

# LEGEX Series

## Series 356 - Ultra-high accuracy CNC CMM

- The most accurate CNC CMM family with unsurpassed accuracy of 0.35 µm made possible by rigorous analysis of all possible error-producing factors and elimination or minimizing their effects.
- Ultra-high accuracy crystallized-glass scale with the ultra-low expansion coefficient of  $0.01 \times 10^{-6}/K$  is used on each axis.
- The fixed bridge structure and precision air bearings running on highly rigid guideways ensure superior motion stability and ultra-high geometrical accuracy.
- Many types of optional probe systems are available, including touch-trigger probes, laser scanning probes, and a vision measuring probe.



LEGEX 774

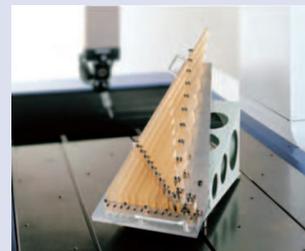
Model No.	LEGEX 574 356-373-5	LEGEX 774 356-253D	LEGEX 776 356-257D	LEGEX 9106 356-263D
Range X x Y x Z axis	510x710x455mm	710x710x455mm	710x710x605mm	910x1010x605mm
Accuracy <sup>(1)</sup> E <sub>0,MPE</sub>	(0,35+0,1L/1000)µm	(0,35+0,1L/1000)µm	(0,35+0,1L/1000)µm	(0,35+0,1L/1000)µm
Accuracy <sup>(1)</sup> P <sub>FTU,MPE</sub>	0,45µm	0,45µm	0,45µm	0,45µm
Accuracy <sup>(1)</sup> MPETHp	1,4µm	1,4µm	1,4µm	1,4µm
Work table size	550x750mm	750x750mm	750x750mm	950x1050mm
Workpiece	Max. height : 706mm Max. loading : 200kg	Max. height : 696mm Max. loading : 500kg	Max. height : 862mm Max. loading : 500kg	Max height : 856mm Max. loading : 800kg
Mass (main unit)	3900kg	5000kg	5100kg	6500kg

<sup>(1)</sup> The machine is equipped with the temperature compensation system.  
According to ISO 10360-2 (2010) methods when using the MPP-310Q probe system.  
L= measuring length (mm).

Model No.	LEGEX 12128 356-243D
Range X x Y x Z axis	1210x1210x810mm
Accuracy <sup>(1)</sup> E <sub>0,MPE</sub>	(0,6+0,15L/1000)µm
Accuracy <sup>(1)</sup> P <sub>FTU,MPE</sub>	0,6µm
Accuracy <sup>(1)</sup> MPETHp	1,8µm
Work table size	1250x1250mm
Workpiece	Max. height : 1056mm Max. loading : 1000kg
Mass (main unit)	10500kg

### Specifications

Digital step	0,01 µm
Work table material	Cast iron
Work table tapped insert	M8 x 1.25 mm
Scales	Ultra high accuracy linear encoder (glass scale with virtually zero thermal expansion coefficient)
Guide system	Air bearing
Max. drive speed	200 mm/sec
Max. acceleration	0,1G



CMM calibration using a virtually zero thermal expansion glass gauge

### Accuracy is specified for the following environmental conditions for the CMM\*

Temperature range	20±2°C	
Temperature change	Per hour	0.5 K
	Per 24 hours	1.0 K/m
Temperature gradient	Vertical	1.0 K/m
	Horizontal	1.0 K/m

\*When using temperature compensation system