

Cranfield Precision EcoR1664

Ultra precision diamond turning machine

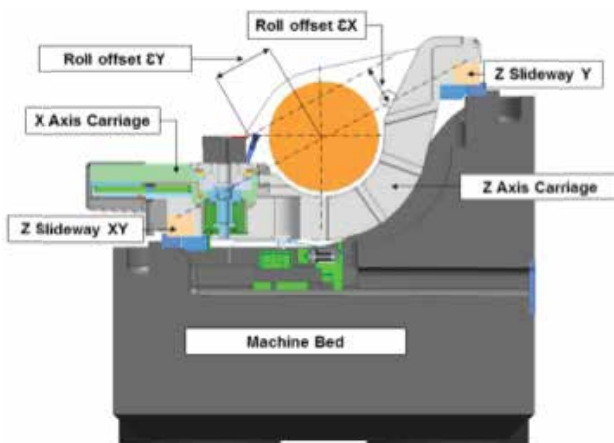
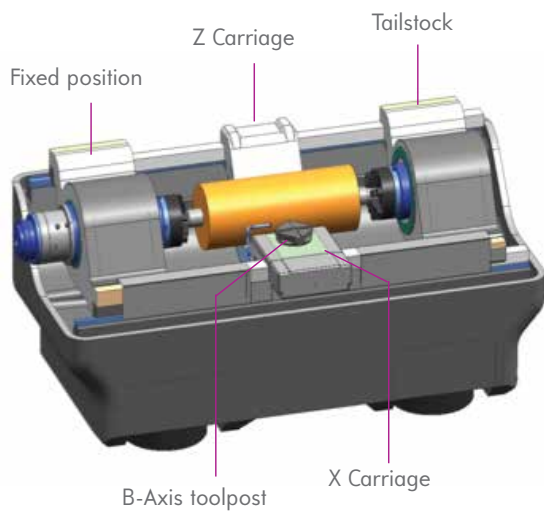
The Cranfield Precision EcoR1664 Roll Turning Machine is specially designed for production level machining of optical quality components.

The main axis of the machine uses a stepped hydrostatic design with rail positioning that provides virtually zero roll errors in the tool infeed direction drastically reducing the majority of errors experienced on conventional lathes.

- Outstanding thermal stability
- High system stiffness
- Very good damping



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Machining capacity	
Maximum roll diameter (OD)	410 mm (16")
Maximum roll length	1625 mm (64")
Maximum roll mass	680 kg (1500 lb)
X axis (tool infeed)	
Axis stroke	205 mm
Compensated accuracy	<0.5 μm
Feedback resolution	1 nm
Maximum linear motor force	1385 N
Maximum axis velocity	50 mm/s
Maximum axis acceleration	50 mm/s ²
Z axis (tool traverse)	
Axis stroke	1630 mm
Compensated accuracy	<2 μm
Feedback resolution	1 nm
Maximum linear motor force	1748 N
Maximum axis velocity	50 mm/s
C Axis (headstock spindle)	
Load capacity	300 kg
Max speed	1200 rpm
Axis resolution	<0.05 arc sec
A Axis (tailstock spindle)	
Load capacity	300 kg
Max speed	1200 rpm
Axis resolution	<0.05 arc sec
B Axis (tool spindle)	
Load capacity	100 kg
Feed back resolution	0.05 arc se
Maximum torque	40 Nm
Environmental control	
Microclimate (oil shower temp. control)	0.01°C