

Ultra-High Accuracy CNC Coordinate Measuring Machine

LEGEX 
Takumi



The breakthrough CMM created through integration of cutting-edge technology and Takumi's* abilities.

* Takumi is a Japanese word meaning "artisan" with superb craftsmanship.



$$E_{0,MPE} = (0.23 + 0.7L/1000) \mu\text{m}$$

Serves as the reference machine capable of highly accurate measurements

The LEGEX [Takumi Model] not only analyses and eliminates the error factors found in conventional CMM models but also utilizes the outstanding Takumi's skills.

Maximum permissible error of length measurement $E_{0, MPE} = (0.23 + 0.7L/1000) \mu\text{m}$

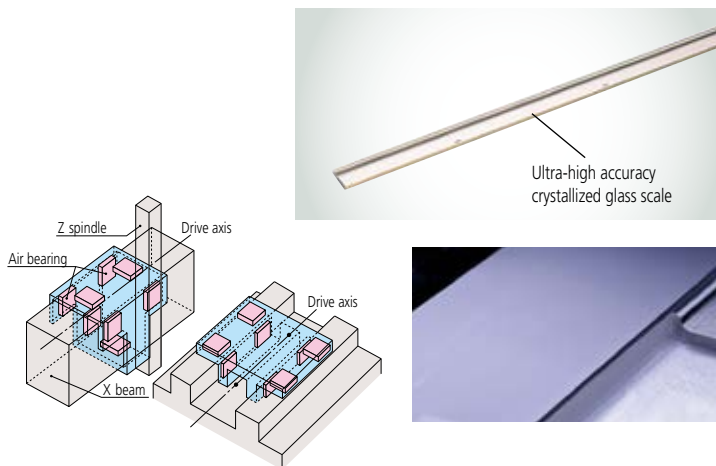
Even when measuring a 500 mm length, the error is less than 0.58 μm .

Ideal Construction of Main Unit

Surface Finishing Technology Cultivated by Takumi

- Ideal Body Structure
- High Rigidity
- Effective Countermeasures for Vibration Isolation.
- Ultra-high Accuracy Scale Unit
- High Control Technology

- Ultra-precise Lapping Technology
- Ultra-precise Finishing of Straightness
- Ultra-precise Finishing of Perpendicularity



Mitutoyo has introduced the Takumi Meister System to pass on the outstanding skills of artisans.

Specifications

Items		Model	LEGEX574	LEGEX774	LEGEX776	LEGEX9106
Measuring range	X axis		500 mm	700 mm		900 mm
	Y axis		700 mm			1000 mm
	Z axis		450 mm		600 mm	
Maximum measuring speed			200 mm/s			
Maximum acceleration			980 mm/s ²			
Resolution			0.00001 mm (0.01 μm)			
Guide method			Air bearing			

Main unit accuracy

Probe	Maximum permissible error of length measurement $E_{0, MPE}$
MPP-310Q ($\phi 4 \times 18$)	$(0.23 + 0.7L/1000) \mu\text{m}$

Installation temperature environment

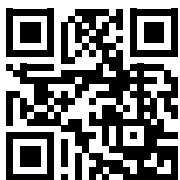
Temperature range		19 to 21 °C
Temperature change	Per hour	0.5 °C
	Per day	1.0 °C
Temperature gradient	Vertical	1.0 °C/m
	Horizontal	1.0 °C/m



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 measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



Find additional product literature and our complete catalog here.

www.mitutoyo.eu

Note: MITUTOYO is either registered trademarks or trademarks of Mitutoyo Corp. in Japan and/or other countries/regions. Other product, company and brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holders. Product illustrations are without obligation. Product descriptions, in particular any and all technical specifications, are only binding when explicitly agreed upon.



Mitutoyo Europe GmbH

Borsigstraße 8-10
 41469 Neuss
 Tel. +49 (0) 2137-102-0
info@mitutoyo.eu
www.mitutoyo.eu