

# C1-440TAT 4×4' Open Top AutoTool CNC Router

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C1-440TAT is an open top auto tool change CNC router. The machine has 4 drawers to house your tools, accessories and perhaps materials. You can even store the vacuum pump under the table. The C1 series offers a very compact neat footprint. This "one-box" design also allows the machine to be moved on levelling castors by a single user. An optional steel safety enclosure, covering the whole working area of the machine, protects users and reduces airborne dust and machine noise.

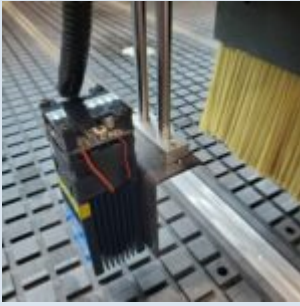
## Product Feature

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### Coolubricator JR™

lubrication system's durable, 16 oz. (0.5 L) vented reservoir. The Coolubricator JR™ combines lubricant and air in a co-axial nozzle tip. The oil mist lubrication system keeps atomization and distribution of the liquid consistent regardless of the hose length. Plastic 12 in. nozzle is coupled with 5 ft. Co-Axial hose. A heavy-duty magnetic base at the hose/nozzle connection of the oil mist lubrication system makes it easier to relocate and position the nozzle at the friction points. Typically used for the machining non ferrous metals to prevent welding and increase tool longevity.



### **The 9 watt laser diode is 445 nm**

An accessorial add on of a diode laser is useful for a variety of cuts or engravings.

Fast and easy engraving on polished and anodized aluminum, steel, stainless steel without engraving paste, copper & brass.

Laser engraving on plywood or balsamic birch, leather, glass, acrylic, stone, plastics.



### **Donek Tools D1 Drag Knife**

The Donek Tools Drag Knife for CNC routers can be used to cut almost anything you would cut with a utility knife, but with the speed and precision of a CNC router. The Donek Drag Knife fits into your CNC router or spindle collet, making it a universal fit for almost any CNC router available. The tools were designed to use a utility knife blade (which can be purchased at just about any hardware store) which dramatically reduces the cost of consumable blades. Fits in 1/2in Collet.

Common materials that are used with this tool are wood veneer for inlay/marquetry artwork, leather, carbon fiber pre-preg laminates for aerospace, military, and automotive components, cardboard for custom packaging, and much more.



### **Donek Creasing Attachment**

Donek CNC router creasing attachment can be used to crease cardboard, foam and similar materials.

- Fits on all Donek Tools Drag Knives except the 1/2" knife (D2 or D4 recommended)
- Can be used with a 28mm Olfa (TM) or Fiskars (TM) rotary cutting wheel
- Tool Offset 0.800in (20.3mm)
- Minimum cut radius: dependent on software



### **Mill Foam Matt**

Mill foam mat is ideal for wood, plastics or aluminum that is uneven or wavey. The purpose of this product is to assist in creating a vacuum seal between your spoilboard and the workpiece.

This product is made in Germany and can be used for a long period of time if you do not cut all the way through it. Please note the milling foam matt is sold in 60×12" width x length at a 3mm thickness.



### **Single Phase Vacuum Pump**

Single phase vacuum pumps work for majority of our clients end use application.

They are more accessible when comparing to three phase power as all residential and most commercial locations have 220v single phase (eg. Your oven, dryer run on this). The main benefit from the use of a single phase vacuum pump such as Blackbox vacuum pump system is the sufficient holding pressure for most applications which is measured in Hg sealed vacuum, which means millimeters of mercury. It is also important to note that this particular single phase solution has a much higher CFM rating, "cubic feet per minute" air flow.



### **Vortec Mini Cold Air Gun**

Cold Air Guns use vortex tube technology and filtered compressed air to produce sub-freezing air as low as -30 deg F for numerous industrial spot cooling applications. With no moving parts to wear out, Cold Air Guns require no electricity at the target, just a compressed air source.

Cold Air Guns are most often used for cooling of metal parts such as your cutting tool when machining to prevent welding and tool wear.



### **Rotary Lathe 1 Piece**

The one piece CNC router rotary lathe is extremely robust and heavy duty.

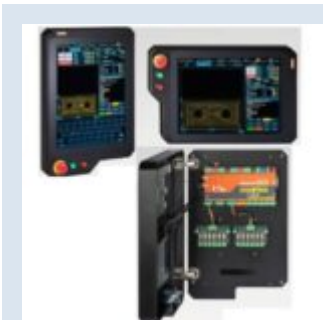
This rotary lathe is typically use with a masso controller to utilize the interpolating 4 axis feature. You can use a lathe to shape, engrave or mill wood, plastics and the like.



### **Two piece rotary lathe**

The two piece CNC router rotary lathe is meant for a light for medium duty workload.

This rotary lathe is typically use with a masso controller to utilize the interpolating 4 axis feature. You can use a lathe to shape, engrave or mill wood, plastics and the like.



### **Masso Controller**

Our highly recommended robust CNC controller solution that is guaranteed to deliver a fun and productive experience. This controller is a stand alone solution and does not require a computer to run. The Masso controller features Wifi, interpolating axis, touch screen, dual screen positioning and ease of control.

## Physical Features

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Specification	MM	INCH
Machining Bed Width/Length	1244.6 mm x 1244.6 mm	49in x 49 in
Z Travel	200mm	7.9in
Gantry Height Clearance Standard	305 mm	12in
Gantry Height Clearance Option	12"	12"
Table Top	4 zone T-Slot/Vacuum Combo Table	4 zone T-Slot/Vacuum Combo Table
Location Pins	N/A	N/A
Centralized Lubrication	Included	Included
Leveling Castors	Included	Included
Auto Tool Touch off-Mobile	Included	Included
Auto Tool Touch off-Fixed Position	Included	Included
Machine Footprint	2235.2mm x 2159mm x 1879.6mm	88in x 85in x 74in
Electrical Cabinet Size	Enclosed	Enclosed
Net Weight	1460 lbs/660 kg	1460 lbs/660 kg
Gross Weight	1710 lbs/660 kg	1710 lbs/660 kg

## Power

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Specification	MM	INCH
Voltage	220V Single phase 60Hz	220V Single phase 60Hz
Optional Voltage	208V three phase	208V three phase
Rated Power Requirement with vacuum pump	40 AMP	40 AMP
Power Requirement without vacuum pump	20 AMP	20 AMP

# Controller

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Specification	MM	INCH
Interface	MASSO G3 Touch	MASSO G3 Touch
Type	Industrial capacitive touch	Industrial capacitive touch
Screen Size	15 inch LED	15 inch LED
Touch Screen	Included	Included
Operating System	Dedicated	Dedicated
Inputs	USB	USB
MPG Handwheel	Included	Included
Wifi	Included	Included
Controller Upgrade Option	N/A	N/A

# Standard Spindle

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Specification	MM	INCH
Model	Generic	Generic
Power	2.2 KW / 3 HP	2.2 KW / 3 HP
Max Speed	18000 RPM	18000 RPM
Collet Size	ER 20 ISO 20	ER 20 ISO 20
Spindle Upgrades	N/A	N/A
Variable Frequency Drive	Fuling VFD - DBZ200	Fuling VFD - DBZ200
Cooling System	Water Cooled With Chiller	Water Cooled With Chiller
Tool Change Type	Automatic	Automatic
Tool Holder Positions	6	6

# Drive System

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Specification	MM	INCH
Motor	Leadshine 758S	Leadshine 758S
Type	Hybrid Servo	Hybrid Servo
Transmission	X and Y axis - TBI Ball Screw/Z axis - TBI Ball Screw/PMI Linear Guide rails for all axes	X and Y axis - TBI Ball Screw/Z axis - TBI Ball Screw/PMI Linear Guide rails for all axes

## Speed

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Specification	MM	INCH
Rapid Speed XY	400 IPM - rapid speed XY	400 IPM - rapid speed XY
Rapid Speed Z	200 IPM - rapid speed Z	200 IPM - rapid speed Z
Max Cutting Speed	400 IPM	400 IPM

## Tool Calibrator

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Specification	MM	INCH
Fixed Position	Included	Included
Portable	Included	Included

## Accuracy

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Specification	MM	INCH
Positioning	0.05 mm	0.0020 in
Repositioning	0.05 mm	0.0020 in