

# CNC SMART

computer controlled routing technology



Evolutionary

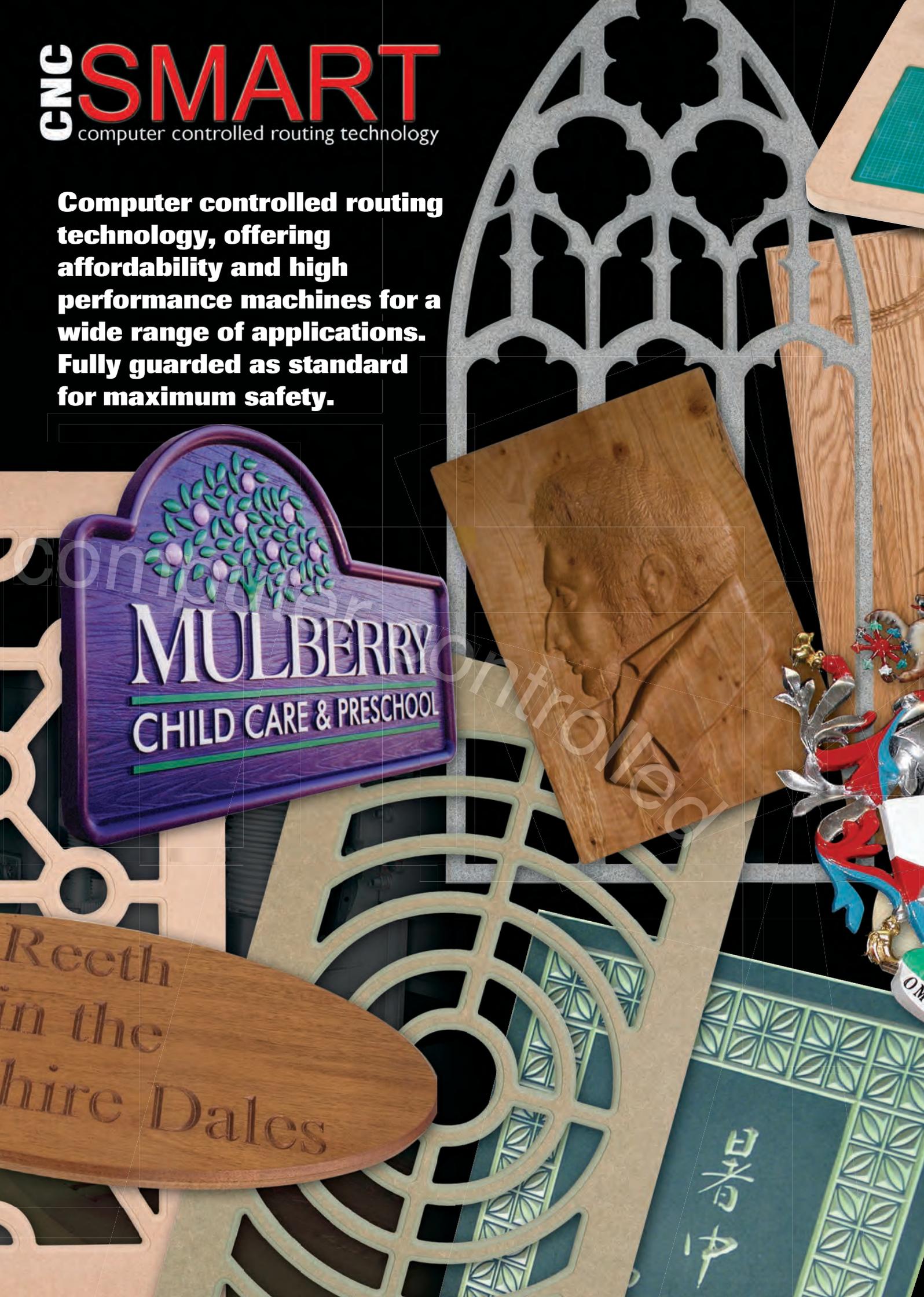
SMART *Plus*

**trend**<sup>®</sup>  
routing technology

# CNC SMART

computer controlled routing technology

**Computer controlled routing technology, offering affordability and high performance machines for a wide range of applications. Fully guarded as standard for maximum safety.**





**The CNC SMART, SMART PLUS and SMART FAST are all high performance floor mounted machines for improved routing productivity. SMART FAST now has 15 metres per minute feed rate and the SMART FAST Y1300 has a Y axis of 1300mm.**



All versions of Trend CNC Smart machines meet the requirements of EN848 Part 3.

CE Floor mounted.  
CNC Fast Y1300 shown.

**The bench mounted CNC SMART LITE is the smallest CNC Machining Centre offering all of the advanced electronic control features and component structure of the larger Smart machines.**



All versions of Trend CNC Smart machines meet the requirements of EN848 Part 3.

CE Bench mounted.  
Shown with optional bench.

## CNC Smart Plus and Fast Machines

- Available with two motor head options and two maximum feed speed options.
- CNC Smart Plus T10 has a medium duty head using a 2000 watt single phase head.
- CNC Smart Plus has a high frequency head fitted and a maximum feed speed of 3 metres per minute.
- CNC Smart Fast comes with a high frequency head and a maximum feed speed of 15 metres a minute.
- Solid construction with enclosed steel cabinet and floor stand meeting the requirements of EN 848 Part 3.
- CNC Smart Plus machines have stepper motors and lead screws.
- CNC Smart Fast machine has stepper motors and ball screws.
- Onboard Goya console enables the machine to be controlled without being connected to a computer.
- Single phase power supply required for all options.
- 3-axis control giving continuous movement.
- All machines use industry standard drivers suitable for the maximum feed speeds required.
- Supplied with Bach control software as standard.
- CNC Smart Fast Y1300 has opening doors at both ends of Y axis.

## CNC Lite Machines

- Available with two motor head options:-  
- Medium duty 2000 watt single phase.  
- Heavy duty high frequency.
- Bench mounted (optional bench available).
- Single phase power supply for all Lite machines.
- Solid aluminium axis construction.
- Bach operating software to control machine movements and running of programs.
- Stepper motor drives.
- Will work with most educational software through a suitable post processing interface.
- Feed speeds up to 3 metres per minute.
- 3-axis control giving continuous movement.
- Interlocked doorway meets requirements of EN848 Part 3.
- Large viewing area suitable for the school workshop environment.
- Ideal solution to fulfil the requirements of Keystage 3, 4, AS and A2 resistant materials.
- Will fit through any standard doorway.



## Motor Heads

**Heavy Duty  
High Frequency**

Enables 24/7 machining capability to the range of CNC Smart machines. Collet size up to 1/2" (12.7mm). Available in 18000 rpm or 24000 rpm. Please state speed when ordering.



**Medium Duty**

The 2000 watt T10 power unit opens up machining possibilities with a range of collet sizes up to 1/2" (12.7mm).



## CNC Lite Bench



Purpose built bench for CNC Lite machines. Made from aluminium extrusion with adjustable feet for levelling.

**Product Ref. \_\_\_\_\_ CNC/LITE/FS**



## BECKER Vacuum Pumps

The pump is a single phase side channel high efficiency pump, which has a high build quality and low running cost. The pump comes complete with a relief valve and a 0.5 micron filter.



- Voltage \_\_\_\_\_ 220/240 volts 50 Hz
- Airflow \_\_\_\_\_ 180 m³h
- Negative pressure \_\_\_\_\_ 210 mbar
- Sound pressure level \_\_\_\_\_ 62dB(A)
- Weight with stand and filter \_\_\_\_\_ 32kgs
- Dimensions \_\_\_\_\_ 375x305x430mm

The pump is a three phase side channel high efficiency pump, which has a high build quality and low running cost. The pump comes complete with a relief valve and a 0.5 micron filter.

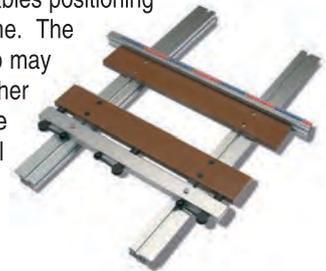


- Voltage \_\_\_\_\_ 400/440 volts 50 Hz
- Airflow \_\_\_\_\_ 241 m³h
- Negative pressure \_\_\_\_\_ 190 mbar
- Sound pressure level \_\_\_\_\_ 65dB(A)
- Weight with stand and filter \_\_\_\_\_ 39kgs
- Dimensions \_\_\_\_\_ 433x225x375mm

## Mechanical Clamps



The mechanical clamps are of solid aluminium construction with jaws of MDF. Three steel spring-loaded eccentric cam clamps hold the material effectively between the jaws. Measuring tapes fitted in line with each axis aid workpiece positioning. A sliding stop enables positioning on the X-axis plane. The mechanical clamp may be mounted in either plane enabling the jaws to be parallel with either the X or Y-axis.



Mechanical clamp for CNC/SMARTPLUS, CNC/PLUS/T10 and CNC/SMARTFAST machines.

**Product Ref. \_\_\_\_\_ CNC/PLUS/MCLA**

Mechanical clamp for CNC/SMART/LITE range of machines.

**Product Ref. \_\_\_\_\_ CNC/LITE/MCLA**

**Product Ref. \_\_\_\_\_ CNC/VAC/PP**

Switch gear is supplied when fitted to a machine

**Product Ref. \_\_\_\_\_ CNC/VAC/PP/3P**

## Vacuum Table



The three sizes of vacuum table are suitable for all of the machines. They are made from an aluminium box section assembled, capped and inter-linked with 32mm diameter pipe work. This in turn is connected to the vacuum pump. The aluminium box section is surfaced with cells constructed from Foamex strips. The larger vacuum table has 98 cells and the smaller one has 55 cells. When cutting all the way through a component, the bed can be covered with a sacrificial board of 6mm MDF which prevents damage to the main bed. The tables are supplied with a CNC program for cutting the cells, holes and sacrificial bed.



Vacuum table for CNC/PLUS/T10 and CNC/SMARTFAST machines.

**Product Ref. \_\_\_\_\_ CNC/VAC/TABP**

**Product Ref. \_\_\_\_\_ CNC/VAC/Y1300**

Vacuum table for CNC/SMART/LITE, CNC/LITE/T10 and CNC/LITE/HF machines.

**Product Ref. \_\_\_\_\_ CNC/VAC/TABL**

## Special Build Machines

In addition to the standard range of machines, special builds are also available. Larger machines with bed sizes of 1300 x 1300mm and 2500 x 1300mm require 3 phase 440v. Servo motors and vacuum table are supplied as standard with these machines. All machines within the CNC SMART range are EN848 Part 3 compliant.

## Training Packages

A full range of training packages are available.



## Creative CNC Software For Artistic Design & Manufacturing | ArtCAM 2012

The ArtCAM software range provides a unique CAD modelling and CNC machining software solution to a wide variety of industries. Created for artisans over engineers, our easy-to-use and customizable cnc software range has allowed sign makers, woodworkers, engravers the freedom to design and manufacture high-quality 2D or 3D products from their artwork faster than they ever thought possible...



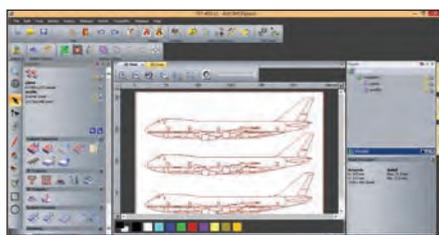
With Delcam's ArtCAM Express you can design 2D and manufacture 2D and 3D models quickly and easily. This affordable entry level CAD/CAM software requires little or no machining knowledge, making it the perfect option for any new router owner. Unique software tools guide you through the entire process, from conceptual sketch to the finished piece or mould. Whether you are a new or small independent company, ArtCAM Express enables you to do things such as: Engraving, Woodworking, Sign Making & many more...

What's more, ArtCAM Express lets you purchase additional features to create a fully bespoke cadcam solution for your business needs.

### Product Ref. \_ CNC/ARTCAM/EXP



ArtCAM Express new model screen.



Toolpath menu with tool paths added.

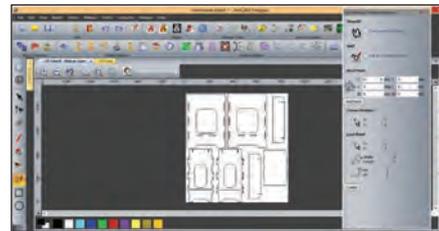


ArtCAM Insignia demo DVD available, please enquire.



With ArtCAM Insignia you can create your own vector artwork, use ArtCAM's free vector art or import pre-created vector designs. You can then use the 3D modelling and sculpting tools within ArtCAM to make a 3D design or simply laser or CNC machine your 2D/ 2.5D design quickly and easily, all within the same CNC software.

### Product Ref. \_ CNC/ARTCAM/INS



Vector creation.



Create a profile toolpath.



Foam tray layout showing toolpaths for cleancut operation.

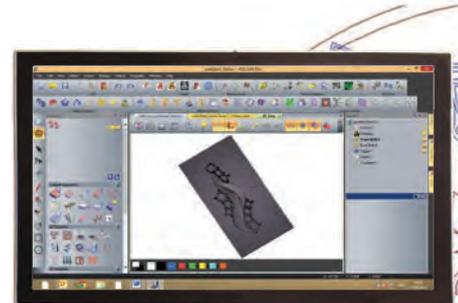


3D visual of toolpaths and menu.



With ArtCAM Pro you can design and manufacture 3D models or 3D sculpted reliefs quickly and easily. You can create highly intricate personalized or custom 3D models from 2D sketches or photographs. Unique software tools guide you through the entire process, from conceptual sketch to the finished piece or mold. Whether you are using ArtCAM Pro for woodworking, signmaking or engraving.

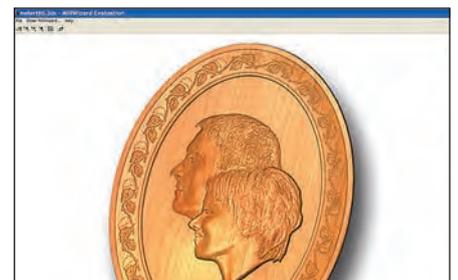
### Product Ref. \_ CNC/ARTCAM/PRO



3D visual textured.



Feature machining.



3D visual as full screen.



## Dimensions:

	Product Ref. CNC/LITE/T10	Product Ref. CNC/LITE/HF	Product Ref. CNC/PLUS/T10	Product Ref. CNC/SMARTPLUS	Product Ref. CNC/SMARTFAST	Product Ref. CNC/SMART1300
Width	1285mm	1854mm	1854mm	1854mm	854mm	1854mm
Depth	1474mm	1530mm	1530mm	1530mm	2000mm	2910mm
Height door shut	975mm	975mm	1750mm	1750mm	1750mm	1750mm
Height door open	1900mm	1900mm	2075mm	2075mm	2075mm	2075mm

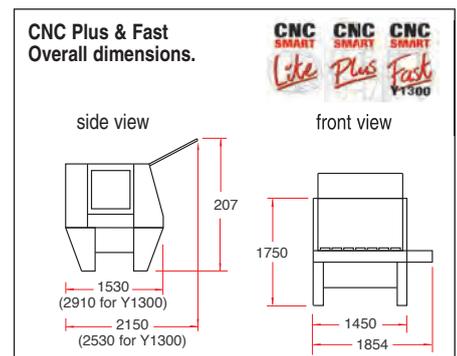
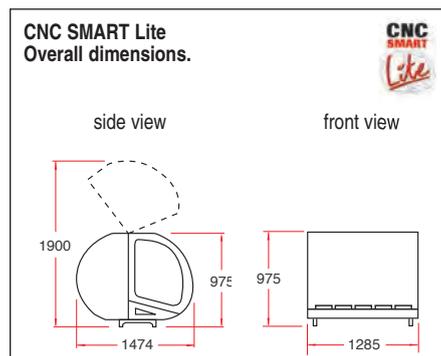
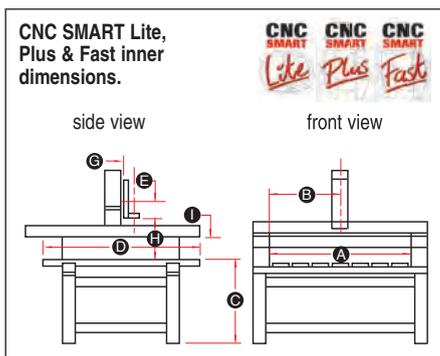
## Specifications:

Max. movement X-axis	600mm	600mm	860mm	860mm	860mm	860mm
Max. movement Y-axis	600mm	600mm	920mm	920mm	920mm	1420mm
Max. movement Z-axis	90mm	90mm	90mm	90mm	90mm	90mm
Max. cut feed rate X-axis	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-250mm/sec	3-250mm/sec
Max. cut feed rate Y-axis	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-250mm/sec	3-250mm/sec
Max. cut feed rate Z-axis	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-50mm/sec	3-250mm/sec	3-250mm/sec
Max. non cut feed rate	50mm/sec	50mm/sec	50mm/sec	50mm/sec	250mm/sec	250mm/sec
Positional accuracy	<0.1mm	<0.1mm	<0.1mm	<0.1mm	<0.2mm	<0.2mm
Power supply	220-230v	220-230v	220-230v	220-230v	220-230v	220-230v **
Maximum wattage	2000W	2000W	2000W	2000W	2000W	2000W
Maximum noise	85dB	80dB	85dB	80dB	80dB	80dB
Weight 200kg	200kg	350kg	350kg	350kg	500kg	
Min. size doorway*	1790 x 760mm	1790 x 700mm				
Spindle speed	8000-20000	3000-18000	8000-20000	3000-18000	3000-18000	3000-18000

\* For installation purposes. \*\* 440 volt required with vacuum pump.

## Dimensions of Parts:

<b>A</b> Maximum width of the workpiece	760mm		1070mm		1070mm	1070mm
<b>B</b> Distance from centre of head to left internal wall	105/670mm		105/965mm		105/965mm	105/965mm
<b>C</b> Height of the table from the floor	-		815mm		815mm	815mm
<b>D</b> Length of the table	700mm		1000mm		1000mm	1400mm
<b>E</b> Movement of motor support bracket on Z-axis	170/245mm		170/245mm		170/245mm	170/245mm
<b>F</b> Distance between centre of head and front of table	-30/+560mm		-30/+890mm		-30/+890mm	-30/+1270mm
<b>G</b> Distance between centre of head and Z-axis	105mm		105mm		105mm	105mm
<b>H</b> Distance between motor support and table	114/278mm		114/278mm		114/278mm	114/278mm
<b>I</b> Distance between X-axis and table	225mm		225mm		225mm	225mm





Suitable for cutting:

Chipboard

MDF

Natural timber

Plywood

Acrylic (perspex)

Plastics

Polycarbonate

Card

Composite materials

Corian®

Solid surface materials

Leather

Plastozote® foam

Polystyrene

Signboard

Signrock™

Aluminium

Brass

Bronze

Copper

Fireproof insulation

Foamboard

Tufnol®

**With a variety of applications available, the CNC SMART machines stimulate creativity and increase productivity.**

## CNC MACHINING

For our full range of CNC Cutting Tools, please see our Industrial Tooling Catalogue or visit our website:

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Your CNC SMART supplier

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### Demonstrations

Contact your CNC supplier for a full demonstration.

### Financial Packages

A full range of financial packages are available including lease purchase and hire purchase. Details on request.