

# C1-23ATAT 2×3' Armour Top AutoTool CNC Router

## C1-23ATAT 2x3' CNC Router

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The C1 is a self contained CNC router. The 'one-box' design has a compact footprint which incorporates conventionally located CNC controller, storage is also integrated into the design with 4 convenient drawers to store all of the machine's tools and accessories... and there is even space to store the vacuum pump under the table.

## Description

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The C1 series CNC router is unique, unlike other products on the market where all of the components and accessories attach to the machine on the exterior, everything is integrated inside our 'one-box' design.

This means less space is required for the C1 series.

This machine's rugged design makes it one of the most durable builds in its class achieving spindle speeds of up to 24000 RPM and IPM feedrate up to 400 while reducing vibration. This ensures the finishing on the material of your choice will be perfect, minimized cutting time allowing you to complete jobs faster thus the capability to maximize your production time.

The C1 design comes with features typically found on larger size machines such as a high gantry clearance, rugged ballscrew design, PVC/T-slot table and a fully welded frame keeping true to our up in class, down in price philosophy.

The tool rack is conventionally located on the side of the table accommodates a full passthrough of a 4'8' sheet or longer.

The C1 series is designed to use the latest state of the art Masso controller. Which allows you to use both fixed and mobile Auto tool touch offs, ensuring you save time when switching out tools. The front door hatch, rear pass through and side door entrances make it easy to switch out tools or material with ease and ensures dust and noise are contained during each cutting or engraving operation.

## Product Feature

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### **One Box Design**

All accessories, components and parts are stored inside the machine.



### **Heavy duty extruded aluminum gantry with cast aluminum uprights**

For a machine this size this kind of quality is hard to come by making this piece of equipment suitable for the aerospace industry.



Billeted aluminum Z axis backplate vibration dampening built into the ballscrew design

With accuracy and tool longevity in mind the machine performance is very smooth .



### **Rear passthrough**

A rear passthrough allows for any length of material to be pushed through to cut or engrave on oversized substrates.



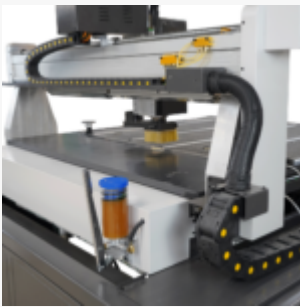
### **Stow away your vacuum pump and chiller**

Keeping your work area clear and free of a tripping hazard.



### **Safety**

The gas spring assisted front door hatch is lifted with ease and the door is outfitted with a sensor that stops/pauses the machine from running a program when opened. You can also outfit the door with an interlock which is a requirement for many educational institutions and office environments.



### **Low maintenance**

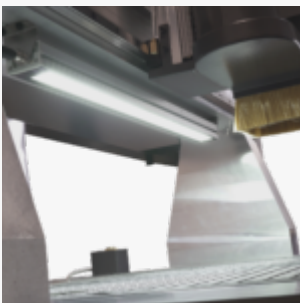
The motion components, enclosed cable carrier and electrical cabinet of the CNC router are designed to limit exposure to dust and debris. Minimizing the need for maintenance and frequent cleaning.



### **Two calibrators**

A unique design feature, fixed and mobile calibration, is standard for all C series CanCam CNC machines.

Our C series equipment come with two calibrators to allow for oversized tool calibration, mobile calibration for odd sized materials and to any location you choose.



### **LED lights**

Bringing all your projects to light before they leave the table. Allowing for inspection of your work as it is being machined.



### **Castors for ease of mobility**

With a light push you can reposition your CNC router where needed.



### **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 wavy. The purpose of this product is to assist in creating a vacuum seal between your spoilboard and the workpiece. the way through it. Please note the milling foam matt is sold in 60x12" 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.

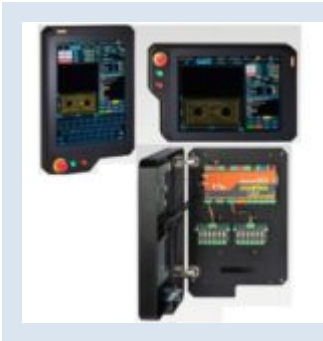
This rotary lathe is typically use with a masso controller to utilize the interpolating 4 axis feature. You can use a lathe to shape, engrave or mill wood, plastics and the like.



### **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

Specification	MM	INCH
Machining Bed Width/Length	915mm x 610mm x 205mm	36in x 24in x 8in
Z Travel	200mm	7.9in
Gantry Height Clearance Standard	203mm	8in
Gantry Height Clearance Option	12"	12"
Table Top	2 zone T-slot/Vacuum Table	2 zone T-slot/Vacuum 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	1841mm x 1503mm x 2017mm	72.5in x 59.17in x 79.5in
Electrical Cabinet Size	Enclosed	Enclosed
Net Weight	1250 lbs/577 kg	1250 lbs/577 kg
Gross Weight	1450 lbs/658 kg	1450 lbs/658 kg

## Power

Specification	MM	INCH
Voltage	220V Single phase 60Hz	220V Single phase 60Hz



Specification	MM	INCH
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

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

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

Specification	MM	INCH
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	400 IPM
Rapid Speed Z	200 IPM	200 IPM
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