

Bench top Combined Router & Lathe

# A3RTCmi<sup>2</sup>



## A bench top high performance router specifically designed for educational and training installations

The PC controlled Boxford A3RTCmi<sup>2</sup> combined High Speed Router and Lathe is ideally suited to a classroom environment and offers the ideal solution for high tech. education and training requirements. Operating on IBM/100% compatible computers, the inclusive user-friendly software has routines for Computer Aided Design [CAD] at both simple and sophisticated levels and will process the drawings through to a full machining routine.

### CNC features

- The Boxford software is an integrated suite of powerful CAD/CAM tools.
- The CAD provides a variety of drawing tools including text fonts with excellent manipulation routines.
- Drawings from other CAD applications can also be imported and processed. A full 3D simulation of the manufacturing process, including a cycle time, can be shown enabling work to be proven without the need for trial runs on the machine. Manual Data Input, utilising Industrial Standard Codes, allows programs to be entered using either line by line or conversational programming.
- The A3RTCmi<sup>2</sup> incorporates hardware capable of continuous 3 axis movement utilising the latest Continuous Path Manufacturing technology. This allows large programs, imported from Major CAD/CAM packages, to be machined extremely efficiently and is an essential machine feature for successful manufacture of 3D reliefs.
- Designed for 3D manufacture, the long router Z axis travel allows the machining of tall components.
- The powerful 1KW High Frequency spindle motor and rigid machine construction, allows the use of high material removal rate strategies producing a component throughput lighter machines cannot match. The machine rigidity also allows for the machining of aluminium alloys and brass when in router mode.
- Touch sensitive control panel incorporating illuminated push buttons allows the machines to be operated without a computer.
- Active and accurate tool path graphics continuously displayed line by line during program write, test run and manufacture.

### Safety equipment and features

- Full perimeter guarding with interlocking switches on access doors arranged in the positive (safety) mode for spindle stop and feed hold.
- Overload cut-out on spindle drive.
- Positive end stops on all axes.
- Mandatory simulation required for new programs before machining cycle can be commenced. Step by step execution of graphics in advance of cut in machining cycle.
- Integrated electrical panel with no volt supply protection.
- Feed rate over-ride.
- Feed hold.
- Single block operation.
- Latching emergency stop button.
- Power on indicator lamp.
- Low voltage control circuitry.

# A3RTCMi<sup>2</sup>



Routing Mode



Lathe Turning Mode

## Machine specification



Precision ground linear slides & ball bearings on all axes..

Pre-loaded anti-backlash ball screws on all axes

Three axis simultaneous operation.

Fully enclosed see through guarding for safety and improved student viewing.

Integrated electrical panel.

80mm diameter 3 jaw chuck.

Automatic 8 station lathe tool changer.

Tooling Starter Pack Included.

Unique conversion from router to lathe in 3 minutes.

### LATHE specification summary

Swing Over bed	130mm
X Axis travel	130mm
Z Axis travel	360mm
Distance between centres	230mm
Spindle bored to pass	20mm

### MILL specification summary

Axis travel	X(longitudinal)	575mm
	Y(cross)	325mm
	Z(vertical)	130mm

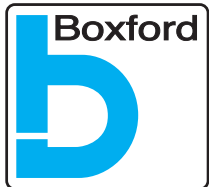
Router Spindle motor (High Frequency - Constant Duty)	1000 watts
Router Spindle speed	8000 - 23000rpm
Lathe Spindle motor	320 watts
Lathe Spindle speed	200 - 2500rpm
Electrics	220/240v 1 PHASE
Programmable feed (linear and circular interpolation modes)	0 - 5000mm/min
Rapid feed rate at 100%	5000mm/min

## Accessories

Accessories are available, including:-

Router:- 4th Axes Indexing Fixture, Integrated Extract Unit, PCB Floating Head, 3D Tooling.

Lathe:- Tailstock Steady, Comprehensive Tooling Package



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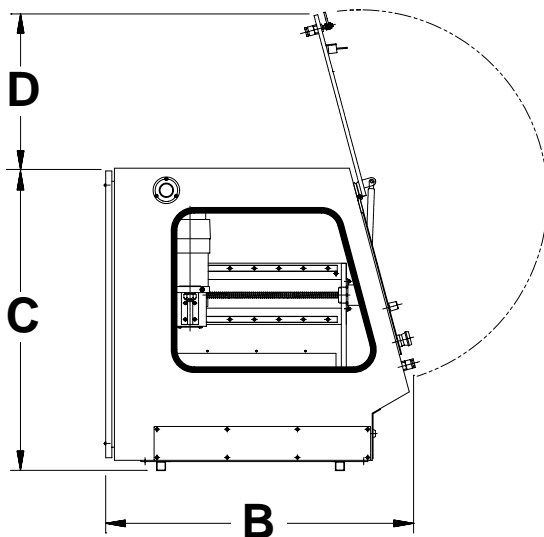
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### Machine Dimensions

A	1050mm	C	740mm
B	750mm	D	380mm

Machine Weight - 165kg

