

## Cranfield Precision HPB4<sup>3</sup>

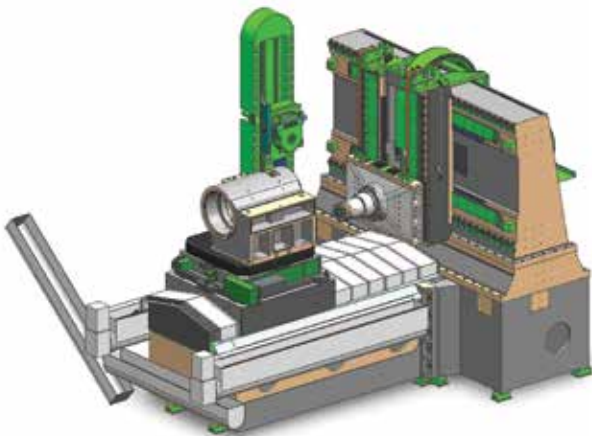
### High precision jig boring machine

The Cranfield Precision HPB4<sup>3</sup> is a high performance horizontal jig boring machine with the capacity to machine large precision bores that are round, parallel and in-line. Designed as a multi-purpose machining center it allows to mill, drill, ream, face and bore in one set-up.

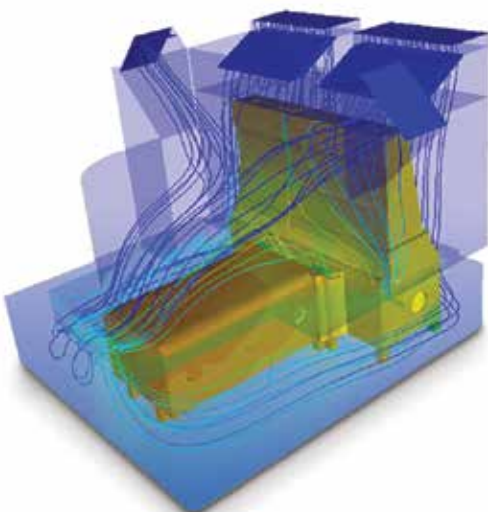
- Kinematically supported machine base
- High-precision hydrostatic tool spindle
- Temperature controlled motors, hydrostatic oil, coolant and environment for supreme machining accuracy
- Recirculating ball bearing guides (linear axes)



Cranfield Precision HPB4<sup>3</sup>



Machine with component and auto tool changer



Flow analysis of machine's temperature controlled environment

<b>Machining capacity</b>	
Component work volume	4000 mm <sup>3</sup>
<b>X axis (spindle cross feed)</b>	
Axis stroke	2000 mm
Feedback resolution	0.005 μm
Maximum linear motor force	1500 N
Machining feed rate	0-10 m/min
Maximum axis acceleration	2 m/s <sup>2</sup>
<b>Y axis (spindle vertical)</b>	
Axis stroke	1125 mm
Feedback resolution	0.005 μm
Maximum linear motor force	1500 N
Machining feed rate	0-10 m/min
Maximum axis acceleration	2 m/s <sup>2</sup>
<b>Z Axis (component infeed)</b>	
Axis stroke	1250 mm
Feedback resolution	0.005 μm
Maximum linear motor force	1500 N
Machining feed rate	0-10 m/min
Maximum axis acceleration	2 m/s <sup>2</sup>
<b>Rotary tool spindle</b>	
Radial and axial stiffness	950 N/μm
Spindle speed	10-1500 rpm
Through spindle coolant	✓
Hydrostatic bearings	✓
<b>B Axis (component rotary axis)</b>	
Table size	1250 x 1250 mm
Load capacity	4000 kg
Maximum axial machining force	25 kN
Maximum radial error motion	10 μm
Position resolution	0.0001°