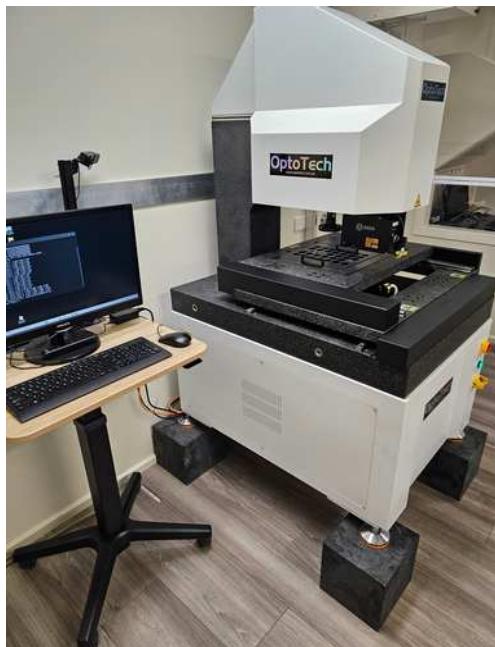


Laser Scanner Based CMM



Applications:

- Measure dimensional compliance of mechanical parts along X,Y,Z
- Non-contact measurements are conducted in a single set-up
- Multiple parts are measured in a single set-up

Technology:

- The top and the bottom features of the part are measured using two laser scanners
- The scanning is done along the X and the Y axis
- The system defines a part datum for each part on the measurement jig
- The measurements are referenced to the part datum

System Specifications	<ul style="list-style-type: none"> - The system uses laser line scanning technology 	<ul style="list-style-type: none"> • Scanner line length – 27mm +/-2mm • Scanner resolution – 5µm • Laser wavelength 405nm • Laser power adjustable up to 10mW • Laser scanning frequency adjustable up to 1,500 Hz • Laser scanning depth of field 14mm
	<ul style="list-style-type: none"> - The system uses x2 identical scanners 	<ul style="list-style-type: none"> • Top scanning • Bottom scanning
	<ul style="list-style-type: none"> - The system has x3 linear actuators, XYZ, with a scale resolution of 0.5µm 	<ul style="list-style-type: none"> • The top scanner is mounted on the Z linear actuator • Travel: 200mm • The X and Y linear actuators move the part in the XY plane
	<ul style="list-style-type: none"> - The system has x2 rotation stages with a resolution of 1' of arc 	<ul style="list-style-type: none"> • The top and the bottom scanners are each installed on a rotation stage
	<ul style="list-style-type: none"> - System Chassis and the XY linear stages 	<ul style="list-style-type: none"> • Manufactured from granite • Travel: 350mm x 250mm
	<ul style="list-style-type: none"> - System control 	<ul style="list-style-type: none"> • Commercial computer • Proprietary firmware • Customisable GUI
	<ul style="list-style-type: none"> - Inspection firmware 	<ul style="list-style-type: none"> • Customised to the specifics of the part to be measured
	<ul style="list-style-type: none"> - Reporting 	<ul style="list-style-type: none"> • XYZ absolute dimensions • Customisable to the specific part and requirements



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Utility and Requirements	Operating Voltage	<ul style="list-style-type: none">• 110V – 240V, AC
	Operating Temperature	<ul style="list-style-type: none">• 15C to 30C
	Operating environment	<ul style="list-style-type: none">• Preferably clean room
	Laser Safety Class	<ul style="list-style-type: none">• 3b
	Safety	<ul style="list-style-type: none">• Emergency Stop
	Dimensions (L x W x H) (mm)	<ul style="list-style-type: none">• 1227 x 1101 x 1860