

PC Controlled CNC Turning Centre
160TCLi



A bench mounted CNC Lathe designed for educational and training installations

The PC controlled Boxford 160TCL lathe is ideally suited to a classroom environment and offers the perfect solution for high tech. education and training requirements. The rigid construction allows steel to be cut to close tolerances. Operating on PC computer, 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 allows ONLY components suitable for lathe machining to be designed and provides automatic and dynamic dimensioning. A 3D solid model view is also available.
- 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 cutting.
- Manual Data Input, utilising Industrial Standard Codes, allows programs to be entered using either line by line or conversational programming.
- The machine rigidity and spindle torque allows a large variety of materials and components to be machined.
- 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 graphics run required for new programs before machining cycle can be commenced and step by step graphics in advance of cut in machining cycle.
- Integrated electrical panel with no volt supply protection.
- Feed rate override.
- Feed hold.
- Single block operation.
- Latching emergency stop button.
- Power on indicator lamp.
- Low voltage control circuitry.

Machine specification



Swing Over bed	160mm
Swing Over X axis slide	70mm
X Axis travel (cross)	125mm
Z Axis travel (longitudinal)	125mm
Spindle bored to pass	20mm
Tailstock Quill Travel	75mm
Tailstock Spindle Taper	2MT
Spindle motor	490 watts
Infinitely variable spindle speeds	200 - 3200 rpm
Electrics	110/220/240v 1 PHASE
Programmable feed (linear and circular interpolation modes)	0 - 1500mm/min
Rapid feed rate at 100%	1500mm/min

Slant-bed configuration.

Pre-loaded anti backlash balls screws on all axes.

Two axis simultaneous operation.

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

Integrated electrical panel.

80mm diameter 3 jaw chuck (optional).

Automatic 8 station lathe turret (optional).

Spindle speeds in RPM, M/min or in/min.

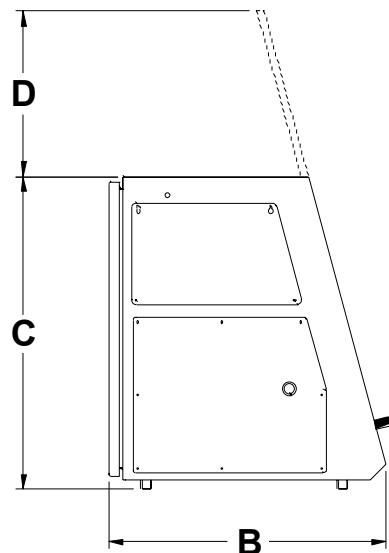
Feedrates in mm/min, in/min, mm/rev or in/rev.

Steel, Brass, Aluminium and Plastic cutting capability.

Accessories

Accessories are available, including:-

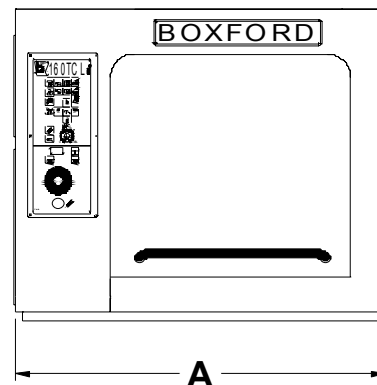
- Automatic 8 Station Tool Post
- Chucks - 80mm 3 Jaw
 - Power Chuck
 - 100mm 4 Jaw Independent
- Comprehensive Set of Tooling
- Z Axis Limit Switch
- Emergency Footswitch
- Airmist Coolant
- Tailstock
- Rotating Tailstock Centre
- Heavy Duty Workbench with Braked Castors.
- FMS/CIM Connectivity



Machine Dimensions

A	800mm	C	675mm
B	600mm	D	350mm

Machine Weight - 130kg (285lbs)



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