

TECHNICAL **CURRICULUM** CONTENT · PRECISION METALWORKING · FULL-TIME

MECHANICS & TOOLMAKING

A complete, workshop-based trade programme.

Real machines, real parts, industry-ready skill.

THE PROGRAMME

Precision is a discipline. This programme builds it, by hand.



Mechanics & Toolmaking is a full-time, workshop-based programme in precision metalworking. Across seventeen modules, learners move in sequence from technical drawing and manual fabrication to turning, milling, CNC and quality control.

The emphasis is practical throughout. Skills are learned on genuine machines, with around 1,500 hours at the bench and roughly 130 graded exercises.

Every module closes with an assessed practical piece, so competence is shown on real work rather than on paper.

The programme is delivered as a curriculum, as a matching equipment specification, or as a turnkey package configured to the site.

17

MODULES • M00-M16

1,500^h

WORKSHOP HOURS

130

PRACTICAL EXERCISES

470

EQUIPMENT ITEMS

50^{+ wks}

FULL-TIME

TECHNICAL CURRICULUM

MODULE

M00 – M16 • SEQUENTIAL

Seventeen modules, in sequence.

From fundamentals through machining to advanced and CNC work, closing with a final assembly project.

M00	Technical Drawing – Fundamentals FOUNDATIONS	M06	Turning – Fundamentals MACHINING	M12	Heat Treatment and Material Testing ADVANCED & CNC
M01	Safety & Workshop Organization FOUNDATIONS	M07	Advanced Turning – Threads, Tapers, Boring MACHINING	M13	Fixtures and Tooling Design APPLICATION
M02	Measuring, Marking Out, Center Punching FOUNDATIONS	M08	Milling – Fundamentals MACHINING	M14	Assembly, Sub-Assemblies, Final Project APPLICATION
M03	Manual Fabrication – Filing, Sawing, Chiseling FOUNDATIONS	M09	Advanced Milling – Dividing Head, Contours MACHINING	M15	Practical Machine Maintenance APPLICATION
M04	Drilling, Countersinking, and Reaming MACHINING	M10	CNC Milling – Fundamentals ADVANCED & CNC	M16	Quality Control & Geometric Accuracy APPLICATION
M05	Thread Cutting and Tapping MACHINING	M11	Grinding and Tool Sharpening ADVANCED & CNC		

Trained on the real thing.



01

Hand & Measuring Tools

Files, scribes, vernier calipers, micrometers and layout tools.

02

Cutting Tools & Tooling

Drill bits, taps, reamers, turning and milling cutters.

03

Machine Tools & Accessories

Lathe and milling attachments, chucks and arbors.

04

Fixtures & Tooling

Vices, clamps and jigs for repeatable workholding.

05

Inspection Instruments

Dial and height gauges, gauge blocks, surface plates.

06

Support & Consumables

Coolants, abrasives, lubricants and workshop supplies.

~470 ITEMS · 6 CATEGORIES

LET'S BUILD IT.

AVAILABLE AS · **Turnkey** (Consulting + Equipment + Delivery + Curriculum + Set-up)