

# Machines

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For over 50 years, Denford Limited have striven to bring together the very best CAD/CAM and CNC manufacturing solutions for Design & Technology in Schools

Denford Limited are one of the few businesses operating within the educational sector, which can truly claim to be a British Manufacturing Company. We have a history of design and manufacture and were one of the very first companies to develop a Computer Numerically Controlled (CNC) lathe specifically for education and training. In recent times, we have developed and expanded our product range to include the design and manufacture of a comprehensive range of CNC milling machines, lathes and routers, designed for education market; and the Denford products are a familiar fixture in Design & Technology laboratories throughout the world.

We offer Leasing Agreements on our range of Machines – please contact our Sales Department for further details

## ROUTERS / ENGRAVERS

### PCB Engraver

[View catalogue page](#)

### 3 AXIS CNC PCB AND ENGRAVING MACHINE

A 3 axis CNC PCB and Engraving Machine with totally-enclosed guarding, suitable for all levels of education and training. The PCB Engraver is supplied with operating software incorporating Gerber and DXF import facilities. The PCB Engraver is ideal for cutting and engraving a range of resistant materials, including copper board, plastic and acrylic.

[PCB Engraver literature](#)

[Watch Denfords New PCB / Engraver Cutting a PCB Board](#)

### MRC 40

[View catalogue page](#)

### VERSATILE, AFFORDABLE ROUTER, MILLER & ENGRAVER

Denford's high-spec / low-cost solution for all your routing, milling and engraving needs. The MRC 40 has a powerful 500W spindle motor and offers high speed manufacture linked with a large working envelope. This versatile machine handles small engraving jobs, and the large working envelope and Z axis capability (110mm) is perfect for the manufacture of large 3D designs. Set-up and tool changes are a simple process, and the MRC 40 has a host of optional extras for specialist applications.

MRC 40 literature  
Compact 1000 Pro

[View catalogue page](#)

#### COMPACT 3 AXIS CNC ROUTER

A compact 3 axis CNC Router with totally enclosed interlocking guard, suitable for all levels of education and training. The Compact 1000 Pro is ideal for cutting a range of resistant materials such as hard and soft wood, plastic, modelling foam, acrylic and prototyping materials, as well as non-ferrous metals.

[Compact 1000 Pro literature](#)

Router 2600 / Router 2600 Pro

[View catalogue page](#)

#### 3 AXIS CNC ROUTER

A 3 axis CNC Router with totally enclosed interlocking guard, suitable for all levels of education and training. With its large capacity the Router 2600 is ideal for cutting a range of resistant materials such as hard and soft wood, plastic, modelling foam, acrylic and prototyping material. In addition, the Router 2600 Pro can cut non-ferrous metals.

[Router 2600 literature](#)

[Video of the machine cutting metal](#)  
[Video of the machine cutting a PCB](#)  
[Video of the machine cutting an F1 Balsa Co2 car with our new fixture](#)

Vertical Router

[View catalogue page](#)

#### LARGE FORMAT 3 AXIS CNC ROUTER

The Denford Vertical Router is a large format CNC Router, combining high speed machining over a large working area with space saving engineering. The 1200 x 800 mm working envelope makes it ideal for the manufacture of large-scale items such as furniture parts and door panels. The machine is well equipped with a high power 21,000 rpm spindle motor and AC Servo Motors allowing contouring and rapid feeds of 20 metres per minute in all axes. Inspired design provides excellent production capabilities and ease of installation, as the Vertical Router will fit through a standard door frame.

[Vertical Router literature](#)

[Watch the Vertical Router cutting out a slot together rocking chair](#)

Router Accessories

[View catalogue page](#)

#### 4TH AXIS PROGRAMMABLE ROTARY FIXTURE/CAR MANUFACTURING FIXTURE VAC PADS & BEDS

Denford have a huge range of Router Accessories including a 3D Laser Scanning Attachment, a Programmable 4th Axis Rotary Fixture, F1 in Schools Car Manufacturing Fixtures, Dust Extraction Units , Vacuum Pads and Additional Clamping Kits.

[3D Scanning and 4th Axis literature](#)

[Floating Head and work holding literature](#)

[Universal Machine Benches](#)  
[View catalogue page](#)

Denford's Universal Machine Benches are suitable for use with our entire range of CNC Routers, Mills and Lathes. The benches are designed to accommodate varying requirements, and to integrate with existing furniture in a traditional workshop environment, or an IT suite.

[Universal Machine Bench literature](#)

## MILLING and TURNING MACHINES

[VMC 1300](#)

[View catalogue page](#)

### CNC MILLING MACHINE

A 3 axis CNC milling machine available either floor standing or for bench mounting, with totally enclosed high visibility interlocking guard, suitable for all levels of education and training. Programmable spindle speeds and feedrates make the VMC 1300 ideal for cutting a range of resistant materials such as wax, plastic, acrylic, free cutting alloys, aluminium and steel. Also available for integration into FMS/CIM systems (additional equipment must be fitted at time of manufacture).

[VMC 1300 product literature](#)  
[Watch the VMC 1300 doing rapid prototyping work](#)  
[Watch The VMC 1300 cutting aluminium and auto-toolchanging](#)

[Turn 270 Pro](#)

[View catalogue page](#)

### CNC LATHE

A compact 2 axis CNC Lathe with totally enclosed high-visibility interlocking guard, suitable for all levels of education and training. Programmable spindle speeds and feedrates make the Turn 270 PRO ideal for cutting a range of resistant materials such as wax, plastic, acrylic, free cutting alloys, aluminum and steel.

[Turn 270 product literature](#)

[Watch Denfords Turn270 Pro in action](#)

[Micromill](#)

[View catalogue page](#)

## CNC MILLING MACHINE

A compact 3 axis CNC milling machine with totally enclosed interlocking guards - the ideal introduction to small part CNC manufacture. Variable spindle speeds and feedrates make the Micromill ideal for cutting resistant materials such as wax, plastic, acrylic, aluminum and free cutting alloys.

[Micromill product literature](#)

[Microturn](#)

[View catalogue page](#)

## CNC LATHE

A compact 2 axis CNC lathe with totally enclosed interlocking guards - the ideal introduction to small part CNC manufacture. Variable spindle speeds and feedrates make the Microturn ideal for cutting resistant materials such as wax, plastic, acrylic, aluminum and free cutting alloys.

[Microturn product literature](#)

[CoolTool®](#)

[View catalogue page](#)

## VERSATILE MULTI FUNCTION TOOLS FOR THE CLASSROOM

Cool Tool is ideal to introduce young students to the process of design and manufacture. The Cool Tool machines are compact, easy to handle, completely child safe, and produce surprising results. The kits include everything you need to get you up and running with the minimum of fuss, including all the necessary documentation, projects and materials.

CoolTool product literature

Universal Machine Benches

[View catalogue page](#)

Denford's Universal Machine Benches are suitable for use with our entire range of CNC Routers, Mills and Lathes. The benches are designed to accommodate varying requirements, and to integrate with existing furniture in a traditional workshop environment, or an IT suite.

Universal Machine Bench literature

Consumables

[View catalogue page](#)

As proud Founders and Sponsors of F1 in Schools, Denford Ltd are the exclusive supply partner for all F1 in Schools related Design, Analyse, Make, Test and Race equipment.

Included in these pdf pages is all of the equipment and consumables you will require to get you up and running with this innovative project.

F1 in Schools equipment includes Elevated Race Tracks, F1 Race System Stop and Start Gates, Wind Tunnels, Smoke Tunnels, Smoke Generators and a complete range of consumables including Balsa Wood Car Blanks, Wheels, Axles, Paint Stands, Decal Stickers and C02 Competition Race Cartridges.

Traditional CNC consumables have not been neglected, and these pages include items such as Cast Acrylic Sheets, Wood, Foam and Aluminum Blocks, as well as High Density Modelling Boards.

[Consumables Literature](#)

LASERS and RAPID PROTOTYPING

VersaLASER VLS

[View catalogue page](#)

LASER CUTTER & ENGRAVER

The VersaLASER™ can transform images or drawings on your computer screen into real items made from a wide variety of materials. The VersaLASER™ is ideal for cutting, deep engraving, precision scribing, decorative etching on wood, plastic, fabric, leather, paper, rubber and will also mark glass, ceramic, metal and stone.

[VLS product literature](#)

Large Format VersaLASER

[View catalogue page](#)

#### LASER CUTTER & ENGRAVER

The Large Format VersaLASER™ Series are free standing laser units with a large working area. There are numerous models and power options available to accommodate a wide range of budgets and applications including cutting, deep engraving, precision scribing, decorative etching on wood plastic, fabric, leather, paper, rubber and also the marking of glass, ceramic, metal and stone.

[Large Format VersaLASER product literature](#)

[Rapid Prototyping](#)

[View catalogue page](#)

#### 3D MODEL PRINTING

Unlike “appearance” prototypes produced in weak materials, HP and Dimension 3D Printers generate durable, working models in ABS plastic. ABS 3D prints can withstand rigorous functional testing, which is why ABS is the material of choice for leading manufacturers.

New to the Denford range are the HP Designjet 3D and HP Designjet 3D Colour Printers.

[Rapid Prototyping product literature](#)

[Rapman 3D Prototyper](#)

[View catalogue page](#)

The Rapman is a 3D printer which produces solid objects from your STL files which can be drawn on almost any CAD package!

Professional quality low cost 3D printing. The most affordable 3D Prototyping system available to schools and colleges.

[Rapman product literature](#)

#### CUTTER PLOTTERS

## Craft Robo Series

[View catalogue page](#)

We supply a range of cutter plotters which make an ideal introduction to CAD/CAM

### Cutter Plotter Literature

If you already have a Denford machine and are looking to upgrade, have a look at the pdf document below which helps you to identify your machine

[Machine Upgrade Identification Guide.pdf](#)

Below is another pdf document which outlines the reasons why you should upgrade your software to the latest version of Denford VR CNC Milling V5

[Reasons to upgrade to VR CNC Milling V5.pdf](#)

A windows based PC is required to run Denford CNC machines(Routers / Millers / Lathes). They come complete with the powerful VR CNC Milling v5 Operating Software.

All Denford CNC machines are CE Approved for safety and are supplied as a complete educational package incorporating operating software and manuals, CAD/CAM software and manuals, curriculum courseware and project books in addition to a full range of tooling and machine accessories.

USB Connection is available on all Denford CNC Machines (requires Windows XP/2000 or later).