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Mitutoyo

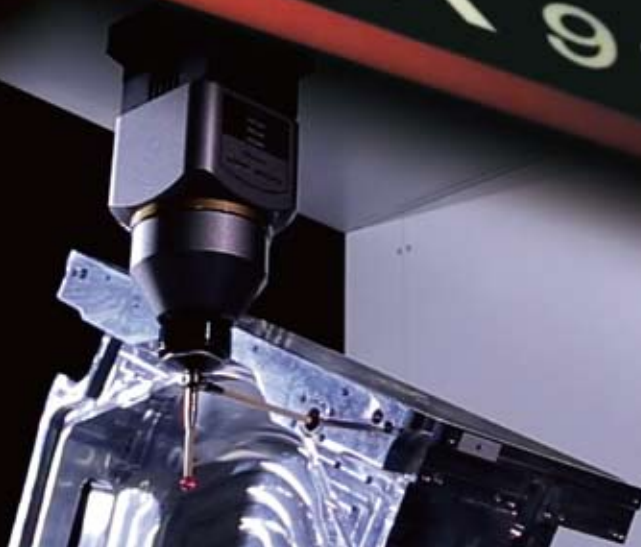
Ultra-high Accuracy CNC Coordinate Measuring Machine
MICROCORD
LEGEX Series



Mitutoyo Corporation
80th Anniversary
Since 1934

The culmination of 80 years of Mitutoyo technology.
Recognized as the world's ultimate high-accuracy measurement technology.

0.20 μm



Coordinate Measuring Machines



Ultra-high Accuracy CNC Coordinate Measuring Machine

MICROCORD

LEGEX Series



The Pinnacle of CNC Coordinate Measuring Machine Technology

FEATURES

- Newly developed and designed from the elemental technology level upward. Elimination of all possible sources of measurement error far surpasses conventional equipment and results in world-leading accuracy: length measurement error $E_{0, MPE} = (0.28 + L/1000) \mu m$
- Fixed bridge/moving table construction optimal for high accuracy measurement. 'Center of gravity' type drive system places the drive units near the center of gravity of each slide for best dynamic performance. Improved drive mechanism practically eliminates static and dynamic errors to ensure ultra-accurate results.

SPECIFICATIONS

Model		LEGEX574	LEGEX774	LEGEX776	LEGEX 9106
Measuring range	X axis	500mm	700mm		900mm
	Y axis	700mm			1000mm
	Z axis	450mm		600mm	
Measurement method		Ultra-high precision linear encoder			
Maximum measuring speed		200mm/s			
Maximum acceleration		980mm/s ²			
Resolution		0.00001mm			
Guide method		Air bearing			
Measuring table	Material	Cast iron*			
	Size	550x750mm	750x750mm		950x1050mm
	Tapped insert	M8×1.25mm (for workpiece clamping)			
Table loading	Maximum workpiece height	695mm		860mm	
	Maximum table loading	250kg	500kg		800kg
Mass (main unit)		3500kg	5000kg	5100kg	6500kg
Air supply	Pressure	0.5MPa			
	Consumption	120L/min under normal conditions (air source: 160L/min or more)			

*Ceramic coated type is also available as an option.



Main unit accuracy

Probe	Length measurement error ISO 10360-2:2009 (JIS B 7440-2:2013)
MPP310Q	$E_{0, MPE} = (0.28 + L/1000) \mu m$ (Temperature environment 1) $E_{0, MPE} = (0.3 + L/1000) \mu m$ (Temperature environment 2)

*L = measured length (mm)

*Table at right defines temperature environments 1 and 2

Installation temperature environment

	Temperature environment 1	Temperature environment 2
Temperature range	19 - 21°C	18 - 22°C
Rate of change	0.5°C/h	
Gradient	1.0°C/m	

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Coordinate Measuring Machines

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Form Measurement

Optical Measuring

Sensor Systems

Test Equipment and Seismometers

Digital Scale and DRO Systems

Small Tool Instruments and Data Management