands(Non-magnetic) 6225



Dial Indicator Stands (Non-
magnetic) 6227

Dial Indicator Stands



Dial Indicator Stands 6876



Granite Dial Indicator Stand 6866



Granite Dial Indicator Stands 6867



Dial Indicator Stands 6864



Heavy Duty Dial Indicator Stand 6869



Transfer Stands 6865

Indicating Measuring Tools (P1)



Internal Caliper Gauges



External Caliper Gauges



Thickness Gauges



Geomembrane Thickness Gauges



Rubber Thickness Gauges



Leather Thickness Gauges



Tube Thickness Gauges



**Thread/Lead Screw Pitch
Diameter Snap Gauges**



Saw Teeth Setting Gauges



**Bluetooth Digital Indicating Snap
Gauges**



Dial Snap Gauges



Step And Gap Gauges

Indicating Measuring Tools (P2)



Mini Digital Height Gauges



Height Gauges



Crankshaft Testers



Digital Flushness Gauge



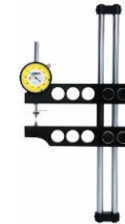
Thread Pitch Measuring Instruments



Buttress Thread Run-out Gauges



Buttress Thread Tooth Thickness Gauges



Thread Taper Measuring Instruments



Thread Height Measuring Instruments



Thread Height Measuring Instruments



Thread Crest Diameter Measuring Instruments



External Spline Comparator

Thickness Gauges



High Precision Digital
Thickness Gauges 2879



Smart Digital Thickness
Gauges 2850



Digital Thickness
Gauges 2673



Digital Thickness
Gauges 2871



Thickness
Gauges 2364



Digital Thickness
Gauges 2674



Digital Thickness
Gauges 2872



Thickness
Gauge 2361



Thickness
Gauge 2363



Digital Roller Thickness
Gauges 2877



Digital Rubber Thickness
Gauges 2263



Digital Leather Thickness
Gauges 2262

Bluetooth Digital Indicating Snap Gauges 3509

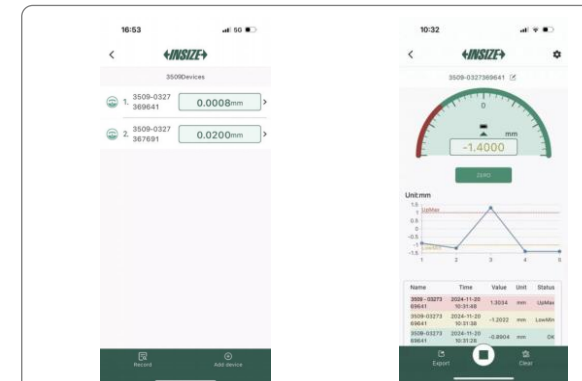
BUILT-IN
BLUETOOTH

IP54
WATERPROOF

ABSOLUTE ENCODER, THE ORIGINAL
DATA REMAINS AFTER POWER OFF



Data collection application (included) real-time display
(continuous streaming) or single acquisition mode selectable



real-time display of multiple
snap gauges (connected with
maximum 7 snap gauges)

single snap gauge
display interface



over lower tolerance
in yellow



within tolerance
in green



over upper
tolerance in red

- Range: 0-50mm
- Resolution: 0.1μm
- Accuracy: 1μm
- Repeatability: 0.3μm

Dial Snap Gauges 2186



digital indicatoris optional

Application



- Range: 0-300mm
- Parallelism of measuring faces: 4µm-12µm
- Flatness of anvil: 1.5µm
- Left anvil retracting stroke: 2mm
- Measuring force: 6-8N
- Repeatability: 1µm



| **Dial Snap Gauges 2186--Application**

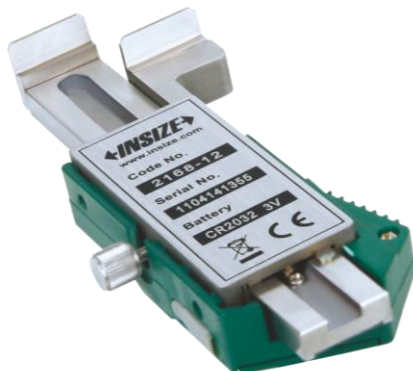


Quickly measure the outer diameter of the differential

Step And Gap Gauges 2168

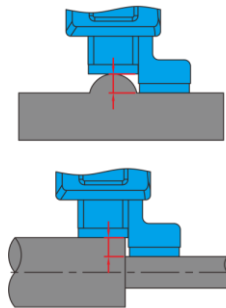


Front

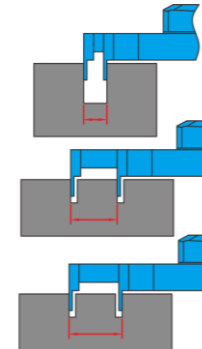


Back

Step height



Gap width



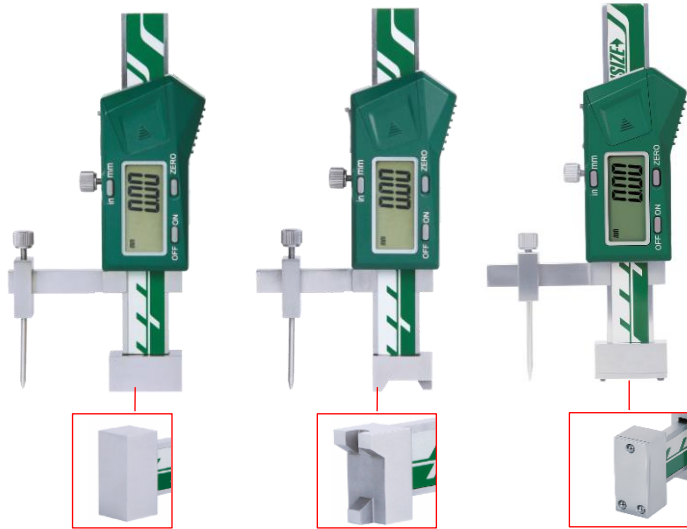
Zero setting block (included)



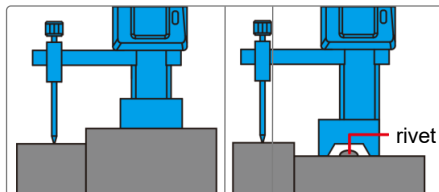
- Range: 0-12.7mm
- Accuracy: $\pm 0.03\text{mm}$
- Resolution: 0.01mm
- Measure step height and gap width

Digital Height Gauges

1146



Application

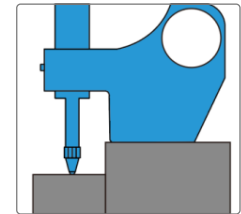


- Resolution: 0.01mm
- Range: 0~±20mm
- Accuracy: ±0.02mm
- Measure height difference of two surfaces

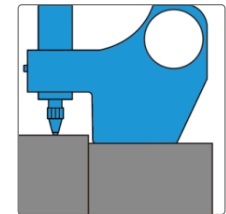
2146-4A



Measure sunked step



Measure raised step



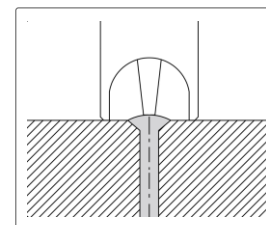
- Range (adjustable): 0-4mm (sunked), 0-12.7mm (raised)
- Digital indicator resolution: 0.01mm/0.001mm
- Accuracy: ±0.02mm/±0.005mm
- Measure height difference of two surfaces

Digital Flushness Gauge 2936



**DATA
OUTPUT**

Application



Zero-setting block (included)

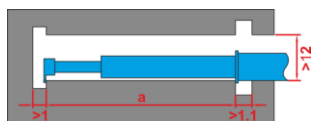


- Measuring range: $\pm 5\text{mm}$
- Accuracy: 0.005mm
- Resolution: 0.001mm
- Repeatability: 0.002mm
- Measuring force: $8\text{-}12\text{N}$

Pistol Grip Groove Width Bore Gauge 2438

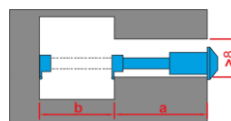
- Travel of contact point: 10mm
- Accuracy: 5 μ m

2438-BASE1



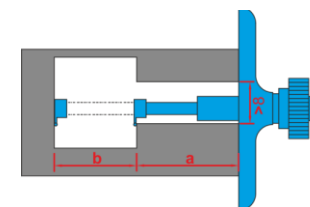
Measuring groove pitch

2438-BASE2



Measuring groove width and depth

2438-BASE3



Measuring groove width and depth

Standards And Gauge Blocks (P1)



Gauge Blocks



Caliper Inspection Gauge Block Sets



**Micrometer Inspection
Gauge Block Sets**



Cylinder Gauge Blocks



Gauge Block Accessories



Gauge Block Holders



Caliper/Height Gauge Checkers



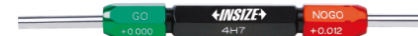
Angle Gauge Blocks



Pin Gauges



Pin Gauges With Handle



Pin Gauge Handles



Setting Rings

Standards And Gauge Blocks (P2)



Cylinder Gauges



Adjustable Snap Gauges



Plain Plug Gauges



Spline Ring/Plug Gauges



Measuring Balls



Threaded Hole Location Gauges



Thread Depth Gauges



Thread Ring/Plug Gauges

Standards And Gauge Blocks (P3)



Electric Thread Plug Gauges



Semi-Automatic Thread Inspectors



Automatic Thread Inspection Machine



Handheld Thread Inspection Machines



External Thread Measuring Devices

| Setting Rings

CUSTOM-
MADE



Setting Rings 6312

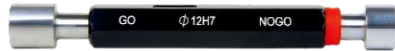


Carbide Setting Rings 6317



Ceramic Setting Rings 6319

Plain Plug Gauges



Plain Plug Gauges 4124

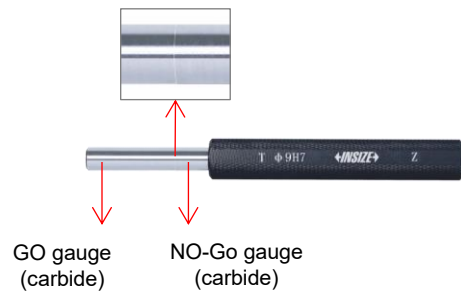


Carbide Plain Plug Gauges 4128

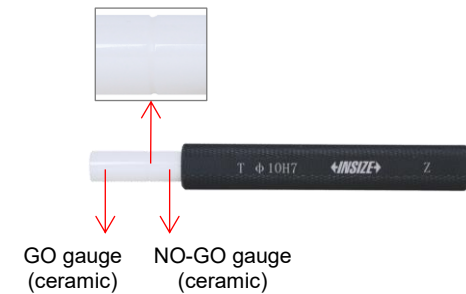


Ceramic Plain Plug Gauges 6332

CUSTOM-MADE

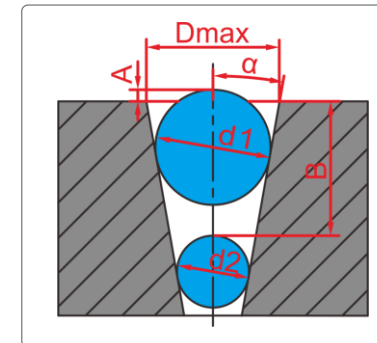


Carbide Plain Plug Gauges (Single End) 6331



Ceramic Plain Plug Gauges (Single End) 6333

Ceramic Measuring Balls 4190



calculate angle (α) and diameter(D_{max}) according to the ball diameter(d_1 , d_2), height (A) and depth (B)

- Diameter: 1-40mm
- Accuracy: $\pm 2\mu\text{m}$ / $\pm 2.5\mu\text{m}$
- Roundness: $0.5\mu\text{m}$ - $1.5\mu\text{m}$
- Zirconia material, high strength and hardness, extremely wear resistance and corrosion resistance, good insulation, antistatic and magnetic resistance
- Mirror surface without holes

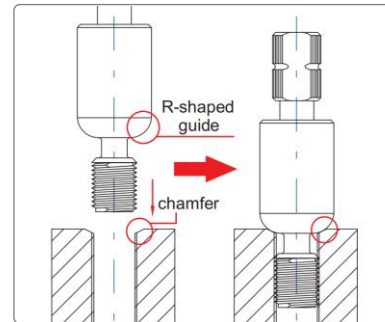
Threaded Hole Location Gauges 4676



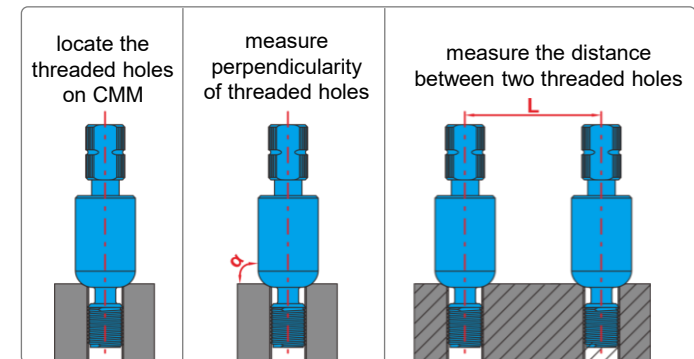
the concentricity
between this surface
and threaded part
is less than 0.01mm

Size: M3–M12

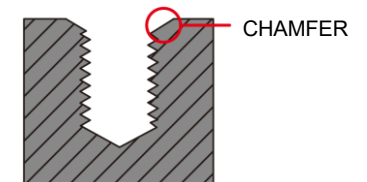
there is a R-shaped guide, which leads the gauge to
the center of the threaded holes by fitting the R-
shaped guide on the chamfer of the threaded holes



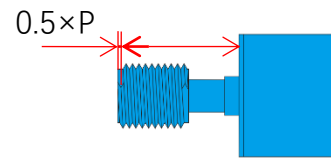
Application



ATTENTION: ONLY FOR THE WORKPIECES THAT THE
CHAMFER IS CONCENTRIC WITH THE SCREW PART

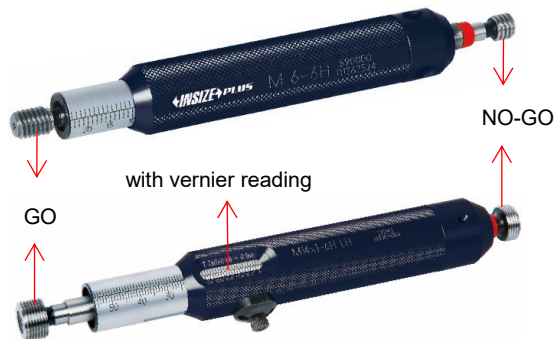


Thread Depth Gauges



the depth measurement starts at 1/2 thread pitch (P)

- Size: M2-M30
- Resolution: 0.01mm
- The GO gauge can be replaced after wear



check GO and NO-GO while measuring depth of thread holes

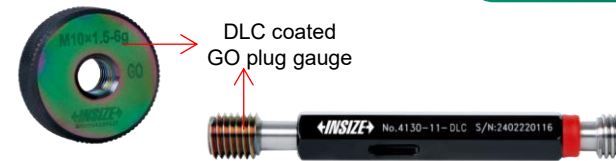
- Size: M2-M30
- Graduation: 0.5mm/0.1mm
- The GO gauge can be replaced after wear

Thread Plug And Ring Gauges



Thread Plug And Ring Gauges

- Metric/Unified/Taper Pipe/Whitworth Parallel Pipe Thread series
- Customized available according to customer drawings



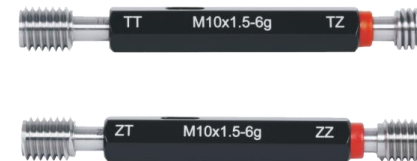
DLC Coated Thread Ring Gauges And Plug Gauges

- The DLC coating has the following advantages:
- High hardness, extremely wear resistance
 - Low friction coefficient
 - Corrosion resistance



Metric Thread Plug Gauges

- Supplied with Go and No-Go gauges together



Check Plugs For Metric Thread Ring Gauges

- Check thread ring gauges

Electric Thread Plug Gauges 4256

- Suitable for left-hand and right-hand threads
- Fast screw-in and screw-out

CUSTOMIZED THREAD PLUG
GAUGES ARE AVAILABLE

thread plug (optional)

speed
selection

screw-in/screw-out

torque
selection

handle with
adjustable angle



handle with adjustable angle

4256-HANDLE

- Electric Driver (thread plug gauge are not included)
- Torque range: 0.3~2.9N.m
 - Number of torque settings: 21

Automatic Thread Inspection Machine TCM



CUSTOM-
MADE



INSIZE 中文

Torque value(N.m): 0.12 Circles(r): 0

GO gauge NO-GO gauge Thread depth normal

Forward Continuous Auto reset

Guide spd(r/min): 200 Guide torque(N.m): 0.10 OK count 308 zero

Twist spd(r/min): 300 max.torque(N.m): 0.15 NG count 12 zero

Retract spd(r/min): 500

Retract time(s): 3.0 OK circles(r): 5 ~ 8

Interval(s): 1.0 Manual mode

- Measuring range: thread: M1-M30
- Reprocessing range: thread: M1-M20

- For inspection of GO, NO-GO and depth of threads
- Can be for repair of thread defects
- Real-time display of torque, circles, OK and NG counts
- If NG thread is detected, audible and visual alarm are activated and the motor is automatically reversed to exit the thread gauge
- For different length of thread by adjusting the induction switch
- Thread gauges with DLC coating, excellent wear resistance

Handheld Thread Inspection Machines

HES-TP01/HES-TP02



Controller (included)



Code	Measuring range (internal thread)	Torque range	Max. speed
HES-TP01	M4-M13	0.02-0.23N.m	5000rpm
HES-TP02	M14-M30	0.15-0.90N.m	1200rpm

- For inspection of left-hand and right-hand internal thread
- High precision torque+angle control
- Real-time display torque, OK counts, NG counts and pass rate
- If NG thread is detected, the alarm is activated and the corresponding NG parameter is displayed in red on the controller
- Provide programmable IO and RS485 communication port for process control and data transmission
- Thread plug gauges can be replaced with different sizes
- Thread gauges with DLC coating, excellent wear resistance

Angle, Straightness, Flatness Measuring Tools (P1)



Angle Meters



Protractors



Granite Squares



Granite Square



Cylinder Squares



Perpendicularity Testers



Squares



Straight Edges

Angle, Straightness, Flatness Measuring Tools (P2)

←/N/IZE→



Straight Edges



Optical Flats



Sodium Light Cabinets



Pipe Straightness Gauge



Straightness Gauge



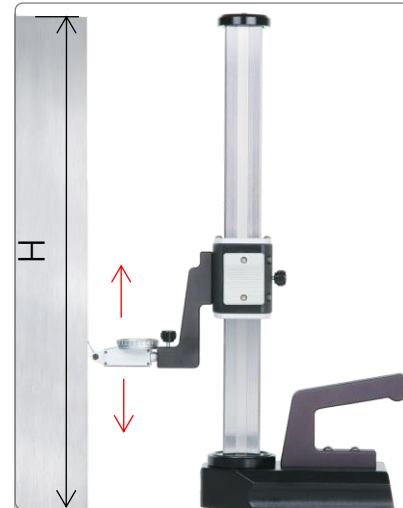
Flatness Measurement Stands

Digital Protractor 2771



- Resolution: 1"/0.01°
- Range: 0-360°
- Accuracy: ±5'

Perpendicularity Testers 4770



Code	Range (H)	Perpendicularity (α)	Side perpendicularity (β)
4770-300	0-300mm	3 μ m	10 μ m
4770-600	0-600mm	5 μ m	20 μ m

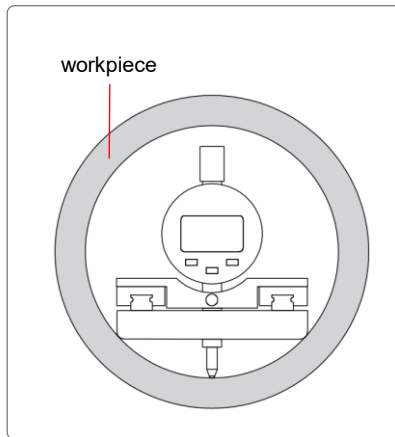
Pipe Straightness Gauge 2226

- Measure inner wall straightness of pipes

DATA
OUTPUT

GUIDE LENGTH (L) CAN
BE CUSTOMIZED

Application



- Measuring range: 400mm
- Inner diameter of measured bore: 100-250mm
- Resolution: 0.01mm
- Straightness accuracy: 0.05mm
- Guide rail length: 430mm

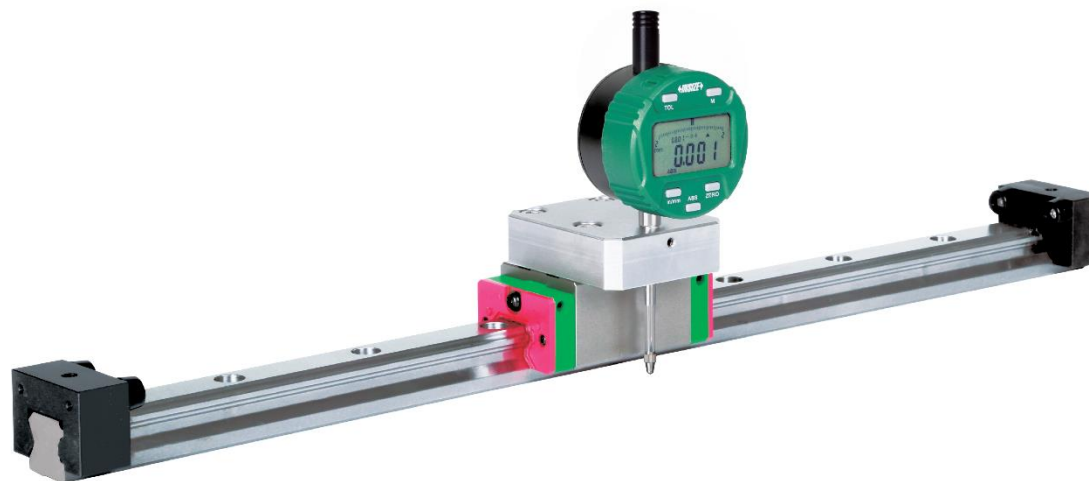
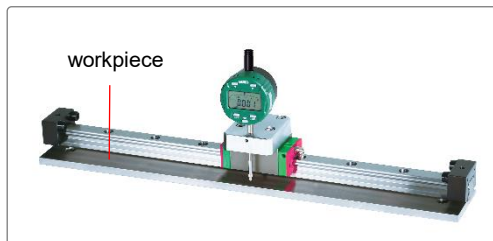
Straightness Gauge 2225

- Measure straightness of workpieces

DATA
OUTPUT

GUIDE LENGTH (L) CAN
BE CUSTOMIZED

Application



- Measuring range: 370mm
- Resolution: 0.001mm
- Straightness accuracy: 15µm
- Guide rail length: 500mm

Flatness Measurement Stands 6852

GRANITE PLATE CAN BE CUSTOMIZED
ACCORDING TO WORKPIECES



Application



- Digital indicator resolution: 0.001mm
- Flatness measurement accuracy: 2 μ m
- Flatness of granite plate: 2 μ m

Concentricity And Runout Testers



Concentricity Gauges



Bench Centers



V-blocks



Expansion Mandrels

Concentricity Gauges 4786



For cylinder



For tube



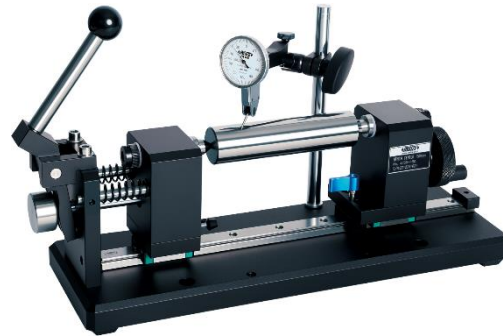
- Applicable inside diameter: Ø24-64mm
- Applicable outside diameter: Ø2-70mm
- Accuracy: 3µm
- Ø50mm setting ring and Ø55mm calibration cylinder are included
- To ensure the accuracy 3µm, the distance between measuring point and roller should be <50mm

Bench Centers



4736

- Diameter range: Ø3-35mm
- Workpiece length: 15-405mm
- Accuracy: 2µm



4739

- Accuracy: 2µm



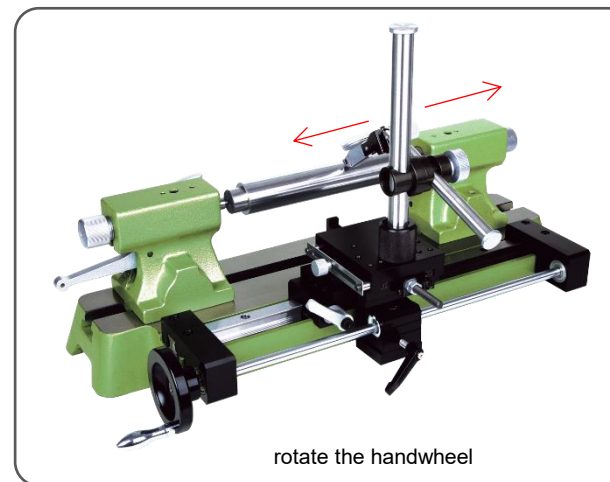
4741

- Stem hole: Ø8mm-Ø28mm
- Diameter range: Ø3-40mm

Bench Center With Straightness Measurement 4723



Straightness measurement



- Runout accuracy: 2 μ m
- Accuracy of straightness measurement: 0.02mm
- Distance between two centers (D): 300mm

Motorized Concentricity Gauges



Digital Motorized Concentricity
Gauge 4763-300

- Measuring workpiece diameter range: Ø3-35mm
- Measuring workpiece length range: 15-300mm
- Accuracy: $\leq 3\mu\text{m}$
- Repeatability: $\leq 2\mu\text{m}$



Motorized Concentricity Gauges
4757

- Diameter range: Ø3-25mm
- Workpiece length: 15-152mm
- Accuracy: $2\mu\text{m}$



Motorized Bench Center
4735

- Parallelism: 0.010mm^*
- Runout accuracy: $2\mu\text{m}$
- Center height: 90mm

*Parallelism of two centers to the guide surface

Simple Measuring Tools (P1)



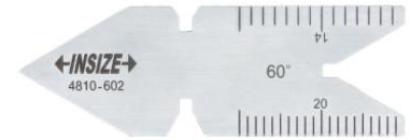
Feeler Gauges



Pitch Gauges



Gear Tooth Pitch Gauges



Center Gauges



Thread Gauges



Angle Gauges



Radius Gauges



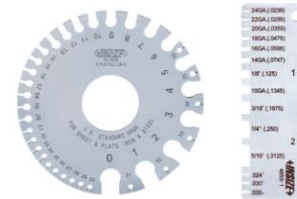
Drill Gauges



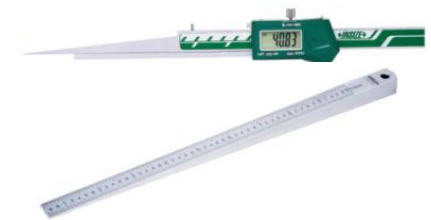
Angle Gauges



Wire Gauges



Thickness Gauges



Taper Slot Gauges

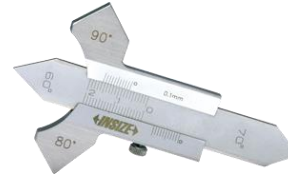
Simple Measuring Tools (P2)



Taper Gauges



Taper Bore Gauges



Welding Gauges



Fillet Welding Gauges



Welding Gauges



Pipe Welding Gauges



Inside/Outside Calipers



Dividers



Length Tapes



Measuring Tapes



Long Measuring Tapes

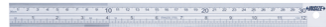


**Automatic Measuring
Tapes Calibration Systems**

Simple Measuring Tools (P3)



Measuring Wheels



Steel Rules



**Automatic Steel Rulers
Calibration Systems**



Digital Scales With Microscope



Combination Squares



Plastic Angle Squares

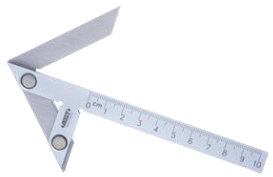


T-bevels



Marking Gauges

Simple Measuring Tools (P4)



Center Marking Gauges



Locators



Scribing Calipers



Height Scribes



Scribers



Precision Screwdriver Sets



LED Flashlights



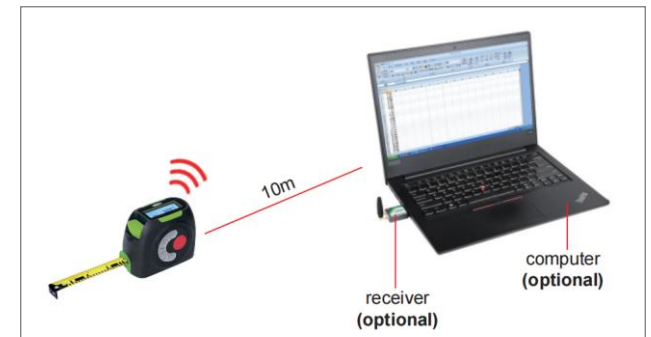
Measuring Tool Sets

Digital Measuring Tapes 9570



- Range: 5m
- Digital measurement accuracy: $\pm 1\text{mm}$
- Blade graduation: 1mm, 1/16"
- Blade graduation accuracy: $\pm(0.5+D/5000)\text{mm}$, D: measured distance rounded to whole metres, when $D < 1\text{m}$, D takes to 1m

Wireless Connect To Computer



Set-Up Tools (P1)



Granite Surface Plates



Stands For Granite Surface Plates



Jack Sets For Granite Surface Plates



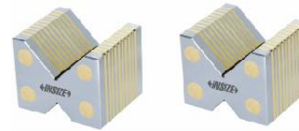
Magnetic Rectangular Blocks



V-blocks



Magnetic V-blocks



Magnetic Induction V-blocks



Squares With V Groove



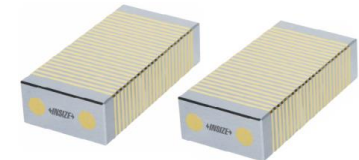
Permanent Magnetic Chucks



Parallels



Parallel/Square Sets



Magnetic Induction Parallel Sets

Set-Up Tools (P2)



Angle Plate Sets



Adjustable Angle Blocks



Right Angle Plates



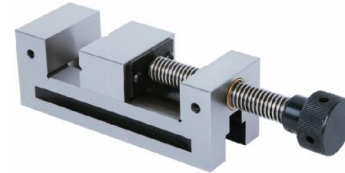
Sine Bars



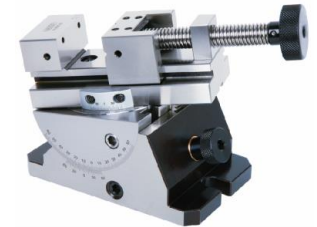
Sine Tables



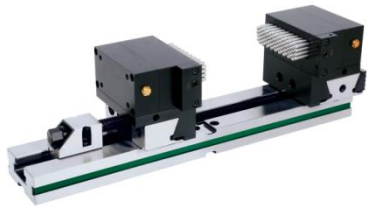
Precision Sine Vises



Precision Vises



Precision Universal Vises



Anvil Vises



Stages

6

Levels



Built-in Bluetooth Electronic Levels



Cylinder Straightness Measuring Instruments



Built-in Bluetooth Digital Level And Slope Meter



Frame Levels



Block Levels



Imaging Level



Level Bubbles



Levels



Cross-line Laser Levels



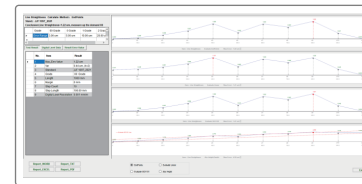
Self-Leveling Rotary Lasers



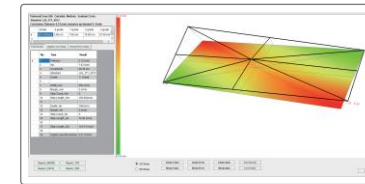
Built-in Bluetooth Wireless Electronic Levels 4952



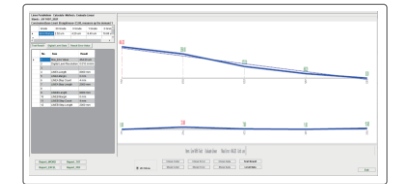
straightness measurement



flatness measurement



parallelism measurement



- Measures flatness, parallelism and straightness
- Built-in bluetooth, transmission distance is 30 meters (under the condition of no obstruction and no electromagnetic interference)
- The LCD can be rotated for easy observation in different directions

Code	4952-150		4952-150L	
Resolution (adjustable)	0.01mm/m	0.001mm/m	0.01mm/m	0.005mm/m
Range	±5mm/m	±0.5mm/m	±5mm/m	±2.5mm/m
Repeatability	0.01mm/m	0.001mm/m	0.01mm/m	0.005mm/m
Response time	<3s	<10s	<3s	<5s
Accuracy	±(0.01+2%A)*	±(0.001+2%A)*	±(0.01+2%A)*	±(0.005+2%A)*

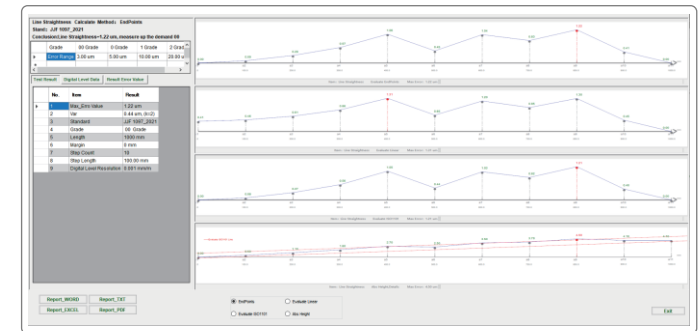
* A is the absolute measured value, for example A=0.1mm/m, the resolution is 0.001mm/m, the accuracy is ±0.003mm/m

Cylinder Straightness Measuring Instruments 4957



- Measure the straightness of cylinders, calibrate the horizontal installation of cylindrical equipments
- Android APP and straightness measuring software are included

straightness measuring software (included)



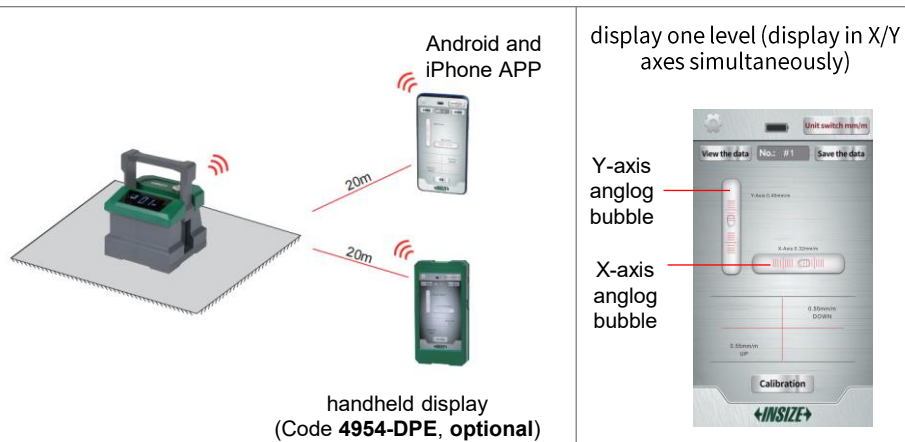
Resolution (adjustable)	0.01mm/m(2")	0.005mm/m(1")
Range	±5mm/m	±2.5mm/m
Repeatability	0.01mm/m	0.005mm/m
Response time	<3s	<5s
Accuracy	±(0.01+2%A)*	±(0.005+2%A)*

*A is the absolute measured value, for example A=1mm/m, the resolution is 0.005mm/m, the accuracy is 0.025mm/m

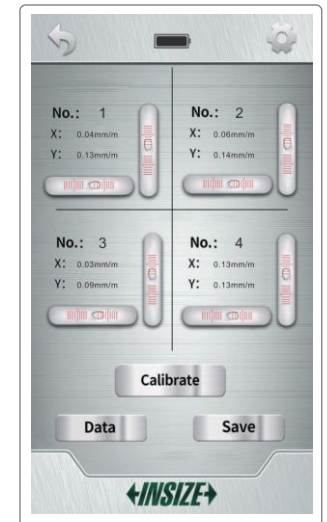
Built-in Bluetooth Dual-axis Digital Levels 4954

- Measure the level of machine tools and other equipments
- Built-in bluetooth, transmission distance is 20 meters (under the condition of no obstruction and no electromagnetic interference)
- Can display one level, can also display two or more (up to 4 levels at a time)

data output



up to 4 levels at the same time



- Range: $\pm 0.5\text{mm/m}$
- Resolution: 0.01mm/m
- Accuracy: $\pm 0.02\text{mm}$

Dual Axis Digital Level And Gyro Angle Meter 2199

DISPLAY FLIPS OVER WHEN
THE BOTTOM FACES UP

AUDIBLE ALARM
WHEN OUT OF LIMIT

BACKLIGHT



Measurement of angle between two planes in
any direction (gyro technique)



place the angle meter at the first position, press
"angle" button, rotate to another position (rotation
speed < 90°/s), LCD shows the angle α

- Single axis/double axis level and slope meter, gyro technique can measure the angle between two planes in any direction
- Hard plastic case, with V-shaped grooves, four magnetic sides



Dual axis mode



Single axis mode

Connect to mobile phone



Connect to computer



Dual axis digital level:

- Range: single axis level: $4 \times 90^\circ$
dual axis level: $\pm 40^\circ$
- Resolution: 0.01°
- Accuracy: at 0° and 20° : $\pm 0.05^\circ$
at 20° and 70° : $\pm 0.15^\circ$
at 70° and 90° : $\pm 0.05^\circ$

Gyro angle meter:

- Range: 360°
- Resolution: 0.1°
- Accuracy: $\pm 0.5^\circ$

Built-in Bluetooth Digital Level And Slope Meter 2198



MAGNETIC
BOTTOM

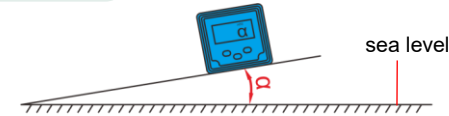
BACKLIGHT

DISPLAY FLIPS OVER WHEN
THE BOTTOM FACES UP

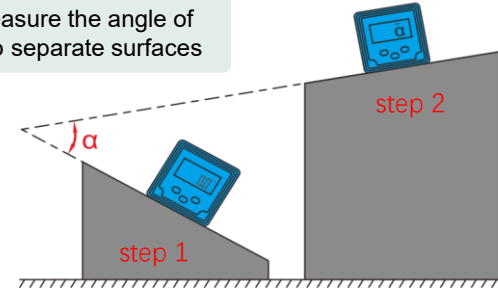
ABSOLUTE
LEVEL



Measure slope

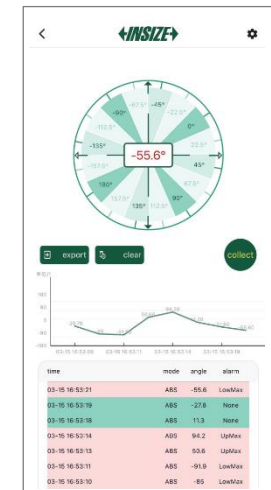


Measure the angle of
Two separate surfaces



- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Built-in bluetooth, transmission distance is 15 meters (under the condition of no obstruction and no electromagnetic interference). Android and iPhone APP are included

- Range: $4 \times 90^\circ$
- Resolution: $0.1^\circ (=1.745\text{mm/m})$
- Accuracy: at 0° and 90° : $\pm 0.1^\circ$;
at others: $\pm 0.2^\circ$



Android and iPhone APP (included),
can choose real-time display
(continuous transmission) or single
transmission

Built-in Bluetooth Block Level 4953



**COLOR DISPLAY
LARGE CHARACTERS WITH BACKLIGHT**

**BUILT-IN
BLUETOOTH**



- Analog bubbles can show tilt trends in X-axis and Y-axis

- Range: $\pm 0.5\text{mm/m}$
- Resolution: 0.01mm/m
- Accuracy: $\pm 0.02\text{mm/m}$
- Repeatability: 0.01mm/m

7 On-Machine Measurement



**Video Measuring Instrument
For Machine Tools**



Centering Indicators



Edge Finders



Edge Finders For EDM



3D Testers



Trigger-type 3D Probes



**Transmission Probes For
CNC Machine tools**



Vision Zero Setter



Zero Setters With Cable



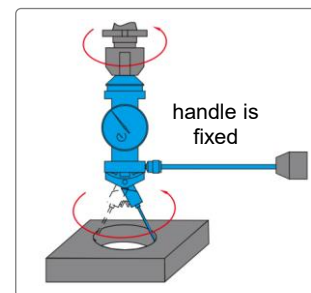
Zero Setters



**Vertical Milling Machine
Perpendicularity Measuring Gauges**



Centering Indicator 2385

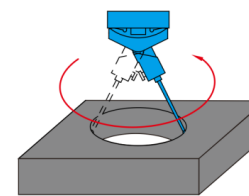


Feeler	Measuring diameter	Accuracy
P1	Ø0-60mm	0.015mm
P2	Ø0-160mm	0.02mm
P3	Ø0-250mm	0.03mm
P4	Ø3.2-80mm	0.015mm
P5	Ø3.2-180mm	0.02mm
P6	Ø3.2-280mm	0.03mm
P7	Ø0-2.8mm	0.015mm

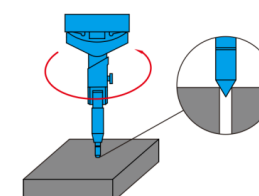
Application



external
feeler



internal feeler



small hole feeler

- Provides quick and accurate centering in boring and milling set-up
- Maximum speed is recommended not to exceed 800rpm

3D Testers

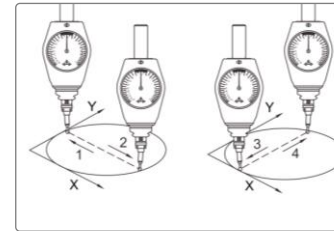
2846



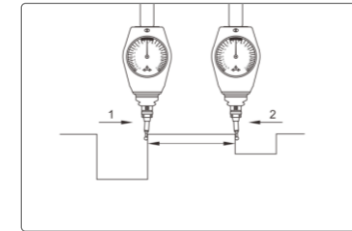
2840



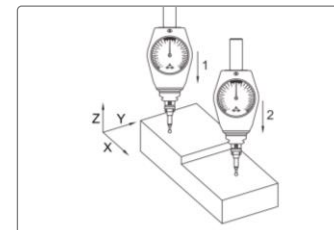
Find center of holes



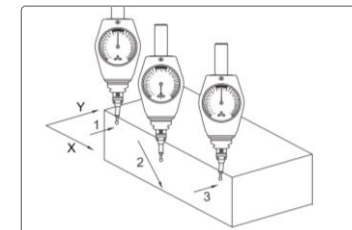
Length measurement



Depth measurement



Position workpieces



- Mainly used for milling machines and CNC machine tools
- 1. determine coordinate point on workpieces
- 2. find center of holes
- 3. adjust and position workpieces
- Can be used to measure length and depth

Trigger-type 3D Probe (Audible And Visual Alarm) 9410



Application



- Arbitrary one-way repeated trigger accuracy: $\leq 1\mu\text{m}$
- Directional trigger protection stroke: X-Y: $\pm 12^\circ$, Z: +5mm
- Trigger force in X-Y direction (with standard styli): 0.3-0.6N
- Trigger force in Z direction: 4N

Infrared Transmission Probes For CNC Machine Tools 9413

Probe

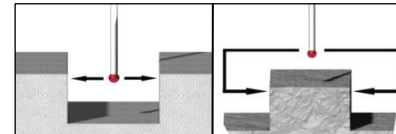


Receiver

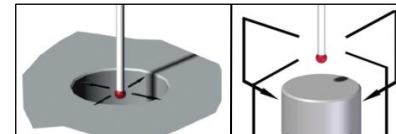


Automatic measurement software (included)

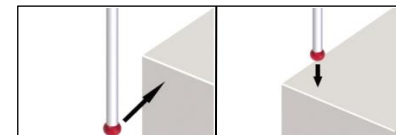
1. Stylus automatic calibration
2. Protection of stylus during probe movement (avoid collision)
3. Groove and boss measurement



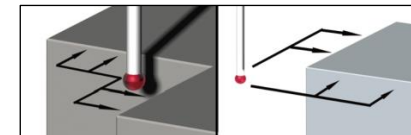
4. Bore and axis measurement



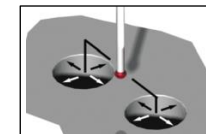
5. X or Y single-surface measurement



6. Internal and external corner measurement

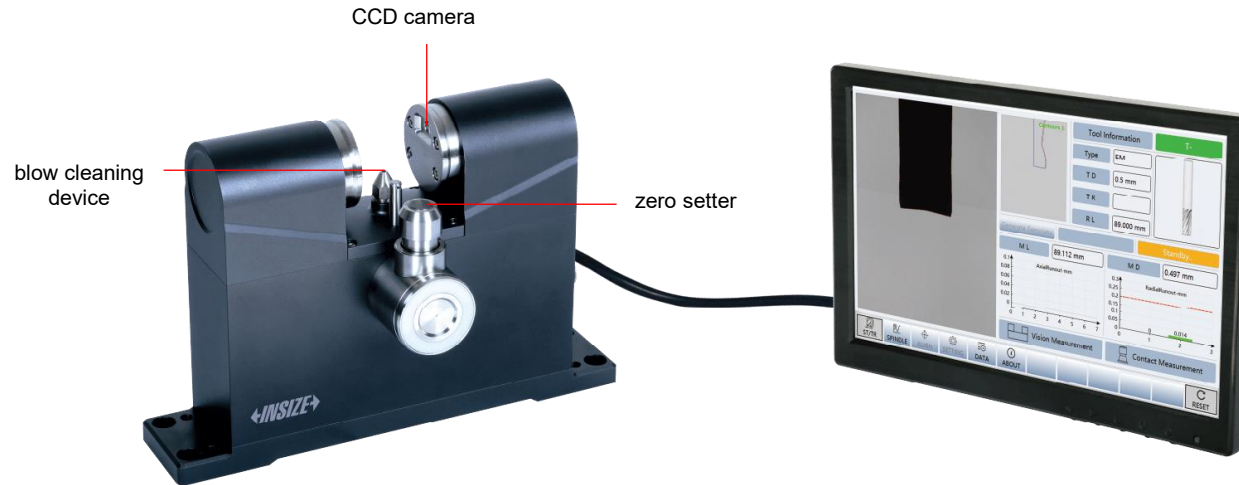


7. 4th axis measurement
8. Angle on X and Y plane measurement
9. Three points measurement of arc
10. Measure the distance between two holes



- Trigger accuracy of styli in any direction: 1μm
- Infrared transmission/reception range: 5m

Vision Zero Setter 9417



**HIGH ROTATION
MEASUREMENT**

**IP65
WATERPROOF**

Application



- For 3-axis/5-axis high-speed precision machining centers
- Zero setter for large diameter cutting tool lengths
- High-precision CCD camera to measure tool length, tool diameter, axial runout, radial runout, etc.

- Monitoring spindle thermal steady state
- Applicable CNC systems: FANUC, HAAS, OKUMA, SIMENS, LYNUC, MITSUBISHI, etc.

Vision measurement

- Range: $\varnothing 0.05\text{-}30\text{mm}$
- Static measurement accuracy: $\pm 2\mu\text{m}$
- Repeatability: $\leq 3\mu\text{m}$
- Communication protocols: OPC-UA, TCP/IP, RS232

Zero setter

- Working air pressure: 0.4-0.8MPa
- Repeated trigger accuracy: $\leq 2\mu\text{m}$

Zero Setter With Cable (Five-side) 9412

- Suitable for various machining centers, CNC boring and milling machines, etc.
- Automatically set the tool length parameters before CNC machining process
- Automatic detection of tool wear or damage during CNC machining
- Automatic detection of tool wear or damage after CNC machining is completed
- The working surface adopts ceramic material and chamfering process, which can greatly improve the service life
- The plug, cable part and output signal of the host are protected, so that the zero setter can work in the splash environment for a long time

Application



- Trigger protection stroke: X-Y: $\pm 5\text{mm}$, Z: 8mm
- Axial reset force: 3.4N-3.6N
- Repeated trigger accuracy: $\leq 1\mu\text{m}$
- Hardness of the zero setter: HM8.5

8

Linear Probes And Scales



Linear Probes



Inductance Probe Displays



Digital Linear Gauges



Capacitance Type Linear Gauges And Display Units



Laser Displacement Sensors



Linear Scales And Digital Readouts



Magnetic Linear Scales



Scales



Inductance Type Probes 9420

IP65
WATERPROOF

9420-AP02



9420-BP02

Code	9420-AP02	9420-BP02
Range	$\pm 0.9\text{mm}$	$\pm 1\text{mm}$
Accuracy	$\pm (0.3 + 3 \times L ^3) \mu\text{m}$	$\pm (0.2 + 3 \times L ^3) \mu\text{m}$
Repeatability	$0.15\mu\text{m}$	

L is measuring length in mm

Inductance Probe Displays

9427



- Channel number: 1-4
- Unit: μm , mm
- Range: $\pm 1\text{mm}$, $\pm 2\text{mm}$, $\pm 5\text{mm}$, $\pm 10\text{mm}$ (adjustable)
- Resolution: $0.1\mu\text{m}$, $1\mu\text{m}$

9428



- Channel number: 1-16 (selectable)
- Unit: μm , mm
- Range: $\pm 0.5\text{mm}$, $\pm 1\text{mm}$, $\pm 2\text{mm}$, $\pm 5\text{mm}$, $\pm 10\text{mm}$ (adjustable)
- Resolution: $0.1\mu\text{m}$

Inductance Type Probe And Display Unit 9442-SET1

UNIDIRECTION

FIXED LEVER
ANGLE



9427-S01B



9442-G03

Spindle runout measurement application



universal magnetic stand (optional)

Display Unit Specification

- Resolution: 0.1 μ m/1 μ m
- Channel number: 1
(can be customized up to 4 channels)

Inductance Type Probe Specification

- Range: $\pm 0.3\mu$ m
- Overall accuracy: $\pm 2\mu$ m
- Overall repeatability: 0.3 μ m

Digital Linear Gauges

7130-10



Output interface



RS232, TTL level
RS232, 232 level



RS485



RS232, TTL level
RS232, 232 level

7134-10L (Pneumatic Digital Linear Gauges)



air inlet (Ø4mm)

control pop-up
speed

pop up with air,
retract without air

- Range: 0-12.5mm
- Accuracy: 1µm/3µm
- Measuring force: ≤1.5N

- Repeatability: 0.5µm/1.5µm
- Absolute encoder, the original data remains after power off
- Digital signal output, amplifier is not required
- Dust/waterproof: IP43/IP66

Capacitance Linear Gauges 7107

Capacitance Linear Gauges

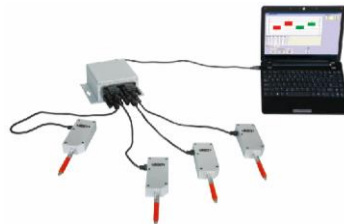


- Measuring range: 12mm
- Resolution: 0.01mm / 0.001mm
- Accuracy: 20µm / 5µm
- Hysteresis: 10µm / 2µm

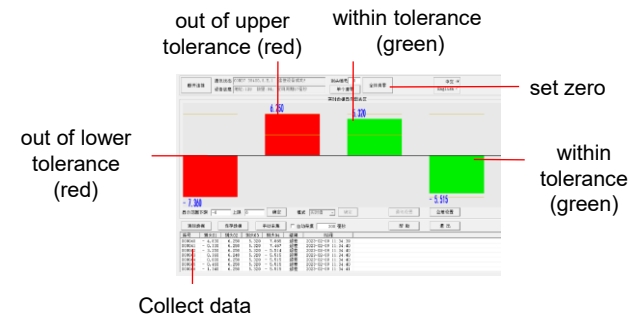
Multichannel Interface Boxes For Capacitance Linear Gauges



Connected with 7107-11, 7107-12, 7107-11V or 7107-12V linear gauges



Software (included)



Connected with digital indicators (data cable 7309-C01M is needed)



suitable for 2112, 2114, 2115, 2116, 2501, 2103 and 2104 series digital indicators

Laser Displacement Sensors LDS-N Series

- High accuracy, non-contact measurement, high speed response, multiple measurement modes, environmental adaptability, programmable control, rich data output interface and easy maintenance
- Can be used in automated production lines, robotic arms, packaging equipment, printing equipment, medical equipment etc.

Code	NPN+Analog current	LDS-N30	LDS-N50	LDS-N100	LDS-N200	LDS-N400
	NPN+Analog voltage	LDS-N30-MC	LDS-N50-MC	LDS-N100-MC	LDS-N200-MC	LDS-N400-MC
	NPN+RS485	LDS-N30-RS	LDS-N50-RS	LDS-N100-RS	LDS-N200-RS	LDS-N400-RS
Basis (center) distance		30mm	50mm	100mm	200mm	400mm
Detection range (FS)		25-35mm	35-65mm	65-135mm	120-280mm	200-600mm
Full scale		10mm	30mm	70mm	160mm	400mm
Repeat accuracy		5μm	15μm	35μm	100μm	200-400mm: 150μm 400-600mm: 400μm
Linear accuracy		±0.2% FS				200-400mm: ±0.2% FS 400-600mm: ±0.3% FS



Roundness/Cylindricity Tester



Roundness Measuring Machines



Precision Air Floating Rotary Tables



Surface Profile Measuring Machines



Roughness Measuring Machines



Roughness Testers



Surface Roughness Specimens



Surface Roughness Reference Specimens



Roundness/Cylindricity Testers

Roundness/Cylindricity Tester RCT-300



- Automatic centering and leveling
- Evaluation items: cylindricity module, roundness module, straightness module, single section flatness module, multi-section flatness module, commutator module
- Analytical ability: cylindricity function, reference benchmarks for cylindricity evaluation, reference circle for roundness evaluation, measurement band, notched measurement

Roundness Measuring Machine RCT-RA260



- Air-floating spindle
- Can measure roundness, concentricity, flatness, radial runout
- Spectrum analysis, automatic gap/burr removal, waveform analysis
- 4 roundness evaluation methods: smallest area method, least square method, smallest circumscribed circle method, largest inscribed circle method

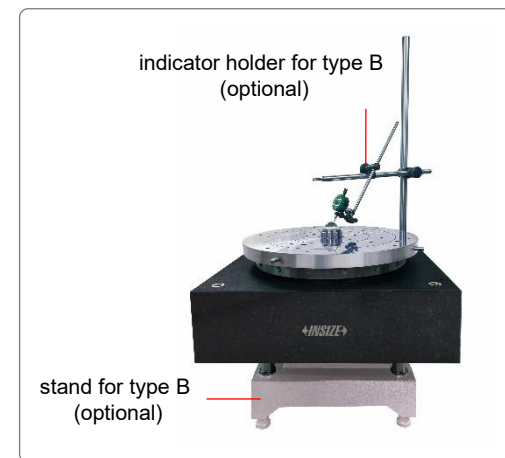
Precision Air Floating Rotary Tables 6875

CUSTOM-MADE
SUPPLY SPECIAL SIZES ACCORDING
TO CUSTOMER'S REQUEST



- Manual drive
- Floating by air pressure, the rotary table can rotate smoothly and be free from wear

Application



- Stage Size: Ø320mm/Ø400mm/Ø500mm/Ø600mm
- Rotation accuracy in radial/axial: <0.3µm

Roughness And Profile Measuring Machines (P1)

Surface Profile Measuring Machine SPM-1000



Roughness And Profile Measuring Machine (Two Probes Type) SPM-2000



- Measure curved surfaces

Roughness And Profile Measuring Machines (P2)

Roughness And Profile Measuring Machine (One Probe Type) SPM-5000



- Roughness, waviness, and profile analysis can be achieved with just one measurement

Roughness Measuring Machine SPM-4000

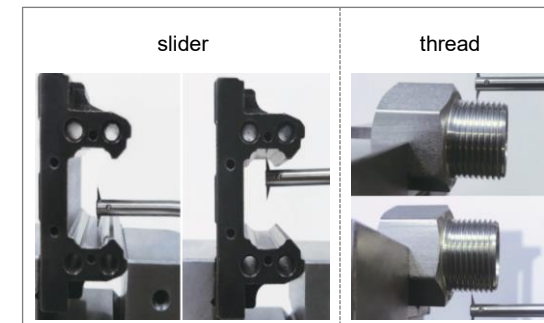


- Hundreds of parameters can be evaluated, such as roughness profile, waviness profile, primary profile, etc.

Bidirectional Roughness And Profile Measuring Machine SPM-6000



Application



- Bidirectional probe measurement
- Constant measuring force
- Intelligent tracking control system, real-time scanning measurement

Roughness Tester (Separable Type) ISR-C300/ISR-C301/ISR-C300WL

BLUETOOTH

TOUCH
SCREEN

DATA
OUTPUT

CAN BE OPERATED BY
COMPUTERS OR MOBILE PHONES



Probe and main unit Can be combined together



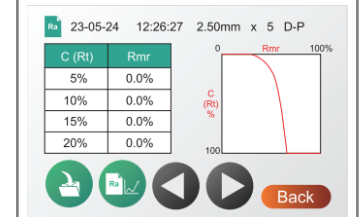
Roughness tester screen display



measurement result



roughness profile



Rmr analysis

- Roughness tester can be operated by mobile phones or computers
- Optional wireless or Bluetooth receivers can be used to output keyboard signals, connecting to a computer to send data to Excel
- Support bluetooth printer
- 36 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards

- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off

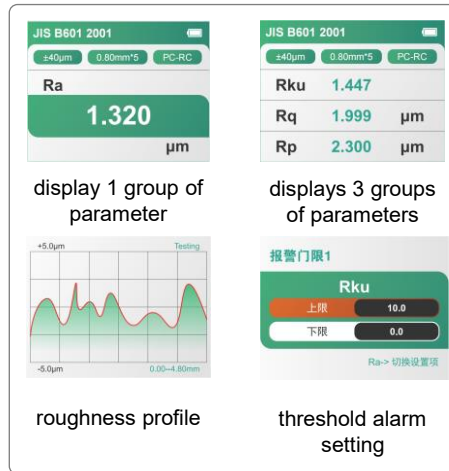
Roughness Tester For Automation ISR-C400

CAN BE OPERATED BY
MOBILE PHONES OR COMPUTERS

BLUETOOTH

DATA
OUTPUT

Screen display



Application



- Range: 320μm (-160μm~160μm)
- Accuracy: ±10%
- Resolution (Ra): 0.001μm

Roughness Testers (P1)

Surface Roughness And Profile Tester ISR-S600



standard roughness probe (included),
for measuring plane and curved surfaces



standard profile probe (included),
for measuring profile and dimension

• Profile measurement specification

X axis measuring range: 59mm
X axis resolution: 1μm
Z axis measuring range: 3mm
Z axis resolution: 1μm

• Roughness measurement specification

Range: 1500μm
Resolution (Ra): 0.0001μm

Roughness Tester (Compact Type) ISR-C200



- Range: X axis: 17.5mm
Z axis: 250μm
- Accuracy: $\pm(5\%+0.025)\mu\text{m}$
- Resolution (Ra): 0.001μm

Roughness Testers (P2)



Roughness Tester ISR-C002

- Range: 320μm (-160μm~160μm)
- Accuracy: $\pm 10\%$
- Resolution (Ra): 0.001μm



Roughness Tester ISR-T120

- Range: X axis: 17.5mm
Z axis: 640μm (-320μm~320μm)
- Accuracy: $\pm 10\%$
- Resolution (Ra): 0.001μm



Roughness Tester (Basic Type) ISR-C003

- Range: Ra, Rq: 0.05-15μm
Rz, Rt: 0.1-50μm
- Accuracy: $\pm 10\%$
- Resolution (Ra): 0.01μm

10 3D Measurement

←INSIZE→

CMM



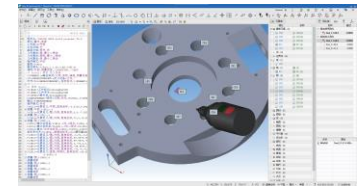
Workshop Coordinate Measuring Machines



Measuring Arms



Software For Measuring Arms



Handheld 3D Scanners



Styli For CMM



Ceramic Ball Gauges



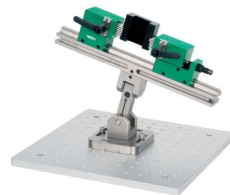
Gauge Block Stands for CMM



CMM Check Masters



Jigs For CMM



Coordinate Measuring Machines



Standard accuracy (LM series)

- Range: X: 500-800mm
Y: 600-1500mm
Z: 400-600mm
- MPEE (μm):
 $\pm(2.1+L/250)\mu\text{m} \sim \pm(2.7+L/250)\mu\text{m}$

High accuracy (LE series)

- Range X: 500-800mm
Y: 600-1500mm
Z: 400-600mm
- MPEE (μm):
 $\pm(1.6+L/330)\mu\text{m} \sim \pm(2.1+L/330)\mu\text{m}$

CMM-LM/CMM-LE Series (Small Range)



Standard accuracy (PM series)

- Range: X: 600-1800mm
Y: 800-4000mm
Z: 600-1000mm
- MPEE (μm):
 $\pm(1.5+L/300)\mu\text{m} \sim \pm(3.9+L/300)\mu\text{m}$

High accuracy (PE series)

- Range X: 600-1800mm
Y: 800-4000mm
Z: 600-1000mm
- MPEE (μm):
 $\pm(1.2+L/350)\mu\text{m} \sim \pm(3.5+L/350)\mu\text{m}$

CMM-PM/CMM-PE Series (Large Range)

Workshop Coordinate Measuring Machines

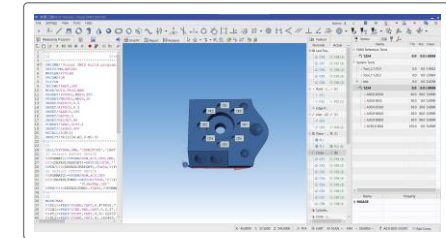
CMM-WM Series



- Ultra-high-speed measurement Measurement efficiency is three times of ordinary CMM
- Built-in temperature sensor with real-time temperature compensation
- Ready to use when connected to the power supply, no compressed air
- Dedicated touchscreen software with configurable access permissions ensures both convenience and safety during production site operations.



workshop specific software
(included)



measurement software
(included)

Code	CMM-WM342A	CMM-WM342B	CMM-WM565A	CMM-WM565B
Range	300×400×200mm		500×600×500mm	
Accuracy MPEE	±(2.7+L/200) μm		±(3.1+L/200) μm	
Movement speed	860mm/s			
Moving acceleration	5000mm/s ²			

Measuring Arms



Adjustable tripod (optional)



Laser line probe (optional)

CMM-CM30



- Internal balance
- Aerospace grade carbon-fiber material
- Equivalent-arm design
- U-shaped anti-collision design of the base



3mm zircon ball probe (included)



6mm zircon ball probe (included)



calibration cone (included)



- High precision, CM series, 6-axis: range: 1500-4500mm
- High precision, CM series, 7-axis: range: 2000-4500mm
- Standard precision, BE series, 6-axis: range: 1500-4500mm
- Ultra High Precise: HP series, 6-axis: range: 1500-4500mm
- Ultra High Precise: HP series, 7-axis: range: 2000-4500mm
- Temperature rate: 3°C/5min

Measuring Arms (Advanced)



Laser line probe (optional)



Adjustable tripod (optional)



CMM-HM30S



3mm intelligent
probe (included)



6mm intelligent
probe (included)



calibration cone
(included)

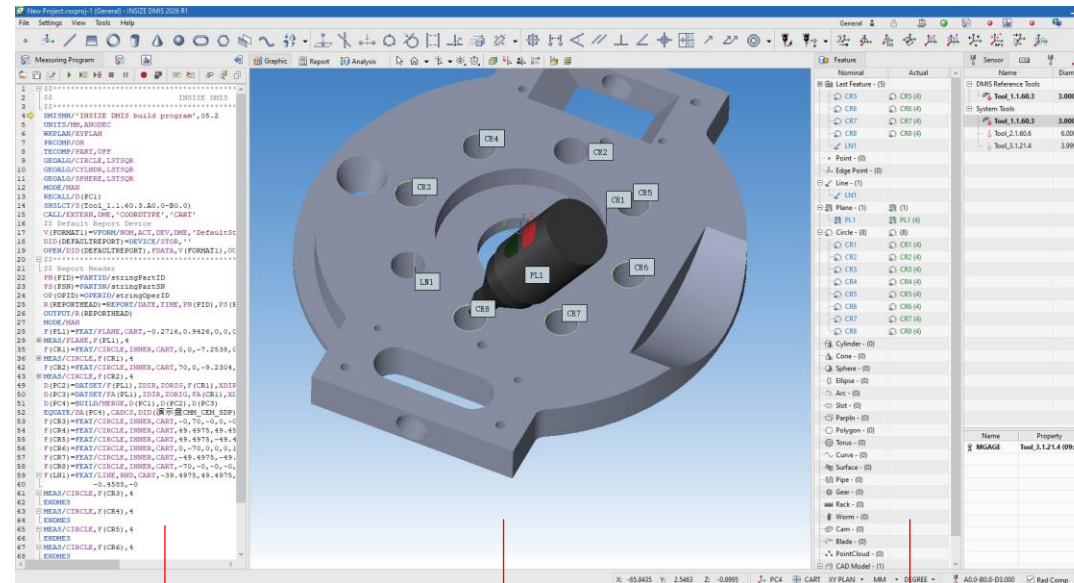
- Standard Accuracy, HE Series, 6-Axis: Measuring range: 1500-4500mm
- Standard Accuracy, HE Series, 7-Axis: Measuring range: 1500-4500mm
- High Accuracy ,HM Series, 6-Axis: Measuring range: 1500-4500mm
- High Accuracy ,HM Series, 7-Axis: Measuring range: 1500-4500mm
- Ultra High Accuracy, GP Series, 6-Axis: Measuring range: 1500-4500mm
- Ultra High Accuracy, GP Series, 7-Axis: Measuring range: 1500-4500mm

Software For Measuring Arms CMM-ARM-DMIS

- Simple and intuitive user interface
- Drag-and-drop operation for simplicity and efficiency
- Standard DMIS kernel with self-learning programming function
- Multilingual design
- The tolerance algorithm supports ISO and ASME Y14.5



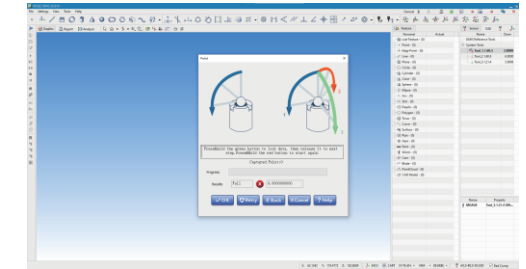
Measuring arm (optional) applications



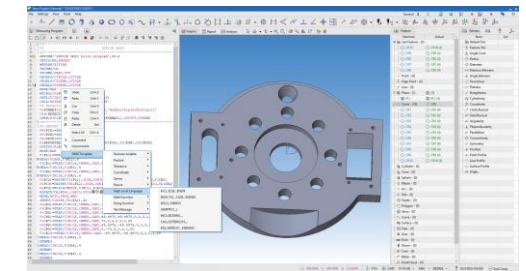
measuring program

integrated display window

element library



probe calibration



advanced programming

Handheld 3D Scanner LSM-L340/L560

- Three scanning modes to suit different situations
- AI algorithm module, greatly improve the scanning effect
- Highly efficient scanning with ultra-fast measuring speeds
- Metrology-grade measuring accuracy

Scanning software (included)

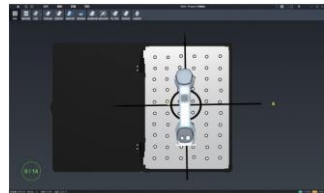
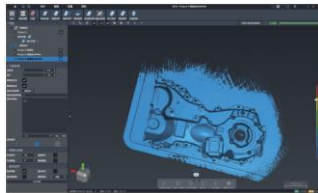
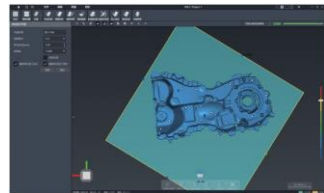


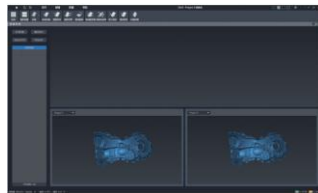
image-guide calibration



point cloud meshing



invalid area removal



scanning splicing

laser
transmitter

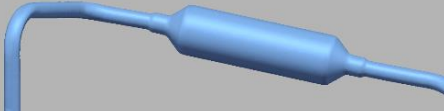


scan indicator



Multi-function keys

Code	LSM-L340	LSM-L560
High-speed scanning	26 cross blue laser lines	50 cross blue laser lines
Precision scanning	7 parallel blue laser lines	7 parallel blue laser lines
Deep hole scanning	1 blue laser line	1 blue laser line
Maximum scanning speed	5400000 measurements/s	7100000 measurements/s
Maximum resolution	0.01mm	



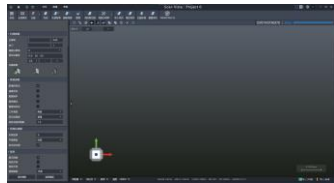
Feature Table									
Lengths		Widths		Depth		Area		Volume	
Coordinate Systems		Units		Units		Units		Units	
Data Alignment		Units		Units		Units		Units	
Name	Control	Item	Value	Tol	Dir	Tol	Dir	Tol	Dir
# Feature_1	Isolate	14.40	14.40	1.00	0.00	0.00			
# Feature_2	Isolate	14.50	14.50	1.00	0.00	0.00			
# Feature_3	Isolate	14.60	14.60	1.00	0.00	0.00			
# Feature_4	Isolate	14.70	14.70	1.00	0.00	0.00			
# Feature_5	Isolate	14.80	14.80	1.00	0.00	0.00			
# Feature_6	Isolate	14.90	14.90	1.00	0.00	0.00			
# Feature_7	Isolate	15.00	15.00	1.00	0.00	0.00			
# Feature_8	Isolate	15.10	15.10	1.00	0.00	0.00			
# Feature_9	Isolate	15.20	15.20	1.00	0.00	0.00			
# Feature_10	Isolate	15.30	15.30	1.00	0.00	0.00			
# Feature_11	Isolate	15.40	15.40	1.00	0.00	0.00			
# Feature_12	Isolate	15.50	15.50	1.00	0.00	0.00			
# Feature_13	Isolate	15.60	15.60	1.00	0.00	0.00			
# Feature_14	Isolate	15.70	15.70	1.00	0.00	0.00			
# Feature_15	Isolate	15.80	15.80	1.00	0.00	0.00			
# Feature_16	Isolate	15.90	15.90	1.00	0.00	0.00			
# Feature_17	Isolate	16.00	16.00	1.00	0.00	0.00			
# Feature_18	Isolate	16.10	16.10	1.00	0.00	0.00			
# Feature_19	Isolate	16.20	16.20	1.00	0.00	0.00			
# Feature_20	Isolate	16.30	16.30	1.00	0.00	0.00			
# Feature_21	Isolate	16.40	16.40	1.00	0.00	0.00			
# Feature_22	Isolate	16.50	16.50	1.00	0.00	0.00			
# Feature_23	Isolate	16.60	16.60	1.00	0.00	0.00			
# Feature_24	Isolate	16.70	16.70	1.00	0.00	0.00			
# Feature_25	Isolate	16.80	16.80	1.00	0.00	0.00			
# Feature_26	Isolate	16.90	16.90	1.00	0.00	0.00			
# Feature_27	Isolate	17.00	17.00	1.00	0.00	0.00			
# Feature_28	Isolate	17.10	17.10	1.00	0.00	0.00			
# Feature_29	Isolate	17.20	17.20	1.00	0.00	0.00			
# Feature_30	Isolate	17.30	17.30	1.00	0.00	0.00			
# Feature_31	Isolate	17.40	17.40	1.00	0.00	0.00			
# Feature_32	Isolate	17.50	17.50	1.00	0.00	0.00			
# Feature_33	Isolate	17.60	17.60	1.00	0.00	0.00			
# Feature_34	Isolate	17.70	17.70	1.00	0.00	0.00			
# Feature_35	Isolate	17.80	17.80	1.00	0.00	0.00			
# Feature_36	Isolate	17.90	17.90	1.00	0.00	0.00			
# Feature_37	Isolate	18.00	18.00	1.00	0.00	0.00			
# Feature_38	Isolate	18.10	18.10	1.00	0.00	0.00			
# Feature_39	Isolate	18.20	18.20	1.00	0.00	0.00			
# Feature_40	Isolate	18.30	18.30	1.00	0.00	0.00			
# Feature_41	Isolate	18.40	18.40	1.00	0.00	0.00			
# Feature_42	Isolate	18.50	18.50	1.00	0.00	0.00			
# Feature_43	Isolate	18.60	18.60	1.00	0.00	0.00			
# Feature_44	Isolate	18.70	18.70	1.00					

- Supports exporting inspection reports in multiple formats, including PDF, Excel and Word, for convenient archiving and storage
- Precise calibration of tube bending machinery based on actual measurement data such as XYZ and LRA obtained from testing

Large FOV Handheld 3D Scanner LSM-L560S

- Large FOV
- Highly efficient scanning with ultra-fast measuring speeds
- Built-in photogrammetry
- Fast calibration, high-speed efficiency
- Ultra-large depth of field

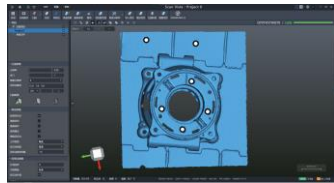
Scanning software (included)



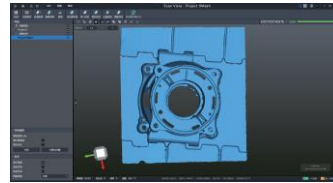
software main interface



image-guide calibration



data processing



point cloud meshing



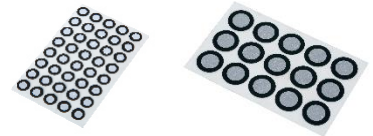
camera



laser transmitter



multi-function keys



Ø6mm and Ø12mm marks (included)



calibration plate (included)



photogrammetric rulers (included)

- Scan mode: 50 cross blue laser lines
- Maximum scanning speed: 7100000 measurements/s
- Volume accuracy: 0.1mm+0.015mm/m
- Maximum scanning field: 2200mm × 2200mm

Gauge Block Stands For CMM



6885

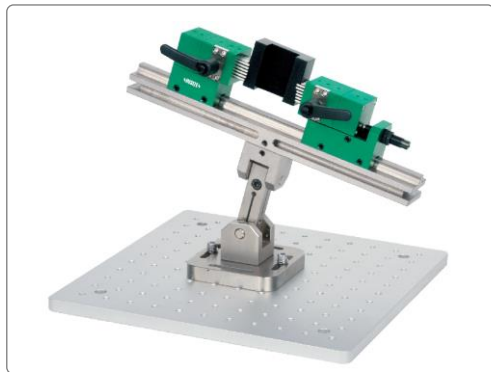
- Length: 500mm, 600mm, 650mm, 700mm, 750mm, 800mm, 850mm, 900mm, 1000mm
- Height: 235mm, 355mm, 475mm



7398

- Applicable block length: 30mm, 100mm, 125mm, 150mm, 175mm, 200mm, 250mm, 300mm, 400mm, 500mm, 600mm, 700mm, 800mm, 900mm, 1000mm
- Column height: 450mm
- Angle adjustment range: 0 ° ~90°

Jigs For CMM



Anvil Ø2.5mm



Anvil Ø2.5mm



Anvil ø6mm



Anvil ø6mm

Profile Projectors, Quick Measurement Systems, Vision Measuring Systems



Profile Projectors



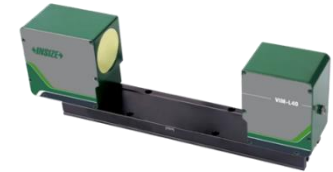
Sheet Metal Vision Measuring Systems



Quick Measurement Systems



Online/Offline Quick Measurement Systems



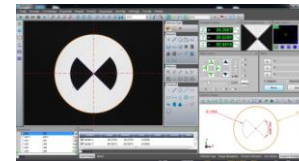
CNC Vision Measuring Systems (Standard Type)



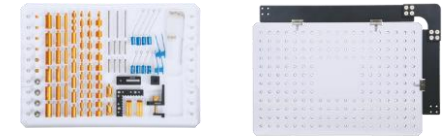
CNC Vision Measuring Systems (Advanced Type)



Vision Measuring Softwares



Jig Set For Vision Measuring Systems



Standard Glass Scales



Profile Projectors



High Precision Profile Projectors
ISP-A5000E Series

Projector screen diameter:
Ø300mm



Horizontal Profile Projectors
ISP-W4025/ISP-A7000E

Projector screen diameter:
Ø400mm



Profile Projectors
ISP-A6000/ISP-A6000E

Projector screen diameter:
Ø600mm



Large Size Profile Projector
ISP-T800

Projector screen diameter:
Ø800mm



Large Size Profile Projector
ISP-T1200

Projector screen diameter:
Ø1200mm

| Quick Measurement Systems



Large Size Quick Measurement System
QMS-A450



Quick Measurement Systems (With Stitching)
QMS-A220/QMS-A315



Quick Measurement Systems (Without Stitching)
QMS-A110/QMS-A200

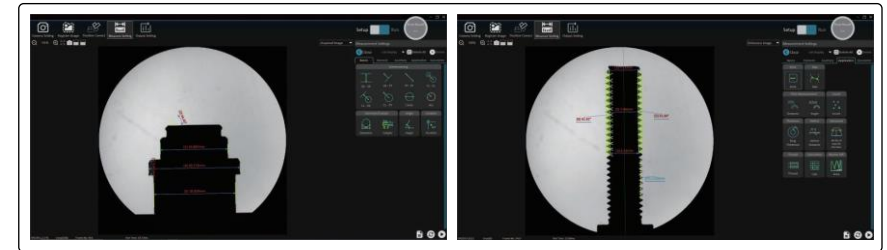
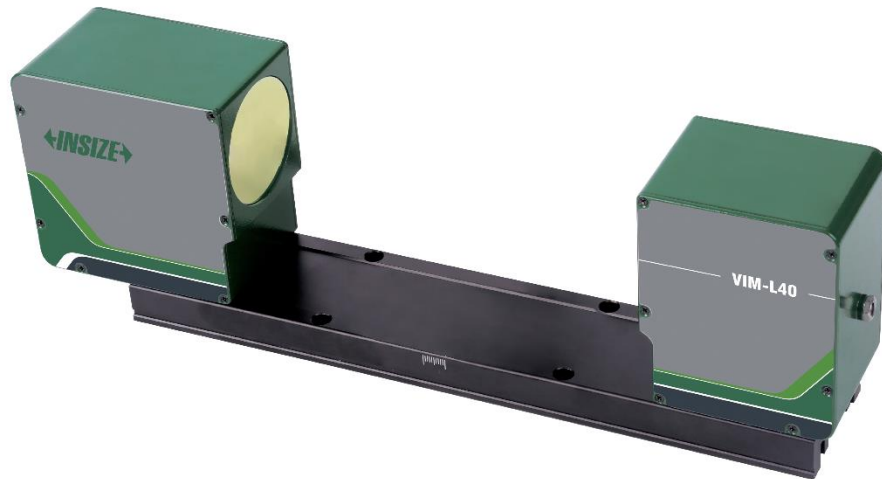
Online/Offline Quick Measurement System VIM-L Series

TELECENTRIC SYSTEM WITH
LARGE DEPTH OF FIELD

ONLINE/OFFLINE DIMENSION
MEASUREMENT



Application



Automatically measure widths, pitch, arc, angles at
the same time, simple and efficient

- Low-distortion system assures the accuracy throughout the field of view
- The dual telecentric optical system ensures sharp edges without losing accuracy even for misaligned targets
- Easy to use measurement tools for simplified setup

Measurement range

- View field: high precision measurement area: Ø26mm-Ø60mm
full measurement area: Ø40mm-Ø120mm
- Depth of field: high precision measurement area: 10mm-20mm
full measurement area: 20mm-40mm

Measurement accuracy

- high precision measurement area: $\pm 2\mu\text{m} \sim \pm 4\mu\text{m}$
- full measurement area: $\pm 3\mu\text{m} \sim \pm 5\mu\text{m}$

Vision Measuring Systems



2D+3D Composite CNC Vision Measuring Systems ISD-U Series



CNC Vision Measuring Systems (With Stand) ISD-E320/ ISD-E430



CNC Vision Measuring Systems (Standard Type) ISD-V220CNCA



Manual Vision Measuring Systems (Standard Type) ISD-V Series



CNC Vision Measuring Systems ISD-V500N Series

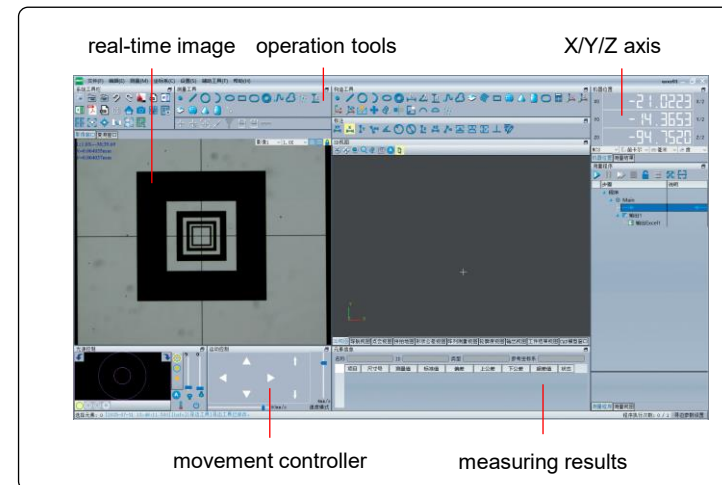
CNC Vision Measuring Systems (Advanced Type)

ISD-K Series



- RSF brand linear scales
- Panasonic servo control motor, with precise positioning performance in high-speed movement

Software (included)

HIGH-RESOLUTION
AUTO ZOOM LENSNAVIGATION
CAMERA

Code	ISD-K322	ISD-K432	ISD-K542
Measuring range (X×Y×Z)	300×200×200mm	400×300×200mm	500×400×200mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(1.8+L/200)μm*		≤(2.3+L/200)μm*
Magnification	27X~356X (on 23.8" monitor)		

*L is the measuring length in mm

CNC VISION MEASURING SYSTEMS (STANDARD TYPE)

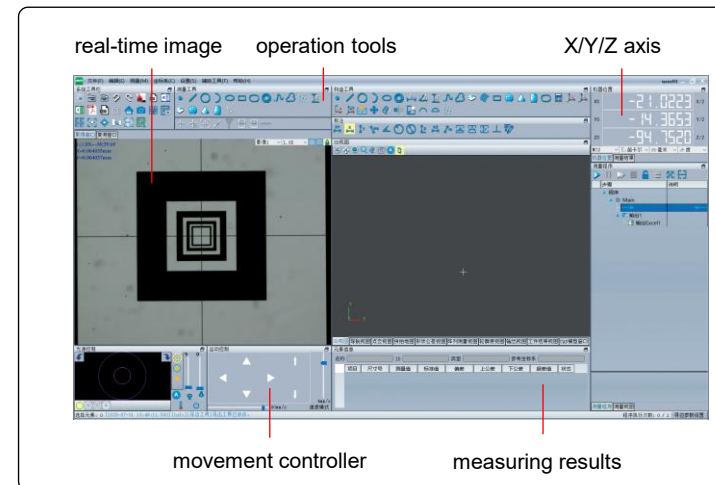
ISD-R Series

- Motorized zoom objective
- Granite body, high accuracy and stability



Software (Included)

NAVIGATION
CAMERA



Code	ISD-R320	ISD-R430	ISD-R540
Measuring range (X×Y×Z)	300×200×200mm	400×300×200mm	500×400×200mm
Resolution of X/Y/Z axis	0.5μm		
Accuracy of X/Y axis	≤(2.5+L/200)μm*		≤(2.8+L/200)μm *
Magnification	35X~165X (on 23.8" monitor)		

* L is the measuring length in mm

CNC Vision Measuring Systems (Advanced Type)

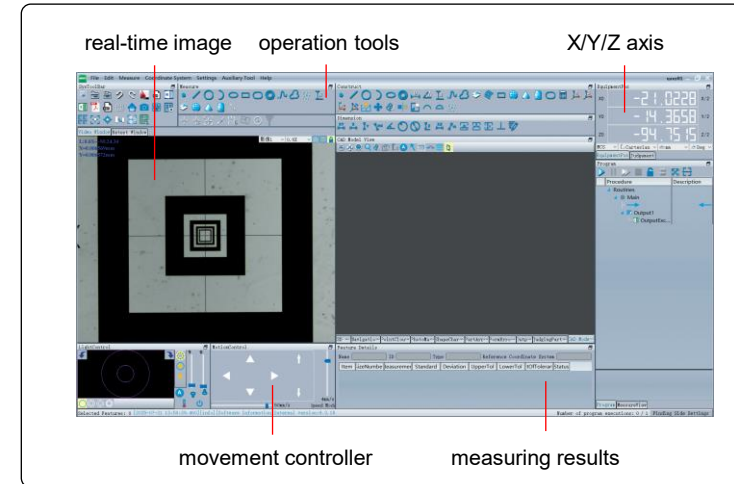
ISD-Q Series



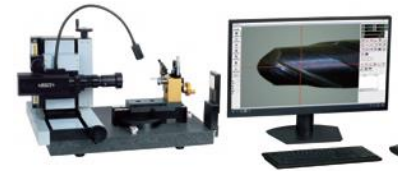
Software (included)

HIGH-RESOLUTION
AUTO ZOOM LENS

NAVIGATION
CAMERA



Code	ISD-Q542	ISD-Q652	ISD-Q762	ISD-Q1210	ISD-Q1612	ISD-Q2015
Measuring range (X×Y×Z)	400×500×200mm	500×600×200mm	600×700×200mm	1000×1200×200mm	1200×1600×200mm	1500×2000×200mm
Accuracy of X/Y axis	$\leq(2.5+L/200)\mu\text{m}$ (L is the measuring length in mm)					
Resolution of X/Y/Z axis	0.5 μm					
Magnification	27X~356X (on 23.8" monitor)					

Tool Presetters**Dual-display Cutting Tools Microscope****Cutting Tools Vision Measuring Systems****Tool Presetter****Tool Runout Testers****Laser Measuring Instrument For Tool Diameter/Runout****Shank Runout Testers****Shank Taper Inspection Instruments**

Tool Presetters



ISP-B420

- Maximum tool diameter (X axis): 420mm
- Range of snap gauge (X axis): 100mm
- X/Z axis resolution: 1μm
- Maximum tool height (Z axis): 420mm/600mm
- Repeatability: X axis: 2μm, Z axis: 2μm

AUTOMATIC RECOGNITION
OF CUTTING EDGE SHAPES

CHECK, PRESET AND MEASURE
CUTTING TOOLS

DATA
OUTPUT



ISP-A350

- Maximum tool diameter (X axis): 320mm
- Repeatability: X axis: 2μm, Z axis: 2μm
- Maximum tool height (Z axis): 350mm
- X/Z axis resolution: 1μm

Dual-display Cutting Tools Microscope ISM-CT600



**MULTI-ANGLE
OBSERVATION**

4K



- Cutting tools range: $\varnothing 3\sim 20\text{mm}$, length 20~60mm
- Resolution: 3840×2160
- View field: 1.4×2.5~14×25mm
- Magnification: 23X~230X (on 27" monitor)
- Rotary table: sliding distance: 90mm, rotation range: 0~220°

Cutting Tools Vision Measuring System TLP-D150

CUTTING TOOLS
MEASUREMENT

SCAN MAXIMUM
PROFILE

CAD
COMPARISON



- Measuring range (X×Y): 150×60mm
- Applicable range: 0-40mm
- Resolution of X/Y axis: 1μm
- Accuracy of X/Y axis: 5μm
- Magnification: 20X-240X(on 27" monitor)

- Measurement and inspection of milling cutters, drill bits, non-standard molding tools under surface light
- Profile measurement, automatic profile capture for straight and helical fluted tools
- High magnification for clear observation of tool chipping and grinding wheel pattern on the back face
- The crosshairs of the cutting edge can be automatically recognized and captured

**White Light Interference
Measuring Microscope**



Areal Confocal 3D Microscope



**Large Depth Of Field 3D
Measuring Microscopes**



Universal Toolmaker Microscope



**Motorized Zoom Microscope
(Basic Type)**



**Low-Magnification High-
Definition Stereo Microscopes**



Metallurgical Microscopes



**Metallurgical Microscopes
(Advanced Type)**



Zoom Stereo Microscopes



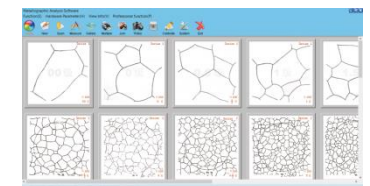
Digital Cameras For Microscopes



**AI Visual Inspection System
(Local Deployment)**



Metallurgical Analysis Softwares



**Digital Depth Measuring
Microscope**



Portable Measuring Microscopes



**Table Magnifiers
With Illumination**



Magnifiers



Telescoping Inspection Mirrors



Telescoping Pick-up



White Light Interference Measuring Microscope ISM-A8000

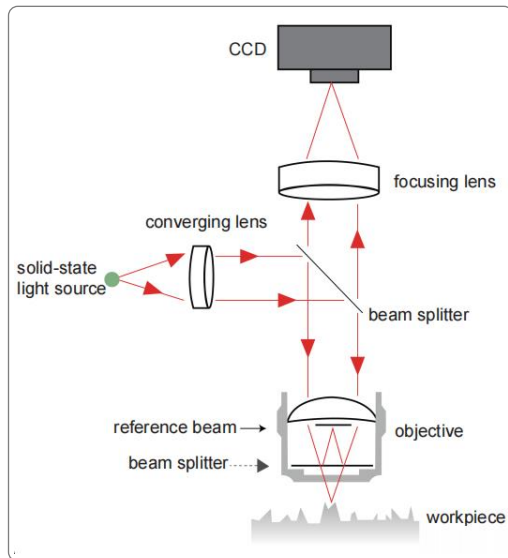
NON-CONTACT ROUGHNESS
MEASUREMENT

SUB-NANOMETER
VERTICAL RESOLUTION

MOTORIZED
STITCHING

MICRO 3D MORPHOLOGY
MEASUREMENT

working principle of white light
interference measuring microscope



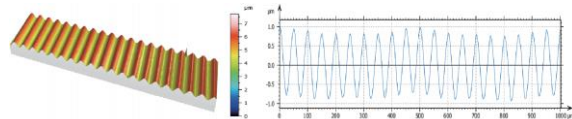
computer is included

- Measuring mode: PSI (physiognomic scanning)/VSI (vertical scanning)/bright field
- Light source: white light, green light
- Resolution of camera: 1600×1100
- View field (20X interference objective): 414×414μm

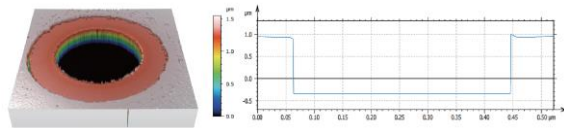
Areal Confocal 3D Microscope ISM-A7000

- Used to wafers, substrates, HDI boards, flexible printed circuits, glass wafers, glass substrates, microprisms, PV panels, Li batteries and etc.
- Suitable for critical dimension measurement of semiconductor wafer patterns, solder ball, probe indentation and MEMS device

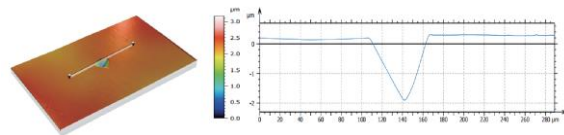
Applications



roughness measurement



IC carrier board laser via measurement



wafer dislocation measurement



computer (included)

**NON-CONTACT ROUGHNESS
MEASUREMENT**

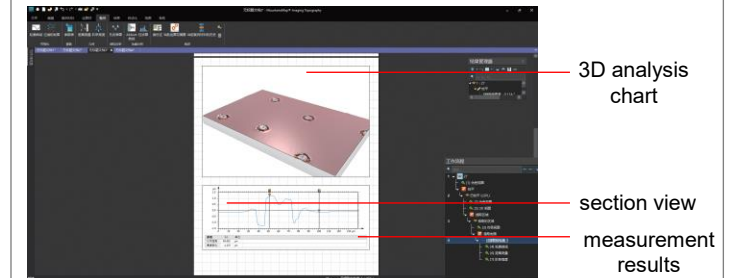
**SUB-NANOMETER
Z-RESOLUTION**

**FOCUS
STACKING**

**MOTORIZED
STITCHING**

**WHITE LIGHT
AREA CONFOCAL**

Software (Included)



3D analysis
chart

section view

measurement
results

- Travel of Z-axis: 30mm
- Scanning range of Z-axis: 500μm (PZT), 30000μm (motor)
- Resolution of Z-axis: 0.01μm (PZT), 0.1μm (motor)
- XY stage resolution: 0.1μm
- XY stage control method: motorized
- Accuracy: $\pm(0.1+L/200)\mu\text{m}^*$

* L is measured height and μm is the unit

Large Depth of Field 3D Measuring Microscope (Advanced Type) ISM-H5000



controller

STEREOSCOPIC
3D IMAGING

IMAGE
STITCHING

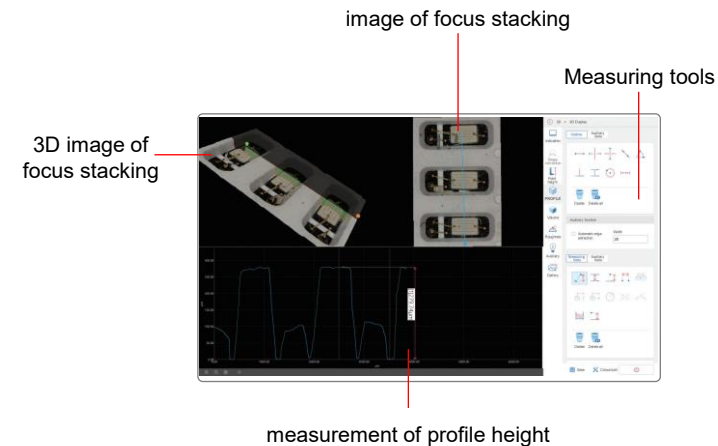
MOTORIZED
XYZ AXIS

2D/3D
MEASUREMENT

MAGNIFICATION
30~6000X

MOTORIZED
ZOOM LENS

MAP
NAVIGATION



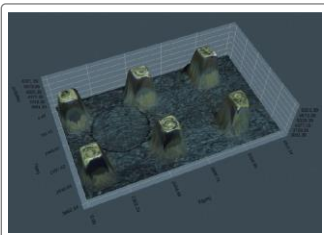
- Objective: 1.5X, 5X, 20X, 50X
- Maximum depth of field: 30mm
- Max. height of workpieces: 90mm
- View field: 50.60×38.00μm-9977.30×7483.00μm

- Horizontal resolution: 0.42μm
- Working distance: 2-30mm
- Accuracy: $\pm(0.5+0.005L)\mu\text{m}$
(L is measuring length or height in μm)

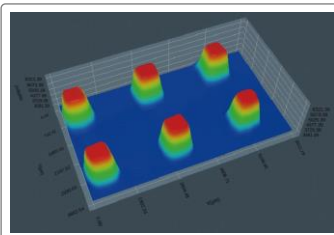
Large Depth of Field 3D Measuring Microscope

**5324-K210**

constructing stereoscopic 3D imaging that can be dragged and rotated for viewing

**5324-K220**

the chromatogram height clearly shows the difference in three-dimensional height



fast measurement of profile height difference

**ROTATABLE
WORKTABLE****PLANE MEASUREMENT AND
PROFILE HEIGHT MEASUREMENT****ROTATABLE OBSERVATION
STEREOSCOPIC 3D IMAGING****AUTO
FOCUS**

Code	5324-K210	5324-K220
Stand	vertical stand	tilted stand
Magnification	100X~750X	
Sensor	1/2" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	

High Magnification Toolmaker Measuring Microscopes (Advanced Type) ISD-TM Series



- Optical magnification: 50X-500X, up to 1000X with optional 100X objective
- Digital magnification: 150X-1500X (on 23.8" monitor), up to 3000X with optional 100X objective

Code	ISD-TM215	ISD-TM320	ISD-TM330	ISD-TM430
X/Y axis travel	200 × 150mm	300 × 200mm	300 × 300mm	400 × 300mm
Metal stage size	400 × 280mm	500 × 350mm	500 × 450mm	600 × 450mm
Glass stage size	245 × 192mm	350 × 250mm	350 × 300mm	450 × 300mm

Digital Microscopes (P1)



Auto Focus Digital Microscopes (Large View Field) 5302-AF105/AF108



Manual 3d Rotation Microscope 5313-S407



Digital Measuring Microscopes ISM-DL301



Motorized Focus Stacking Microscope (Large Depth Of View) ISM-DL520

| Digital Microscopes (P2)



Horizontal Microscope
5316-HM810



Flexible Arm Auto Focus Digital Microscopes
5317-AF



Auto Focus Digital Microscope (Advanced Type)
5319-AF290

Smart Microscope ISM-DL402

dimension measurement

OK

out of tolerance,NG



automatically locate and measure, and judge OK or NG

circle diameter inspection

OK

out of tolerance,NG

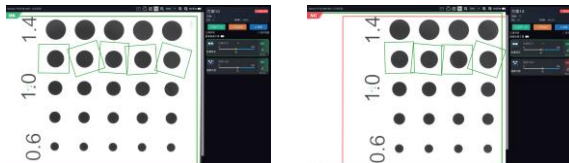


detection circle diameter, and judge OK or NG

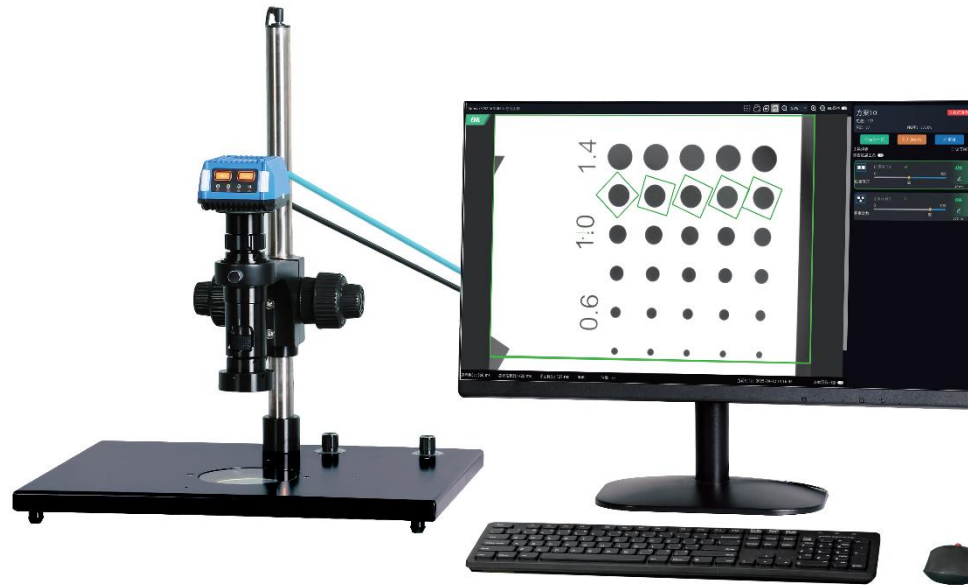
counting

5 circles, OK

4 circles, NG



automatically locate and count, and judge OK or NG

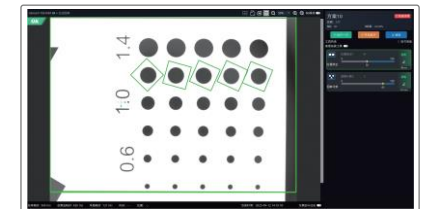


**AUTOMATIC
RECOGNITION**

**AUTOMATIC
MEASUREMENT**

**AUTOMATICALLY LOCATE WORKPIECES
REGARDLESS OF POSITION AND DIRECTION**

Software for computer (included)



- Magnification*: 13.5X~90X
- View field: 17×14~2.5×2mm
- Sensor: 1/1.8" CMOS
- Pixel: 5M
- Resolution: 2448×2048
- Single pixel size: 2.74×2.74μm
- Frame rate: 30fps

*Magnification for using the measuring tool: 13.5X~54X

Motorized Zoom Microscope (Basic Type) 5325-VM100

**PROGRAMMABLE SEGMENTED
RING LIGHT**

**DISPLAY ACTUAL
MAGNIFICATION**



Focus stacking



focus on the top



focus on the bottom



clear image of both
top and bottom

- Measuring accuracy: $\pm 0.02\text{mm}$
- Frame rate: 60fps
- Magnification: 10-68.5X (1X included)
5-34.2X (0.5X optional)

Metallurgical Microscopes (Advanced Type) 5108



- Infinite chromatic aberration correction optical system
- Three way observation tube with infinite hinge
- Translucent and reflective frame, front low-hand position coarse and fine coaxial focus adjustment mechanism, with adjustment elastic device to prevent sliding and random upper limit device
- Bright and dark field five-hole converter with DIC slot
- Adopt digital dimming, with light intensity reset and setting function
- With polarizer insert plate and 360° rotating analyzer insert slot

- Optical magnification: 50X-500X (up to 1000X with optional 100X objective)
- Digital magnification: 170X-1700X(on 21.5" monitor), up to 3400X with optional 100X objective

Metallurgical Analysis Software And Camera ISM-MAS100

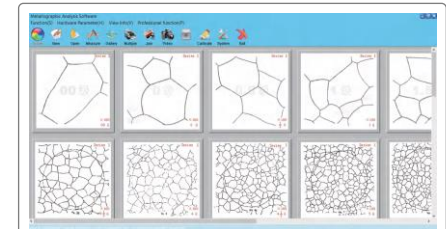


- Sensor: 1/1.8" CMOS
- Pixel: 6.3M
- Resolution: 3072×2048

Metallurgical analysis software (included)

- More than 100 standards (ISO, ASTM, JIS, etc.)
- For metallurgical microscopes
- The camera can be inserted into the eyepiece tube or camera connector of microscopes
- Metallurgical analysis software is included, which can make comparative analysis, measurement and evaluation of various materials

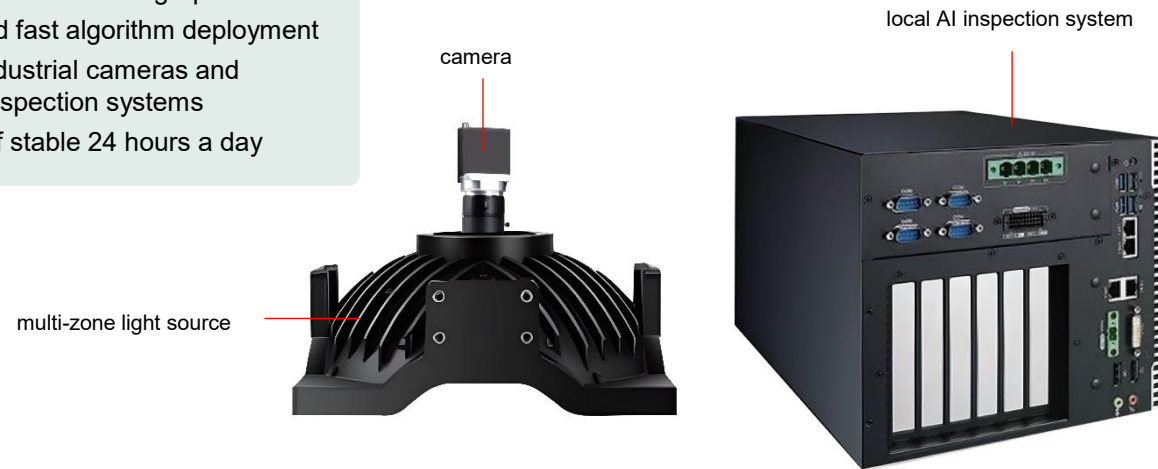
Application



this software can be used with variety of metallographic microscopes for acquisition, processing, analysis, report generation of metallurgical images

AI Visual Inspection System (Local Deployment) AVS-20

- Equipped with a high-end NVIDIA dedicated graphics card
- Short AI model training time and fast algorithm deployment
- Compatible with mainstream industrial cameras and seamlessly integrable with AI inspection systems
- AI inspection system capable of stable 24 hours a day

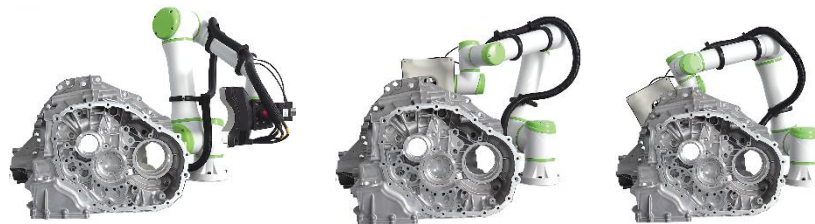


Application

coordinating with a robot arm to capture real-time images and detect defects on rotating gears



integrated with a robot arm for multi-angle and multi-directional defect and flaw detection



**DEFECT
DETECTION**

**SCRATCH
DETECTION**

**SCUFF
DETECTION**

**CUSTOM-
MADE**

Software (included)

real-time
monitoring
display



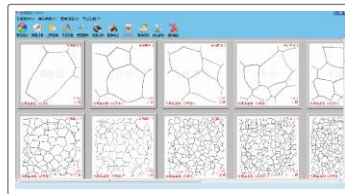
- Defective samples: 5~10pcs
- Model training time: 10min
- Frame rate: 75fps
- Lighting combination: 236types
- Multi-channel independent control: 40pcs
- System: local AI inspection system

Software And Cameras

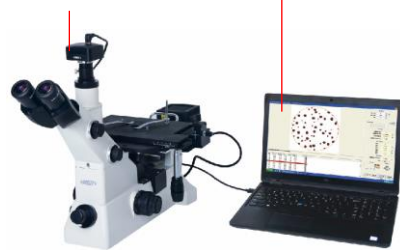
Camera (included)



Metallurgical analysis software (included)



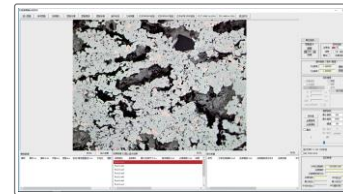
camera



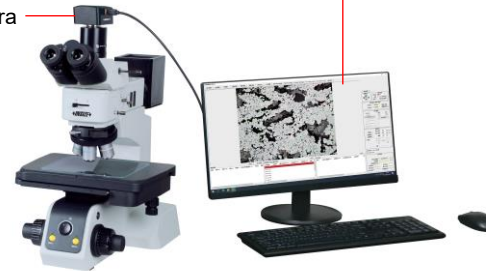
application

Metallurgical Analysis Software And Camera
ISM-MAS100

Porosity measurement software (included)



camera



application

Porosity Measurement Software And
Camera ISM-MAS200

Weld seam measurement software (included)



camera



application

Weld Seam Measurement Software And
Camera ISM-MAS300

Digital Depth Measuring Microscope ISM-PM110

- Measuring the depth of scratches, chips, burrs, pitting, chattering, scribe lines, engraving, markings, etc.
- Built-in light source for on-the-spot detection
- Equipped with a display indicator that clearly shows the data

- Total magnification: 100X
- Eyepiece: 10X with graduation
- Objective (achromatic): 10X (numerical aperture 0.25)
- Working distance: 7mm
- Accuracy: $\pm 0.02\text{mm}$
- Viewing field: $\varnothing 1.8\text{mm}$
- Focus range: 30mm
- Depth measurement distance: 7mm
- Illumination: LED light

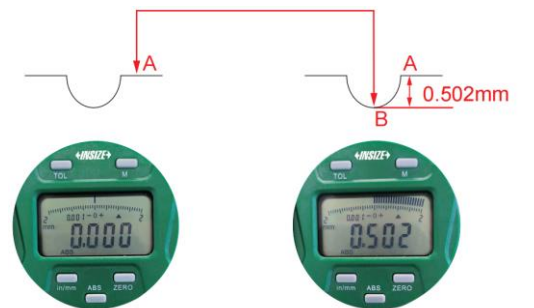


Depth measurement

focus on surface A



focus on surface B



Measuring Magnifiers (With Illumination) 7527

- Base with scale
- With 5 white LED and 5 UV LED
- Charging port: Type-C
- Work for 30min after fully charged

Base with scale



Code	7527-D2	7527-D1B
Magnification	10X	10X
Lens diameter (ØD)	Ø30mm	Ø30mm

Videoscopes (Desk Type)**Videoscopes****Multipurpose Videoscopes****Carbon Fiber Telescopic Pole Videoscopes****Rigid Borescopes****Cameras (With Display)****Fixture For Rigid Borescopes**

| Videoscope (Desk Type) ISV-Y



rigid straight lens tube,
front view/side view/front
view & side view

Lens tube:

- Diameter: Ø1.2-Ø6.0mm
- Length: 90mm-300mm (optional 90-1000mm)



bending spring lens tube

Lens tube:

- Diameter: Ø3.0-Ø7.0mm
- Length: 1000mm

Videoscopes (Cable Is Optional) ISV-L Series



**REAR FIBER
ILLUMINATION**

Changeable lens cable



Front view:

- One-direction cable (no bending): diameter: Ø0.95mm-Ø1.5mm
- Two-direction bending cable: diameter: Ø1.8mm-Ø2.4mm
- Four-direction bending cable: diameter: Ø2.8mm-Ø6.0mm

Side view:

- Two-direction bending cable: diameter: Ø1.8mm
- Four-direction bending cable: diameter: Ø2.8mm-Ø6.0mm

Multipurpose Videoscope VSP-201



Four-direction bending cable



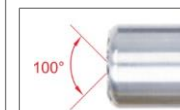
Rotating lens cable

$\pm 90^\circ$ rotation in radial direction, $\pm 180^\circ$ rotation in axial direction

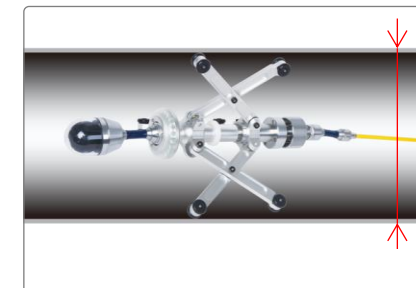


Wide-angle lens cable

angle of view (θ)



Adjustable support



4K Carbon Fiber Telescopic Pole Videoscope ISV-CF5



7" LCD touch screen

- Dual motorized control of lens view, 300° horizontal and vertical 360° rotation
- 4K HD true color camera
- Built-in infrared and white light for night and day use

IP65
WATERPROOF

- Resolution: 3840×2160
- Lens diameter (ØD): 40mm
- Pole: carbon fiber, can be fixed between 1~5 meters

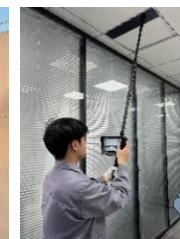
Application



underbody
inspection



constructure
inspection
(WIFI real-time
image transmission)



ceiling duct
inspection



roof inspection



car roof
inspection

Other Dimension Measuring Instruments (P1)

**Pen Type Electromagnetic
Ultrasonic Thickness Gauges**



**Built-In Wireless Ultrasonic
Thickness Gauge**



**Ultrasonic Case Hardening
Depth Gauge**



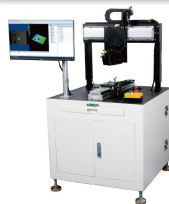
Hall-effect Thickness Gauge



Glass Thickness Meters



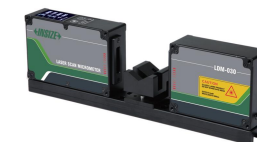
**3D Line Laser Profile Measuring
Machine**



Laser Distance Meters



Laser Scan Micrometers



Other Dimension Measuring Instruments (P2)

Automatic Laser Scan Micrometer



Dual Axis Photoelectric Autocollimators



Linear Laser Interferometer Measurement System



Air Gauges And Displays



Length Presetters (Motorized Type)



Digital Gap Gauges



Manual Putty



Total Stations



Pen Type Electromagnetic Ultrasonic Thickness Gauges EMU-A100/EMU-B100

- Compact size, easy to carry, comes with waveform display and full-function keyboard, easy to adjust the measurement parameters
- Non-contact measurement of rough, corroded surfaces without sanding
- Suitable for inspection of workpieces of various shapes, such as pipes, small tubes, elbows, etc.

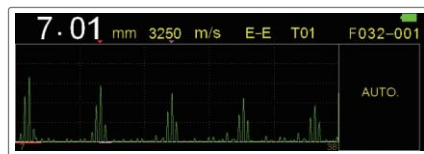
**COUPLING AGENT
IS NOT REQUIRED**

**MEASUREMENT THROUGH
COATING AND RUST LAYER**

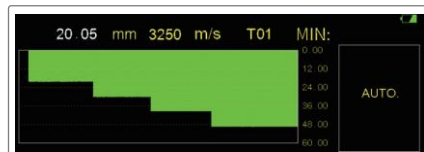
**WORK AT MAXIMUM
600°C**

**WITH A AND B
SCAN**

A-Scan



B-Scan



high temperature
probe (optional)



calibration block
(included)

- Measuring range: 1.5-300mm
- Resolution: 0.01mm
- Accuracy*: $\pm 0.04\text{mm}$ ($H \leq 10\text{mm}$)
 $\pm (0.04 + H/1000)\text{mm}$ ($10 \leq H < 100\text{mm}$)
 $\pm H/333$ ($H \geq 100\text{mm}$)
H is measuring thickness in mm

*On C45 carbon steel

Ultrasonic Thickness Gauges



Ultrasonic Thickness Gauge
ISU-810D



Ultrasonic Thickness Gauge
ISU-720D



Ultrasonic Thickness Gauge (For Thick Workpieces
Made Of Organic Materials) ISU-710D



Ultrasonic Thickness Gauge (For Thin Workpieces)
ISU-700D



Ultrasonic Thickness Gauge
(Through Coating) ISU-300D



Ultrasonic Thickness Gauge
ISU-250C



Ultrasonic Thickness Gauge
ISU-200D



Ultrasonic Thickness Gauge (Basic Type)
ISU-100D

Built-In Wireless Ultrasonic Thickness Gauge (Advanced Type) ISU-800DWL

PENETRATE COATING AND MEASURE
THE THICKNESS OF SUBSTRATE

BUILT-IN
WIRELESS

REAL-TIME TEMPERATURE
COMPENSATION

DATA
OUTPUT



transducer ISU-S15-P06
(included)

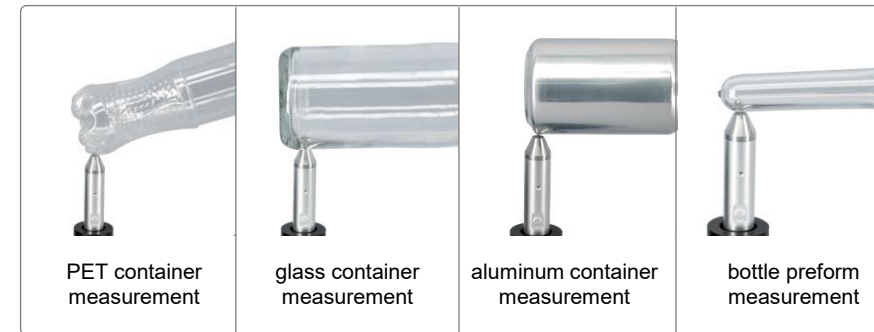


- Measuring (included): I-E: 0.9-28mm
E-E: 0.15-14mm
- Resolution: 0.01mm/0.001mm
- Accuracy*: $\pm 0.02\text{mm}/0.3\%H$ ** (take the larger one)
 - * On C45 carbon steel
 - ** H is the measured thickness in mm

Hall-effect Thickness Gauge 5408-HE25



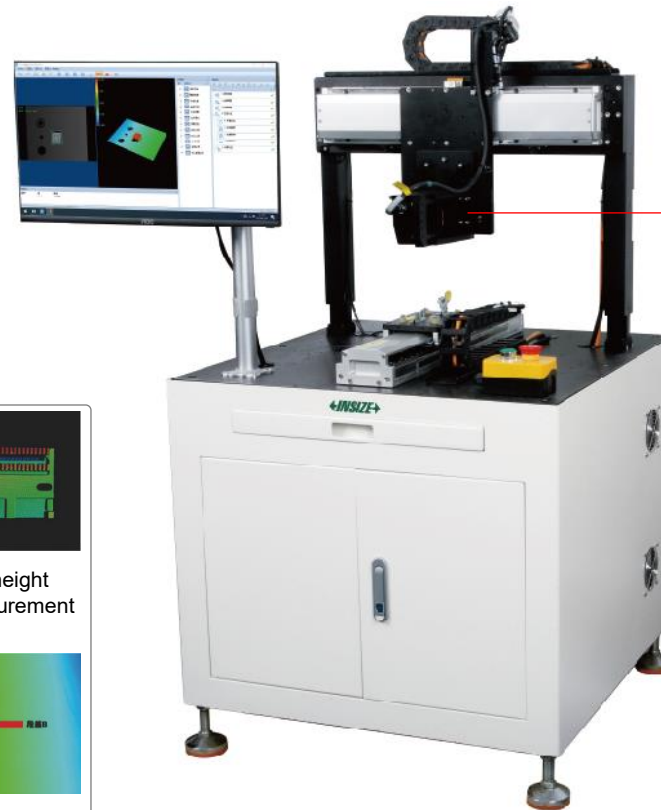
Measurement Application

DATA
OUTPUT

- Range : 4mm/ 6mm/ 8mm/ 10mm
(determined by the calibration performed with standard gauge blocks)

Accuracy of single-point calibration	Accuracy of multi-point calibration	Suggested measuring range
5%+0.003mm (calibrated with 1.59mm steel ball)	3%+0.003mm (calibrated with gauge blocks and 1.59mm steel ball)	0~2mm
4%+0.003mm (calibrated with 3.18mm steel ball)	2%+0.003mm (calibrated with gauge blocks and 3.18mm steel ball)	0~4mm
3%+0.003mm (calibrated with 4.76mm steel ball)	1%+0.003mm (calibrated with gauge blocks and 4.76mm steel ball)	0~4mm or 0~6mm
3%+0.003mm (calibrated with 5.00mm steel ball)	1%+0.003mm (calibrated with gauge blocks and 5.00mm steel ball)	1~8mm or 1~10mm

3D Line Laser Profile Measuring Machine VIM-P140

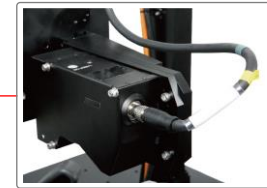


**NON-CONTACT
SCANNING**

**HIGH SPEED
MEASUREMENT**

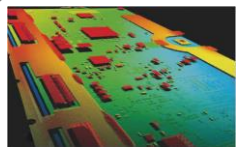
**FLATNESS/HEIGHT
DIFFERENCE MEASUREMENT**

**CUSTOM-
MADE**

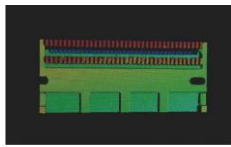


3D line laser
scanning camera

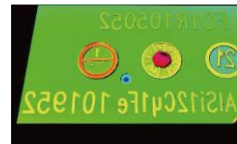
Application



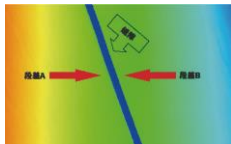
component height
measurement on circuit
boards



flatness and height
difference measurement



character height
measurement



gap depth measurement

- Flatness and height difference measurement of machinery, electronics, cell phones, molds, circuit boards and other products
- Full-range focusable optical system allows you to take pictures in focus range, even when the target height is changed
- Combining 2D and 3D data for complete detection; 2D data can be used for localization, code reading, character recognition, etc.
- The software is automatically corrected for workpiece position deviation; multiple scanned images can be automatically spliced to achieve stable detection

- Travel range XY: 400×350mm
- Repeat positioning accuracy: 2μm
- Measuring range of Z-axis: 24mm
- Width of X-axis: 96mm
- Accuracy of Z-axis: ±0.02mm
- Repeatability of Z-axis: ±0.5μm
- Scanning speed: 2500-10000Hz

Laser Scan Micrometers

Laser Scan Micrometers LDM Series



- Measuring range: 0.1-85mm
 - Accuracy (at 25°C): $\pm(0.5+10\%D)\mu\text{m}$, D is measuring diameter in mm/ $\pm 6\mu\text{m}$
 - Small-range accuracy (calibration position $\pm 4\text{mm}$, at 25°C)*: $\pm 1\mu\text{m}/\pm 2\mu\text{m}$
 - Repeatability (at 25°C): $(0.3+5\%D)\mu\text{m}$, D is measuring diameter in mm/ $3\mu\text{m}$
 - Resolution: 0.01/0.1/1/10/100 μm selectable
- * The calibration position is set according to the customer's requirements before pre-factory

Dual-axis Laser Scan Micrometer LDM-XY14



- Measuring range: 0.05~14mm
- Resolution: 0.01/0.1/1/10/100 μm selectable
- Single-axis accuracy (at 25°C): $\pm(0.5+10\%D)\mu\text{m}$, D is measuring diameter in mm
- Single-axis repeatability (at 25°C): $(0.3+5\%D)\mu\text{m}$, D is measuring diameter in mm

Automatic Laser Scan Micrometer LDM-AT01

**CUSTOMIZED ACCORDING
TO WORKPIECES**



- Motorised rotation with adjustable speed
- Auto-moving laser scan micrometer
- Measure the outer diameter, roundness and runout of workpieces at multiple sections

Clamping workpieces by
center-type bench center



Clamping workpieces by
v-type bench center



Center-type bench center

- Measuring range of workpieces:
length: 5-300mm
Diameter: 3-60mm
Max. Weight: 20kg

V-type bench center

- Measuring range of workpieces:
length: 10-230mm
Diameter: 10-60mm
Max. Weight: 1.5kg

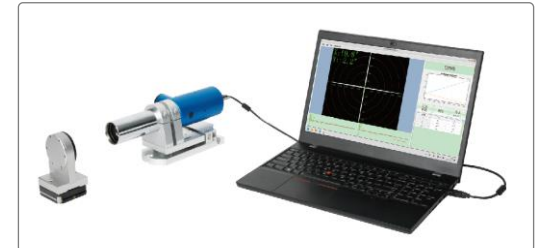
• Accuracy at 25°C: $\pm(0.5+10\%d)\mu\text{m}$, D is measuring diameter in mm

Dual Axis Photoelectric Autocollimator CMS-L401

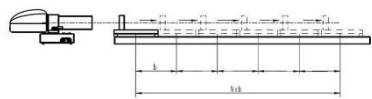
- Dual axis simultaneous measurement, convenient and efficient
- Electronic eyepiece, low aiming error
- High resolution photodetector, high measurement accuracy
- Semiconductor LED light source, long service life of the light source
- Automatic curve plotting, automatic error calculation
- Multiple data processing methods, can generate standard Excel reports



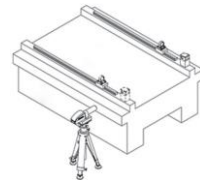
Software (included)



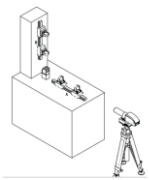
Application



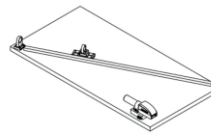
straightness measurement



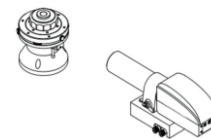
parallelism measurement



perpendicularity
measurement



flatness
measurement



turntable
measurement

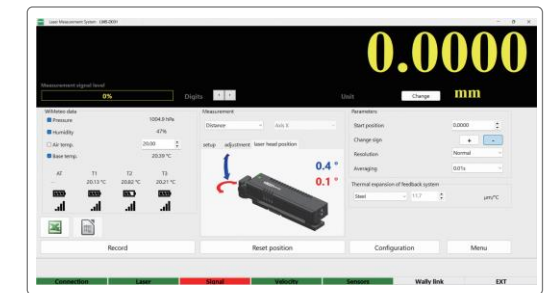
- Field of view range: 3200×2400"
- Accuracy: $\pm 1000''$ within $\pm 1''$
- Resolution: 0.1"

Linear Laser Interferometer Measurement System LMS-D301

- Built-in alignment tools indicator for the laser head, it shows the pitch and yaw angles, it helps to reduce setup time
- Unique machine tools analysis capability, high dynamic sampling frequency
- Compensated measurement of linear positioning accuracy for CNC/CMM machines



Software (included)



Laser head and tripod (included)



linear retro-reflector
(included)



linear interferometer
(included)



environment compensation
sensor (included)



material temperature
compensation sensor (included)

Laser head specification

- Laser type: He-Ne laser
- Wavelength accuracy: $\pm 0.005\text{ppm}$
- Short term stability: $\pm 0.001\text{ppm}$
- Long term stability: $\pm 0.001\text{ppm}$

Distance specification

- Range: 0~30m
- Resolution: 100pm (0.1nm)
- Accuracy: $\pm 0.4\mu\text{m/m}$

Air Gauges And Air Gauge Displays

9408



- Can store 10 measuring programs, and the program can be switched quickly
- Data storage and query function

9401



Range	Resolution		Accuracy
	LED	Display	
10μm	0.1μm	0.1μm	0.2μm
20μm	0.2μm	0.1μm	0.4μm
50μm	0.5μm	0.5μm	1μm
100μm	1μm	0.5μm	2μm

Multi Channel Air Gauge Displays 9440-DP Series

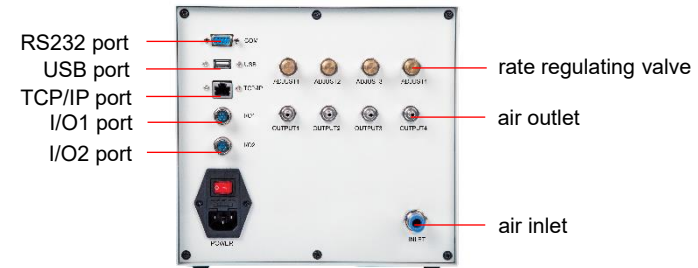
- With data statistics and analysis functions, can display graphs and Xbar-R control charts

DATA TRANSMISSION
CAN BE CUSTOMIZED

TOUCH
SCREEN



Back of display



- Number of channels: 1-8
- Resolution: 0.1 μ m
- Range: 10-100 μ m(adjustable)
- Accuracy: 0.2-3 μ m

Scanning gun input product
code function (customised)



Air filter (optional)



Foot switch (optional)



RS232 cable (optional)



Length Presetters (Motorized Type) ISQ-S Series



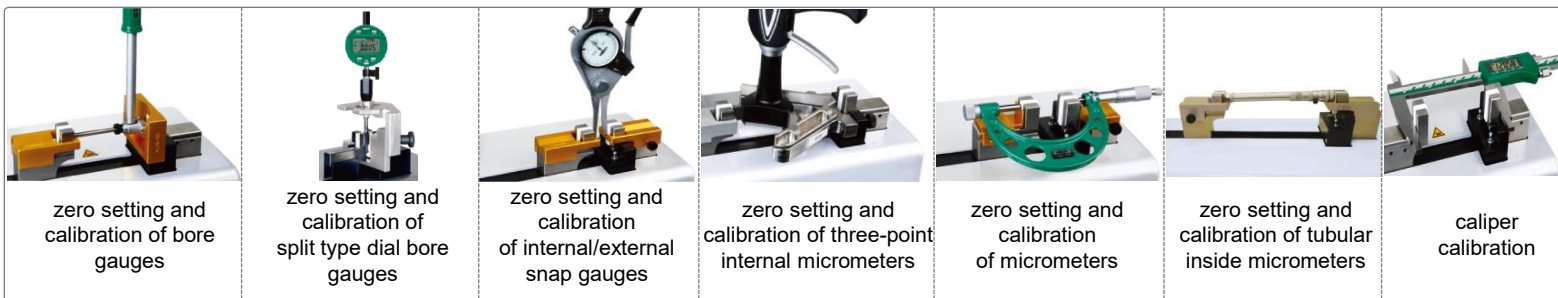
REPLACING RING GAUGES
AND GAUGE BLOCKS

CAN BE USED
IN WORKSHOPS

ATTENTION: WORKING TEMPERATURE 10-35°C,
TEMPERATURE CHANGE $\leq 1^\circ\text{C/h}$

ATTENTION:
ADAPTERS ARE NEEDED

Application



- Range: inter diameter 0.1-5000mm
outer diameter 40-5040mm
- Resolution: 0.5 μm
- Accuracy: $(1.5+L/500)\mu\text{m}$ / $(3+L/500)\mu\text{m}$
(L is measuring length in mm)
- Repeatability: 0.8 μm

Length Presetters (Motorized/Manual Type) ISQ-M Series

- Range: inter diameter 0.1-2950mm
outer diameter 40-2990mm
- Resolution: 0.5μm
- Accuracy: $(1.5+L/500)\mu\text{m}$
(L is measuring length in mm)
- Repeatability: 0.8μm

REPLACING RING GAUGES
AND GAUGE BLOCKS

CAN BE USED
IN WORKSHOPS

ATTENTION: WORKING TEMPERATURE 10-35°C,
TEMPERATURE CHANGE $\leq 1^\circ\text{C/h}$

ATTENTION:
ADAPTERS ARE NEEDED



Application



zero setting and
calibration of bore gauges



zero setting and calibration of
split type dial bore gauges



zero setting and
calibration
of internal/external snap
gauges



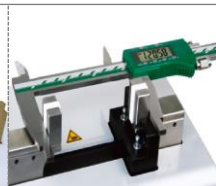
zero setting and
calibration of three-point
internal micrometers



zero setting and
calibration of
micrometers



zero setting and
calibration of tubular
inside micrometers



caliper
calibration



measuring
workpieces
(manual mode)

Digital Gap Gauges (P1)



- Customizable measuring range: 0.35-6mm
- Effective range: $\pm 0.5\text{mm}$
- Accuracy: range: (0.35-2)mm, Accuracy: $\pm 0.03\text{mm}$
range: (0.35-6mm), Accuracy: $\pm 0.04\text{mm}$
- Resolution: 0.1/0.01/0.001mm
- Max. customizable length: 500mm
- Repeatability: 0.02mm
- Measuring force: < 3.5N

Application



Digital Gap Gauges (P2)

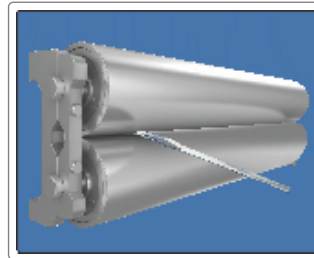
Measuring car body seam



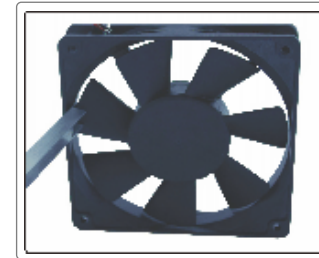
Measuring gaps on the car dashboard



Measuring roll gap



Measuring blade to sidewall gap



Bilateral probe (optional)



Depth positioning probe (optional)



Single-side hockey stick shaped probe (optional)



90° probe (optional)



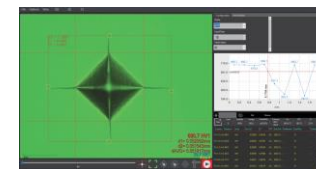
Single-side positioning probe (optional)



| **Digital Gap Gauge -- Application**



In the steam turbine assembly workshop, measure the gap between the rotor and the cylinder block

Rockwell Hardness Testers**Micro-Vickers Hardness Testers****Vickers Hardness Testers****Vickers Hardness Measuring Systems****Brinell Hardness Testers****Rockwell/Brinell/Vickers Hardness Testers****Brinell Indentation Hardness Measuring Systems****Brackets****Ultrasonic Hardness Testers****Portable Leeb Hardness Testers****Portable Rockwell Hardness Tester****Aluminum Hardness Testers**

Aluminum Hardness Testers



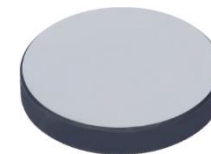
Shore Durometers



Fruit Hardness Testers



Hardness Test Blocks



Concrete Strength Testers



Motorized Digital Rockwell/Superficial Rockwell Hardness Testers (Dolphin-Nose Type) HDT-DM Series

V-type anvil
(included)



Ø150mm flat anvil
(included)



4mm high Rockwell
indenter (optional)



14mm high Rockwell
indenter (included)



test interface



FORCE LOADING BY ELECTRIC
MOTOR (WITHOUT WEIGHTS)

TOUCH
SCREEN

Can test rings, tubes, internal
Surfaces of frame parts, etc.



- Full closed-loop precise control, real-time monitoring of test force, greatly increase the accuracy
- Dolphin-nose structure indenter, more measuring space
- Measurements on 30 Rockwell and Superficial Rockwell scales
- Convertible to various hardness standards such as HB, HV, HLD, HK and tensile strength

Motorized Digital Rockwell/Superficial Rockwell Hardness Testers HDT-RT Series

FORCE LOADING BY ELECTRIC
MOTOR (WITHOUT WEIGHTS)

TOUCH
SCREEN



Test interface



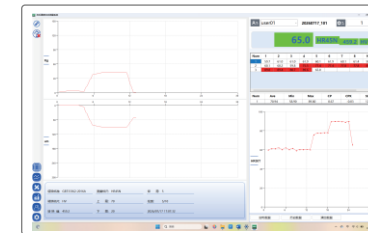
Test result display interface



Chart interface



Computer software (included)



Dual Touch Screen Digital Micro-Vickers Hardness Tester (Advanced Type) HDT-DMV90

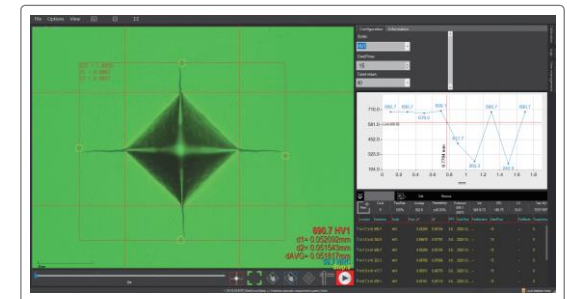
**MOTOR DRIVEN
TURRET**

**AUTOMATIC
TEST**



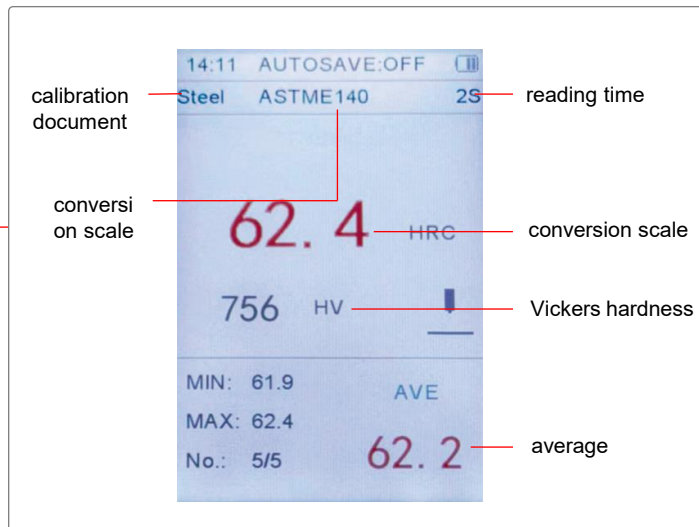
- Dual touch screen control, high-definition image measurement and analysis
- One click start, automatic pressing and automatic measurement
- The host and vickers hardness measurement software can be operated independently
- Automatic switch between the indenter and objective lens
- Data storage and average value calculation
- Can connect with wired and wireless networks to transmit data

Vickers hardness measurement software (included)



- Test force: 0.098N (10gf), 0.245N (25gf), 0.49N (50gf), 0.98N (100gf), 1.96N (200gf), 2.94N (300gf), 4.9N (500gf), 9.8N (1kgf)

Ultrasonic Hardness Testers 9646



ATTENTION: NEED TO CONFIRM IF THE
WORKPIECES ARE SUITABLE BEFORE PURCHASE

SMALL TEST
INDENTATION

ATTENTION: HARDNESS BLOCKS
FOR CALIBRATION ARE OPTIONAL

WIRELESS TRANSMISSION
IS OPTIONAL

Applications:

1. Hardness measurement of flange edges and gear root stampings, gears and gear grooves with surface hardening of lamina, taper sections
2. Hardness measurement of shafts and thin-walled pipes and container
3. Hardness measurement of thin plating, wheels, turbine rotors and welded parts
4. Measurement of the depth of a certain diameter deep holes, dents of the larger curvature and convex marks, irregular planes
5. Covering the majority of hardness measurement of industrial production of ferrous metals, non-ferrous metals and their alloys

- Small size, light weight, portable, convenient for on-line measurement and can be used to measure large workpieces
- Support 360° measurement, fast test speed, the fastest results in 1 second
- Standard Vickers indentation, small test indentation and low damage to the workpiece

Code	9646-300	9646-301	9646-310	9646-311
Data printout	without printer	with bluetooth printer	without printer	with bluetooth printer

Test Stands For Ultrasonic Hardness Testers

9646-STANDV/9646-300-STAND

- Suitable for 9646 series ultrasonic hardness testers
- Reduce the human error caused by manual operation of hardness tester, and improve the measuring accuracy and repeatability

**9646-STANDV****9646-300-STAND**

Code	9646-STANDV	9646-300-STAND
Type	magnetic base	normal base
Applicable workpiece	large flat and shaft-shaped workpieces	small workpieces
Workpiece dimension	Min. magnetic suction plane size: 170×50mm Min. magnetic suction cylinder diameter: Ø20mm	Max. workpiece height: 210mm

Portable Leeb Hardness Tester With Wireless Probe HDT-WP201

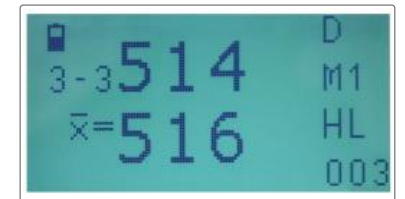
- Wireless digital probe
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σ_b)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data



large font display



statistics display



- Resolution: 1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1 σ_b
- Accuracy: ± 6 HLD (when HLD=800)

Hardness Test Blocks



Rockwell



Vickers



Leeb



Knoop



Micro-Vickers



Brinell



Shore



Ultrasonic

Metallography Preparation And Analysis

←INSIZE→

Cutting Machines



Mounting Presses



Grinders And Polishers



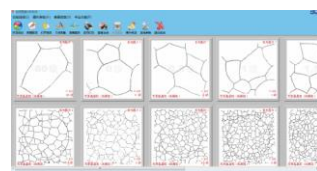
Automatic Liquid Droppers



Metallurgical Microscopes



Metallurgical Analysis Softwares



Cutting Machine Accessories



Mounting Press Accessories



Grinder And Polisher Accessories



Cutting Machines



Automatic Specimen Cutting Machine
(Advanced Type) MLP-ACM160



Automatic Cutting Machine
(Advanced Type) MLP-HCM102



Cutting Machine (Standard Type)
MLP-CM60



Cutting Machine (Basic Type)
MLP-CM86

Manual Precision Cutting Machine MLP-PCM100



- Equipped with a high-torque DC motor and stepless speed control system, boasting strong power and high efficiency
- The rotation speed is digitally displayed for simple operation
- With a magnetic safety switch, the motor automatically stops when the protective cover is opened, ensuring safety performance
- Integrally formed high-strength composite material shell, anti-corrosive and rust-proof
- Panoramic transparent observation window, facilitating the observation of the sample cutting process
- With circulating cooling water tank, lightweight in volume

Cutting coolant (optional)



Cutting blade (optional)



Diamond blade (optional)



- Maximum cutting diameter: Ø40mm
- Maximum travel: 190mm
- Diamond blade: Ø200×0.8×Ø12.7mm
- Cutting method: manual cutting, Y-axis

Mounting Presses



Mounting Presses (Advanced Type) MLP-MP53



Mounting Press (Standard Type) MLP-MP30



Mounting Press (Basic Type) MLP-MP62



Vacuum Mounting Press MLP-MP25

Grinders And Polishers



Automatic Grinder And Polisher
(Advanced Type) MLP-GP406



Automatic Grinder And Polisher
(Advanced Type) MLP-GP505



Automatic Grinder And Polisher
(Standard Type) MLP-GP305



Automatic Grinder And Polisher
(Standard Type) MLP-GP260



Manual Grinders And Polishers
(Standard Type) MLP-GP280



Manual Grinder And Polisher
(Basic Type) MLP-GP314

**Portable Eddy Current
Flaw Detectors**



Ultrasonic Flaw Detectors



**Ultrasonic Phased Array
Detectors**



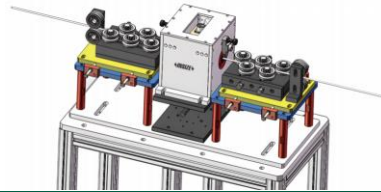
**Standard Test Blocks For
Ultrasonic Flaw Detection**



**Ultrasonic Water Immersion
Detection Systems**



**Online Eddy Current Testing
System**



Air-Coupled Ultrasonic Detector



**Ultrasonic Flaw Detector
For Concretes**



**Portable Magnetic
Powder Flaw Detectors**



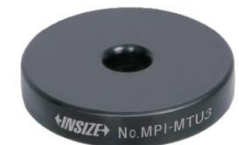
**Permanent Magnet Yoke Flaw
Detector**



**Fluorescent Magnetic
Powder Flaw Detectors**



Magnetic Powder Test Blocks



Magnetic Field Indicator Sets**UV Flaw Detection Lights****Penetration Standard Test Blocks****Supplementary Materials****Variable Frequency Portable X-Ray Flaw Detectors****Industrial Automatic X-Ray Film Processor****Industrial Viewing Lamps****Black And White Densitometers****Wire Rope Flaw Detectors**

Portable Eddy Current Flaw Detector ECT-S610



- Real-time impedance plane and time base sweep display modes available
- Applicable to all kinds of metal materials and parts, such as weld cracks, copper pipe, seamless steel pipe, stainless steel pipe, folding, scars, pits, cracks, delamination and other defects, with high sensitivity

Right angle probe (included)



Pen probe (included)



- Detection channel: channel 1 (X1-Y1), channel 2 (X2-Y2), mixing channel
- Detection frequency: 2
- Transmission frequency: 50Hz-10MHz
- Sampling frequency: 40MHz, 12-bit data acquisition

Ultrasonic Flow Detectors



Digital Ultrasonic Flow Detector
(Advanced Type) UFD-P710



Digital Ultrasonic Flow Detector
(Excellent Type) UFD-C870



Digital Ultrasonic Flow Detector
(Standard Type) UFD-F720



Digital Ultrasonic Flow Detector
(Basic Type) UFD-B450

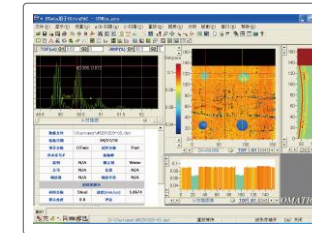


Digital Ultrasonic Flow Detector
(Basic Type) UFD-T680

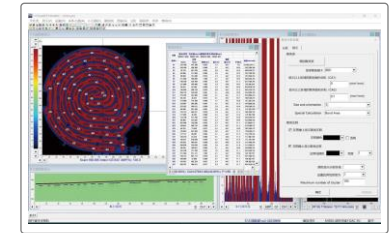
Ultrasonic Water Immersion Detection System



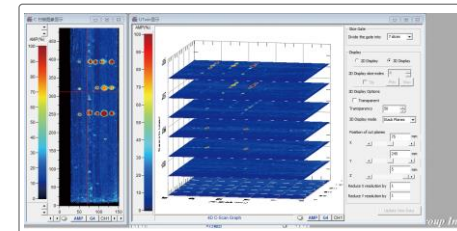
A, B, C, scanning integrated image interface



Defect automatic measurement Function interface



Ultrasonic tomography (CT) interface



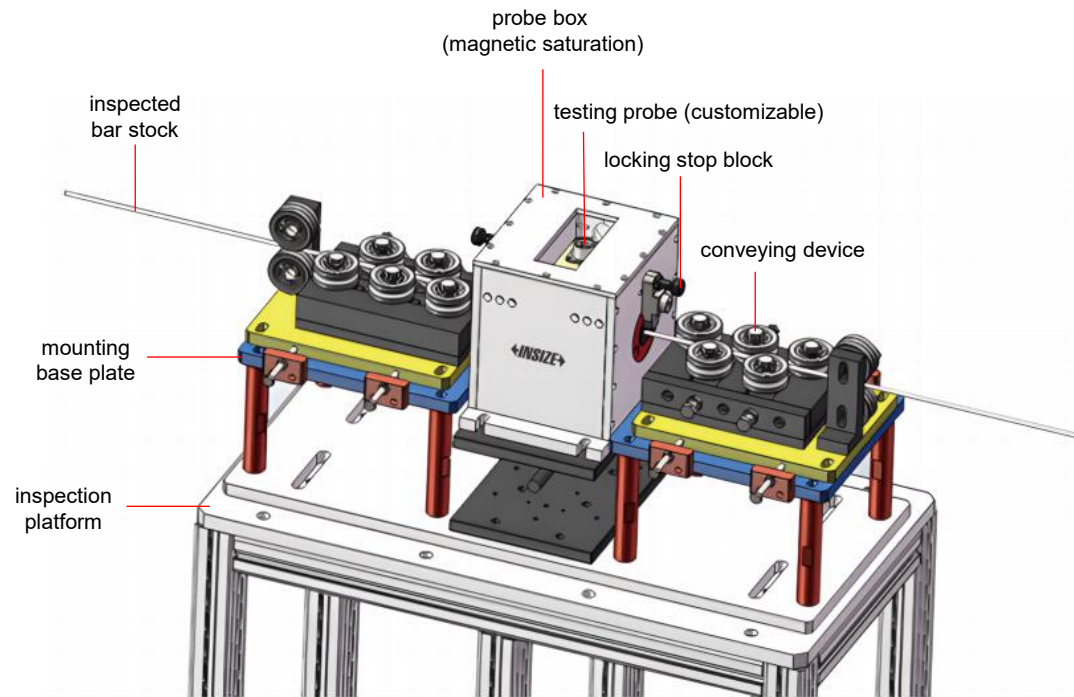
UT reporting interface



- Suitable for automatic scanning of inclusions, cracks, porosity, delamination and other defects in metal and composite parts
- Automatic localization, quantification, and statistical calculation of defects

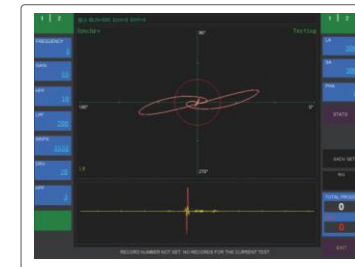
Online Eddy Current Testing System ECT-WZ

CUSTOMIZABLE

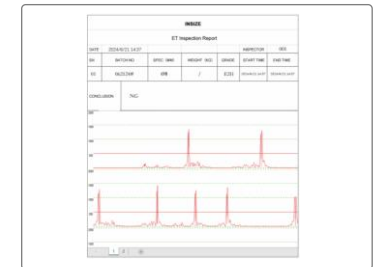


- Capable of high-speed data processing, with a detection speed up to 1~1200 m/min
- High-performance DSP algorithm and signal processing enable the detection of microcracks with a depth of 0.05mm

eddy current testing window



ET report display



- Measuring range: Ø1mm-Ø100mm(customizable)
- Detection sensitivity: detection of $0.05 \times 0.01 \times 5\text{mm}$ (D×W×L) crack notch with signal-to-noise ratio $\geq 10\text{dB}$
- Flaw detection speed: $> 0.5\text{m/min}$

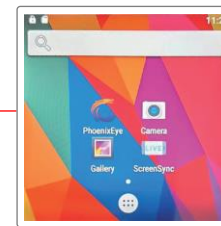
Fluorescent Magnetic Powder Flaw Detector

MPI-FX1000

CAN BE CUSTOMIZED ACCORDING
TO CUSTOMER NEEDS



Intelligent Image UV Flaw Detection Light MPI-SC608



3" touch LCD



Imaging

- UV-B/C content is 0
- Without preheating, instant start, instant on/off, no need to wait
- Continuous irradiation surface spot uniform, no dark areas, no point-like strong light source
- 13M UV-resistant specialized lens for high-definition photos and videos
- Precise measurement of small defects
- High-definition defects can be freely magnified up to 12 times (3 times optical magnification, 4 times electronic magnification)

- UV(Light)Lux: about $4000\mu\text{W}/\text{cm}^2$
- Covering area: $\varnothing 180\text{mm}$ (at 381mm distance)

Testing Machines, Force Gauges, Tension Meters (P1)

**Electronic Universal Testing
Machines**



**Electronic Universal Testing
Machines**



**High And Low Temperature Test
Chambers For Electronic Universal
Testing Machines**



**Hydraulic Universal Testing
Machines**



Extensometers



Video Extensometers



**Gauge Marking Instruments
(Marking Point)**



**Gauge Marking Instruments
(Marking Line)**



**Electro-Hydraulic Servo Flexural And
Compressive Testing Machines**



**Servohydraulic Fatigue Testing
Machines**



Impact Testing Machines



Impact Standard Samples



Testing Machines, Force Gauges, Tension Meters (P2)

**Impact Specimen Notch
Broaching Machines**



**Impact Specimen Notch
Projectors**



Impact Broaches



**Plastic Pendulum Impact
Testing Machines**



Melt Flow Index Tester



**Steel Bar Bending Testing
Machines**



**Friction And Wear Testing
Machines**



Friction/Peel Testers



Terminal Tension Testers



Bond Force Testers



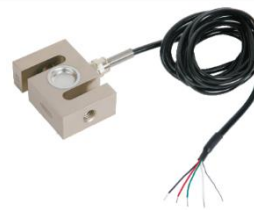
Package Drop Testing Machines



**Paperboard Bursting Strength
Tester**



Testing Machines, Force Gauges, Tension Meters (P3)

DIN Abrasion Tester**Pneumatic Key Life Testers****Spring Hammers****Tablet Hardness Tester****Tensile And Compression
Testing Machines****Automatic Spring Testing
Machines****Digital Spring Testers****Force Gauges****Test Stands For Force Gauges****Force Gauges****Tensile/Compression Sensors****Tube Force Gauges**

Testing Machines, Force Gauges, Tension Meters (P4)

Handheld Force/Torque Indicators



Wire Tension Meters



Cable Tension Meters



Infrared Belt Tension Meter



Belt Tension Meters



Spindle Tension Meters



Electronic Universal Testing Machines UTM-Z Series



Computer and software (included)



- Max. test force: 50N-5000N
- Accuracy class: class 0.5
- Accuracy of test force: $\pm 0.5\%$ of indicating value
- Range of test force: 0.4%-100%FS
- Resolution of test force: 1/300000FS
- Accuracy of displacement: $\pm 0.5\%$ of indicating value

- Resolution of displacement: 0.2 μ m
- Range of crossbeam speed: 0.001-1000mm/min
- Accuracy of crossbeam speed: $\pm 0.5\%$ of indicating value
- Range of force control speed: 0.05%-10%FS/s
- Accuracy of force control speed: $\pm 0.5\%$ of indicating value

Electronic Universal Testing Machines

CUSTOMIZABLE

Electronic Universal Testing Machines UTM-E series

- Max. test force: 10kN-600kN
- Accuracy class: class 0.5
- Accuracy of test force: $\pm 0.5\%$ of indicated value
- Range of test force: 0.2%-100%FS
- Resolution of test force: 1/500000FS



High And Low Temperature Test Chambers For
Electronic Universal Testing Machines UTT-M Series

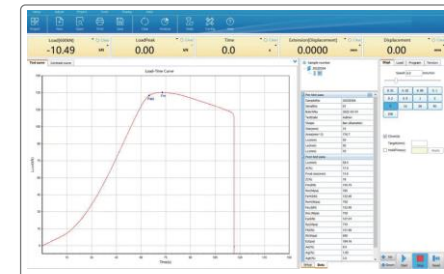


- Temperature range: -60~300°C
- Temperature accuracy: $\pm 1^{\circ}\text{C}$
- Temperature fluctuation: $\pm 0.5^{\circ}\text{C}$
- Temperature uniformity: $\leq 2^{\circ}\text{C}$
- Temperature resolution: 0.1°C

Hydraulic Universal Testing Machines UTM-H Series



Computer and software (included)

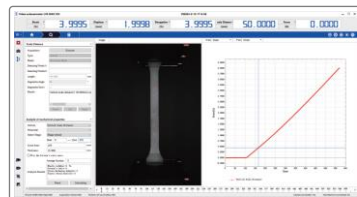


- Max. test force: 300kN-3000kN
- Accuracy: $\pm 1\%$
- Test force measurement range: 2%-100%FS
- Resolution of test force measurement: 1/300000 of Max. test force
(same resolution all the way)

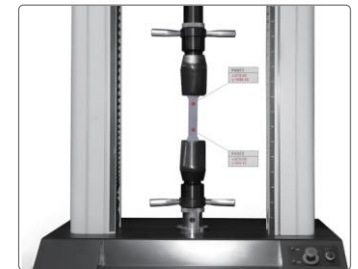
Video Extensometers UTM-M Series

- It is used for testing and analyzing the performance of specimens in tension, compression, bending, creep, fatigue, etc. It includes strain (elongation) measurement, tensile/compressive strength measurement, modulus of elasticity measurement and Poisson's ratio measurement

Software (included)



Application



- Resolution: 0.1 μ m
- Range of deformation: standard: 60-240mm
extensions: 100-1500mm ($\pm 1\%$)

Electro-hydraulic Servo Flexural And Compressive Testing Machine UTM-RA10300



- Suitable for cementitious sand flexural test, cementitious sand compressive test and concrete flexural test
- With constant stress control and load holding function

Cementitious sand flexural fixture (included)



Cementitious sand compression fixture (included)



Application	flexural	compression
Max. test force	10kN	300kN
Accuracy class	0.5 class	
Accuracy of test force	±0.5% of indicated value	
Range of test force	1%-100%FS	
Resolution of test force	1/300000FS	

Servohydraulic Fatigue Testing Machines

Servohydraulic Fatigue Testing Machines
(Cylinder Down-mounted) FTM-D Series



- Max. test force: 50kN-500kN
- Accuracy of static force measurement: $\pm 0.5\%$ of indicated value
- Accuracy of dynamic force measurement: $\pm 2\%$ of indicated value
- Actuator stroke: $\pm 75\text{mm}$
- Accuracy of displacement measurement : linearity error $<40\mu\text{m}$, repeatability $<0.001\%\text{FS}$
- Range of frequency: 0-100Hz

Servohydraulic Fatigue Testing Machines
(Cylinder Up-mounted) FTM-U Series



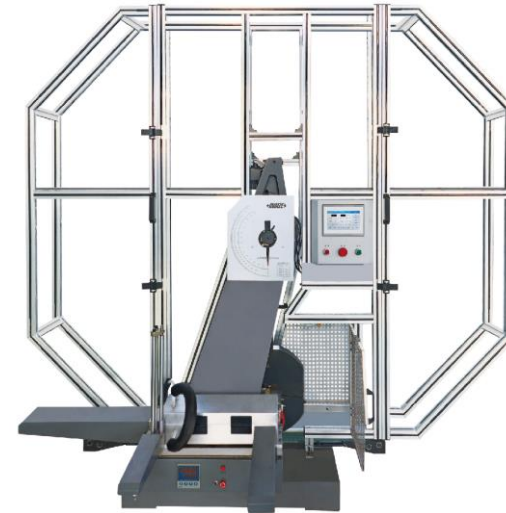
- Max. test force: 10kN-2500kN
- Accuracy of static force measurement: $\pm 0.5\%$ of indicated value
- Accuracy of dynamic force measurement: $\pm 2\%$ of indicated value
- Actuator stroke: $\pm 75\text{mm}$
- Accuracy of displacement measurement: linearity error $<40\mu\text{m}$, repeatability $<0.001\%\text{FS}$
- Range of frequency: 0-100Hz

Impact Testing Machines



Impact Testing Machines ITM-S Series

- According to GB/T 3808, GB/T 229, JJG 145, ASTM E23(with American standard blade), ISO 148.1, ISO 148.2, ISO 148.3, ISO R83



Low Temperature Automatic Impact Testing Machines ITM-T Series

Bending Testing Machines



Steel Bar Bending Testing
Machines STM-D



Vertical Bending Testing
Machine STM-E1



Metallic Material Reverse Bending
Testing Machine STM-F1



Friction And Wear Testing
Machine STM-C1

Friction/Peel Testers STM-A Series

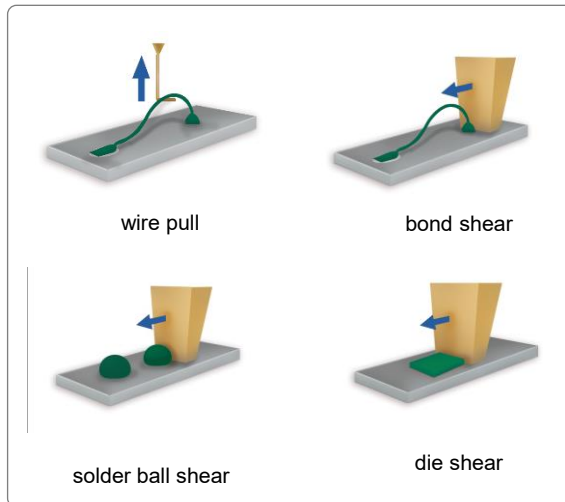


- Suitable for plastic film, foil, paper, cardboard, fabrics, communication cables and cables with metal materials composite belt, conveyor belt, paper and other related materials, dynamic and static coefficient of friction and adhesive composite products, medical patches, paper, protective film and other products, peel strength determination

- Max. test force: 5N-30N
- Accuracy of test force: $\pm 0.5\%$
- Resolution of test force : 0.001N
- Range of test force: 0.5%-100%FS

Bond Force Testers DTM-A Series

Measurement schematic



- Suitable for testing the strength of microelectronic after bonding, and adhesion testing between solder and substrate surfaces, and failure analysis
- Suitable for wire pull, bond shear, ball shear, die shear test

- Max. load capacity: 50KG-200KG
- Axis travel: X: 140-320mm
Y: 140-320mm
Z: 65-100mm
- Speed: 0.1-1000mm/min
- Min. travel distance of Z-axis: 0.25μm/0.1μm

Electronic Tensile And Compression Testing Machines

UTM-SC Series

- Suitable for tensile, peeling and tearing tests of metal wires, metal foils, plastics, food packaging, textile fibres, wires and cables, adhesives, connectors and other industries

CUSTOMIZABLE



Test interface



- Max. test force: 100N-1000N
- Test force measurement range: 0.4%-100%FS
- Test force measurement resolution: 0.01N
- Test force measurement accuracy: $\pm 0.5\%$ of indicating value

| Spring Testing Machines



Automatic Spring Testing
Machines SRT-C Series



Automatic Spring Testing
Machines SRT-W



Digital Spring Testers
ISF-S Series

Digital Force Gauges (Standard Type) ISF-DF Series

• Type A and B can be used for tension and pressure tests, type C is only used for pressure tests



Type A

Type A (internal sensor):

- Load capacity: 5N-1000N
- Resolution: 0.0005N-0.1N
- Accuracy: $\pm 0.2\%$ FS



Type B

Type B (external sensor):

- Load capacity: 1000N-20000N
- Resolution: 0.1N-5N
- Accuracy: $\pm 0.2\%$ FS



Type C

Type C (external sensor):

- Load capacity: 10kN-200kN
- Resolution: 0.001kN-0.05kN
- Accuracy: $\pm 0.2\%$ FS

DATA
OUTPUT

Test Stand For Force Gauges



Test Stand For Digital Force Gauges ISF-MT1K



Manual Vertical Test Stands For Force Gauges ISF-V10A/ISF-V10D



Manual Horizontal Test Stands For Force Gauges ISF-H20A/ISF-H20D

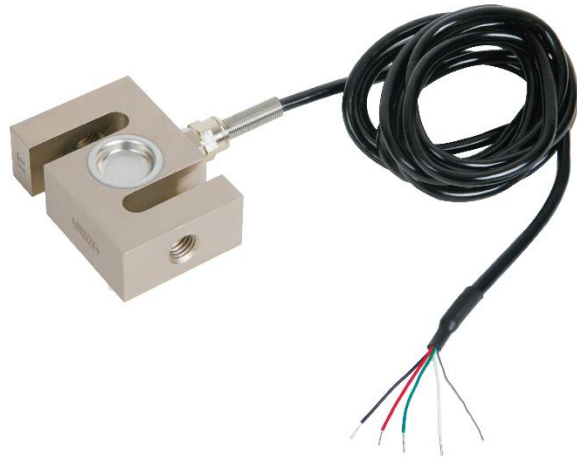


Manual Stripping Force Test Stands ISF-P30A/ISF-P30D

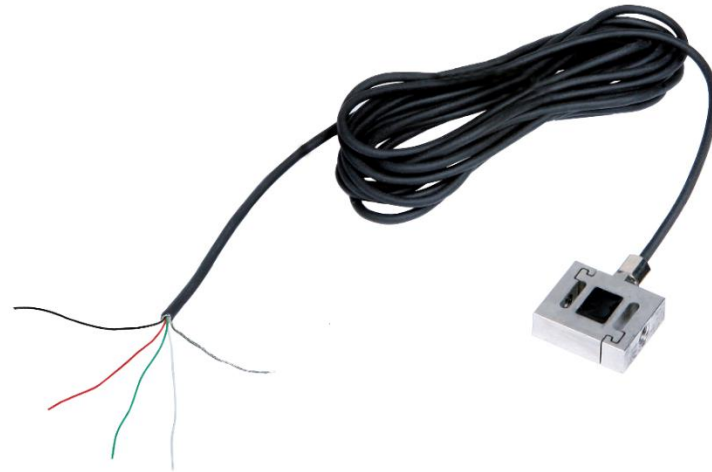
S-Type Tensile/Compression Sensors



Connected with handheld indicator (optional)



8650



8651



Connected with handheld indicator (optional)

Wire Tension Meters

- Suitable for testing the tension of stranding machines, winding machines, wire cutting machines, carbon fibre winding equipments, fibre optic winding equipments, fibre optic cable production equipments, glass fibre winding equipments, steel cord production equipments, steel wire rope production equipments and so on

Wire Tension Meters
ISF-DT



- Accuracy class: $\pm 2\%$ FS
- Range of test force: 2.0cN-2000cN
- Test force resolution: 0.1cN-1N

- For tension measurement of high-speed threads: textiles, chemical fibers, fine wires



High-speed Wire Tension Meters
ISF-DV

- Accuracy class: $\pm 3\%$ FS
- Range of test force: 1cN-500cN
- Test force resolution: 0.1cN/1cN

Torsion Testing Machines**Torque Testers****Torque Testers****Torque Wrench Test Stands****Dynamic Torque Sensors****Torque Sensors****Handheld Force/Torque Indicators****Torque Screwdrivers****Desktop Automatic Tightening Machines****Electric Screwdrivers****Torque Testers For Electric Screwdrivers****Digital Torque Wrenches**

Interchangeable Head Preset Digital "Click" Torque Wrenches (WiFi Lan)



Interchangeable Head Production-Grade Color Digital Torque Wrenches (WIFI Lan)



Color Screen Multifunctional Digital Torque Wrenches



Torque Wrenches



Preset Torque Wrenches



Automatic Torque Wrench Calibrator



Dial Torque Wrenches



Torque Adapters



Torque Multipliers



Hydraulic Torque Wrenches With Drive Shaft



Electromagnetic Ultrasonic Bolt Axial Force Tester



Electronic Torsion Testing Machines UTM-TT

- Suitable for torsion testing of metallic and non-metallic materials, composite materials and components

OPTIONAL ACCURACY
CLASS: CLASS 0.5



Code	Type A	Type B
Max. test torque	2N.m-50N.m	200N.m-5000N.m
Accuracy of test torque	$\pm 1\%$ of indicated value	
Range of test torque	2%-100%FS	
Min. resolution of test torque	0.0001N.m-0.001N.m	0.01N.m-0.1N.m
Accuracy of torsion angle	$\pm 1\%$ of indicated value	
Range of torsion angle	0-9999°	
Resolution of torsion angle	0.01°	
Accuracy of torsion angle speed	$\pm 1\%$ of the set value	
Accuracy of constant load torque	$\pm 1\%$ of the set value	

Torque Sensors IST Series

Dynamic Torque Sensors



single key joint

- Overall accuracy: $\pm 0.2\%FS$
- Repeatability: $0.1\%FS$
- Response frequency: 2kHz
- Maximum range: 1N.m-20000N.m

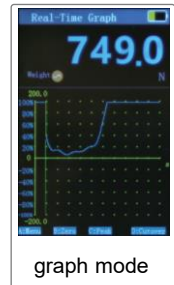
Static Torque Sensors



- Output sensitivity: 1.0-2.0mV/V
- Zero output: $\pm 1\%FS$
- Accuracy: $\pm 0.2\%FS$
- Repeatability: $\pm 0.2\%FS$
- Maximum range: 10N.m-5000N.m

Handheld Force/Torque Indicators ISF-DG Series

- For use with force sensors and torque sensors
- Three modes of real-time value display, peak value display and valley value display
- High sampling rate captures peak value accurately
- Parameter backup and restoration, even if the parameters are messed up, you can restore them with a single click
- Weightless calibration, just enter the sensor parameters and you are ready for calibration
- A variety of alarm options: upper limit alarm, lower limit alarm, peak and valley alarm, over 1.2 times of the range alarm



- Max. sampling frequency: 3200Hz-12800Hz
- Accuracy: $\pm 0.1\%$ (of load capacity)

Torque Screwdrivers



Digital Torque Screwdrivers
IST-SD Series

- Range: 10-400cN.m
- Resolution: 0.1cN.m
- Accuracy: $\pm 2.5\%/\pm 3\%$ (clockwise)
 $\pm 3.5\%/\pm 4\%$ (counter-clockwise)



Bluetooth Digital Torque Screwdrivers
(Keyboard Signal) IST-3SD Series

- Range: 10-600cN.m
- Resolution: 0.1cN.m
- Accuracy: $\pm 2\%$ (clockwise)
 $\pm 3\%$ (counter-clockwise)



Torque Screwdrivers
IST-MG Series

- Range (clockwise): 20cN.m–6.0N.m
- Graduation: 2cN.m/5cN.m/0.1N.m
- Accuracy: $\pm 6\%$

Build-in Wireless Digital Torque Screwdrivers IST-4SD Series

- Clockwise and counter-clockwise operation
- Peak and track working mode
- Upper and lower tolerance limits can be set and measurement results automatically calculate % difference from target value
- 10 preset target torque values and usage modes, parameters can be locked to prevent change

BUILD-IN
WIRELESS

DATA
OUTPUT



Application



Code	IST-4SD50	IST-4SD200	IST-4SD400	IST-4SD600
Range	10~50cN.m	40~200cN.m	80~400cN.m	120~600cN.m
Accuracy	Clockwise: $\pm 2\%$			
	counter-clockwise: $\pm 3\%$			
Resolution	0.1cN.m			

Desktop Automatic Tightening Machine ATM

CUSTOMIZED ACCORDING
TO WORKPIECES

Screw feeding system



- Positioning repeatability: $\pm 0.05\text{mm}$
- Number of preset positioning programs: 80
- Number of positioning points for one program: 350
- Applicable torque range: $0.01\text{--}7.50\text{n.m}$
- Applicable screw outside diameter: $1.0\text{--}7.0\text{mm}$
- Torque accuracy: $\pm 5\%$ at $30\%\sim 80\%$ of maximum output torque, $\pm 8\%$ in other range

Intelligent Electric Screwdrivers (Current Control) HES-E



- Torque range: 0.01-5.50N.m
- Max. speed: 800-5000rpm
- Torque accuracy: $\pm 5\%$ at 30%~80% of maximum output torque, $\pm 8\%$ in other range

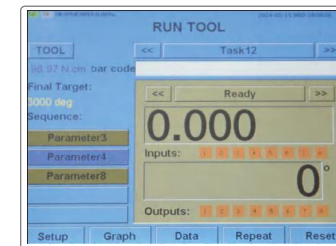


Controller type A



Controller type B

Controller (included)



Interface of tightening parameter setting



Balance arm (optional)



Torque Testers For Electric Screwdrivers **IST-CD Series**

- Compatible with all electric screwdrivers
- Widely used in manufacturing sectors such as 3C, new energy, automotive parts and etc.
- Compact in size, extremely easy to integrate, and designed specifically for automated assembly lines
- Set upper and lower tolerance limits and output pass/fail signals via I/O ports which can be connected to external alarm indicator or PLC

[illegible]

Quality Inspection Torque Wrenches IST-4W Series



OPTIONAL ACCURACY: CLOCKWISE: $\pm 1\%$
COUNTER-CLOCKWISE: $\pm 2\%$ ONLY FOR RANGE 6~340N.m

MEASURE THE TORQUE
OF TIGHTENED BOLTS

- Three measuring modes:
 - Angle mode: rotation angle can be set, when turning to the angle, 2 LED lights blinking and buzzer beeping, capturing torque values
 - Maximum value display mode: capturing peak torque values
 - Real-time value display mode: real-time tracking of torque values
- In angle mode and maximum value mode, upper and lower tolerance limits can be set to determine pass or fail by LED lights
- Clockwise and count-clockwise operation

Type A

- Range: 6-340N.m
- Resolution: 0.01N.m/0.1N.m
- Accuracy: clockwise: $\pm 2\%$
counter-clock wise: $\pm 3\%$

Type B

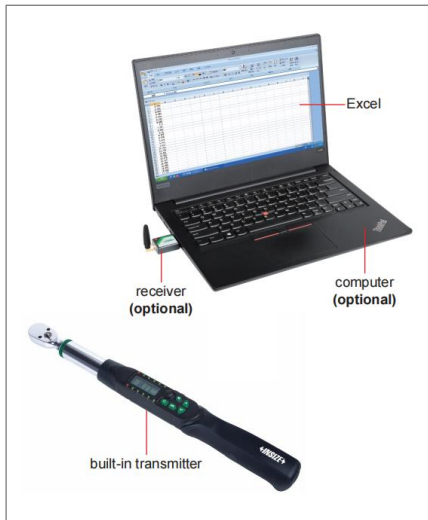
- Range: 170-2000N.m
- Resolution: 0.1N.m/1N.m
- Accuracy: clockwise: $\pm 2.5\%$
counter-clock wise: $\pm 3.5\%$

Built-in Wireless Digital Torque Wrenches (Keyboard Signal) IST-42W Series

DATA
OUTPUT

clockwise/counter-clockwise setting

Application



Type B

Type	Type A	Type B	Type C
Range	1.2N.m-20N.m	6N.m-500N.m	170N.m-2000N.m
Resolution	0.001N.m-0.1N.m		0.1N.m-1N.m
Accuracy	Clockwise : $\pm 2\% \sim \pm 2.5\%$, counter-clockwise : $\pm 3\% \sim \pm 3.5\%$		

Interchangeable Head Two-way Wireless All-mode Digital Torque Wrenches IST-45W Series

ALL
MODE

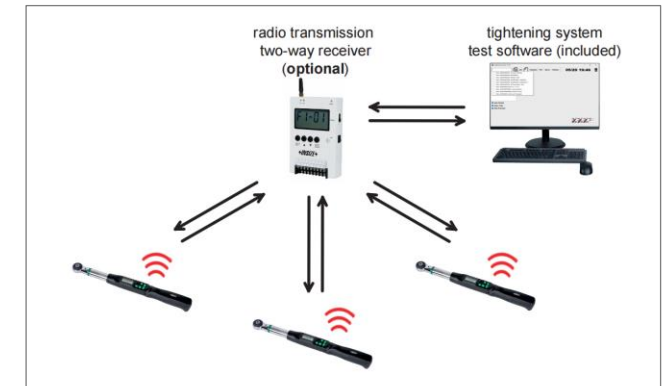
ANGLE
CURVE

DATA
OUTPUT



- Unit: N.m, in.lb, ft.lb, kg.cm, °
- Clockwise and counter-clockwise operation
- Includes all operating modes of the digital torque wrench
- Upper and lower tolerance limits can be set to determine pass or fail by LED lights, can set whether to send beyond tolerance limits
- 10 preset target values and usage modes, parameters can be locked to prevent change

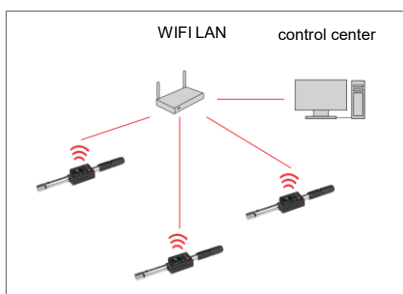
Data transmission application



- Range: 2.4-410N.m
- Resolution: 0.01N.m/0.1N.m
- Accuracy: CW: $\pm 2\%$
CCW: $\pm 3\%$, $\pm 2^\circ$ (rotate 90°)

Interchangeable Head Digital “Click” Torque Wrenches (Wifi Lan) IST-WPE Series

Application



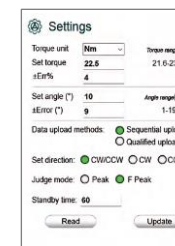
Type-C port

scanning windows

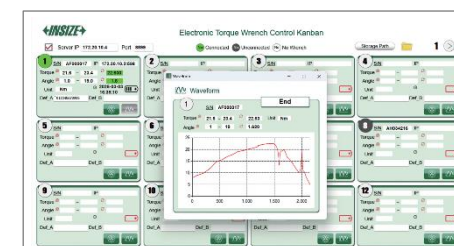


DATA
OUTPUT

Parameter setting software (included)



Work display software (included)



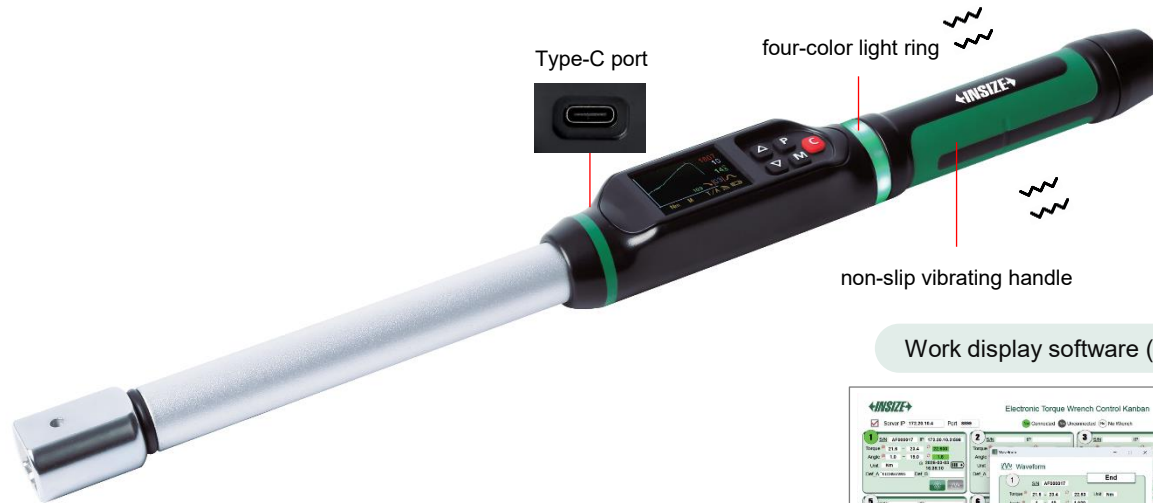
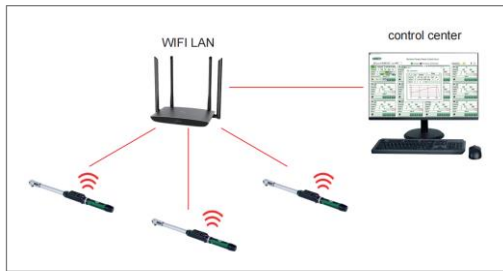
- Clockwise and counter-clockwise operation
- Mechanical structure adjusts torque value, digital sensor displays real torque value, wrench can be used without torque tester
- Set the angle range to strictly monitor angle of the screw from fitting surface to tightening
- Interval display of curved interface and main interface after unloading, upper and lower tolerance limits can be set to determine pass or fail by LED lights
- Provide torque graph for analyzing and adjusting the tightening strategy
- Scanning module and scanning windows to match corresponding screws
- Open communication protocols for users to develop and interface with factory MES, PLC and other systems

- Range: 2-400N.m
- Resolution: 0.001N.m-0.1N.m
- Accuracy: Torque: $\pm 3\%$
Angle: $\pm 1\%$ of indicated value + $\pm 1^\circ$ (speed $10^\circ \sim 180^\circ/\text{s}$) + $\pm 1^\circ$ (clamping error)

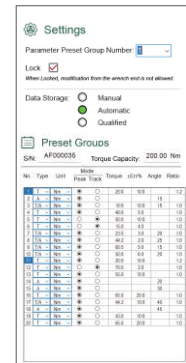
Interchangeable Head Production-grade Color Digital Torque Wrenches (Wifi Lan) IST-WEC Series

DATA
OUTPUT

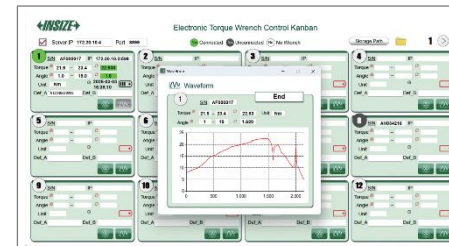
Basic transmission software application



Parameter setting software (included)



Work display software (included)



- Aluminum tube body for lighter use
- Unit: N.m, cN.m, lb.in, lb.ft, kg.cm, kg.m, oz.in, °
- Clockwise and counter-clockwise operation
- 20 preset parameter groups are available for recall which can be locked to prevent changes and switching
- Interval display of curved interface and main interface after unloading

- Range: 1-400N.m
- Resolution: 0.001N.m-0.1N.m
- Accuracy: Torque: CW: $\pm 2\%$, CCW: $\pm 3\%$
Angle: $\pm 1\%$ of indicated value + $\pm 1^\circ$ (speed $10^\circ \sim 180^\circ/\text{s}$) + $\pm 1^\circ$ (clamping error)

Color Screen Multifunctional Digital Torque Wrenches IST-40W

clockwise/counter-clockwise setting

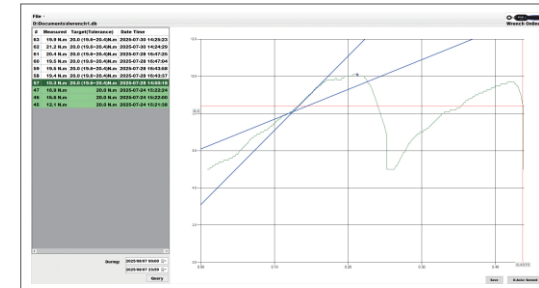
alarm LED

square driver



Software (included)

DATA
OUTPUT



pointer mode



numerical mode



curve mode

- Clockwise and counter-clockwise operation
- Maximum value and real-time value displayed simultaneously
- Three display modes for torque values: pointer, numerical, and curve
- Upper and lower tolerance limits can be set to determine pass or fail by LED lights
- The data is stored in the wrench when the wrench is disconnected, and the data is automatically uploaded to computer after transmission cable is connected to the software
- Real-time uploading of data when transmission cable is connected to the software

- Range: 6-340N.m
- Resolution: 0.01N.m/0.1N.m
- Accuracy: clockwise: $\pm 2\%$
counter-clock wise: $\pm 3\%$

Torque Wrenches



Digital Torque Wrenches
IST-W Series



Mechanical Torque Wrenches
(Digital Setting) IST-19WM Series



Torque Wrenches
IST-9WM Series



Preset Torque Wrenches
IST-PW Series



Dial Torque Wrenches
IST-DW Series

Digital torque wrench transmission mode

Wired transmission (keyboard signal)

- Keyboard signal through a cable, can be transmitted to Excel, Word, Txt, etc.
- Press the output button once to output a value

Bluetooth transmission (keyboard signal)

- Built-in Bluetooth 4.0 module, which can be connected with computers (with Bluetooth function), mobile phones, tablets and other devices
- Keyboard signal, can be transmitted to Excel, Word, TXT
- Transmission distance is 10 meters (no obstacles, no electromagnetic interference)
- Bluetooth connection and disconnection are respectively shown by indicator lights

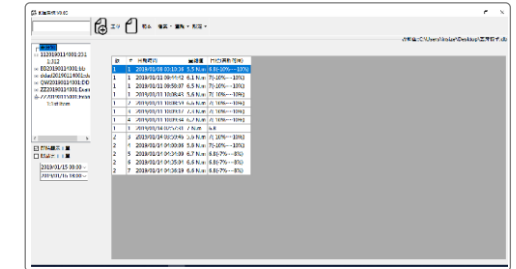
Two-way radio transmission

- A two-way receiver can be connected with up to 10 wrenches at the same time, and the maximum transmission distance is 100 meters
- Two data transmission modes: automatic or press button to send
- When the wrench is disconnected, data is stored in the wrench and automatically sent to computer after wireless connection

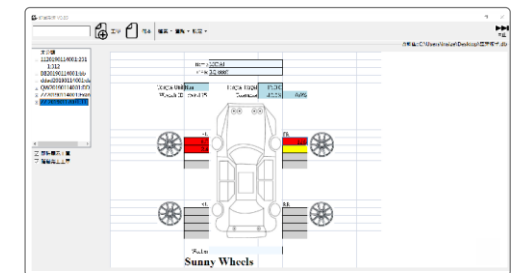
Two-way bluetooth transmission

- Data transmission via bluetooth (bluetooth 4.0)
- Two-way transmission and control
- Transmission distance: 10m (no obstacles, no electromagnetic interference)
- Bluetooth connection and disconnection are displayed by indicator light
- Two data transmission modes: automatic or press button to send
- When the wrench is disconnected, data is stored in the wrench and automatically sent to computer after connection via Bluetooth

Data transmission mode



Program guidance mode



Digital Torque Wrenches



Small Range Digital Torque Wrenches IST-WP Series



Short Handle Digital Torque Wrenches IST-WS Series



Interchangeable Head Quality Inspection Torque Wrenches IST-16W Series



Digital Angle Torque Wrenches IST-1W Series



Digital Torque Wrenches IST-W Series



Swing-head Digital Torque Wrenches IST-21W Series



Adjustable Open Head Digital Torque Wrenches IST-24W Series

Automatic Torque Wrench Calibrator IST-HT1000

- Unit: N.m, cN.m, in.lb, ft.lb, kg.cm
- Automatically load clockwise or counterclockwise
- The test curve can be displayed in real time
- Four test modes: preset mode, preset mode (manual), indication mode (standard), indication mode (device under test)
- Single-point and multi-point automated testing and fatigue testing of torque wrenches

**AUTO
LOAD**



selection of test modes on
the calibrator



calibrator test
process interface

computer and software
(included)



- Automatic load torque range: 1~1000N.m
- Sampling frequency: $\geq 1500\text{Hz}$
- Arm length range: 135~1575mm
- Limit stop angle: $\pm 20^\circ$
- Adaptor: 3/4" to 1/2", 3/4" to 3/8", 3/4" to 1/4"

Electromagnetic Ultrasonic Bolt Axial Force Tester UFT-Q100

- Primarily applied in wind power, oil and petrochemical, nuclear power, hydrogen energy, heavy industry, and other sectors

PROBE CAN BE CUSTOMIZED ACCORDING
TO SPECIAL BOLT SPECIFICATION

DATA
OUTPUT

PROBE CAN BE CUSTOMIZED ACCORDING
TO WORKING TEMPERATURE



Application



tablet computer
(included)



electromagnetic ultrasonic
probe

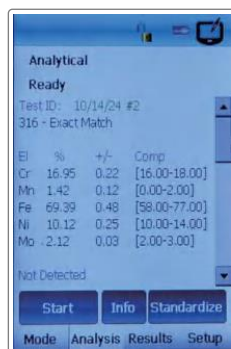
- Measurement method: electromagnetic ultrasonic single-wave and dual-wave measurement methods
- Applicable bolt range: M8~M42, length less than 6m
- Applicable bolt surface: front end is flat, rear end can adapt to different types
- Accuracy of axial force: $\pm 5\%$ (when calibrated precisely)
- Manual testing speed: 4~10s/piece

Handheld XRF Alloy Analyzers**Handheld LIBS Spectrometers****XRF Spectrometers****XRF Precious Metals Analyzer****XRF Oil Analyzers****Standard Sheets For XRF Plating Thickness Instruments****Spark Direct Reading Spectrometers****Standard Samples For Spectral Analysis****Spectral Sample Grinders****Carbon And Sulfur Analyzers****Oxygen/Nitrogen/Hydrogen Analyzers**

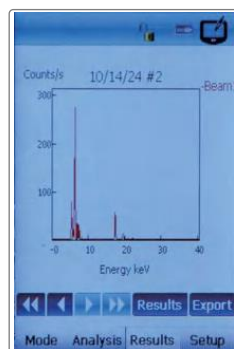
Handheld XRF Alloy Analyzer (Basic Type)

HSM-A310

Test interface



Spectral analysis



Elemental analysis range

K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Nb, Mo, Ru, Rh, Pd, Ag, Cd, Sn, Sb, Ba, Ta, Hf, W, Re, Ir, Pt, Au, Hg, Pb, Bi

Alloy analysis mode

1. iron-based alloys (stainless steels, chromium/molybdenum alloys, low alloy steels, tool steels, seamless steels), nickel-based alloys, cobalt-based alloys, titanium-based alloys, copper-based alloys, molybdenum/tungsten-based alloys, aluminium-based alloys
2. comes with 288 commonly used alloy grades
3. can create your own grade database

- Fast and non-destructive test to identify alloy grade and composition
- For iron-based alloys (stainless steels, chromium/molybdenum alloys, low alloy steels, tool steels, seamless steels), nickel-based alloys, cobalt-based alloys, titanium-based alloys, copper-based alloys, high-temperature alloys (molybdenum/tungsten alloys), aluminium-based alloys

Handheld XRF Alloy Analyzers (Advanced Type) HSM-S Series

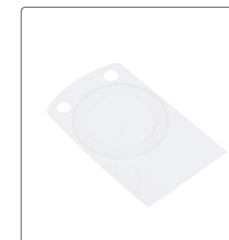
- Widely used in alloy identification, metal scrap recycling, and quality assurance/control processes within the metal manufacturing industry
- High accuracy, fast measurement speed, and intuitive display of alloy grades, element percentages (with up to 0.001% resolution), and ppm-level concentrations

CAN BE
CUSTOMIZEDDATA
OUTPUT

316 reference sample (included)



window protective film (included)



Code	HSM-S110	HSM-S130	HSM-S150	HSM-S620	HSM-S640	HSM-S650
Analysis mode*	alloy analysis	alloy analysis plating analysis	precious metal analysis	alloy analysis	alloy analysis plating analysis	precious metal analysis
Detector	Si-PIN			SDD		
Elemental analysis range	Ti~U			Mg~U		
Target material	Ag target			Rh target		

*can be customized according to user requirements: RoHS analysis mode, ore analysis mode

Handheld Libs Spectrometer HLS-B410

- Widely used in metallurgy, casting, steel, non-ferrous metals and scrap metal recycling, etc.
- Ability to quickly analyze the metal elements of materials for quantitative characterization and grade differentiation

EYE SAFE
LASERLASER CLASS
CLASS INO
RADIATIONIP54
WATERPROOF

Test interface

Al-Alloy		
2024		
Element	Content(%)	Content Range
Al	92.83	91.25 - 93.97
Cu	4.18	3.80 - 4.30
Mg	1.83	1.70 - 2.30
Mn	0.61	0.50 - 1.00
Si	0.16	- 0.50
Fe	0.15	- 0.50
Ni	0.11	-
Zn	0.06	- 0.10
Cr	0.03	-

Application

alloy analysis

can be used for almost all alloys, including scrap metal, high temperature alloys, alloy steel, stainless steel, tool steel, chromium molybdenum steel, aluminum alloys, nickel alloys, titanium alloys, cobalt alloys, copper alloys, precious metals, zinc alloys, anomalous alloys, zirconium alloys, mixed alloys, etc.

material properties identification (PMI)

can be used for quality control in the metal fabrication and processing industry to analyze material composition and identify alloy grades for a wide range of materials including critical components, raw materials, and welded seams

XRF Plating Thickness Instrument

MANUAL
ZOOM



XRF Plating Thickness Instrument
XRF-PT230

AUTOMATIC MOBILE
PLATFORM



Automatic XRF Plating Thickness Instrument
XRF-FA350

VACUUM SYSTEM
MANUAL ZOOM



Vacuum XRF Plating Thickness
Instrument/Rohs Analyzer XRF-VF300



XRF Plating Thickness Instrument/Rohs
Analyzer/Alloy Analyzer XRF-B210

Spark Direct Reading Spectrometers

Spark Direct Reading Spectrometer (Basic Type) OES-T350



- Rowland circle of diameter: 350mm
- Wavelength range: 160-510nm
- Pixel resolution: 20pm
- Spark frequency: 100-1000hz

Portable Spark Direct Reading Spectrometer OES-P200



- Detector: high performance CMOS
- Optical system construction: paschen-runge double optical chamber structure
- Raster scribing: 3600 lines/mm
- Ultraviolet focal length: 298mm

Handheld Raman Spectrometers

Handheld Raman Spectrometer (Basic Type) HHL-R240



- Excitation wavelength: $785 \pm 0.5 \text{ nm}$
- Wavenumber range: $200\text{-}4000 \text{ cm}^{-1}$
- Resolution: 10 cm^{-1}

- Equipped with raman spectral recognition algorithms, including standard spectra of up to 10,000 kinds of substances

Handheld Raman Spectrometer (Advanced Type) HHL-S360



- Wavelength: 1064 nm
- Wavenumber range: $200\text{-}2500 \text{ cm}^{-1}$
- Resolution: 14 cm^{-1}

- Widely used in industry, medicine, environmental protection, food, public security, defense, etc.
- For the qualitative identification of inorganic and organic substances in various forms

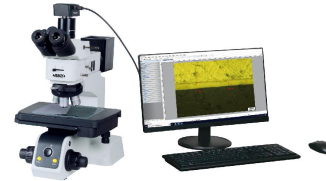
Coating Thickness Gauges



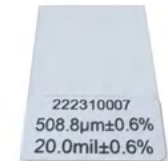
Coating Thickness Gauges (Advanced Type)



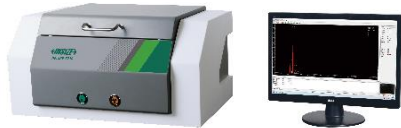
Coating/Film Thickness Measurement Systems



Calibration Foils For Coating Thickness Gauges



XRF Plating Thickness Instrument/ RoHS Analyzer/ Alloy Analyzer



Surface Profile Gauges



Wet Film Gauges



Gloss Meters



Spectrophotometers



Holiday Detectors



Digital Adhesion Testers



Automatic Pencil Hardness Tester



Pencil Hardness Testers**Rotational Abrasion Testers****Cross Cut Adhesion Testers****Conical Mandrel Test Apparatus****Impact Testers****ISO Flow Cups****Rotational Viscometers**

Coating Thickness Gauges



Coating Thickness Gauge
(Standard Type) 9501-1200



Coating Thickness Gauge
(Advanced Type) 5402-TC21



Coating Thickness Gauge
(Basic Type) ISO-1000FN



Coating Thickness Gauge
(Basic Type) ISO-1200FN



Double Screen Coating
Thickness Gauge 5404-QM42

Coating Thickness Gauges (Advanced Type)



Coating Thickness Gauges
(Advanced Type) 5411



Coating Thickness Gauge (Advanced Type)
5413-TC31

5413-TC31-FN15
probe (included)

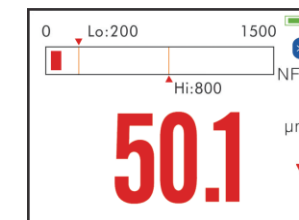
- Can measure the thickness of non-magnetic coating and non-metallic coating on magnetic metal substrate
Substrate: iron, steel, magnetic stainless steel
Coating: zinc, aluminum, copper, chrome, tin, plastic, powder, paint (not for nickel)
- Can measure the thickness of non-conductive coating on non-magnetic metal substrate
Substrate: copper, aluminum, zinc, non-magnetic stainless steel
Coating: plastic, powder, paint, anodizing (not for chrome and zinc plating)



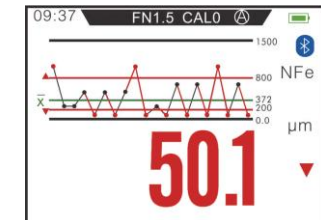
reading only



reading and statistics



reading and bar graph



reading and run chart

Code	5413-TC31	5411-TC15	5411-TC30	5411-TF50
Measuring range	0~1500μm*	FE/NFE (auto recognition): 0~1500μm	FE/NFE (auto recognition): 0~3000μm	FE: 0~5000μm
Accuracy	$\pm(2\%L+1\mu\text{m})$: $\leq 1500\mu\text{m}$ $\pm(3\%L+1.5\mu\text{m})$: $>1500\mu\text{m}$, L is measuring thickness in μm			

* Interchangeable probes provide multiple ranges

Coating/Film Thickness Measurement Systems

MTF-Y430

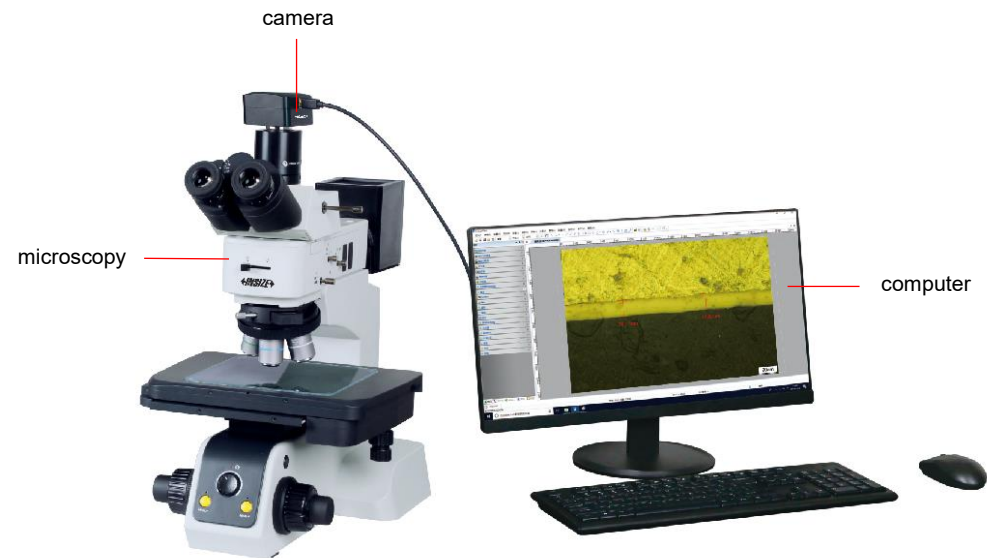


Image measurement software (included)

selectable resolution

histogram (quantify the distribution of color and brightness)

black balance (reduce color difference)

flat field correction (reduce brightness difference)

dark field correction (reduce thermal noise)

measurement items

- Angle
- Point
- Line
- Line (3 Points)
- Parallel
- Vertical
- Rectangle
- Ellipse
- Circle
- Annulus
- Two Circles
- Arc
- Text
- Polygon
- Curve
- Extras
- Custom
- Scale Bar...
- Arrow

- Suitable for measuring the thickness of various coatings or multi-layer composite films, with a wide measurement range
- Capable of analyzing the quality of coatings and identifying the causes of defects (such as pores, cracks, inclusions, peeling, etc.)

Gloss Meters



Gloss Meters
5702-DG8



60° Gloss Meter
ISQ-DG6



Microporous Gloss Meter
(Advanced Type) 5711-SG60



20°/60°/85° Gloss Meter
ISQ-DG8

Colorimeters



Colorimeter
5700-LS35



Handheld Spectrophotometers
5701-D40



Portable Spectrophotometer
9710-30



Multi-angle Spectrophotometer
5705-MS45



Spectrophotometer
5706-DS01

Digital Adhesion Tester SPT-AD21



Ø20mm dolly (included)



Cutting tool (included)



Glue gun and glue (included)



- Resolution: 0.01MPa (1psi)
- Accuracy: $\pm 1\%$ full scale
- Pull-off force: 0.7-20MPa

Industrial Acoustic Imager**Parts Cleanliness Testing Cabinets****Automatic Cleanliness Analysis Systems****Oil Testing****Bearing Radial Clearance Tester****Contact Angle Goniometer****Laser Position System****Vibration Isolation Platforms****Transport Simulation Vibration Tester**

Industrial Acoustic Imagers

IP56
WATERPROOF

Industrial Acoustic Imager SCX-DMM72

DATA
OUTPUT

IP54
WATERPROOF

Industrial Acoustic Imager SCA-M136

132 channels MEMS microphone

lamp

camera

infrared thermal imaging
sensor (optional)

136-element
digital MIC array

gas leakage
point

Application



Parts Cleanliness Testing Systems



Parts Cleanliness Testing Cabinet
OPP-GZ01



Automatic Cleanliness Analysis
System (Advanced Type) OPP-OM53



Automatic Cleanliness Analysis
System (standard Type) OPP-OS18

Oil Testing



Online Oil Particle Counters
PSC-ZX100



Portable Oil Particle Counter
(Basic Type) PSC-BX200



Portable Oil Particle Counter
(Standard Type) PSC-BX300



Oil Particle Counter (Standard Type)
PSC-TX100

Laser Position System DLP-V300

- Used to composite layup, aerospace, automotive engineering, shipbuilding, rail transit, precast concrete production and heavy machinery
- Suitable for precision positioning, operation guidance, laser marking, drilling, welding and defect inspection

Application



aerospace component



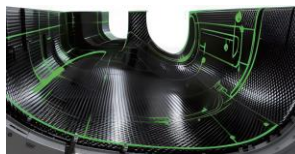
automotive body inspection



aluminum-steel structure



wood truss assembly



composite layup and painting



welding positioning



can be used with a tripod
(computer is not included)



DYNAMIC
TRACKING

LASER
POSITION

SUB-MILLIMETER
POSITION ACCURACY

- Working distance: 1.5~5.5m, no dynamic focusing
- Projection accuracy: $\geq 0.25\text{mm}$
- Projection angle: $60^\circ \times 60^\circ$
- Laser wavelength: 520nm
- Data formats: IGES, STP, DXF, DWG, compatible with FiberSIM, CATIA CPD software type
- Environmental requirement: temperature: $-5\sim 40^\circ\text{C}$, relative humidity: 10~90%, no condensation

Vibration Isolation Platforms



0790-B

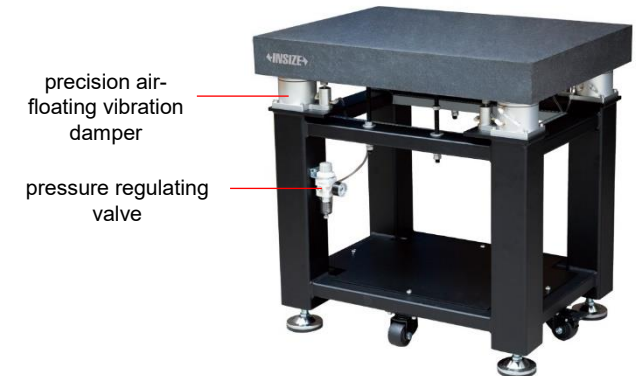
- Countertop material: marble/honeycomb platen
- Countertop thickness: 100mm/200mm
- Max. load: 400kg-800kg
- Dimension (L×W×H):
800×800×800mm-2000×1200×800mm

built-in air spring
vibration
isolation system
(included)



0791-S

- Countertop material: marble/honeycomb platen
- Countertop thickness: 100mm/200mm
- Max. load: 500kg/800kg
- Dimension (L×W×H):
800×800×800mm-2000×1200×800mm



0792-A

- Countertop material: marble/honeycomb platen
- Countertop thickness: 100mm-200mm
- Max. load: 300kg-1500kg
- Dimension (L×W×H):
800×600×780mm-1600×1200×780mm

THANKS !

Quality | Innovation | Service | Value