

Versatile 3D Capable Miller/Router/Engraver The Ideal Machine for Schools

What is a RotoCAMP MDX-40AE?

The MDX-40AE has been designed by Roland in close collaboration with TechSoft to provide a low-cost and robust machine specifically to meet the needs of UK education. The machine has an exceptionally large working envelope for its class - the 305mm square bed often allows several pupils'

Roland Miller/Routers are the only milling/routing machines to be DIRECTLY CONTROLLED from 2D Design V2



work to be machined in one operation, and 105mm of Z travel will accommodate large-scale 3D models. Rigid, heavy duty construction and a 100W spindle motor allow it to take quite heavy cuts in lighter materials, so fewer passes are needed. Combined with faster axis speeds, throughput now becomes realistic enough for class sets of project work to be machined during normal lesson time. It can even machine light alloys if allowed time for multiple fine passes.

Versatility and Ease of Use

The MDX-40AE is clever too. Connections on the machine allow an optional 3D contact scanner to be fitted and there is even an optional 4th Axis unit to enable advanced machining routines for demanding senior students. To further complete the package we have now developed an optional jig to enable schools to machine streamlined car bodies for the F1 Challenge.

Tool set-up is easy using TechSoft's own top-loading collet system, but the machine also has a standard 6mm collet so a vast array of specialist tooling becomes available including TechSoft's own range of long reach cutters designed for deep 3D machining. For simple 2D profiles, machine set-up and output is direct from 2D Design V2. Should you need full manual control over the machine, then there is an intuitive on-screen Virtual Control Panel. This also lets you use Roland's ingenious Z0 sensor - a unique feature for such a low-cost machine. The sensor gives an easy and precise way to set Z0 when not using top-loading tools.

Why Choose a RotoCAMP MDX-40AE?

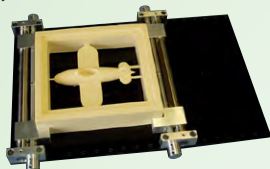
It is always tempting to want for more capacity, more speed and more power, but we believe that the MDX-40E will meet the CNC milling, routing and engraving needs of most departments and at a modest price. It is simple to use, tough and quick enough to deal with day to day work, but clever enough for advanced work if you ask it. Many departments buy two or more of these machines rather than one larger machine. A larger machine may well give you capacity in reserve, but it could be an intimidating prospect for younger pupils in particular.



Optional Extras

Self-Centering Vice

3D machining one side of an object is easy, but if the object needs to be machined all round how do you hold it? TechSoft have designed a low cost solution to this problem, a special self-centering vice (see page 91).



Scanning Head

To enhance the versatility of this superb machine even further, an optional contact scanning head is available. This quickly interchanges with the cutter head and means that just one machine can fulfil all the requirements of most schools for 3D work.



Rotary 4th Axis

The self-centering vice is great, but an even more sophisticated option is available for machining complex 3D objects, the rotary 4th axis. This device is like a mini lathe fitted under the cutter and capable of rotating an object through a full 360°.



The rotary 4th axis allows fully automatic machining of full 3D objects (max billet size 120mm diameter by 270mm long). Software support is via Roland SRP Player supplied free with the rotary 4th axis.

MDX-40AE



Pictured on optional TechSoft workstation for milling (computer not included)

Specification

Axis Travel:	305 x 305 x 105mm
Max Machinable:	305 x 305 x 75mm
Max Feedrate (X, Y):	50mm/sec
Max Feedrate (Z):	30mm/sec
Spindle Speed Range:	4500 to 15000rpm
Resolution:	0.01mm
Interface:	USB
Weight:	66kg
Dimensions:	669(W)x760(D)x554(H)mm

What's Included

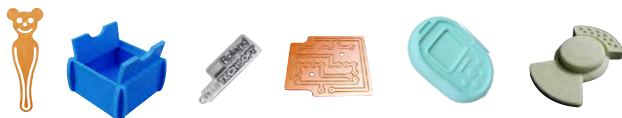
Z0 Sensor

This is a unique feature for such a low-cost machine. The sensor gives an easy and precise way to set Z0 when not using top-loading tools.



Free Education Training Pack €11988

The Training Pack gives you everything you need to get the machine unpacked and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and full 3D modelling. Each pack contains a project CD, a booklet to guide you and a selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - such as the ones shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories €11989

Slot Drill (TA-SD4-2); Ball Nosed Cutter (TA-BN4-2); Engraving Tool (TA-ECT4-40); Tool adaptor (TA-ADAPT1-M4); Upper Collets (2 x TC-UC-1164); Sacrificial Bed (TC-TS30-BED); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

* N.B. Extraction only required if cutting fine dust materials eg., foam, MDF, etc.

Prices £*

*See Pricing Information on page 2

MP-ROTO-MDX40AE	TechSoft/Roland RotoCamm MDX-40AE (inc. TechSoft Training Pk & Visual Toolpath Software)	
MP7-ROTO-MDX40AE	RotoCamm MDX-40AE Workstation Package. Includes Machine, TechSoft Training Pk, Visual Toolpath Software, Self-Centering Vice and TechSoft Workstation inc. auto-switched extractor with attachment. See page 205.	

Optional Extras

MP-ROTO-ROTARY40A	Optional Rotary 4th Axis (with Roland SRP Player Software)	
RL-ROTO-TS30SCAN	Optional Scanning Head	

Recommended Extras

TF-WS3-C1	TechSoft Workstation for Milling, 1400x800x850mm, inc. extractor. See page 205.	
RL-ROTO-VICE	Self-Centering Vice (RotoCamm MDX-40AE)	
RL-ROTO-VAC1	Extraction Attachment	
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor (included in TechSoft Workstation TF-WS3-C1). See page 190.	
RL-ROTO-SWITCH	Mains Switching Unit (included in TechSoft Workstation TF-WS3-C1). See page 91.	

Recommended Tooling For details of these packs and other tooling see page 81

TP-MIX-40E	Mixed Tool Pack (General set of tools) Save £5	
TP-3D-40E	3D Tool Pack (Specialist 3D tools) Save £7	
TP-PCB-40E	PCB Tool Pack (Specialist PCB tools) Save £5	

Recommended Materials

See details of this pack on page 91, and our full range of materials on pages 87-91

TPM2-MDX40	Mixed Pre-Cut Materials Pack Save £15	
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Recommended Software

2D Design V2 (page 12), 2D PCB (page 14) and SOLIDWORKS (page 18)