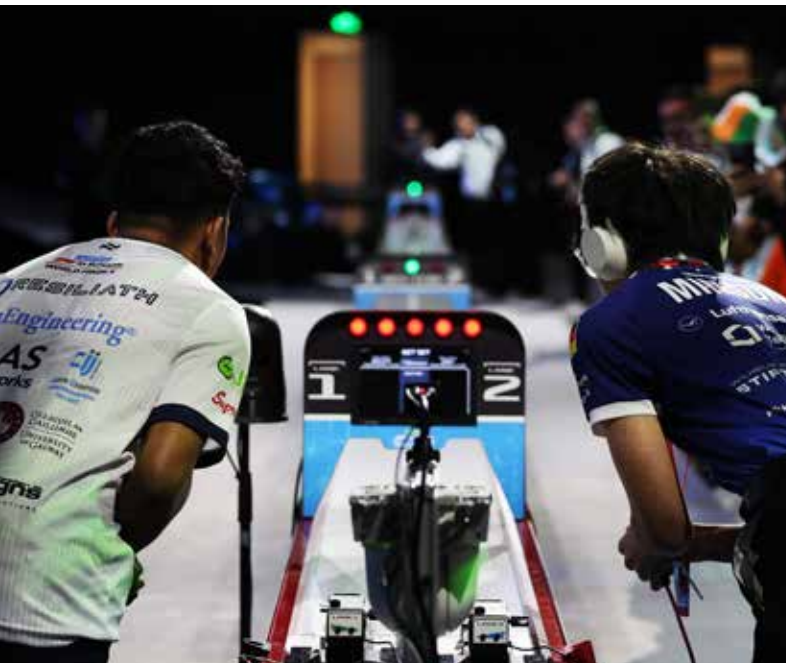
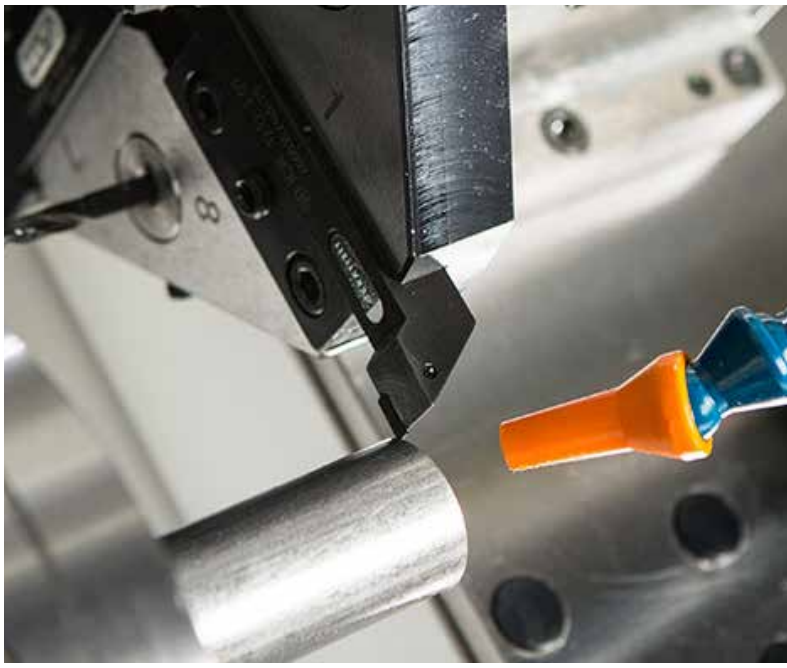
DENFORD®

Product Catalogue

CAD/CAM Solutions & Projects for Education

ISSUE 1.1





Welcome

To the Denford Product Guide

Del Trudgill
Electrician

For over 80 years, Denford has been at the forefront of British design and innovation.

From our beginnings as a precision engineering company, we've evolved into a global leader in education and training solutions - helping to inspire the next generation of engineers, designers, and problem-solvers.

This catalogue brings together the full range of Denford products: industry-standard CNC machines, CAD/CAM software, and consumables — all designed to help educators deliver real-world skills in the classroom.

I'm particularly proud that Denford is the founder and official equipment supplier of STEM Racing, the global education programme that's igniting creativity, teamwork, and technical skills in classrooms and workshops across more than 65 countries...and counting.

Every Denford product reflects our long-standing commitment to quality, innovation, and education. Whether you're equipping a classroom, developing a college workshop, or building a complete STEM Racing programme, I'm confident you'll find everything you need here to inspire future talent.

Proudly designed and manufactured in the UK, Denford continues to drive STEM education forward - just as we have for more than eight decades.

Andrew

Andrew Denford
CEO, Denford Limited

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Contents

MACHINES

Routing Accessories:

SOFTWARE

LASERS

WATERJET CUTTERS

DENFORD CONSUMABLES

Denford

A proud history of British innovation

1930's

Founded by Horace Denford in London, producing precision tools. Relocated to Halifax during WWII to support the war effort with engineering components.

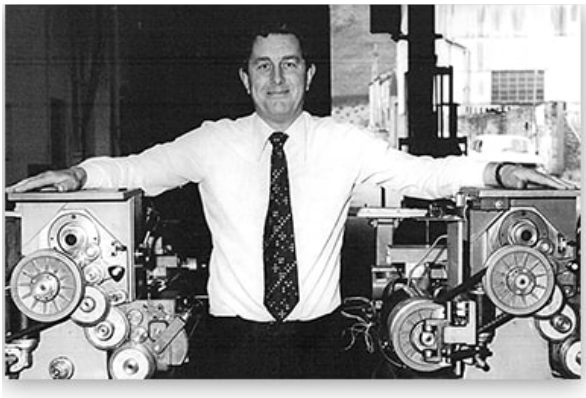
1940's

Established Denford Machine Tools at Box Tree Mills, producing around 400precision bench lathes that built a reputation for accuracy and reliability.

1950's

Moved to Brighouse and expanded into woodturning lathes, grinders, and polishers, supplying high-quality equipment to schools and training workshops nationwide.

1960's - 1980's



Under Gerald Denford, embraced CNC innovation, shifting focus to educational machine tools that combined precision engineering with hands-on learning experiences.

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Denford

Innovating into the Future

1980's - 2000's

Andrew Denford took leadership in 1987, expanding into computer-controlled training systems and pioneering global STEM education through the F1 in Schools programme.

2010's

Opened a purpose-built 18,500 sq ft facility in Brighouse with showroom, demo area and training centre, reinforcing Denford's commitment to British manufacturing.

Recent Years

Continued developing CNC mills, routers, and lathes for education, maintaining UK- based design and manufacture while advancing product innovation and technical learning. Rebranded F1 in Schools to STEM Racing in 2025.

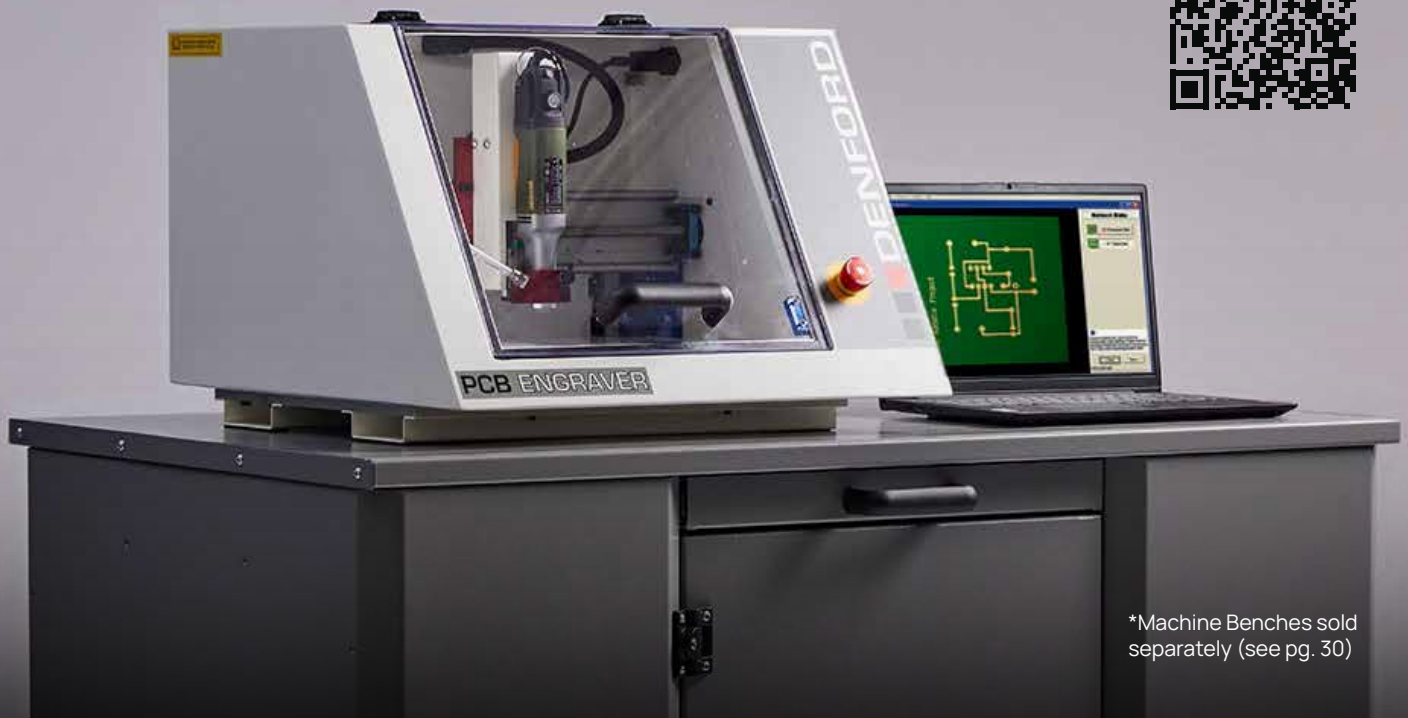
Future

Still family-led, now into a fourth generation, Denford focuses on sustainability, advanced engineering, and inspiring future engineers through global education partnerships.

PCB Engraver

3 Axis CNC PCB and Engraving Machine

SCAN FOR MORE



*Machine Benches sold separately (see pg. 30)

Suitable for all levels of PCB manufacture

Ideal for cutting a range of resistant materials

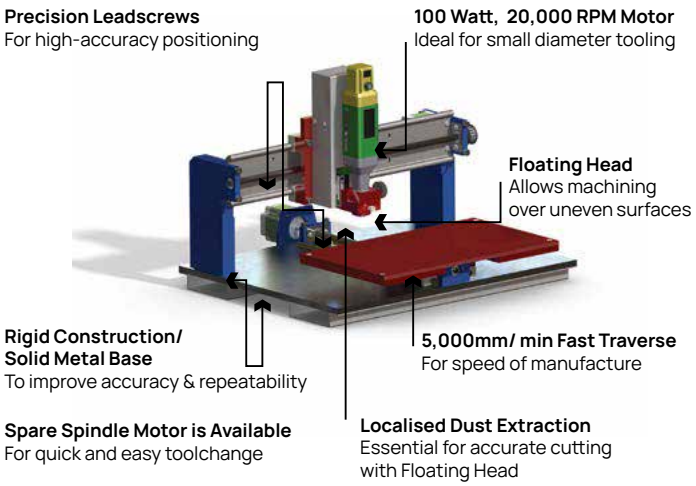
Perfect for uneven surfaces

Suitable for all levels of learning

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. Denford's PCB Engraving Machine features the latest 'Floating Head' technology.

The floating head allows manufacture of PCB's, and engraving of uneven surfaces. The PCB Engraver is also ideal for batch manufacture of PCB boards.



Please note, diagram for illustration purposes only.

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PCB ENGRAVER

Technical information

Equipment as standard

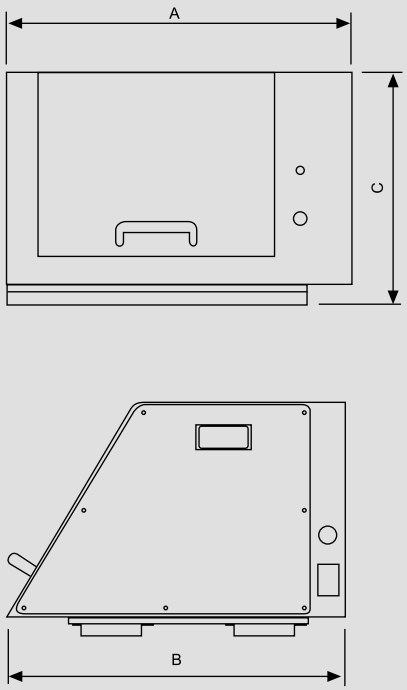
- Powerful operating software that is simple to use and allows multiple designs to be made at once
- High speed spindle motor and floating head technology
- Basic tools and depth-setting device
- Outlet for Dust Extraction System
- Sacrificial Table
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Please note

- The PCB Engraver software will import Gerber files or CNC G-Code files.
- Third party PCB software is required to create Gerber files, and QuickCAM 2D Design software would be an ideal addition to create CNC G-Codes.
- Dust Extraction is essential to allow the machine to function. The Dust Pro 50 is ideal.
- The machine spindle has a 20 minute 50% duty cycle, so the use of additional spindle motors for tool changing will increase productivity.

Mechanical details

Machine Length (A)	570mm	22.44in
Machine Depth (B)	585mm	23.03in
Machine Height (C)	385mm	15.16in
Machine Weight	43kg	94.80lb
Table Size	360 x 210mm	14.17 x 8.27in
Travel X Axis	330mm	13in
Travel Y Axis	210mm	8.27in
Travel Z Axis	40mm	1.57in
Float Z Axis	5mm	0.20in
Beam Clearance	50mm	1.97in
Max Spindle Speed	20,000rpm	20,000rpm
Spindle Speed Control	Manual	Manual
Max Feed Rate	5000mm/min	196.85in/min
Max Contouring Feed Rate	1000mm/min	39.37/min
Spindle Motor 100V / 230V Supply	100W	0.13HP
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	5A	6A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

MCR 100

STEM Racing Specific CNC Router

SCAN FOR MORE

Easy to use

STEM Racing specific

Compact design

Easy to use, entry level CNC machine

A compact, desktop 3 Axis CNC Router with totally enclosed interlocking guard, the Denford MCR 100 has been designed exclusively for the manufacture of STEM Racing cars, giving a high-quality, professional finish.

The MCR 100 is an easy to use, low-cost machine, which has been developed to make STEM Racing more affordable and accessible to schools worldwide.

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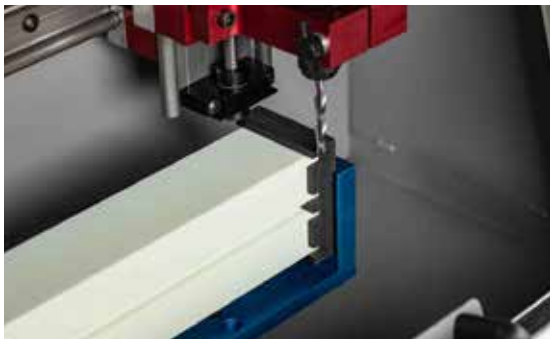
MCR 100

Technical information

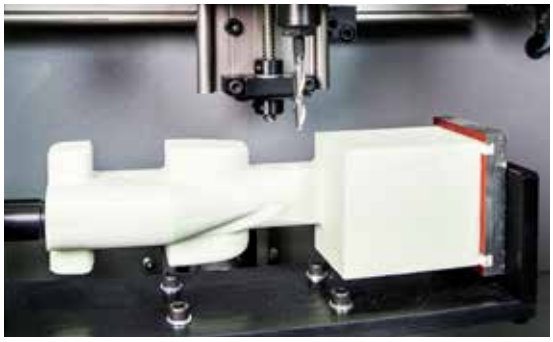
Equipment as standard

- VR CNC Milling Operating Software
- QuickCAM Pro Software with STEM Racing Car Wizard
- Workholding for STEM Racing Model Block
- 1/4" Dia Ball Nose Extra Long Series Cutter (Solid Carbide)
- Outlet for Dust Extraction System
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included



Optional extras

- Dust Pro 50 Extraction Unit
- STEM Racing Model Blocks

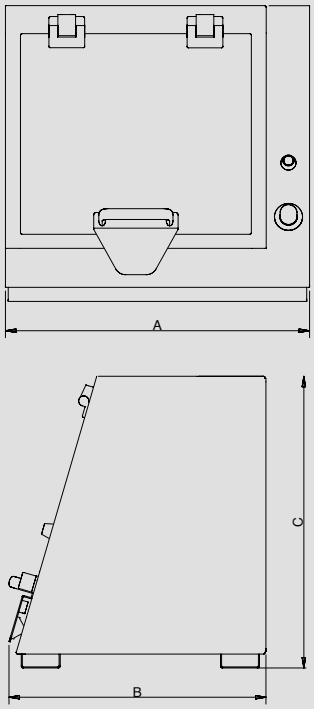


Please Note

The MCR 100 is specifically designed and built for manufacturing STEM Racing cars. If your establishment requires CNC machining for other types of projects, we recommend considering the Compact 1000 instead.

Mechanical details

Machine Length (A)	550mm	21.65in
Machine Depth (B)	490mm	9.29in
Machine Height (C)	525mm	20.67in
Machine Weight	45kg	99.21 lb
Travel X Axis	218mm	8.58in
Travel Y Axis	75mm	2.95in
Travel Z Axis	55mm	2.17in
Max Spindle Speed	29000rpm	29000rpm
Non-Ferrous Metal Cutting	No	No
Spindle Speed Control	Manual	Manual
Max Feed Rate	5000mm/min	196.85in/min
Max 3D Profiling	4500mm/min	177.17in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor 110V Supply	800W	1.07HP
Spindle Motor 230V Supply	530W	0.71HP
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	8A	10A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

Compact 1000/1000 Pro

Compact 3 Axis CNC Router

Compact and powerful, perfect for cutting resistant materials

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

Compact yet Capable

The Compact 1000 / 1000 Pro's powerful spindle motor easily cuts through a range of resistant materials.

- Desktop or bench-mounted (shown with optional machine bench with computer support extension)
- Wide range of fixture choices
- Suitable for a wide range of projects

Self-centering Vice

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COMPACT 1000/1000 PRO

Technical information

Equipment as standard

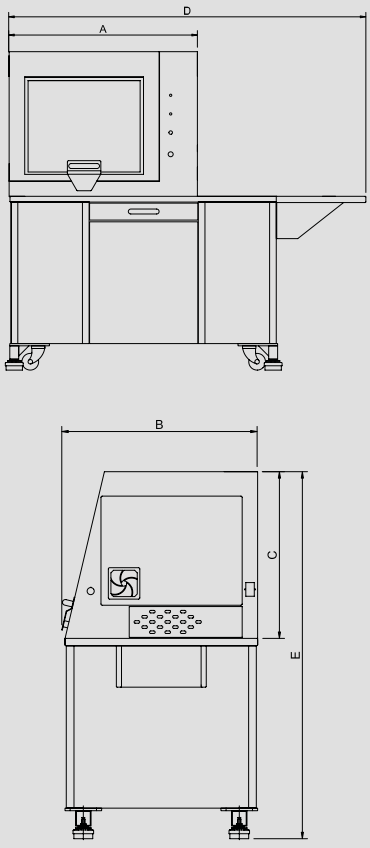
- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Aluminium T Slot Table
- Outlet for Dust Extraction System
- Workholding Clamps
- Installation and Instruction Manuals
- Ethernet or USB Connection
- 1/4" Dia Ball Nose Extra Long Series Cutter (Solid Carbide)
- *PC Not Included

Optional extras

- Recommended Tooling Package
- Recommended Set of Quick Change Toolholders & Collet
- Self-Centering Vice
- STEM Racing Car Manufacturing Fixture
- 4th Axis Programmable Rotary Fixture (Inc QuickCAM 4D site licence)
- STEM Racing 4th Axis Car Manufacturing Conversion Kit
- 3D Scanning Attachment
- Integrated Dust Pro 100 Extraction Unit for Machine Bench
- Dust Pro 50 Extraction Unit
- Machine Bench with Computer Support Extension
- Vacuum Pads
- Floating Head
- QuickCAM Pro Software

Mechanical details

Machine Length (A)	875mm	34.45in
Machine Depth (B)	765mm	30.12in
Machine Height (C)	675mm	26.57in
Machine Length with Optional Base (D)	1678mm	66.06in
Machine Height with Optional Base (E)	1440mm	56.69in
Machine Weight	116kg	255.74lbs
Machine Weight with Optional Base	230kg	507.06lbs
Table Size	400 x 240mm	15.75 x 9.45in
Travel X Axis	400mm	15.75in
Travel Y Axis	240mm	9.45in
Travel Z Axis	110mm	4.33in
Beam Clearance	140mm	5.51in
Max Spindle Speed (1000/ Pro)	29000/ 24000rpm	29000/ 24000rpm
Non-Ferrous Metal Cutting	Pro Only	Pro Only
Spindle Speed Control	Pro Only	Pro Only
Spindle Speed Override	Pro Only	Pro Only
Max Feed Rate	5000mm/min	196.85in/min
Max 3D Profiling	4500mm/min	177.17in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor 110V Supply	800W - 1.07HP	1000W - 1.34HP (Pro)
Spindle Motor 230V Supply	1050W - 1.41HP	1000W - 1.34HP (Pro)
Axes Motor	Stepper	Stepper
Frequency	50 - 60 Hz	50 - 60 Hz
Voltage	230V	110V
Current	8A	10A
Frequency	50 /60 Hz	50/60 Hz



Machine Dimensions

Router 2600/2600 Pro

Large Capacity 3 Axis CNC Router

Enhanced machining capacity

Resistant materials

All education levels

Quality, precision, maintenance free routing

The Router 2600 / 2600 Pro offers a large, flexible machining capacity making it the ideal choice for education and training. This enhanced workspace allows multiple fixtures to be bolted to the T-slot table simultaneously, making it perfect for handling consecutive or varied projects efficiently.

The Router 2600 / 2600 Pro is perfect for multiple fixture setups:

- Makes light work of tough materials
- Desktop or bench-mounted (shown with optional machine bench and computer support extension)
- Multiple fixtures can be fitted at the same time
- Dry lubrication ensures low maintenance
- Fits through a standard single doorway
- Non-ferrous metals (Pro only)

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ROUTER 2600/ 2600 PRO

Technical information

Equipment as standard

- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Aluminium T Slot Table
- Outlet for Dust Extraction System
- Workholding Clamps
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Optional extras

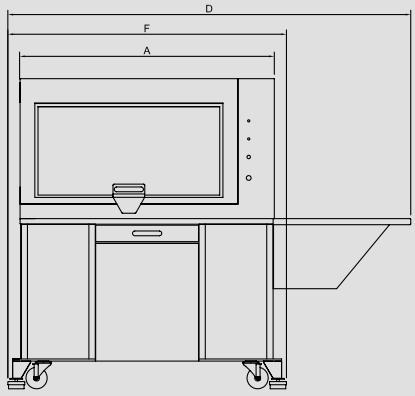
- Recommended Tooling Package
- Recommended Set of Quick Change Toolholders & Collet
- Self-Centring Vice
- STEM Racing Car Manufacturing Fixture
- 4th Axis Programmable Rotary Fixture (Inc QuickCAM 4D site licence)
- STEM Racing 4th Axis Car Manufacturing Conversion Kit
- 3D Scanning Attachment
- Integrated Dust Pro 100 Extraction Unit for Machine Bench
- Dust Pro 50 Extraction Unit
- Machine Bench
- Computer Support Extention for Machine Bench
- Large Format Vacuum Bed
  600 x 400mm / 23.62 x 15.75in
- Vacuum Pads
- Floating Head
- QuickCAM Pro Software

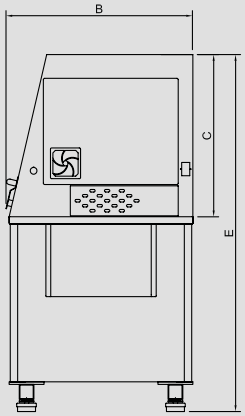
Please Note

For applications involving tougher materials, such as steel, we recommend the **VMC 1300 Pro** for optimal performance.

Mechanical details

Machine Length (A)	1200mm	47.24in
Machine Depth (B)	765mm	30.12in
Machine Height (C)	675mm	26.57in
Length with Optional PC Arm (D)	1910mm	75.20in
Machine Height with Optional Base (E)	1440mm	56.69in
Machine Length with Optional Base (F)	1325mm	52.17in
Machine Weight	150kg	330.69lbs
Machine Weight with Optional Base	255kg	562.18lbs
Table Size	700 x 430mm	27.56 x 16.93in
Travel X Axis	600mm	23.62in
Travel Y Axis	400mm	15.75in
Travel Z Axis	110mm	4.33in
Beam Clearance	150mm	5.91in
Max Spindle Speed (2600/ Pro)	25000/ 24000rpm	25000/ 24000rpm
Non-Ferrous Metal Cutting	Pro Only	Pro Only
Spindle Speed Control	Pro Only	Pro Only
Spindle Speed Override	Pro Only	Pro Only
Max. Feed Rate	5000mm/min	196.85in/min
Max. 3D Profiling	4500mm/min	177.17in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor 110V Supply	800W - 1.07HP	1000W - 1.34HP (Pro)
Spindle Motor 230V Supply	1050W - 1.41HP	1000W - 1.34HP (Pro)
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	8A	10A
Frequency	50/60 Hz	50/60 Hz





Machine Dimensions

Router 6600/6600 Pro

Large format, high speed, floor-standing CNC Router

SCAN FOR MORE

Large machining capacity

Resistant materials

High speed

Our largest CNC Router, designed for maximum versatility and performance

The Router 6600 / 6600 Pro offers large machining capacity at high speed. Its significantly larger work area allows multiple fixtures to be bolted to the T-slot table simultaneously, making it ideal for handling varied or consecutive projects with efficiency.

Makes light work of tough materials

Denford's largest Router, the 6600 / 6600 Pro, easily cuts through a range of resistant materials, including non-ferrous metals.

- Hard and soft woods
- Acrylics and other plastics
- Modelling foam and prototyping materials
- Non-ferrous metals (Pro only)

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ROUTER 6600/ 6600 PRO

Technical information

Equipment as standard

- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Machine Bench
- Aluminium T Slot Table
- Outlet for Dust Extraction System
- Workholding Clamps
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Optional extras

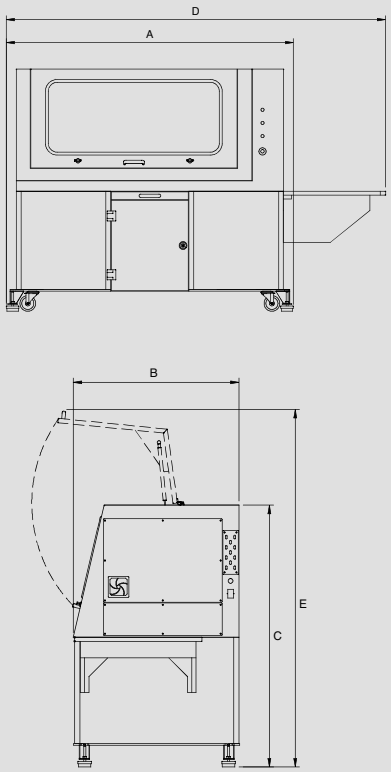
- Recommended Tooling Package
- Recommended Set of Quick Change Toolholders & Collet
- Self-Centring Vice
- STEM Racing Car Manufacturing Fixture
- 4th Axis Programmable Rotary Fixture (inc QuickCAM 4D site licence)
- STEM Racing 4th Axis Car Manufacturing Conversion Kit
- 3D Scanning Attachment
- Integrated Dust Pro 100 Extraction Unit for Machine Bench
- Dust Pro 50 Extraction Unit
- Computer Support Extension for Machine Bench
- Large Format Vacuum Bed
  1000 x 600mm / 39.37 x 23.62in
  OR 600 x 400mm / 23.62 x 15.75in
- Vacuum Pads
- Floating Head
- QuickCAM Pro Software

Please Note

For applications requiring tougher materials, such as steel, we recommend the VMC 1300 Pro for optimal performance.

Mechanical details

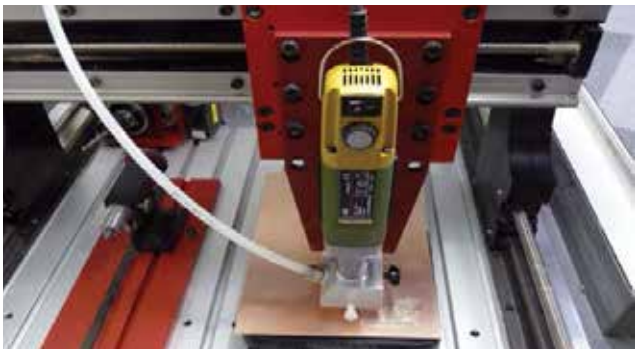
Machine Length (A)	1825mm	71.85in
Machine Depth (B)	985mm	38.78in
Machine Height (C)	1540mm	60.63in
Length with Optional PC Arm (D)	2410mm	94.88in
Height with Door Open (E)	2110mm	83.07in
Machine Weight	430kg	947.99 lbs
Table Size	1080 x 640mm	42.52 x 25.20in
Travel X Axis	1000mm	39.37in
Travel Y Axis	600mm	23.62in
Travel Z Axis	110mm	4.33in
Beam Clearance	148mm	5.83in
Max Spindle Speed (6600/ Pro)	25000/ 24000 rpm	25000/ 24000 rpm
Non-ferrous Metal Cutting	Pro Only	Pro Only
Spindle Speed Control	Pro Only	Pro Only
Spindle Speed Override	Pro Only	Pro Only
Max. Feed Rate	5000mm/min	196.85in/min
Max 3D Profiling	4500mm/min	177.17in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor 110V Supply	800W - 1.07HP	1000W - 1.34HP (Pro)
Spindle Motor 230V Supply	1050W - 1.41HP	1000W - 1.34HP (Pro)
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	8A	10A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

Router Accessories

Floating Head, Self Centring Vice, Dust Extraction Units



PCB Production Floating Head

Denford's 'Floating Head' option permits manufacture of PCB's and engraving of uneven surfaces, and is ideal for batch manufacture of PCB boards.

The floating head comes complete with a quick change facility for a swift interchange with the standard issue router motor.

The cutting tool profiles around the outside of the tracks creating an isolation gap. The weight of the spindle motor plunges the cutter into the PCB board, and depth is set by a plastic disc that floats on the material surface. A float up to 5mm is possible using this technology.

Self Centring Vice

Flat precision vice with low physical height.

Supplied with mountings for Denford Router T-Slot tables and additional V-type steel vice jaws for holding round work-pieces.

Dimensions:	H140mm	W222mm	D345mm
	H5.51in	W8.74in	D13.58in

Dust Pro 100 Extraction Unit

Denford's large capacity dust extraction system is a purpose-designed dust control system for use with the Compact 1000/Pro, Router 2600/Pro & Router 6600/ Pro. It can be used as a stand-alone unit, or incorporated within Denford's machine bench, as shown to the left.

The unit is highly effective in removing airborne dust and light particles produced during machining, and is recommended where MDF is regularly used. The unit comes ready to use including a removable / re-usable dust collection bag and separate HEPA filter.

Dimensions:	H530mm	W460mm	D670mm
	H20.87in	W18.11in	D26.38in

Dust Pro 50 Extraction Unit

Particle and dust extraction unit suitable for use with the PCB Engraver, MCR 100, Compact 1000/Pro and Router 2600/Pro. This purpose designed unit is ideal for extraction of airborne dust created during the manufacturing process, and also to vacuum the machine after the cutting process is complete. The unit comes complete with castors, flexible hose and fittings.

Dimensions:	H530mm	W300mm	D300mm
	H20.87in	W11.81in	D11.81in

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Router Accessories

Fixtures, Clamping Kits and Vacuum Beds

STEM Racing Car Manufacturing Fixture

Car Manufacturing Fixture to enable the manufacture of STEM Racing cars. The fixture clamps directly to the T-Slot table on the Compact 1000/Pro, Router 2600/Pro and Router 6600/Pro. It is also suitable for use on the VMC 1300 Pro.

Dimensions:

Additional Clamping Kit

Additional Clamping Kit includes 2 parallel clamping rails with T-nuts, (allowing the workpiece to be raised from the bed, to permit 'through' machining), 1 additional L bracket and lever clamp with T-nuts.

Dimensions:

Large Format Vacuum Bed

Suitable for use with the Router 2600/Pro and Router 6600/Pro, the large format bed is supplied with an external vacuum pump. Suitable for 'blind' machining and 'through' machining when used with sacrificial mat.

It is available in 2 sizes:
• Router 2600/Pro,Router 6600/Pro.
Dimensions: 600 x 400mm - 23.62 x 15.75in

• Router 6600/Pro(as shown to left).
1000 x 600mm - 39.37 x 23.62in

Requires single phase, 16A supply protected by either a fuse or an MCB C Type.

Vacuum Pads

Vacuum Pads are suitable for the Compact 1000/Pro, Router 2600/Pro and Router 6600/Pro. The package includes 2 vacuum pads and an integral vacuum pump. Suitable for 'blind' machining only.

EasySCAN 3D Scanner

3D Scanning attachment & software for Denford routers

1. Select and scan the model

2. Manipulate scan data

3. Manufacture on a Denford CNC Router

4. Completed model

Denford's EasySCAN 3D Scanner attachment has full 360 degree scanning capability when used in conjunction with Denford's Rotary Fixture, and is suitable for use with Compact 1000/ Pro, Router 2600/ Pro, Router 6600/Pro and CNC Routers.

The EasySCAN 3D package incorporates user friendly, wizard based software for scanning, editing and saving 3D models, prior to manufacture on a Denford CNC Router.

EasySCAN 3D is ideal for Reverse Engineering applications.

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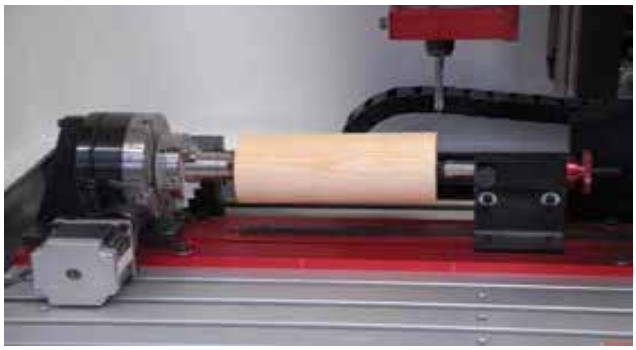
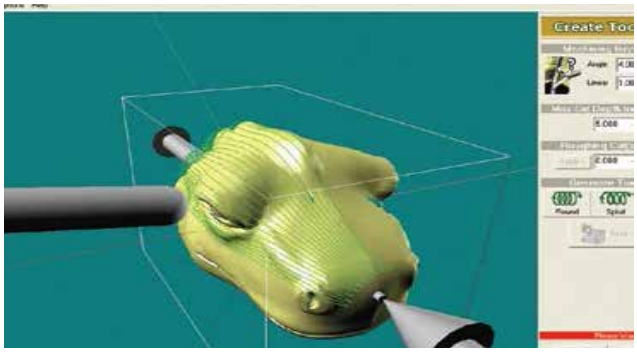
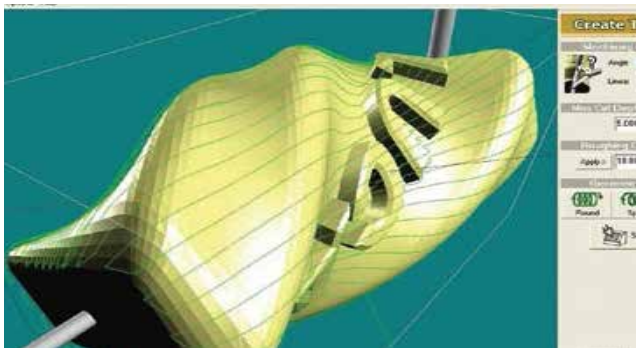
4th Axis Programmable Rotary Fixture

Complete with QuickCAM 4D Milling Software







4th Axis Programmable Rotary Fixture

For use with:

- Compact 1000/Pro
- Router 2600/Pro
- Router 6600/Pro

(also available for VMC1300 Pro with the exception of flood coolant model)

QuickCAM 4D Milling Software

(Supplied FREE with the Denford 4th Axis Programmable Rotary Fixture.)

An easy to use, wizard based CAM package specifically designed for use with the Denford 4th Axis Programmable Rotary Fixture. QuickCAM 4D Milling imports 3D files from most 3D CAD packages and converts these into 4th axis CNC program data for output to the range of Denford CNC Routers.

Users are guided through a series of simple steps, defining billet size, model orientation, machining strategy and axis of rotation before generating the appropriate CNC output file.

Features

- True 3 Dimensional model-making capabilities
- Seamless integration with VR CNC Milling software
- Circular, spiral and linear machining strategies
- User definable limits allow for workholding avoidance
- Supports both roughing and finishing paths
- Resize, orientate and centre the model
- Autoscale of model to fit the workpiece

Supported Output Formats
CNC controllers for Denford CNC Routers.

Supported Input Formats
3D Stereo Lithography (STL) files, as created with 3D design packages.

VMC 1300 Pro

CNC Milling Machine with optional Flood Coolant

Totally enclosed, safe to use

Ideal for cutting a range of resistant materials

Heavy duty cutting

Versatile and flexible cutting options

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.

Makes light work of tough materials

The VMC 1300 Pro's powerful spindle motor easily cuts through a range resistant materials such as wax, plastic, acrylic and free cutting alloys.

- Available with Spray Mist Coolant
- Available with Flood Coolant integrated into Industrial Cabinet Base
- 6 or 8 Station Automatic Tool Changer options
- Pictured with optional Machine Bench & Computer Support Extention

6 station Automatic tool changer

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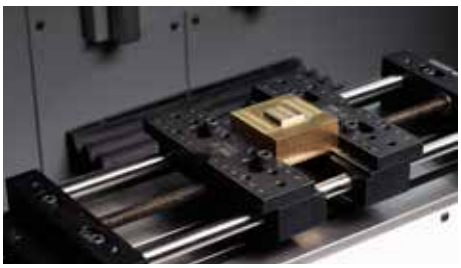
VMC 1300 PRO

Technical information

Equipment as standard

- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Power Drawbar with Manual Actuation
- Workholding Clamps
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

The Flood Coolant model comes complete with Industrial Cabinet Base



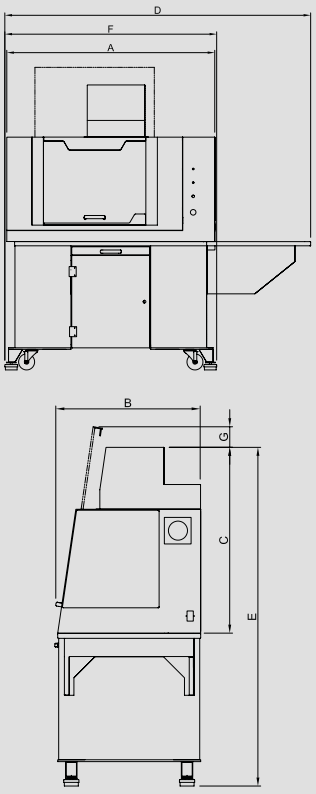
Optional extras

- Recommended Set of Tools
- Recommended Set of Toolholders
- Self-Centring Vice
- 6 or 8 Station Automatic Tool Changer (which can be removed to enable full 375mm X axis travel)*
- Spray Mist* or Flood Coolant
- Automatic Lubrication System
- 4th Axis Programmable Rotary Fixture (Inc QuickCAM 4D site licence) Not available with Flood Coolant
- Machine Bench (Flood Coolant model comes as standard with Industrial Cabinet Base)
- Computer Support Extension for Machine Bench/ Cabinet Base
- Pneumatic Vice*
- Pneumatic Guarding*
- QuickCAM Pro Software

*Requires Compressed Air

Mechanical details

Machine Length (A)	1300mm	51.18in
Machine Depth (B)	750mm	29.53in
Machine Height (C)	1325mm	52.17in
Length with Optional PC Arm (D)	1910mm	75.20in
Machine Height with Optional Base (E)	1765mm	69.49in
Machine Length with Optional Base (F)	1330mm	52.36in
Additional Height Door Open (G)	65mm	2.56in
Machine Weight	353kg	778.23 lbs
Machine Weight with Optional Base	456kg	1005.3 lbs
Table Size	600 x 180mm	23.62 x 7.09in
Travel X Axis Without ATC	375mm	14.76in
Travel X Axis With ATC Fitted	250mm	9.84in
Travel Y Axis	160mm	6.30in
Travel Z Axis	235mm	9.25in
Table to Spindle	305mm	12.01in
Max Spindle Speed	6000rpm	6000rpm
Max Feed Rate	5000mm/min	196.85in/min
Max 3D Profiling	4500mm/min	177.17in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor	1.6kW	2.15HP
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	10A	15A
Frequency	50 / 60 Hz	



Machine Dimensions

Turn 270 Pro

CNC Lathe

SCAN FOR MORE

*Machine Benches sold separately (see pg. 30)

- **All education levels**
- **8-station programmable turret**
- **Fully enclosed and safe to use**

Compact design suitable for every environment

A compact 2 axis CNC Lathe with totally enclosed high visibility interlocking guard, suitable for all levels of education and training.

Makes light work of tough materials

Programmable spindle speeds and feedrates make the Turn 270 Pro ideal for cutting a range of resistant materials:

- Acrylics and other plastics
- Free Cutting Alloys
- Aluminium and steel
- Wax

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TURN 270 PRO

Technical information

Equipment as standard

- VR CNC Turning Operating Software
- QuickTURN 2D Design Software (1 seat)
- 8 Station Programmable Turret or optional Quick Change Toolpost and Holder
- Manual Self Centring 100mm 3 Jaw Chuck
- Right Hand Turning Tool
- Parting Off Tool
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

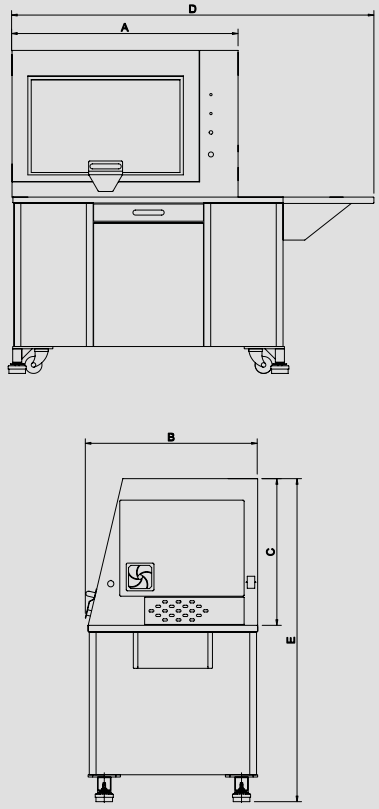
Optional extras

- Comprehensive Tooling Package
- Spray Mist Coolant*
- Manual Tailstock with Non-Revolving Centre (factory fitted)
- Revolving Centre for Tailstock (reduces distances between centres to 225mm)
- Machine Bench with Computer Support Extension
- Pneumatic Guarding*
- 80mm 3 Jaw Pneumatic Chuck*

*Requires Compressed Air

Mechanical details

Machine Length (A)	1000mm	39.37in
Machine Depth (B)	768mm	30.24in
Machine Height (C)	675mm	26.57in
Length with Optional Base (D)	1665mm	65.55in
Height with Optional Base (E)	1440mm	56.69in
Machine Weight	140kg	308.65lbs
Machine Weight with Optional Base	255kg	562.18lbs
Swing Over Bed	190mm	7.48in
Swing Over Cross Side	100mm	3.94in
Distance Between Centres	270mm	10.63in
Travel X Axis	150mm	5.91in
Travel Z Axis	225mm	8.86in
Max Spindle Speed	4000 rpm	4000 rpm
Max. Feed Rate	3000mm/min	118.11in/min
Spindle Bore	26mm	1.02in
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor	1.5kW	2.01HP
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	10A	15A
Frequency	50-60 Hz	50-60 Hz



Machine Dimensions

Turn 370 Pro

CNC Lathe with Flood Coolant

SCAN FOR MORE

Large machining capacity

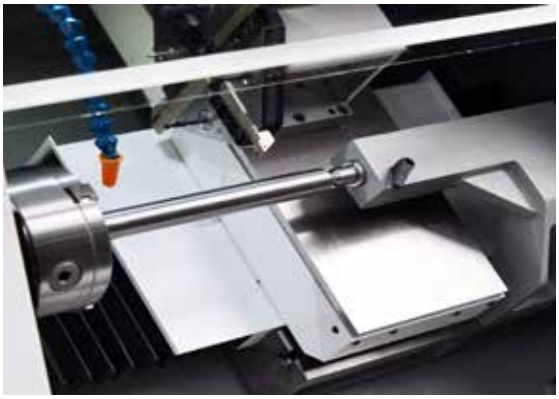
Ideal for cutting a range of resistant materials

Fully enclosed and safe to use

High capacity processing of resistant materials

A high capacity 2 axis CNC Lathe complete with flood coolant integrated into industrial cabinet base.

The Turn 370 Pro is totally enclosed with a high visibility interlocking guard, suitable for all levels of education and training.



Makes light work of tough materials

Programmable spindle speeds and feedrates make the Turn 370 Pro ideal for cutting a range of resistant materials:

- Acrylics and other plastics
- Free Cutting Alloys
- Aluminium and steel
- Wax

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TURN 370 PRO

Technical information

Equipment as standard

- VR CNC Turning Operating Software
- QuickTURN 2D Design Software (1 seat)
- Flood Coolant and Industrial Cabinet Base
- 8 Station Programmable Turret, or optional Quick Change Toolpost and Holder
- Manual Self Centering 125mm 3 Jaw Chuck
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

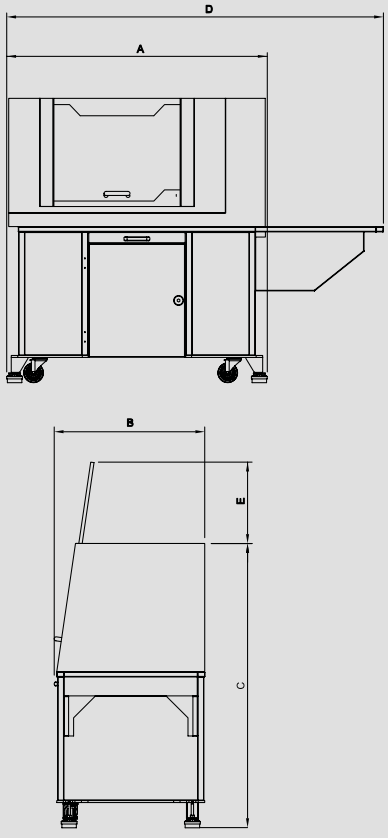
Optional extras

- Comprehensive Tooling Package
- Manual Tailstock with Non-Revolving Centre
- Revolving Centre for Tailstock (reduces distance between centres to 225mm)
- Computer Support Extension for Cabinet Base
- Automatic Lubrication System
- Pneumatic Guarding*
- 100mm 3 Jaw Pneumatic Chuck*

*Requires Compressed Air

Mechanical details

Machine Length (A)	1330mm	52.36in
Machine Depth (B)	750mm	29.53in
Machine Height (C)	1445mm	56.89in
Length with Optional PC Arm (D)	1910mm	75.20in
Open Door Height Above Machine (E)	385mm	15.16in
Machine Weight	400kg	881.85lbs
Swing Over Bed	260mm	10.24in
Swing Over Cross Slide	105mm	4.13in
Distance Between Centres	370mm	14.57in
Travel X Axis	200mm	7.87in
Travel Z Axis	275mm	10.83in
Max Spindle Speed	3700rpm	3700rpm
Max. Feed Rate	3000mm/min	118.11in/min
Spindle Bore	35mm	1.38in
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor	2.2kW	2.95HP
Axes Motors	Stepper	Stepper
Voltage	230V	110V
Current	14A	24A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

Micromill Pro

Compact 3 axis CNC Milling Machine

SCAN FOR MORE

*Machine Benches sold separately (see pg 30)

Entry level machine

Compact design

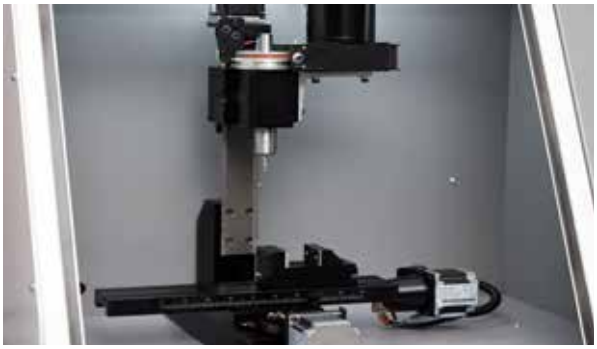
Fully enclosed and safe to use

Compact and safe to use

A compact 3 axis CNC milling machine with totally enclosed interlocking guard – the ideal introduction to CNC manufacturing.

Perfect for producing small components

Variable spindle speeds and feedrates make the Micromill Pro suitable for proving student designs, producing small components in materials such as wax, plastic, acrylic and free cutting alloys.



Milling Vice

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MICROMILL PRO

Technical information

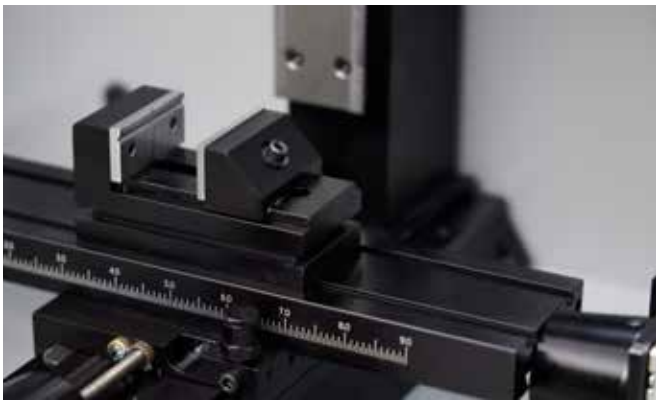
Equipment as standard

- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Workholding Clamps
- 3 x 6mm Dia Toolholders
- 2mm, 4mm & 6 mm Dia Slot Drills
- Set of Imperial / Metric Allen Keys
- Maintenance Tools
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Optional extras

- Milling Vice
- When combined with the Microturn Pro CNC Lathe, a Machine Bench is available, complete with 2 Computer Support Extensions

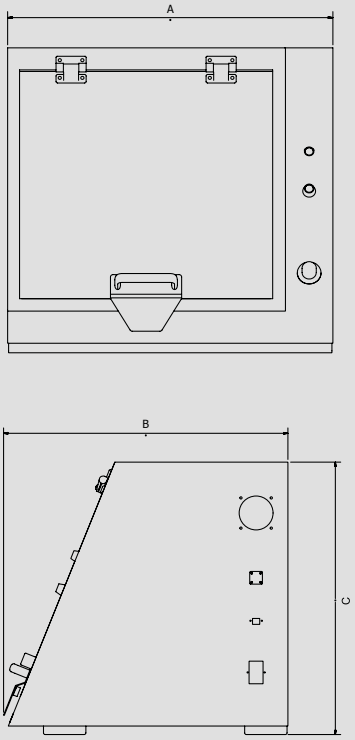
  Dimensions: H790mm W2500mm D750mm
  H31.10in W98.43in D29.53in



Milling Vice

Mechanical details

Machine Length	685mm	26.97in
Machine Depth	654mm	25.75in
Machine Height	688mm	27.09in
Machine Weight	76kg	167.55lbs
Table Size	70 x 330mm	2.76 x 12.99in
Travel X Axis	228mm	8.98in
Travel Y Axis	130mm	5.12in
Travel Z Axis	160mm	6.30in
Table to Spindle	182mm	7.17in
Max Spindle Speed	2500rpm	2500rpm
Max. Feed Rate	600mm/min	23.62in/min
Max. 3D Profiling	600mm/min	23.62in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor	75W	0.1HP
Axes Motor	Stepper	Stepper
Voltage	230V	110V
Current	5A	6A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

Microturn Pro

Compact 2 Axis entry level CNC Lathe

SCAN FOR MORE

*Machine Benches sold separately (see pg. 30)

Entry level machine

Compact design

Fully enclosed and safe to use

Compact and safe to use

A compact 2 axis CNC lathe with totally enclosed interlocking guard – the ideal introduction to CNC manufacturing.

Perfect for producing small components

Variable spindle speeds and feedrates make the Microturn Pro suitable for proving student designs, producing small components in materials such as wax, plastic, acrylic and free cutting alloys.

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MICROTURN PRO

Technical information

Equipment as standard

- VR CNC Turning Operating Software
- QuickTURN 2D Design Software (1 seat)
- Quick Change Toolpost and Holders
- Left Hand and Right Hand Cutting Tools
- Parting Off Tool
- 2 ½" Dia 3 Jaw Chuck and 2 Tommy Bars
- 1 ½" Standard Toolpost
- Tailstock
- Set of Imperial / Metric Allen Keys
- Maintenance Tools
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

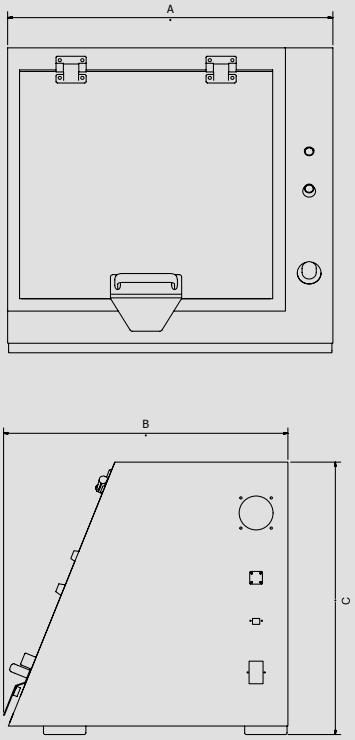
Optional Extras

- Thread Cutting Package comprising of Thread Cutting Tool & Encoder ****
- When combined with the Micromill Pro CNC Mill, a Machine Bench is available, complete with 2 Computer Support Extensions

Dimensions: H790mm W2500mm D750mm
H31.10in W98.43in D29.53in

Mechanical details

Machine Length	685mm	26.97in
Machine Depth	654mm	25.75in
Machine Height	688mm	27.09in
Machine Weight	80kg	176.37 lbs
Swing Over Bed	90mm	3.5in
Travel X Axis	50mm	1.97in
Travel Z Axis	126mm	4.96in
Max Spindle Speed	2500rpm	2500rpm
Max Feed Rate	600mm/min	23.62in/min
Mains Supply Requirements	Single Phase	Single Phase
Spindle Motor	75W	0.1HP
Axes Motor	Stepper	Stepper
Voltage	230V	110V
Current	5A	6A
Frequency	50/60 Hz	50/60 Hz



Machine Dimensions

Denford Duo

Introductory CNC Milling and Turning Package

SCAN FOR MORE

*Machine Benches sold separately (see pg. 30)

- Entry level machine package
- Compact design
- Fully enclosed and safe to use

The ideal introduction to CNC Manufacturing

The package incorporates the Micromill Pro CNC Milling Machine and Microturn Pro CNC Lathe, complete with tooling and software – the ideal introduction to CNC manufacturing.

Perfect for the educational environment

Variable spindle speeds and feedrates make the Micromill Pro and Microturn Pro suitable for proving student designs, producing small components in materials such as wax, plastic, acrylic and free cutting alloys.

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DENFORD DUO

Technical information

Equipment as standard (Micromill Pro)

- VR CNC Milling Operating Software
- QuickCAM 2D Design Software (1 seat)
- Workholding Clamps
- 3 x 6mm Dia Toolholders
- 2mm, 4mm & 6 mm Dia Slot Drills
- Set of Imperial / Metric Allen Keys
- Maintenance Tools
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Optional Extras

- Machine Bench, complete with 2 Computer Support Extensions
  Dimensions: H790mm W2500mm D750mm
  H31.10in W98.43in D29.53in

Equipment as standard (Microturn Pro)

- VR CNC Turning Operating Software
- QuickTURN 2D Design Software (1 seat)
- Quick Change Toolpost and Holders
- Left Hand and Right Hand Cutting Tools
- Parting Off Tool
- 2 ½" Dia 3 Jaw Chuck and 2 Tommy Bars
- 1 ½" Standard Toolpost
- Tailstock
- Set of Imperial / Metric Allen Keys
- Maintenance Tools
- Installation and Instruction Manuals
- Ethernet or USB Connection
- *PC Not Included

Mechanical details (Micromill Pro / Microturn Pro)

Machine Length	685mm/ 685mm	26.97in/ 26.97in
Machine Depth	654mm/ 654mm	25.75in/ 25.75in
Machine Height	688mm/ 688mm	27.09in/ 27.09in
Machine Weight	76kg/ 80kg	167.55lbs/ 176.37lbs
Table Size (Mill)	70 x 330mm	2.76 x 12.99in
Swing Over Bed (Lathe)	90mm	3.5in
Travel X Axis	228mm / 50mm	8.98in/ 1.97in
Travel Y Axis (Mill)	130mm	5.12in
Travel Z Axis	160mm/ 126mm	6.30in/ 4.96in
Table to Spindle (Mill)	182mm	7.17in
Max Spindle Speed	2500rpm	2500rpm
Max Feed Rate	600mm/min	23.62in/min
Max 3D Profiling (Mill)	600mm/min	23.62in/min
Spindle Motor	75W	0.1HP
Axes Motor	Stepper	Stepper
Power Requirements	Single Phase	Single Phase
Voltage	230V	110V
Current	5A	6A
Frequency	50/60 Hz	50/60 Hz

Machine Benches

A Stable, Purpose-Built Foundation for Precision Work

Machine Bench VMC/0600B
(For Router 2600/Pro, VMC 1300 Pro)

Shown with optional computer support extension (PC not included)

Improved Accuracy & Stability

Better Workflow & Organisation

Enhanced Safety & Durability

Denford's 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.

Machine Bench (Stand Alone) VMC/0600WB

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MACHINE BENCHES

Technical information

The Denford Machine Bench comes with wheels, anti-vibration pads, storage cupboard or integrated extraction, tooling drawer and is suitable for a range of bench top machines including:-

Router 2600/Pro, VMC 1300 Pro	**VMC/0600B**
Optional - Computer Support Extension	**VMC/0602**
Optional - Integrated Dust Pro 100 Extraction Unit (Router only)	**ADVXU**
Compact 1000/Pro	
Includes - Computer Support Extension	**MRCWB**
Optional - Integrated Dust Pro 100 Extraction Unit	**ADVXU**
Turn 270 Pro	
Includes - Computer Support Extension	**TRNWB**
Denford Duo	
Includes - 2 Computer Support Extensions	**VMC/0600WBMMT**
Stand-Alone Workbench	**VMC/0600WB**
Optional - Computer Support Extension	**VMC/0602**
Optional - Integrated Dust Pro 100 Extraction Unit	**ADVXU**

Product details

Bench Size: W1330mm 52.36in D750mm 29.53in H790mm 31.10in

Colour: Grey

Weight: 103kg / 227.08lbs (with integrated dust extraction unit 163kg / 359.35lbs)

Machine Bench VMC/0600WB
Shown with Integrated Dust Pro 100

VR CNC Milling 6

CNC Machine Control Software

SCAN FOR MORE

- **Comprehensive machining plans**
- **Simplified options for datum setting**
- **Improved tool and work offset features**

Providing users with new machining capabilities

Virtual Reality (VR) CNC Milling 6 is an improved and updated version of our CNC machine control software, incorporating Denford PCB Manufacturing Software and 2D DXF import facilities, together with a robust ethernet connectivity. VR CNC Milling 6 has basic and advanced toolbar settings and enhanced features, which provide the user with new machining capabilities, simplified options for datum setting and improved tool and work offset features.

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VR CNC MILLING 6

Technical information

Programming Features

- Program information screen provides fast interactive 3D depiction of tool path
- Powerful NC code editing options
- Program pre-scan checks for syntax errors and invalid codes prior to machining
- Utilities toolbar provides seamless integration with other Denford applications
- Simplified tool editing with multiple tool types

VR Simulation Features

- Simulate real machining with highly detailed Virtual Reality
- Actual cutting of the virtual material in jog mode or program cycle
- Tables, bases and workholding fixtures are simulated
- Collision detection: objects change colour when cutter comes into contact with billet, workholding or tables
- Virtual feed & speed overrides can control the virtual machine
- Auto datum facility: Program can run without having to set the VR offsets

Machine Control Features

- Ethernet or USB connectivity – Faster Data Transfer
- Continuous Path Manufacturing system pre-examines CNC moves to determine optimum change of direction
- One click datum positioning
- Material override mode – Automatically adjusts program feeds & speeds from a pre-set menu
- Intelligent program restart window allows restart of program from any line
- Denford Post Processor allows translation of NC programs between different controllers

Seamless Import of Techsoft 2D Design Files

The DXF drawing import routine with Denford's VR CNC Milling V6 operating software works with all versions of Techsoft 2D Design Tools and also with all major CAD packages, without any additional software or post processor being required.

VR Milling V6 has the facility to import DXF, DWG and Gerber files, which then allows multiple toolpaths to be created, with toolpaths generated using the imported vector data.

VR Milling PCB Import

- Simple "Wizard" program with 3D Graphics.
- Imports Gerber files from all major PCB design packages
- Imports Drill files from all major PCB design packages
- Multi-pass machining strategy increases clearance around tracks
- Option to create drilling plan from pad hole diameters
- Option to centre pads, pilot holes or drill all holes
- Handles double-sided boards
- Toolpath simulation

VR Milling 2D DXF Import

- Simple "Wizard" program with 2D Graphics
- Integrated Material and Tool Library
- Imports DXF and DWG files from all major CAD packages:- TechSoft, Pro/DESKTOP, ArtCAM, AutoCAD, CorelDraw etc.
- Multiple cutter path strategies including: Follow Path. Inside Offset (cutter path offset by radius). Outside Offset (cutter path offset by radius). Area Clearance (Offset by outline) with programmable step-over. Area Clearance (Raster) with programmable step over and angle. Drilling cycles
- Intelligent selection of Islands
- Toolpath simulation

Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater
- CNC machines require USB or RJ45 Connection

QuickCAM 2D Design

2D Design and Manufacture Software

Advanced, easy to use wizard

V-Carve extension included

Various import options

Powerful tools to make CNC manufacturing easy

You can create designs quickly and accurately, then run the CAM wizard to create CNC machine toolpaths. It features various import options to allow images, PCB's and designs from other CAD packages to be manufactured. The customisable post processor and advanced printing facilities provide outputs to most desktop CNC and laser machines.

Advanced V-Carve Extension is now included as standard with QuickCAM 2D Design Software.

Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater
- Provided on USB

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QUICKCAM 2D DESIGN

Technical information

CAD Drawing Features

The following objects can be created to exact sizes: Lines, Arcs, Polylines, Curves, Polygons, Ellipses, Text, Multi-line Text with justification, Hatched areas, Offset paths, Bitmap Image Contours.

Any TrueType font available to Windows™ can be installed and used by QuickCAM 2D.

Drawing features allow easy creation and manipulation of objects:

- Customisable grid size for snapping to fixed distances
- Editable object nudge
- Angular (polar) snap
- Absolute and relative co-ordinate entry
- Object property editor allows sizes, angles and positions to be entered exactly
- Quick drawing navigation (pan & zoom) is realised by mouse wheel operation
- Object grips can be grabbed and moved
- Various object snap modes can be activated at any time: End point; Mid point, Nearest; Intersection, Tangent
- Perpendicular Object modifiers allow objects to be altered quickly and accurately: Move, Scale, Rotate, Mirror, Copy, Paste, Join, Explode, Group and Ungroup
- Customisable colour palettes for easy configuration to match the Laser driver, Rectangular array, Circular array
- Boolean shape operators: Union; Intersect; Split; Subtract

V-Carve Extension

The advanced V-Carve extension is now included as standard with QuickCAM 2D Design and enables 3 additional CAM features:

- V-Carve – allows shapes and text to be machined at the correct width by automatically controlling the depth of cut of the V cutter
- V-Carve Clearance – allows larger shapes (wider than the V cutter) to be machined by adding an area clearance path within the shape
- Add Tabs – allows parts to be retained while cutting through a billet. The size, number and depth of the Tabs can be user-defined

Import / Export Features

Import:

- Raster Image - JPG,BMP,ICO,EMF,WMF.
- Clipboard Vector paste (eg from CorelDraw)
- Gerber (RS274X) - PCB designs are imported and converted into polylines
- AutoCAD: DWG and DXF
- Vector Image Clipart - WMF, EMF
- Font - any Truetype Font (TTF) can be imported then used by the software
- Encapsulated PostScript: .EPS vector files

Export:

- AutoCAD: .DXF files can be saved
- QuickCAM 2D Design: .MCM files saved in LaserCAM can also be opened in QuickCAM 2D for CNC machining

CAM Wizard Features

Material selector - customisable materials define cutting feeds, speeds and cutting depth.

Machining plans - easily create and rearrange any number of machining plans from the following types:

- **Follow** - follow the shape's path - ideal for Engraving and Laser Cutting
- **Inside Offset** - offset cutter path inside shape(s) with automatic island recognition
- **Outside Offset** - offset cutter path outside shape(s)
- **Area Clearance** - multiple offset cutter paths inside the shape(s)
- **Raster Clearance** - create a raster path at any angle to clear the inside of shape(s)
- **Drill** - select point, circle or arc centres for drilling operations

Post Process - final tool path can be simulated quickly in 2D then posted (G code) to a variety of machines via the customisable post processor.

QuickCAM Pro

Advanced Milling CAM Software - Includes Car Wizard

SCAN FOR MORE

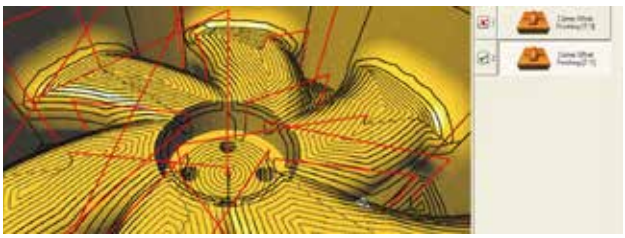
- **Comprehensive machining plans**
- **STL and image files**
- **Multiple file formats**

Produce complex 3D surfaces and lithophanes.

QuickCAM Pro is an advanced, yet simple to use, wizard based CAM package, which is used to create cutter paths for machining 3D parts on a milling machine or router.

Both STL files and image files can be imported into QuickCAM Pro, and a comprehensive set of machining plans can be used individually or in combination to produce complex 3D surfaces and lithophanes.

The latest release of QuickCAM Pro includes the STEM Racing Car Wizard, which simplifies the process of creating the CNC file to cut both sides of a STEM Racing car.



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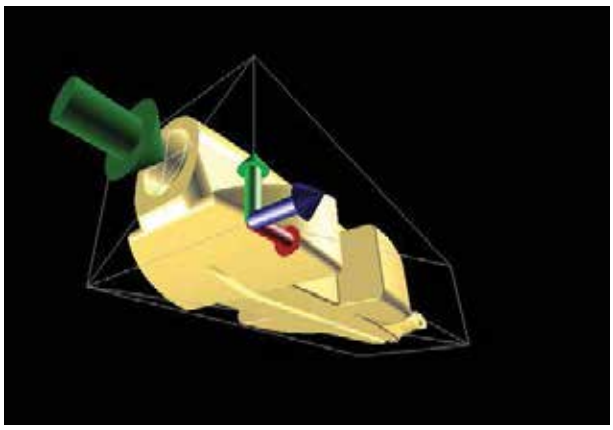
QUICKCAM PRO

Technical information

Features

- 12 machining plans – use individually or in combinations: 3 Roughing Plans, 6 Finishing Plans, 3 Fine Finishing Plans
- Each plan can be customised or used with default values
- Any number of plans can be used to produce the final part
- Different cutters can be used with each plan
- Simulation mode can be toggled on or off for easy viewing
- Custom boundary feature allows selected area to be machined
- Viewer and simulation colours can be selected and changed
- Finished models can be rendered in custom materials
- Intelligent scaling fits model into billet or billet around model
- Comprehensive “show me” files to provide Help options



Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater

VR CNC Turning 6

CNC Machine Control Software

SCAN FOR MORE

- **Comprehensive tooling management**
- **Powerful NC code modification options**
- **Customisable docking toolbars**

Full control and simulation

VR CNC Turning is a CNC programming software package offering full machine control and Virtual Reality simulation of CNC Lathes.

Features include customisable docking toolbars, comprehensive tooling management, colour formatting of NC code and powerful NC code modification options.

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VR CNC TURNING 6

Technical information

Programmable Features

- Customisable docking toolbars
- Comprehensive tooling management
- Colour formatting of NC code
- Powerful NC Code modification options
- Context sensitive G&M code help

Machine Control Features

- VR CNC Turning is required for physical control of the full range of Denford CNC Lathes
- Password protected machine parameters allows tailoring to suit individual machines
- The Denford Post Processor allows translation of NC programs between different controller types

VR Simulation Features

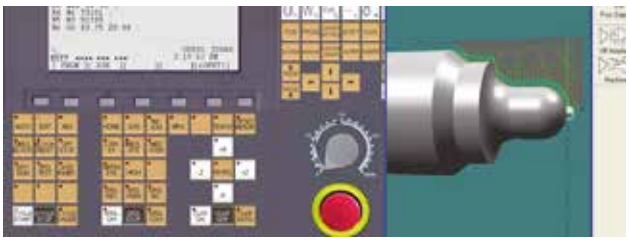
- Dynamic rotation/zooming
- Colour coded move types and tooling
- Built in Virtual Micrometer to measure the simulated workpiece
- Unique “SourceTrack” technology for interaction between graphical data and NC Code

Virtual Reality Features

Virtual Reality control encourages students to familiarise themselves with machining processes before physical manufacture. Includes a fully working Automatic Turret and library of machine options.

Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater
- CNC machines require USB or RJ45 Connection



QuickTURN 2D Design

CAD/ CAM Design and Manufacture Software for Lathes

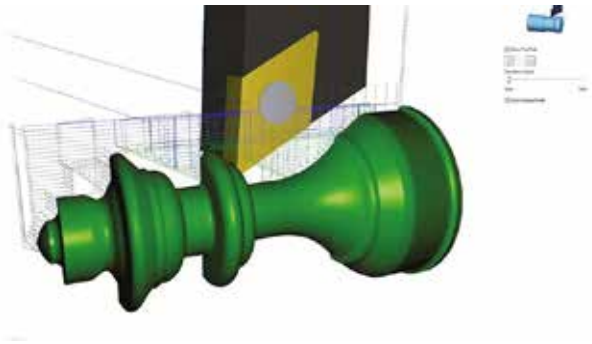
- **Configure tooling and material settings**
- **Simplified options for datum setting**
- **Easy to use wizard**

Run the CAM wizard to create and simulate CNC Lathe toolpaths

QuickTURN is an advanced yet simple to use, wizard based CAD/CAM package for Lathes.

You can create or import 2D profiles, configure your tooling and material settings, then run the CAM wizard to create and simulate CNC Lathe toolpaths.

The software features fully automatic toolpath generation, picking the most suitable tool from those available.



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QUICKTURN 2D DESIGN

Technical information

Profile Drawing Features

- Create lines, arcs and threads on external and internal profiles
- Geometry is limited to the billet size and interacts with the rest of the profile to inhibit the creation of profiles that would be impossible to machine (e.g, overhangs or breaking through from the internal profile)
- DXF file import wizard allows designs from other CAD software to be turned into a profile ready for the CAM wizard
- Profile items can be edited interactively on screen, or by the property editor
- Profile dimensions update constantly

Tooling and Material Options

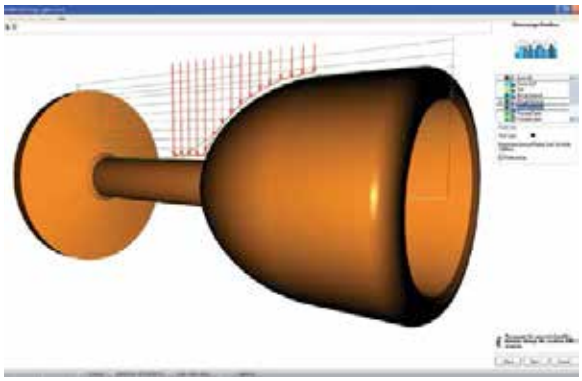
- The tooling editor allows a wide range of tool types to be edited or created and features a live 3D preview of the tool
- The shape and size of tool tips and holders can be defined exactly as they are in the real world for a more realistic simulation
- Tools can be quickly deactivated so the CAM wizard will not pick them
- Material types can be configured quickly and easily to include feed, speed and cut depth settings for each of the tools available
- Default feed and speed settings for all tool types can be edited quickly by a unique override slide bar
- Tooling and material details can be printed out in summary or full detail

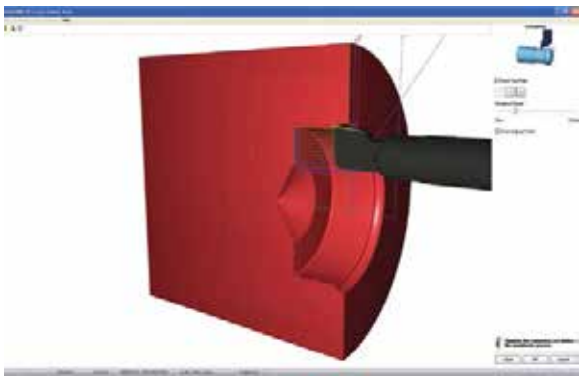
CAM Wizard Features

- Material selector to alter feed, speed and cut depths
- Billet material size editor in case the actual material is larger than the design
- Tooling selector quickly allows certain tools to be deactivated
- Toolpath generator automatically picks the tools and creates all internal/external cutting and threading operations
- Tool nose radius compensation is automatically applied to the generated toolpath for any turning, boring and grooving tools
- A 3D preview of the design also shows the generated toolpaths
- Each set of toolpaths can be deactivated if not required by the rearrange profile editor
- Toolpaths are post-processed to a CNC file suitable for a Denford Lathe
- A fully animated 3D cutting simulation of the tool paths lets you verify that the CNC program is ok

Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater





LaserCAM 2D Design

2D Design Software for Laser Cutters

Create designs quickly and accurately

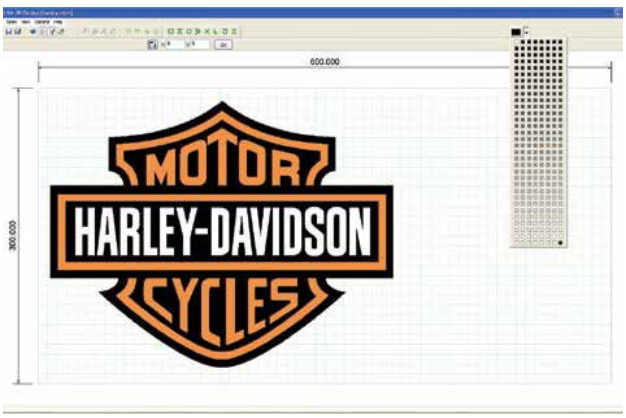
Custom colour palettes

Multiple file formats

The ideal way to manufacture logos, designs and projects

LaserCAM 2D Design has all the features you need for laser cutting / engraving – all in one place. For example, the image importer includes image editing features to adjust brightness, contrast and gamma. The interactive preview and tools to create greyscale, black and white or halftone images will ensure you get the best results every time.

- Custom colour palettes make it easy to pick the right colours for the laser driver
- Easy grid size set up - just click 'Match to Printer'
- Handy preview window



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LASERCAM 2D DESIGN

Technical information

CAD Drawing Features

The following objects can be created to exact sizes: Lines, Arcs, Polylines, Curves, Polygons, Ellipses, Text, Multi-line Text with justification, Hatched areas, Offset paths, Bitmap Image Contours.

Any TrueType font available to Windows™ can be installed and used by LaserCAM.

Drawing features allow easy creation and manipulation of objects:

- Customisable grid size for snapping to fixed distances
- Editable object nudge
- Angular (polar) snap
- Absolute and relative co-ordinate entry
- Object property editor allows sizes, angles and positions to be entered exactly
- Quick drawing navigation (pan & zoom) is realised by mouse wheel operation
- Object grips can be grabbed and moved
- Various object snap modes can be activated at any time: End point, Mid point, Nearest, Intersection, Tangent
- Perpendicular Object modifiers allow objects to be altered quickly and accurately: Move, Scale, Rotate, Mirror, Copy, Paste, Join, Explode, Group and Ungroup, Rectangular array, Circular array
- Customisable colour palettes for easy configuration to match the Laser driver,
- Boolean shape operators: Union, Intersect, Split, Subtract

Import / Export Features

Import:

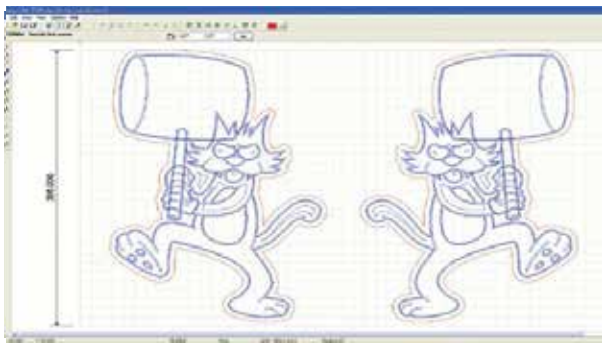
- Raster Image - JPG, BMP, ICO, EMF, WMF
- Clipboard Vector paste (eg from CorelDraw)
- Gerber (RS274X) - PCB designs are imported and converted into polylines
- AutoCAD: DWG and DXF
- Vector Image Clipart - WMF, EMF
- Font - any Truetype Font (TTF) can be imported then used by the software
- Encapsulated PostScript: .EPS vector files

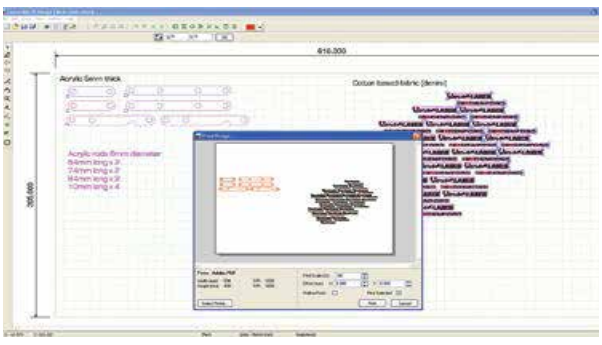
Export:

- AutoCAD: .DXF files can be saved
- QuickCAM 2D Design: .MCM files saved in LaserCAM can also be opened in QuickCAM 2D for CNC machining

Recommended System Requirements

- 1 GHz or faster processor
- Minimum of 4 GB of RAM
- 1 GB Free Storage Space
- Microsoft Windows 7, 8, 10 & 11
- DirectX 12 or later compatible Graphics Card
- High-definition display (720p) or greater





Virtual Wind Tunnel

STEM Racing VWT Analysis Software MK8

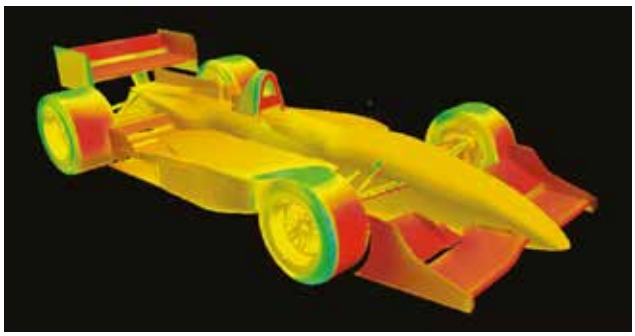
SCAN FOR MORE

- **Easily Analyse the Aerodynamics**
- **Monitor Downforce & Drag**
- **Simulated CO2 Exhaust Gas**

Analyse the aerodynamics of a STEM Racing car using CFD

VWT Mk8 is a Virtual Wind Tunnel Software, which allows students to easily analyse the aerodynamic characteristics of their car design, using Computational Fluid Dynamics (CFD), which is an integral part of the design process for racing car manufacturers and teams.

It is used to streamline the car's shape by predicting its levels of drag and downforce, which can then be optimised to ensure aerodynamic efficiency and that all 4 wheels remain firmly on the ground!



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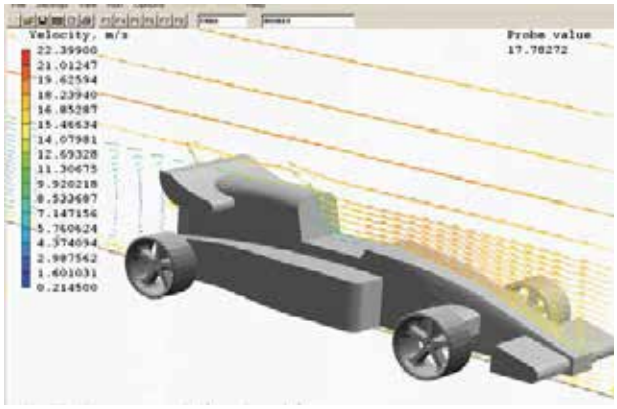
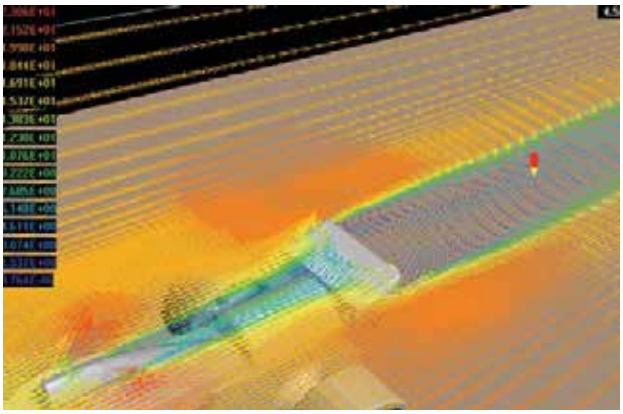
VIRTUAL WIND TUNNEL

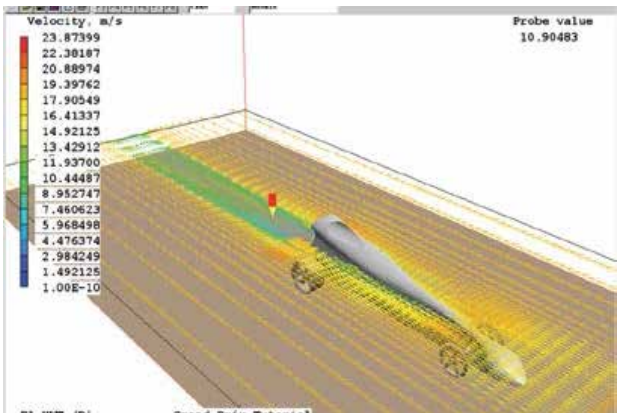
For those involved in STEM Racing, the process is simple - students design their car with 3D CAD software such as Autodesk and then export the STL file into the Virtual Wind Tunnel software. The design is then displayed on-screen, allowing students to begin testing the designs for velocities, pressures, areas of turbulence, lift and drag by using vector plots, contour plots, streamlines and isosurfaces.

The Virtual Wind Tunnel Software uses a process called Computational Fluid Dynamics or CFD. This is basically the prediction of processes involving fluid flow, heat and mass transfer, chemical reaction and/or combustion. Anything that involves fluid flow can be simulated using these techniques, with varying degrees of accuracy. CFD is based upon the laws of physics, of conservation of mass, momentum and energy. The equations are embodied within a mathematical model and solved using a grid superimposed on the region of interest.

For STEM Racing, this will be the "Analyse" stage of your team's Design, Analyse, Make, Test and Race process – towards racing success!







Technical information

Programmable Features

- Downforce and drag on the body of your car
- Data graphs of the whole 3D simulation are ready to export
- Velocity / pressure contour and vector plots, surface contours, iso-surfaces and streamlines

Recommended System Requirements

- Any standard Windows PC: 7, 8, 10 & 11
- The software is both CPU- and RAM-intensive, but 8GB RAM should suffice. The more RAM, the better the performance
- 2GHz processor speed [minimum], four cores
- No special graphics requirements
- The software will run on both 32bit and 64bit PCs

VLS Series Lasers

Laser Cutters & Engravers

SCAN FOR MORE

*VLS Laser shown with ADVL Base 1 Advantage Extraction Cabinet

- **Totally enclosed, safe to use RoHS Compliant**
- **Precision cutting, deep engraving & scribing**
- **Ideal for cutting a range of resistant materials**

Precision cutting and engraving

The VLS2.30DT and VLS3.60DT Lasers are compact and easy to use and can transform images or drawings on your computer screen into real items made from a wide variety of materials.

These Lasers are 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.

There are two bed sizes to choose from and a variety of power options available to accommodate a range of budgets and applications.

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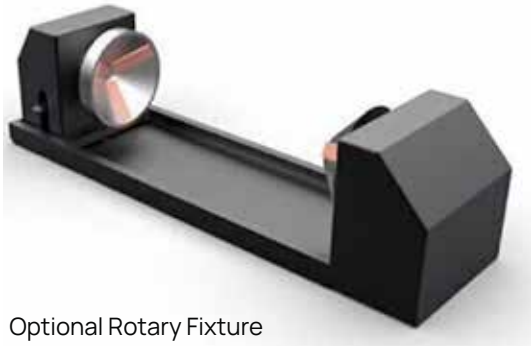
VLS SERIES LASERS

Features

- 2 colour options: red & blue
- Unique 'materials cutting' menu - there is no need to look-up power and speed settings - simply select the type of materials and thickness to be lasered and press the start button
- Suitable for use with a range of materials
- All systems are RoHS compliant
- Portable, and will fit through a standard width doorway
- Extraction Unit, with integrated Air Assist, Pre Filter and HEPA Chemical Gas Filter, which can be visually monitored by a 3 stage Filter Status Display

Recommended System Requirements

- Dedicated PC: Windows 7, 8, 10 & 11, 32-bit/64-bit
- 1 available USB Port (2.0 or higher)



Optional Rotary Fixture

Technical information

Equipment as standard

- VLS Lens Kit 2.0
- Laser Cartridge
- Air Assist Cone
- Honeycomb Bed
- LaserCAM Software
- Extraction Unit with integrated Air Assist Compressor

Optional extras

- Rotary Fixture - permits laser processing around cylindrical surfaces up to a maximum 102mm (4.0") diameter. A sensor detects when the fixture is installed and adjusts automatically
- Air Assist Back Sweep (for use when cutting rubber)

Safety information

- Class 1 safety enclosure for CO2 laser beam. Class 3a for red laser pointer

RoHS COMPLIANT LASER

VLS Series safety features include Over Temperature Sensor with Audible Alarm, Safety Glass, Automatic Recognition of Accessories and 'Smart Technology' ULR Laser Cartridges which can be easily changed by the user. VLS Series Laser Systems are RoHS Compliant.

Mechanical details (VLS2.30DT / VLS3.60DT / Advantage Unit)

Machine Length	661mm / 864mm/ 670mm	26in/ 34in/ 26.4in
Machine Depth	635mm/ 635mm/ 470mm	25in/ 25in/ 18.5in
Machine Height	356mm/ 356mm/ 770mm	14in/ 14in/ 30.3in
Machine Height on Advantage Unit	1118mm / 1118mm/ n/a	44in/ 44in/ n/a
Machine Weight	32kg/ 43kg/ 65kg	71lbs/ 95lbs/ 143lbs
Approx. Working Area	305mm x 406mm/ 305mm x 610mm / n/a	12 x 16in/ 12 x 24in / n/a
Laser Power Options	30 Watts / 30, 40, 50 or 60 Watts / n/a	
Volts	230 Volts/ 230 Volts / 230 Volts	
Amps	10 Amps / 13 Amps / 7.25 Amps	
Electrical Connection	13A Socket / 13A Socket / 13A Socket	

CE APPROVED

Large Format VLS Series Lasers

Laser Cutters & Engravers

SCAN FOR MORE

- **Totally enclosed, safe to use RoHS Compliant**
- **Precision cutting, deep engraving & scribing**
- **Free standing with large working area**

Precision cutting and engraving

Large Format VLS Series Lasers are free standing laser units with a large working area.

There are several 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.

There are two bed sizes to choose from and a variety of power options available to accommodate a range of budgets and applications.

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LARGE FORMAT VLS SERIES LASERS

Features

- 2 colour options: red & blue
- Unique 'materials cutting' menu - there is no need to look-up power and speed settings - simply select the type of materials and thickness to be lasered and press the start button
- Suitable for use with a range of materials
- All systems are RoHS compliant
- Recommended AD-ORACLE Extraction Unit, which has integrated Air Assist, Pre Filter and HEPA Chemical Gas Filter, which can be visually monitored by a Filter Status Display

Recommended System Requirements

- Dedicated PC: Windows 7, 8, 10 & 11, 32-bit/64-bit
- 1 available USB Port (2.0 or higher)

Technical information

Equipment as Standard

- VLS Lens Kit 2.0
- Laser Cartridge
- Air Assist Cone
- Honeycomb Bed
- LaserCAM Software
- Extraction Unit with integrated Air Assist Compressor

Optional extras

- Rotary Fixture - permits laser processing around cylindrical surfaces up to a maximum 102mm (4.0") diameter. A sensor detects when the fixture is installed and adjusts automatically
- Air Assist Back Sweep (for use when cutting rubber)

Safety Information

- Class 1 safety enclosure for CO2 laser beam. Class 3a for red laser pointer

RoHS COMPLIANT LASER

VLS Series safety features include Over Temperature Sensor with Audible Alarm, Safety Glass, Automatic Recognition of Accessories and 'Smart Technology' ULR Laser Cartridges which can be easily changed by the user. VLS Series Laser Systems are RoHS Compliant.

Mechanical details (VLS4.75/ VLS6.75/ AD-ORACLE)

Machine Length	914mm/ 1118mm/ 430mm	36in/ 44in/ 16.9in
Machine Depth	914mm/ 914mm/ 430mm	36in/ 36in/ 16.9in
Machine Height	965mm/ 991mm/ 980mm	38in/ 39in/ 38.6in
Machine Weight	122kg/ 147kg/ 90kg	269lbs/ 323lbs/ 198lbs
Approx. Working Area	457 x 610mm/ 457 x 813mm	18 x 24in/ 18 x 32in
Laser Power Options	30, 40, 50, 60 or 75 Watts	
Volts	230 Volts / 230 Volts / 100-240 Volts	
Amps	10 Amps / 10 Amps / 12.5 Amps	
Electrical Connection	13A Socket / 13A Socket / 13A Socket	
Exhaust Connection Dia.	101.6mm/ 2 x 101.6mm/ 75mm	4in/ 2 x 4in/ 3in
Electrical Connection	13A Socket / 13A Socket / 13A Socket	

CE APPROVED

Wazer Pro Waterjet

High performance desktop Waterjet Cutter

SCAN FOR MORE

High cutting power and productivity

Cuts any material, quickly

Clean, safe and easy to operate

High speed and productivity

The Wazer Pro is a high performance waterjet that brings high cutting power and productivity, in a small footprint, to any school, college, university or workshop.

Clean, quiet, and safe to operate, the Wazer Pro offers industrial calibre waterjet cutting in-house, so you can cut thick materials quickly and efficiently.

Makes light work of tough materials

Waterjet technology has significant advantages over conventional cutting methods:

- Cuts any material – such as steel, titanium, aluminium, glass, stone, tiles, carbon fibre.
- Achieves intricate detail.
- Requires no ventilation.
- Results in a smooth surface finish.
- No heat-induced material warping.
- Can be operated by anyone.

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WAZER PRO WATERJET

Quick & easy set up

The Wazer Pro is easy to set up and use, following the instruction guide and online videos – you just need a 16A power socket, water supply and drainage.

With the purchase of the Wazer Pro, you will receive access to the Wazer Learning Portal, which contains information on every aspect of the machine, from basic set-up and use, to information on materials, trouble shooting and much more.

Compatible Files: .svg or .dxf files
Connectivity: SD Card
Operating Systems: Windows/Mac

Technical information

Equipment as Standard

- Wazer Pro with Integrated Pump
- 1 x Wazer Replacement Cut Bed
- 2 x 25kg Abrasive Buckets
- 12 Month Warranty
- WAM Software

Replacements

- Wazer Replacement Cut Beds - 3 Pack
- Wazer Pro Replacement Nozzle
- 25Kg Bag 80 Mesh Fine Garnet

Important

- Must be plumbed into a water supply and situated near a drain

Mechanical details

Main Unit Size	856 x 648 x 1400mm	33.7 x 25.5 x 55.1in
Main Unit Empty Weight	170kg	375lb
Main Unit Loaded Weight	360kg	794lb
Main Unit Power	220-240V / 50Hz / 16.1A	220-240V / 50Hz / 16.1A
Cutting Area	305 x 460mm	12.0 x 18.1in
Bed Size	330mm x 485mm	13.0 x 19.1in
Kerf (Width of cut)	1.1mm	0.043in
Water Source	Filtered tap water	Filtered tap water
Input Water Filter	~300 Mesh	~300 Mesh
Input Water Requirement	> 5.7L / min; > 35Psi (2.4 Bar)	> 1.5 gal/min; > 35 psi (2.4 Bar)
Water Hardness	Maximum 180mg / L	Maximum 180 mg/L
Draining Hose Requirement	5.7L / min; <9m length; <1.2m elevation	≥1.5 gal/min; <30 ft length; <4 ft elevation
Water Recirculation	Not recommended	Not recommended
Abrasive Flow Rate	150g / min	0.33 lb / min
Abrasive Capacity	19.1kg	42lb
Abrasive Type	Premium 80 Mesh fine garnet abrasive	Premium 80 Mesh fine garnet abrasive
Noise Emission	77.6 + / - 3dB	77.6 + / - 3 dB

Wazer Waterjet

Desktop Waterjet Cutter

SCAN FOR MORE

Compact design

Clean, safe and easy to operate

Cuts almost any material – hard or soft

Compact, safe and easy to operate

The Wazer is the world's first Desktop Waterjet Cutter. It will easily fit into any classroom/workshop and is available as either a desktop unit, or integrated into its own stand. Clean, safe and easy to operate, the Wazer is compact and fully-enclosed.

Makes light work of tough materials

Waterjet technology has significant advantages over conventional cutting methods:

- Cuts almost any hard or soft material – such as steel, titanium, aluminium, glass, stone, tiles, carbon fibre
- Achieves intricate detail
- Requires no ventilation
- Results in a smooth surface finish
- No heat-induced material warping

AVAILABLE FROM DENFORD:
EXCLUSIVE UK EDUCATIONAL DISTRIBUTOR

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WAZER WATERJET

Technical information

Equipment as standard

- Wazer Desktop: Wazer & Pump Box
- Wazer Standup: Wazer & Pump Box & Stand
- 1 x Wazer Replacement Cut Bed
- 2 x 25kg Abrasive Buckets
- 12 Month Warranty

Replacements

- Replacement Cut Beds - 3 Pack
- Replacement Nozzle
- 25Kg Bag 80 Mesh Fine Garnet

Important

- Must be plumbed into a water supply and situated near a drain

Quick & easy set up

The Wazer is easy to set-up and use, following the instruction guide and on-line videos – you just need a standard power socket, water supply and the recommended abrasive.

With the purchase of a Wazer, you will receive access to the Wazer Learning Portal, which contains information on every aspect of the machine: from basic set-up and use, to information on materials, trouble-shooting and much more.

Compatible Files: .svg or .dxf files
Connectivity: SD Card
Operating Systems: Windows/Mac

Mechanical details

Main Unit Size	856mm x 648mm x 551mm	33.7 x 25.5 x 21.7in
Main Unit Size (With Stand)	856mm x 648mm x 1220mm	33.7 x 25.5 x 48.0in
Main Unit Empty Weight	50kg	110lb
Main Unit Loaded Weight	180kg	397lb
Pump Box Size	533mm x 355mm x 280mm	21.0 x 14.0 x 11.0in
Pump Box Weight	42kg	92.6lb
Main Unit Power	220-240V / 50Hz / 2.5A	220–240V / 50 Hz/ 2.5A
Pump Box Power	220-240V / 50Hz / 10A	220–240V / 50Hz / 10A
Cutting Area	305mm x 460mm	12.0 x 18.1in
Bed Size	330mm x 485mm	13.0 x 19.1in
Kerf (Width of cut)	1.2mm	0.047inch
Water Source	Filtered tap water	Filtered tap water
Input Water Filter	~300 mesh	~300 mesh
Input Water Requirement	> 3.8L / min; > 35Psi (2.4 Bar)	1.0 gal/ min: > 35psi (2.4Bar)
Water/ Draining	180mg/L; 130 °F/ 54 °C	180mg/L; 130 °F/ 54 °C
Draining Hose Requirement	1.9L / min; < 9m length; < 1.2m elevation	0.5 GPM; < 29.5 ft; < 3.9 ft elevation
Water Recirculation	Not recommended	Not recommended
Abrasive Flow Rate	40g - 150g / min	0.088–0.331lb / min
Abrasive Capacity	13.5kg	29.8 lb
Abrasive Type	Premium 80 Mesh fine garnet abrasive	Premium 80 Mesh fine garnet abrasive
Noise Emission	74+ / - 3dB	74+ / - 3dB

CE APPROVED

Denford Consumables

Materials & Consumables

WOOD

A range of hardwoods suitable for machining on Denford Routers.

American Maple Wood Block

A creamy white hardwood with a close grain and fine, even texture. Easy to work and finish, without the need for sanding.

Billet size: 160mm x 100mm x 20mm

Each	**BI03509D**
Pack of 50	**BI03509G**

Round Pine Billets

Ideal for use with the Rotary Fixture attachments.
Billet size: 65mm Dia. x 150mm Long

Pack of 10	**BI03509J**

MODELLING BOARD

A high density (0.47g/m3) board ideal for high definition 3D work.

Modelling Board

For prototyping high quality models

Billet Size: 1500mm x 500mm x 50mm

Each	**BI03508K**

COPPER CLAD BOARD (PCB)

Ideal for use in conjunction with PCB Engraver/ VR CNC Milling, PCB manufacturing feature

Copper Clad Board (Single Sided)

Size: 233.4mm x 160mm x 1.6mm

Each	**4X40079**

FOAM

These rigid, closed cell foam blocks are ideal for the rapid machining of parts on the full range of Denford Milling Machines and Routers.

High Density Foam

Ideal for most 3D prototyping applications. Offering plenty of surface detail, it is commonly used in moulds for vacuum forming and is also suitable for painting.

Billet size: 150mm x 110mm x 50mm

Each	**BI03508**
Pack of 50	**BI03508A**

Billet size: 70mm Dia. x 150mm long

Ideal for use with the Denford 4th Axis Programmable Rotary Fixture.

Each	**BI03508DZ**
Pack of 15	**BI03508E**

DERLIN PLASTIC ROD

Rigid plastic ideal for machining precision parts

Billet Size: 20mm x 55mm

Pack of 50	**B103513**

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Denford Consumables

Materials & Consumables

ALUMINIUM

Free cutting aluminium bars and billets are ideal for producing quick prototypes of metallic components. Easily polished, they yield professional looking component parts.

Free Chipping Aluminium Bar
Suitable for cutting on Denford Lathes.

Bar Size: 20mm Dia. x 55mm (Non-Anodised)

Each	**BI03512A/1**
Pack of 50	**BI03512A**

Bar Size: 25mm Dia. x 300mm (Non-Anodised)

Pack of 10	**BI03514A**

Aluminium Billet
Suitable for cutting on Denford Milling Machines.

Billet Size: 100mm x 100mm x 12mm

Non-Anodised

Each	**BI03511**
Pack of 50	**BI03511B**

Red-Anodised

Each	**BI03511A**
Pack of 50	**BI03511C**

DOUBLE SIDED DUCT TAPE

Size: 50mm x 25m

Single	**BI03502B**

EXTRUDED ACRYLIC SHEET

Excellent thermoforming characteristics enabling the production of intricate, delicate shapes.

30 off 3mm Red 600mm x 300mm	**BI03523**
30 off 3mm Yellow 600mm x 300mm	**BI03523A**

CAST ACRYLIC SHEET

High quality, perfect surface finish and superb optical qualities (600mm x 300mm)

30 off 3mm Red	**BI03522**
30 off 3mm Blue	**BI03522A**
30 off 3mm Green	**BI03522B**
30 off 3mm Transparent Blue	**BI03522C**
30 off 3mm Transparent Yellow	**BI03522D**

Denford Consumables

Tooling, Consumables & Curriculum Packages

TOOLING PACKAGES

Recommended Router Tooling Package — BI00846

For all Routers:
1/8" Dia x 1/4" Shank 2 Flute Cutter
1/8" Dia x 1/4" Shank Ball Nose Cutter
1/4" Dia x 1/4" Shank 2 Flute Cutter
1/4" Dia x 1/4" Shank Ball Nose Cutter
60 Degree V Cutter x 1/4" Shank

Set of Quick Change Toolholders & Collet — BI00846SRH

For Compact 1000, Router 2600 and Router 6600:
10mm Collet for Kress Motor
Quick Change Holder 1/4" ID 10mm Shank x 5
Quick Change Holder 1/8" ID 10mm Shank

Set of Quick Change Toolholders & Collet — BI00846PRH

For Compact 1000 Pro, Router 2600 Pro and Router 6600 Pro:
9-10mm Dia Collet to suit ER20 Collet Chuck
Quick Change Holder 1/4" ID 10mm Shank x 5
Quick Change Holder 1/8" ID 10mm Shank

Quick Change Router Tooling Package - Imperial — MRTP03

For Compact 1000, Router 2600 and Router 6600:
10mm Router Collet for Kress Motor
1/4" ID Reducing Bush 10mm Shank x 2
1/8" ID Reducing Bush 10mm Shank
1/64" Engraving Cutter 1/8" Shank 45 Degrees
5/32" 2 Flute Cutter 1/4" Shank
1/4" Dia Ball Nose L/S 2 Flute Cutter (Solid Carbide)

Quick Change Router Tooling Package - Imperial — MRTP04

For Compact 1000 Pro, Router 2600 Pro and Router 6600 Pro:
9-10mm Dia Collet to Suit ER 20 Collet Chuck
1/4" ID Reducing Bush 10mm Shank x 2
1/8" ID Reducing Bush 10mm Shank
1/64" Engraving Cutter 1/8" Shank 45 Degrees
5/32" 2 Flute Cutter 1/4" Shank
1/4" Dia Ball Nose L/S 2 Flute Cutter (Solid Carbide)

Micromill Quick Change Tooling Package - Imperial — MMTP01

Quick Change Tooling Package:
1 x 1/8" Dia Toolholder
2 x 1/4" Dia Toolholder
1/64" Carbide Engraving Cutter 1/8" shank
1/8" Dia H.S.S. Slot Drill 1/4" Shank
1/4" Dia H.S.S. Slot Drill 1/4" Shank

Micromill Quick Change Tooling Package - Metric — BI00811TP

Quick Change Tooling Package:
3 x 6mm Dia Toolholders
2mm Dia H.S.S. Slot Drill
4mm Dia H.S.S. Slot Drill
6mm Dia H.S.S. Slot Drill

Supplied as standard with Micromill Pro

VMC 1300/Pro Tools and Toolholders

Recommended Set of Tools: VMC/0500RT
2mm Ball Nose, 2mm, 4mm & 6mm Slot Drills,
20mm End Mill

Recommended Set of Toolholders: VMC/0500RH
2 x 6mm & 1 x 20mm Sidelock Holders,
2 x ER32 Collet Chucks with 2 x 6-7mm Collets,
1 x ER32 Collet Spanner
1 x Hook Spanner to grip spindle while tightening collets

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Denford Consumables

Tooling, Consumables & Curriculum Packages

TOOLING PACKAGES

Microturn Tooling Package **MT1/0100B**

Recommended Tool Post and Tooling Package:
Quick Change Tool Post + 3 Toolholders,
Quick Change Carbide Insert Turning Toolholder and Pack of 10 Inserts,
Parting Off Tool Blade,
1/4" Brazed Carbide Tipped Left Handed Cutting Tool

Supplied as standard with Microturn Pro

Turn 270 Pro Comprehensive Tooling Package **TRNCTP**

Comprehensive Tooling Package:
LH Turning Tool 12mm Shank,
Pack of 10 Inserts for LH/RH Turning Tools,
Pack of 10 Inserts for Parting Off Tool,
External Threading Tool 12mm Shank with 10 Inserts,
Boring Bar 8mm Shank with 10 Inserts
5mm Centre Drill
2 Stub Drills (5mm & 10mm)

CONSUMABLES PACKAGES

STEM Racing Model Block Car Kit **N13226F1M01**

Includes 4 x STEM Racing Wheels, 1 x Sandpaper, 2 x Screw Eyes, 2 x Car Axles, 4 x Axle Bushes, 1 x STEM Racing Model Block

50 Student Lithophane Consumables Package **CPLITHO**

Cast Acrylic Sheet: 3mm Sky Blue 100 x 100mm x 50
Cast Acrylic Sheet: 3mm White 100 x 100mm x 50
Double Sided Tape x 2
1/8" ID Reducing Bush 10mm Shank
Engraving Cutter 0.4mm (1/64") 1/8" Shank 45 Degree x 2
MDF Billet 5" x 8" x 5/8" (cut to size) x 2

CONSUMABLES PACKAGES

Router Curriculum Consumables Package **CPR01**

10 Hour 50 Student

MDF Billet 5" x 8" x 5/8" x 150
MDF Billet 4" x 4" x 5/8" x 150
Golf Tee (Pack of 250) x 2

Turning Curriculum Consumables Package **CPTURN01**

10 Hour 50 Student

Aluminium Bar 20mm Dia x 55mm Non-Anodised (Pack of 50) x 3

Milling Consumables Package **CPMILL01**

10 Hour 50 Student

Acrylic Billet 6" x 2.75" x 0.25" x 50
Acrylic Billet 4" x 2.75" x 0.25" x 150
Double Sided Tape x 2

Milling Consumables Package **CPMILL02**

30 Hour 50 Student

Protofoam Billet 3" x 2.75" x 0.75" x 150
Protofoam Billet 1" x 1" x 1" x 50
Double Sided Tape x 3

Milling Consumables Package **CPMILL03**

40 Hour 50 Student

Acrylic Billet 6" x 2.75" x 0.25" x 50
Acrylic Billet 4" x 2.75" x 0.25" x 400
Protofoam Billet 3" x 2.75" x 0.75" x 150
Protofoam Billet 1" x 1" x 1" x 50
Double Sided Tape x 5

Denford Consumables

Tooling, Consumables & Curriculum Packages

CURRICULUM PACKAGES

10 Hour Milling Curriculum and Consumables — PKM10

Milling Curriculum CD (10 Hour)
QuickCAM 2D Design (site licence)
CNC Milling Basics Software
Consumables Package 10 Hour Milling (50 Student)
Engraving Cutter 0.4mm (1/64") 1/8" Shank 45 Degree
Toolholder 1/8" Dia Bore
Swarf Brush, Scissors, Safety Glasses x 2, 6" Steel Ruler

30 Hour Milling Curriculum and Consumables — PKM30

Milling Curriculum CD (30 Hour)
CNC Milling Basics Software
Consumables Package 30 Hour Milling (50 Student)
Milling Vice
Swarf Brush, Scissors, Safety Glasses x 2, 6" Steel Ruler
3" Engineers Square, Ball Pein Hammer 1/4oz

40 Hour Milling Curriculum and Consumables — PKM40

Milling Curriculum CD (10 Hour)
Milling Curriculum CD (30 Hour)
CNC Milling Basics Software
Consumables Package 10 Hour Milling (50 Student)
Consumables Package 30 Hour Milling (50 Student)
Milling Vice
Swarf Brush, Scissors, Safety Glasses x 2, 6" Steel Ruler
3" Engineers Square, Ball Pein Hammer 1/4oz

10 Hour Router Curriculum and Consumables — PKR10

Router Curriculum CD (10 Hour)
DXF Graphics CD (10 Hour Curriculum)
QuickCAM 2D Design (site licence)
Consumables Package 10 Hour Router (50 Students)
5/32" Dia. 1/4" Shank Router Plunge Bit
Safety Glasses x 2

10 Hour Turning Curriculum and Consumables — PKT10

Turning Curriculum CD (10 Hour)
QuickTURN 2D Design (site licence)
Consumables Package 10 Hour Turning (50 Students)
Swarf Brush
6" Steel Ruler
Safety Glasses x 2

MANUFACTURING PACKAGE

STEM Racing Car Manufacturing Package (USA Market) — MPF101

STEM Racing Model Block Car Kit x 25 Sets
STEM Racing Car Manufacturing Fixture
Dust Pro 50 Extraction Unit **110v**
Virtual Wind Tunnel Software (single seat)
QuickCam Pro (site licence)
¼" Dia Ball Nose L/S 2 Flute Cutter (Solid Carbide)
Paint Stand x 2, Safety Glasses x 2

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Statements

Quality Assurance & Missions

Quality Statement

Denford Limited has a proud history as a British manufacturer, with deep roots in precision engineering and CNC machine tool production.

Based in Brighouse, West Yorkshire, Denford maintains the best traditions of British design and manufacturing excellence. With exports to over 100 countries, our products are trusted by leading education and training institutions worldwide.

Denford Limited is ISO 9001 certified, and all products meet European Health and Safety standards with full CE Certification. Ongoing investment in research and development ensures that innovation, quality and safety remain central to our work.

Mission Statement

"Denford are committed to providing quality, innovative and reliable technological solutions to support the education and training needs of current and future generations."

Our products span the complete learning spectrum - from entry-level CAD/CAM packages through to advanced CNC machines and Laser, and WaterJet systems - empowering educators to teach engineering and manufacturing skills.

Denford is proud founder and sponsor of a range of pioneering STEM initiatives, including STEM Racing, STEM Racing Primary, and STEM Racing Discovery, all designed to spark creativity and interest in STEM subjects among students worldwide.

Technical Support

At Denford, we're committed to providing exceptional after-sales support to help you get the very best from your machines, software and STEM Racing equipment.

Our dedicated Technical Support team is on hand to assist with installation,troubleshooting, and maintenance queries - ensuring minimal downtime and maximum productivity.

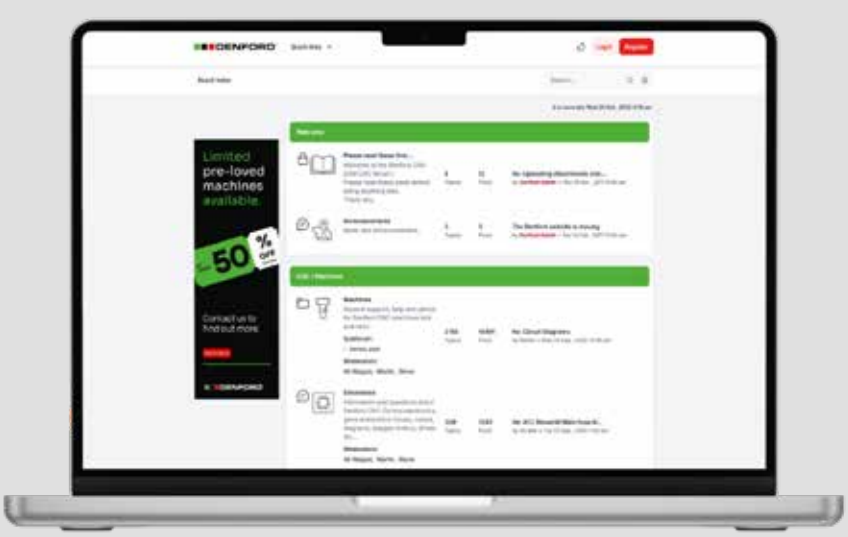
Support is available during office hours via **email** or **telephone**, and you can also access a wealth of helpful resources through **FAQ section** on our website.

Customers also have access to the comprehensive **Denford Technical Forum**, where you'll find answers to common questions about our machines and expert advice from our in-house team and extensive user community of over 3000 members.

Technical Forum

To register, simply scan the QR code, or visit **www.denfordata.com/bb.**

- FREE of charge
- Broad range of topics
- New and old machines
- 24 Hours, 7 days a week
- Active community
- Denford news and updates



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