

CNC LATHES

High performance lathes specifically designed for educational and training installations



The Boxford range of 2-axis CNC lathes are ideally suited to fulfil all levels of education and training requirements. The rigid slant bed machine construction, incorporating high quality precision components, facilitates the machining of mild steel, alloys and plastics to close tolerances.

IT'S AMAZING HOW OFTEN YOU NEED A LATHE

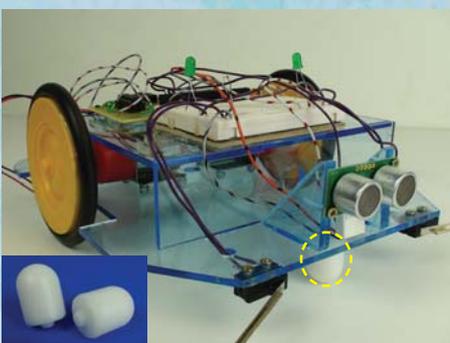
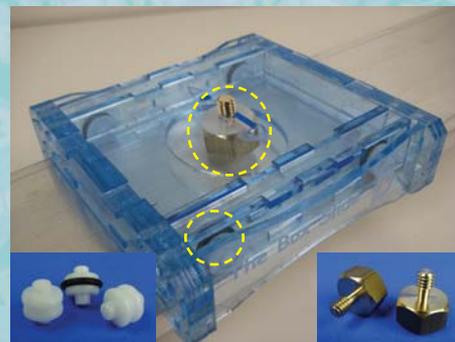
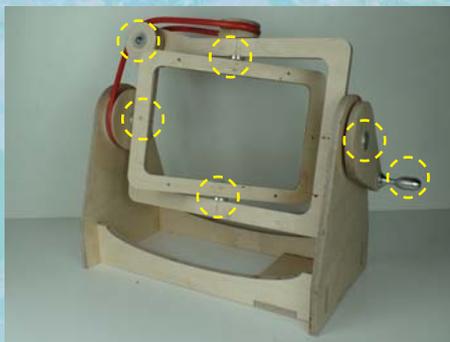
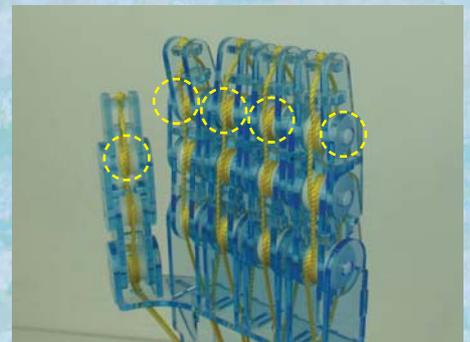


The Boxford range of CNC lathes offers educational users unrivalled performance and ease of use. Within a matter of minutes components incorporating external and internal profiles, including screw threads, can be designed, simulated and manufactured to close tolerances in a variety of materials.

In developing our portfolio of freely available projects and resources, we never cease to be amazed how often we use one of our lathes to manufacture a range of bespoke screws, nuts, washers, knobs, pivots, plugs, studs, feet etc. as shown in some of these examples.



These lathes utilise industrial level programming codes and are ideal for vocational engineering training. These machines can also be integrated into FMS/CIM systems when fitted with optional factory fitted automated equipment.



160TCLi

Bench top PC controlled CNC lathe



Shown with optional Portable Cabinet Base and optional Laptop Shelf

- 160mm swing over bed.
- Spindle bored to pass 20mm dia.
- Precision dovetail slide construction.
- 80mm dia. precision 3 jaw self-centring chuck.
- Single, totally enclosed cabinet housing the integrated electronic controller facilitates easier movement between rooms.

T220i

Floor standing PC controlled CNC lathe



Shown with optional Flood Coolant

- 210mm swing over bed.
- Spindle bored to pass 25mm dia.
- Precision ground linear slides on all axes.
- 100mm dia. precision self-centring chuck.
- Generous 400mm between centres, with optional tailstock steady.
- Integrated lockable storage cupboards.
- Includes removable laptop shelf (shown).

250PCi

Floor standing PC controlled CNC lathe



Shown without included Laptop Shelf

- 250mm swing over bed.
- Spindle bored to pass 35mm dia.
- Precision dovetail slide construction.
- 125mm precision 3 jaw self-centring chuck.
- 1 shot integrated lubrication system fitted as standard.
- Flood coolant fitted as standard.
- Integrated lockable storage cupboards.
- Includes removable laptop shelf (not shown).

STANDARD FEATURES ON ALL LATHES

- Integrated touch sensitive control panel incorporating illuminated push buttons allows manual machining.
- Interlocked solenoid guarding cannot be opened when spindle is running. Open guard inhibits slide movement and spindle rotation.
- Slant-bed construction.
- Pre-loaded anti-backlash ball screws on all axes.
- Precision self-centring 3 jaw chuck.
- Incorporates a high-end machine controller utilising the latest motion control technology to produce smooth and fast 2-axis simultaneous movement.
- Spindle speeds in RPM, metres/min or inches/min.
- Feedrates in mm/min, inches/min, mm/rev or inches/rev.
- Integrated machine electrics.
- USB interface.
- Single seat of Boxford 'CAD/CAM Design Tools' software (PC not included) incorporating integrated LatheCAD design software and automatic design processing to a machining routine including solid 3D graphics simulation. Also includes conversational and manual programming, ideal for vocational training. (Optional site/network licence upgrade).

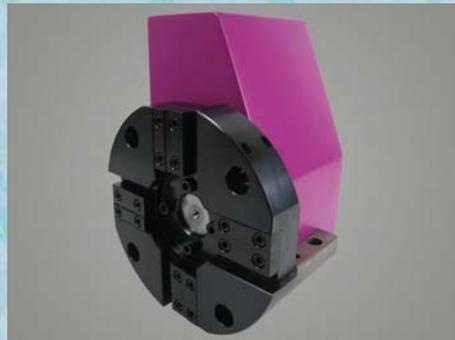
ACCESSORIES	160TCLi	T220i	250PCi
Comprehensive Tooling Set	✓	✓	✓
8 Station Automatic Disc Turret	✓	STD	✓
Quick Change Tool Post	✓		✓
Air Mist Coolant*	✓		
Flood Coolant		✓	STD
Automatic Pneumatic Chuck*	✓	✓	✓
Manual Tailstock Steady	✓	✓	✓
Automatic Pneumatic Tailstock Quill*			✓
Automatic Pneumatic Guard*	✓	✓	✓
Robot Connection Port for FMS/CIM Integration	✓	✓	✓
Automatic Lubrication system	✓		✓
Portable Cabinet Base	✓		

*Requires a 6 Bar, 70/90 PSI compressed air supply



Comprehensive Tooling Set

A package of external and internal tooling ideal for populating the 8 station turret. Includes a selection of spare inserts.



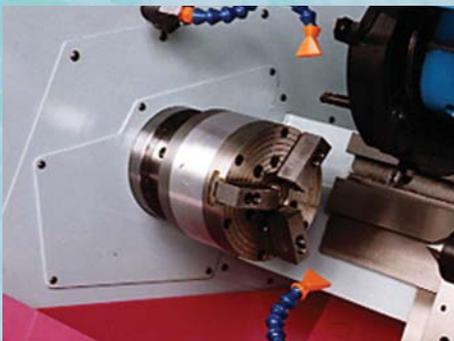
8 Station Automatic Disc Turret

Accommodates 4 external and 4 internal tools. Extra 'blank' drill bushes are available to allow other drill sizes to be fitted.



Quick Change Tool Post

Available as a package with either 5 (3 off standard, 2 off vee) or 8 (4 off standard, 4 off vee) QC turning tool holders.



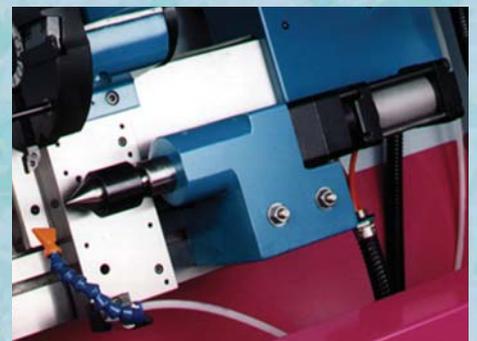
Automatic Pneumatic Chuck

3-Jaw closed centre chuck, interlocked and programmable. Can be controlled externally via optional robot port for FMS/CIM integration.



Manual Tailstock Steady

Includes a rotating centre for supporting longer work pieces.

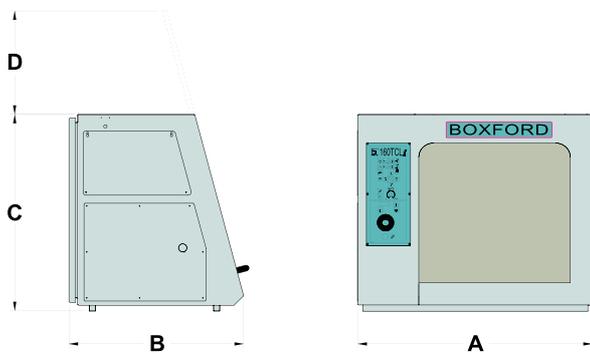


Automatic Pneumatic Tailstock Quill

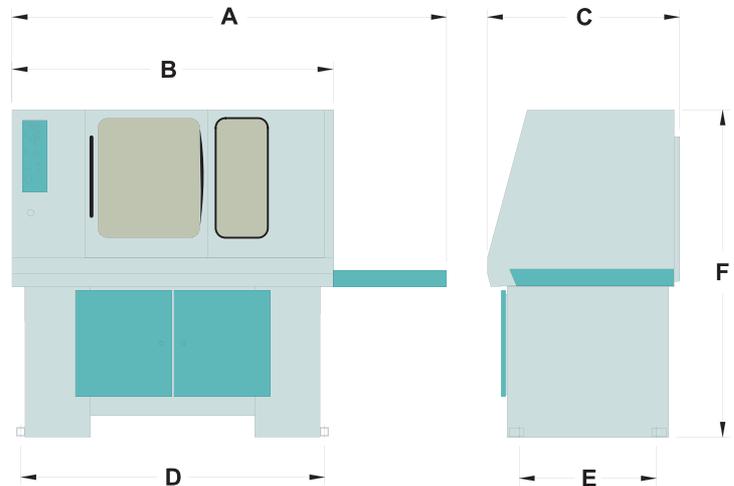
Includes a rotating centre and is interlocked and programmable. Ideal for use in FMS/CIM systems.

SPECIFICATIONS	160TCLi	T220i	250PCi
Swing Over Bed	160mm	210mm	250mm
Swing Over X Axes Slide	70mm	114mm	105mm
X Axis Travel (Cross)	125mm	150mm	200mm
Z Axis Travel (Longitudinal)	125mm	350mm	265mm
Spindle Bored to Pass	20mm	25mm	35mm
Distance Between Centres	140mm	400mm	350mm
Tailstock Quill Travel	75mm	75mm	50mm
Spindle Motor	490 watts	1100 watts	2200 watts
Infinitely Variable Spindle Speeds	200 - 3200rpm	200 - 4000rpm	200 - 3200rpm
Electrics	110/220/240 V 1 Phase	110/220/240 V 1 Phase	110/220/240 V 1 Phase
Programmable Feed	0 - 1500 mm/min	0 - 1500 mm/min	0 - 2000 mm/min
Rapid Feed Rate at 100%	1500 mm/min	1500 mm/min	2000 mm/min

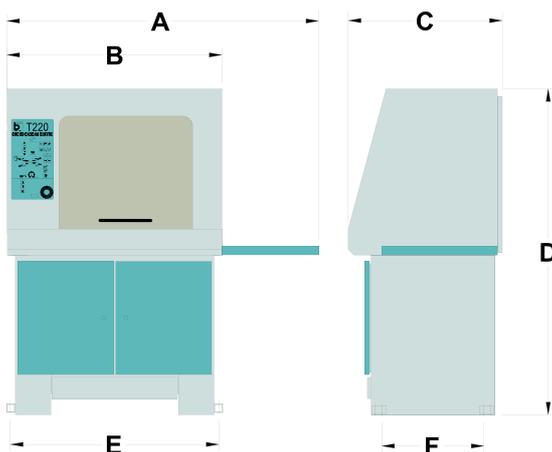
160TCLi



250PCi



T220i



Machine Dimensions

	160TCLi	T220i	250PCi
A	800mm	1500mm	2000mm
B	600mm	1000mm	1470mm
C	675mm	720mm	870mm
D	350mm	1530mm	1390mm
E	-	965mm	620mm
F	-	476mm	1520mm
Weight	130kg	290kg	560kg



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