

μ6 Ultra Precision Machine

6 Axis CNC Diamond Turn / Micro-Mill

LOXHAM
PRECISION



Highly integrated machine tool providing ultra high accuracy diamond machining of complex shape components, and from initial start up.

Achieved by:

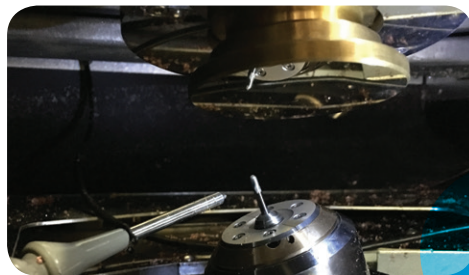
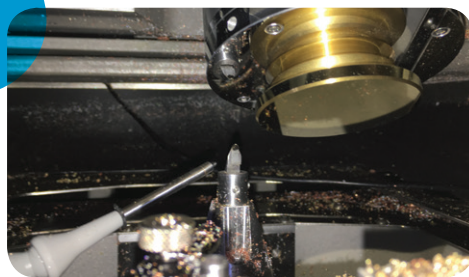
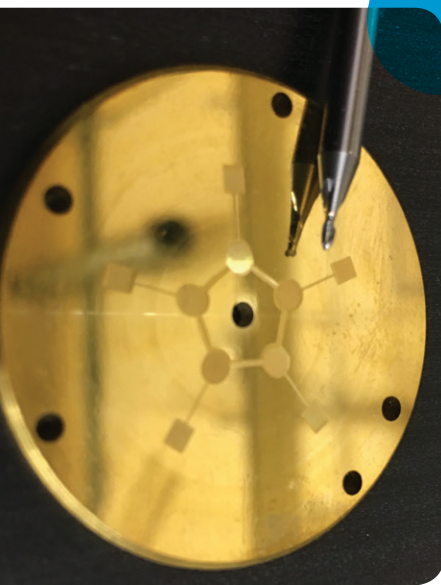
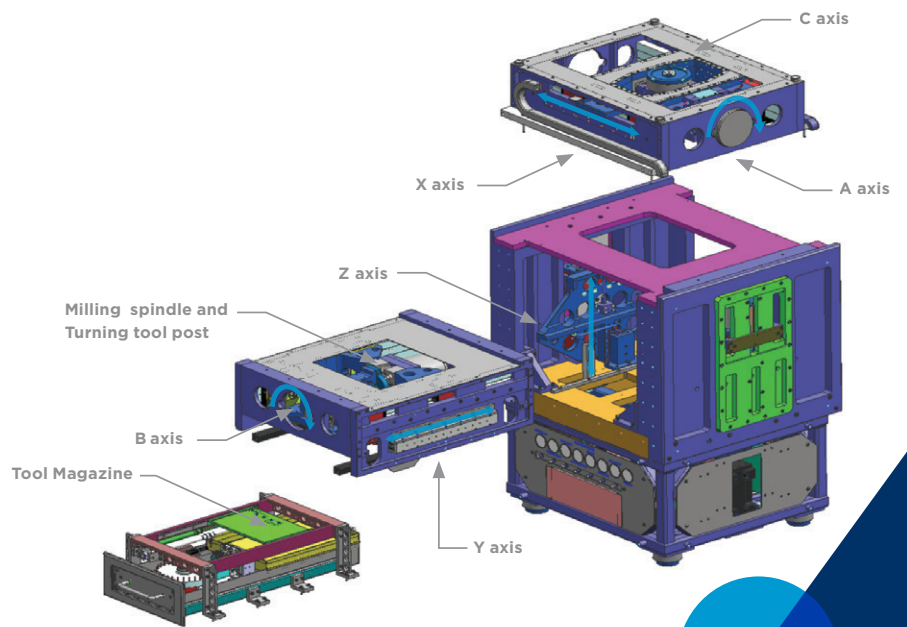
- Automatic optical tool setting
- Automatic tool changer (20 position magazine)
- Compact low energy and mass design
- Air bearing based motions
- Active thermal management
- Single phase electrical supply

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$\mu 6$ machine uniquely offers multi axes diamond machining modes for diamond turning, micro-milling, micro-drilling and micro-abrasive grinding.

It is available with post process measurement functions and with automation options for workpiece loading and handling.



$\mu 6$ general specifications

General	Ultra precision 6 axes CNC machine with Box 'closed frame structure and air bearing based motions'
Machine detail	Size: 0.7m x 0.7 m x 1.2m Weight: 500kg
Workpiece capacity	Diameter: 100mm diameter Length: 100mm
Structure	Aluminium monolithic base with integral temperature control
Control system	6 axes open architecture CNC with motion control at 1 nanometre and 1 micro degree resolution
Functional performance	<p>Diamond turning: Form accuracy: < 30 nanometres RMS Surface roughness: < 5 nm Ra (30 mm diameter, 100 mm ROC spherical part)</p> <p>Micro milling: Surface roughness: < 10 nm Ra Size control of features < 0.001 mm</p>

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