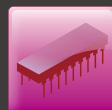


PRECISION IS OUR PROFESSION



Introduction to Precision Measuring Instrument Solutions

— Automation Solution For
Smart Manufacturing —

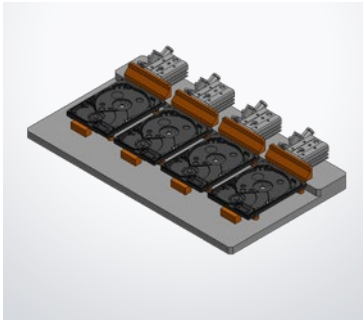


Mitutoyo

► SmartFix for Coordinate Measuring Machine

Semi-automation fixture system for CMM measurement, simplifying setup and improving efficiency.

It works seamlessly with Mitutoyo PLC interface modules (MCEIO and IO400) for signal communication and automation control.



The design of the jig depends on the specific product and the size of the CMM table.

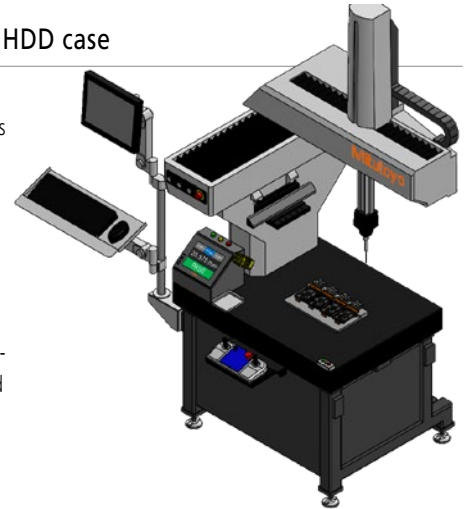
Automatic Jig | Ex. Auto clamp HDD case

<Features>

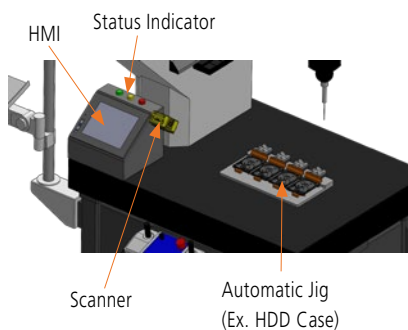
Speeds up production: Automatically positions and clamps parts with consistent, repeatable actions, reducing setup and measurement time.

Automation Readiness: Seamlessly integrates with robots and production systems for inline, automated measurement boosting overall efficiency.

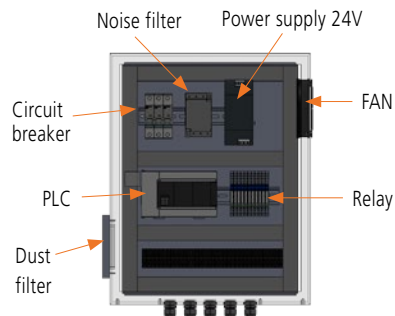
Quality Improvement: Maintains precise alignment and stable clamping, ensuring accurate and reliable measurement results every time.



<System Overview>



<Control Panel System>



HMI (Option)

PC- or PLC-based system depending on product



<Functions>

Easy to Operate
All controls are managed through a single HMI. Operators can easily select Model, start measurement, and view results (OK/NG) on the same screen.
Equipped with a 3-color LED action like tower signal for clear visualization of system status error and operation progress.

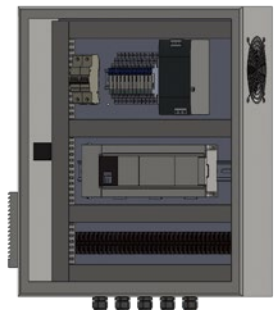


Easy to select part program
Supports both Barcode and QR Code for quick and easy program selection, ensuring fast, reliable, and error-free operation.

Automation Readiness

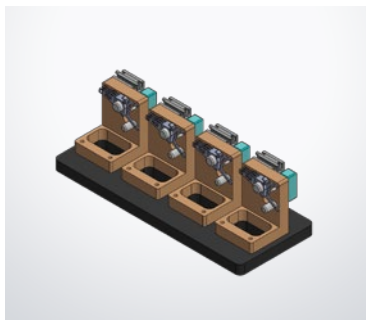
<Function of the Control Panel>

Ready for integration with Robotic systems and/or automated loading or Conveyor solutions. Equipped with a control box that supports input output communication Empower your factory for modern manufacturing!



▶ SmartFix for Quick Vision Measuring Machine

Semi-automation fixture system for VMMs, combining auto-clamping and program auto-selection for simplified setup and improved efficiency. System communicates with PLC and Mitutoyo QVEIO software for seamless signal control and automation integration.



The design of the jig depends on the specific product and the size of the VMM table.

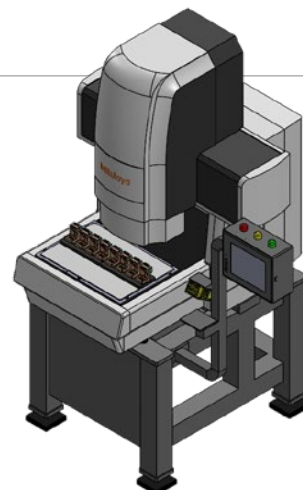
Automatic Jig | Ex. Needle HDD

<Features>

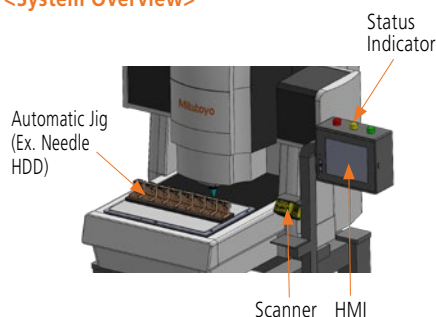
Speeds up production: Automatically positions and clamps parts with consistent, repeatable actions, reducing setup and measurement time.

Automation Readiness: Seamlessly integrates with robots and production systems for inline, automated measurement boosting overall efficiency.

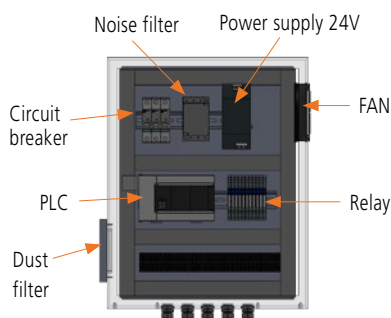
Quality Improvement: Maintains precise alignment and stable clamping, ensuring accurate and reliable measurement results every time



<System Overview>



<Control Panel System>



HMI (Option)

PC- or PLC-based system depending on product



<Functions>

Easy to Operate
All controls are managed through a single HMI. Operators can easily select Model, start measurement, and view results (OK/NG) on the same screen.
Equipped with a 3-color LED action like tower signal for clear visualization of system status error and operation progress.

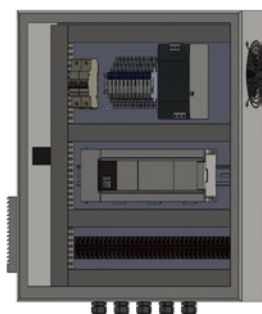


Easy to select part program
Supports both Barcode and QR Code for quick and easy program selection, ensuring fast, reliable, and error-free operation.

Automation Readiness

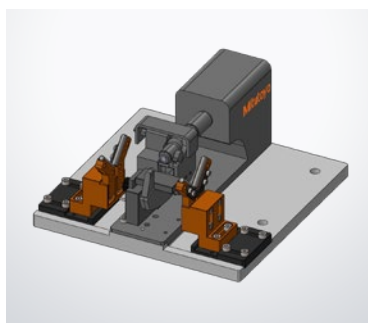
<Function of the Control Panel>

Ready for integration with Robotic systems and/or automated loading or Conveyor solutions. Equipped with a control box that supports input output communication Empower your factory for modern manufacturing!



► Smart Measuring I Automatic Micrometer Machine

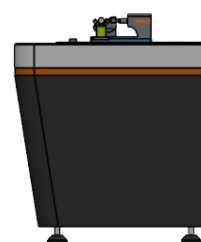
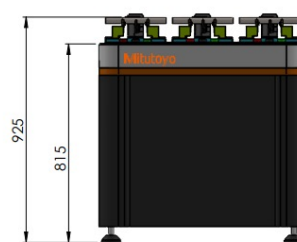
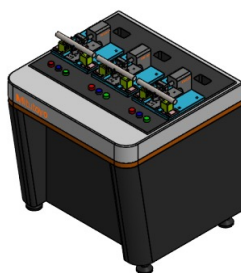
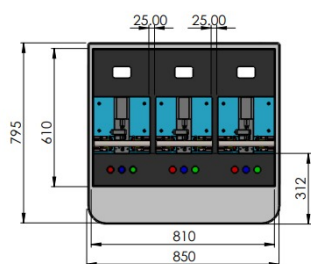
Auto Micrometer with torque-controlled servo motor for precise outer diameter measurement.



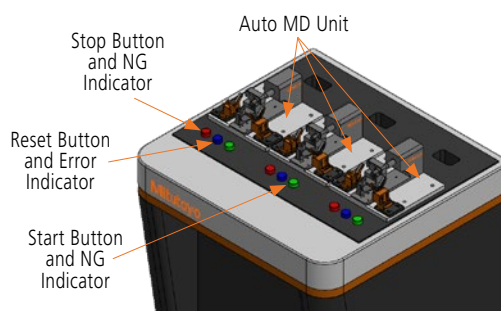
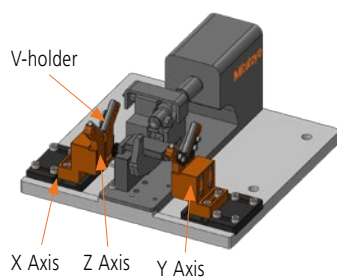
<Specifications>

Dimensions	800 x 850 x 925 mm
Support Workpiece	
Shaft Ø1-10	length 50 -200 mm
Shaft Ø11-25	length 75 -200 mm

<Dimensions>



<System Overview>



<System Configuration>

<Measuring unit body>



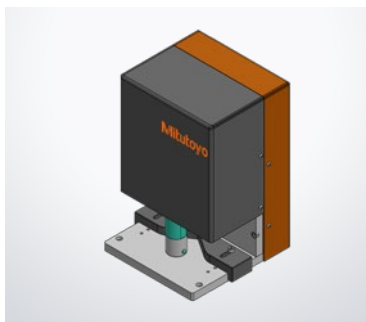
<Product Name>

Micrometer

Product No.	MDC-25MXT
Code No.	293-234-30
Measurement range	0-25 mm
Resolution	0.001 mm
Thread Pitch	0.5 mm

▶ Smart Measuring II Automatic Inner Diameter Measurement Machine

Auto ID design for internal diameter measurement using Mitutoyo Linear Gauge.



<Specifications>

Dimensions 800 x 850 x 1140 mm

Support Workpiece

Diameter Range Ø 35 - 40 mm

Ø 40 - 45 mm

Ø 45 - 50 mm

Height Range 10 - 45 mm

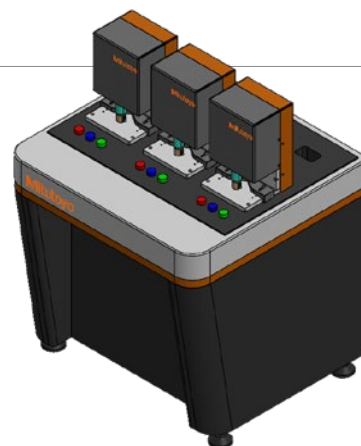
Auto ID-Measurer

<Features>

Stable Measurement: Replicates skilled operator techniques automatically, reducing variation and ensuring consistent inner diameter measurements across all parts.

High Accuracy: Equipped with precision Linear Gauge to deliver highly accurate and repeatable inner diameter measurements.

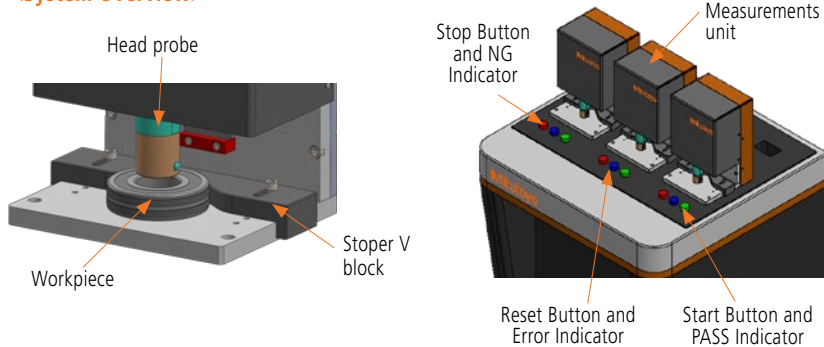
Automation Readiness: Integrates with robots, conveyors, or production lines for inline ID measurement – improving cycle time and eliminating manual handling.



<Dimensions>



<System Overview>



<System Configuration>



<Product Name>

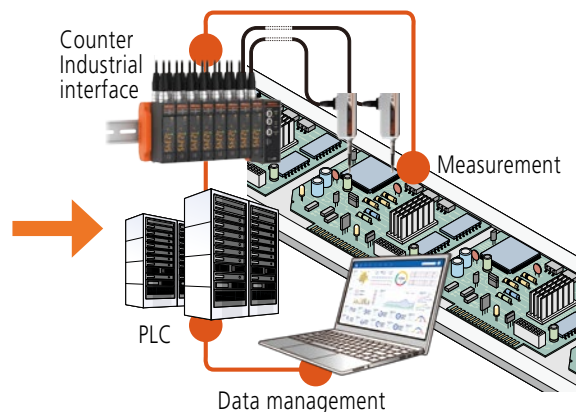
Linear Gauge

Product No. LG200

Code No. 542-186

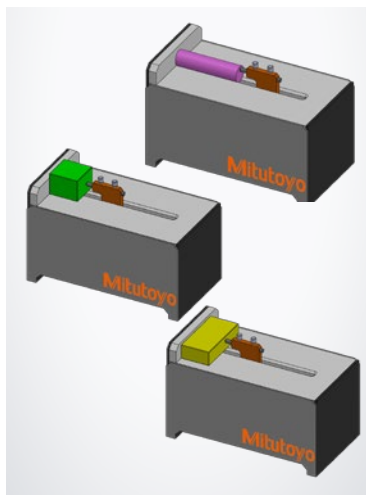
Measurement range 10 mm

Resolution 0.001 mm



► Smart Measuring III Automatic Caliper Machine

Accurately measure various shapes and lengths of workpieces with precision.



<Specifications>

Dimensions	800 x 850 x 1130 mm
Support Workpiece	
Model	S
Measure Range	0 - 145 mm
Height Range	20 mm

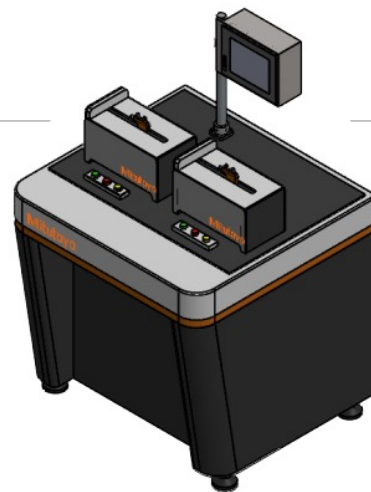
Auto Caliper Measurement Unit

<Features>

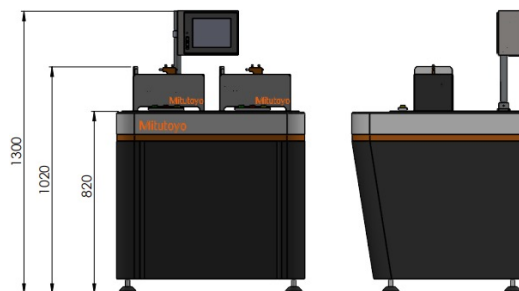
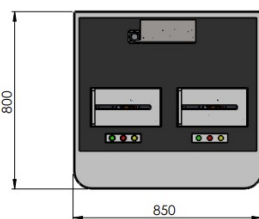
Stable Measurement: Automates skilled operator techniques to reduce human error and ensure consistent, repeatable measurements.

High Accuracy: Uses a digital linear scale for precise, absolute measurements with minimal variation.

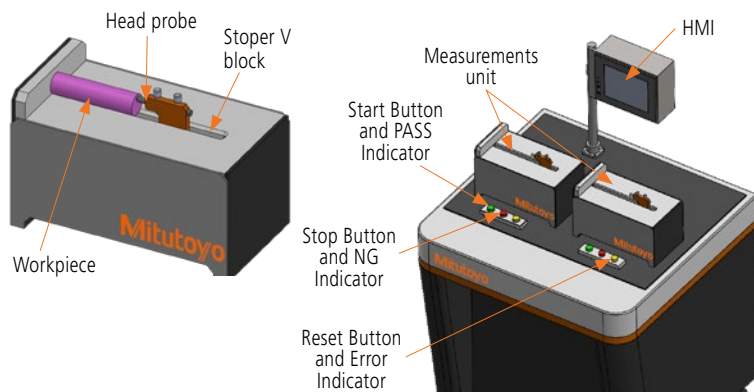
Automation Readiness: Integrates with robotic arms or production lines for inline measurement, improving cycle time and reducing manual labor.



<Dimensions>



<System Overview>



<System Configuration>



<Product Name>

Linear Gauge

Product No.	ABS AT715-200
Code No.	539-803
Measurement range	200 mm
Resolution	0.005 mm

This option supports not only calipers but also all low-priced items.



HMI (Option)

PC- or PLC-based system depending on product

<Functions>

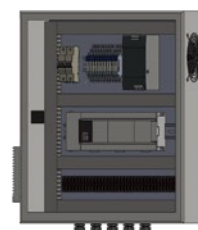
1. Select model
2. Display measuring value
3. Display measurement result (OK/NG)
4. Setup and configuration for various workpieces.
 - 4.1 Adjustable stroke distance
 - 4.2 OK/NG specification setting

Automation Readiness

<Function of the Control Panel>

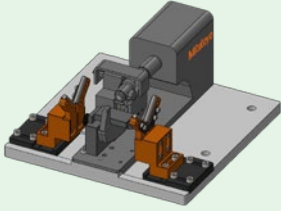
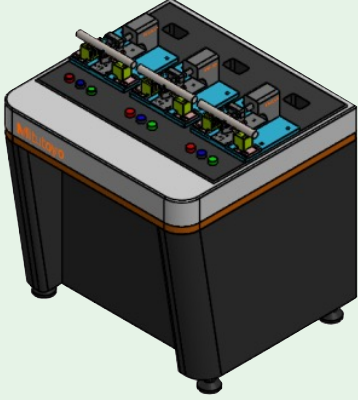
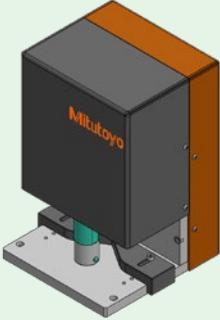
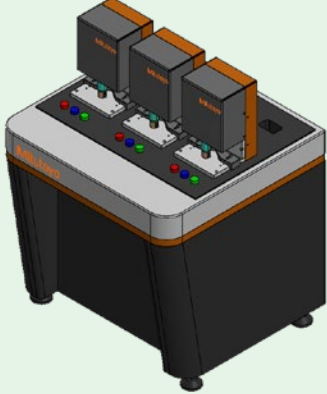
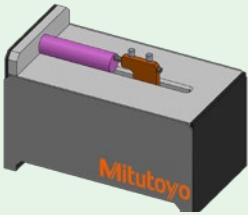
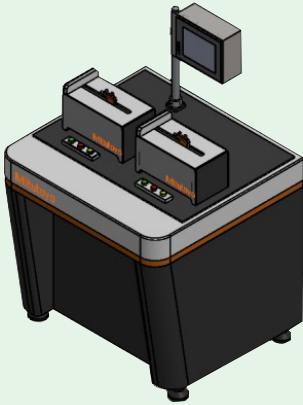
Ready for integration with Robotic systems and/or automated loading or Conveyor solutions. Equipped with a control box that supports I/O communication and industrial protocols such as TCP/IP, EtherNet/IP, CC-Link, PROFINET, and EtherCAT

* Empower your factory for modern manufacturing!
(*depending on product communication protocols).



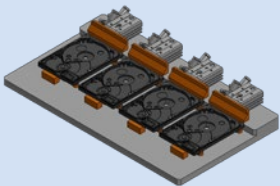
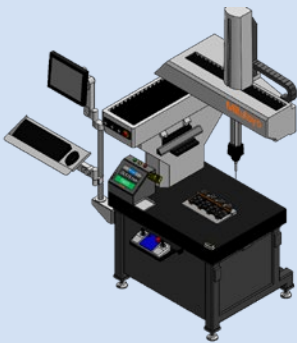
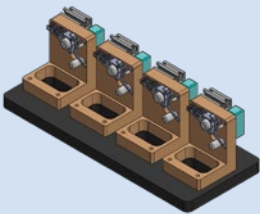
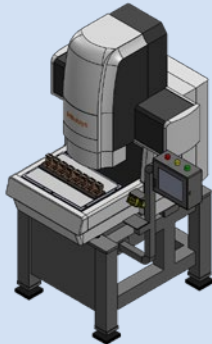
Lite Automation Systems:

Smart Measuring Design

Product Name	Product	Auto Measurement Jig / System	
Auto Micrometer			
Auto ID			
Auto Caliper			

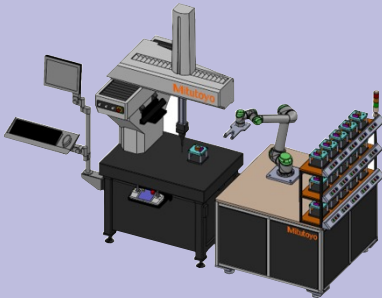
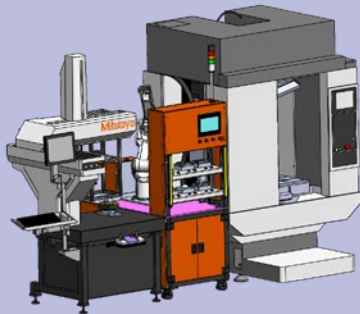
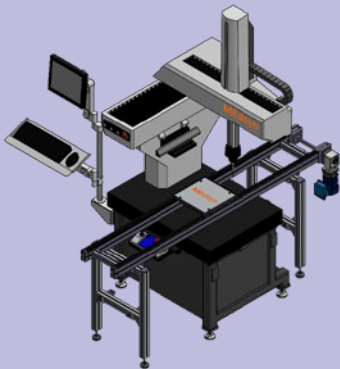
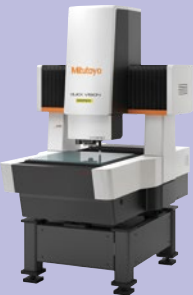
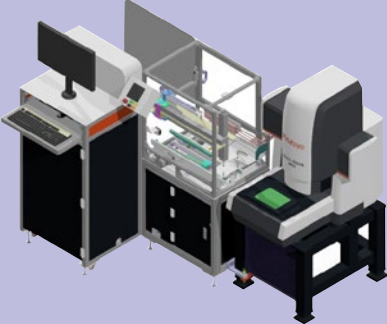
Semi-Automation Systems:

SmartFix Design

Product Name	Product	Auto Measurement Jig / System	
CMM Smart Fix			
QV Smart Fix			

Full Automation Systems:

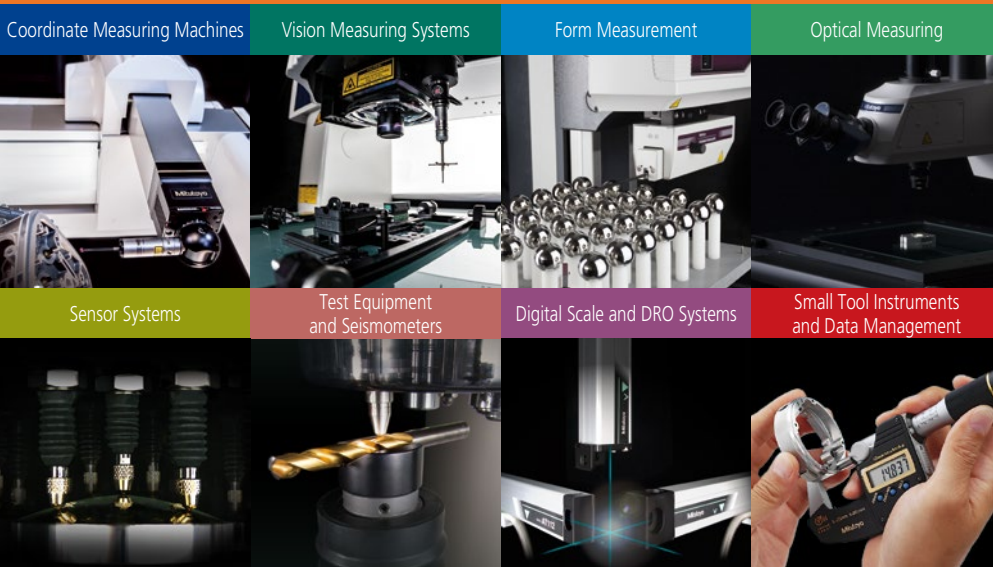
Automation Design

Product Name	Product	Auto Measurement Jig / System
CMM With Robot and Stocker		Multiple workpiece types can be loaded simultaneously for continuous measurement, increasing machine utilization and reducing operator hours. Supported Workpiece: Customizable fixture accommodates diverse workpieces, max payload 5 KG. 
CNC-CMM Machine Tending		Automated system integrates CNC machining and CMM measurement with robotic handling for seamless workpiece transfer and inspection. The system supports various workpiece types by selecting the appropriate measurement program. Supported Workpiece: Customizable fixture accommodates diverse workpieces, max payload 5 KG. 
CMM With Conveyor Kit		A Shopfloor VMM designed for inline production environments, featuring an adjustable conveyor and a dedicated control unit for seamless integration with existing conveyor systems. Supported Workpiece: Customizable Fixture and Conveyor sizes to suit various workpieces. 
VMM With Auto Loading		Automated PCB inspection system with ESD-safe materials, defective part rejection, and high-speed load-in/load-out mechanism. Supported Workpiece: Supports PCB panels and PCB arrays of different sizes, customizable to meet specific requirements. 

Turnkey Automation Solution

Our team can visit your factory to study the process and design a tailored automation solution for you — providing a complete turnkey service from system design to Ready to Run, all by Mitutoyo.

Precision measurement tailored to your every need.



Whatever your challenges are,
Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.

Note: Product illustrations are without obligation. Product descriptions, in particular any and all technical specifications, are only binding when explicitly agreed upon. Other product, company and brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holders.

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