

XL Gantry Co-ordinate Measuring System

Measuring System Description

The measuring system comprises of the British manufactured IMS XL Co-ordinate Measuring Machine complete with On-Motion based electronic control system and *Virtual-DMIS* measuring software.

100% air bearings on all axes. All axes are kinematic, with spring loading for safety protection in the event of a collision. High accuracy non-contact Renishaw digital measuring scales and twin scale technology for increased measurement accuracy of the machine.

Standard safety features including:

- Multiple emergency stop facility,
- Z-axis failsafe brake
- Friction drives on all axes
- Kinematic design
- Machine Autostop
- Integrated probe protection
- Collision protection
- Safety interlocks
- Fail-safe pressure detectors ensure the machine will only operate when correct air pressure is available.

Full 21-parameter error map plus a second Y2 scale parameter for increased accuracy.

Max. Acceleration (3D move)	1000 mm/sec ² (1730 mm/sec ²)
Max. Speed (3D move)	250 mm/sec (430 mm/sec)
Max. Measuring Speed	40 mm/sec
Resolution	0.0001mm
Power Supply	110 or 240v – 50/60 Hz
Electrical Consumption	1.5 kW Maximum
Air Consumption	20 litres/min @ 5.5 bar
Tolerable Temperature	10° to 40° C
Tolerable Humidity	60% +/- 30% Non condensing
Colour of Machine	Cream / Charcoal

Maximum Measuring Strokes:

(X)	Bridge Axis	2000 mm
(Y)	Table Axis	5000 mm
(Z)	Vertical Axis	1750 mm

Measurement accuracy based on 20 degrees +/- 1 degree

The measuring accuracy is in compliance to CMMA specification.

Volumetric Accuracy $M = 8.0 + L/150$ (μm)

