

# C2-48ATC

## C2-48ATC 4x8' CNC Router

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The C2 Series CNC machines are engineered and built for production applications... at an impressive price point. Key design features allow fast, accurate cutting with guaranteed reliability. Unlike competitors who charge for upgraded components or add on accessories, CanCam has included a number of these as standard features such as pneumatic solenoid (Single phase machines) and electronic solenoid (3 phase) -actuated vacuum zones, a plug and play outlet for a rotary lathe with a spare servo driver, pop up location pins, easy sheet rollers, castors, a T-slot/vacuum combination table, helical rack and pinion motor mount, planetary gear vs. belt driven gantry, centralized lubrication along with two calibrators, one fixed and one mobile. The C2 Series design is consistent with the CanCam value proposition... Up in Class, Down in Price.

## Description

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This machine's rugged vibration-reducing design and durability allows the spindle to achieve speeds of up to 24000 RPM and IPM feed rate up to 1200 w. This ensures the finishing on the material of your choice will be perfect, with minimized cutting time. Minimized cutting time allows you to complete jobs faster thus maximizing your output.

The C2 series is designed to use the latest state of the art Masso controller. The Masso controller allows you to use both fixed and mobile auto tool touch offs, ensuring you save time when switching out tools at any point during the production.

The C2 series commercial CNC routers come with closed loop servos, linear guides, helical rack and pinion motor mounts along with planetary gear reducers making this machine a high quality build with tighter tolerances typically found in ball screw machines without compromising cutting speed.

The carbon alloy steel gantry and prestressed frame are nearly 1/2" thick along with the 1" milled gantry support posts that contribute to reducing vibration without compromising accuracy.

Flexibility in the product offering is available through increased gantry heights up to 15" clearance, variety of table top options, laser diode option, rotary lathes.

This model is available in a variety of sizes ranging from 4' wide to 30' long.

This industrial CNC router is available in single phase or 3 phase. Which means you can put in just about any residential garage if needed.

The combination of the engineering and quality components built into this design ensure that you get the 'Up in class, Down in price' that CanCam is committed to delivering to all its customers.

## Product Feature

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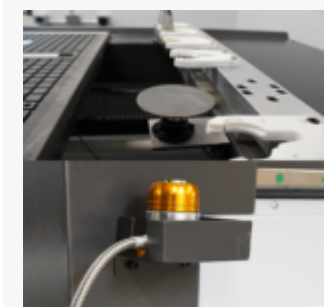
### Single phase or 3 phase power

The C2 series is built to spec for either single phase or 3 phase making this an extremely flexible machine for installation in commercial, industrial or residential applications.



### Pneumatic Or Electric Solenoid actuated vacuum zones

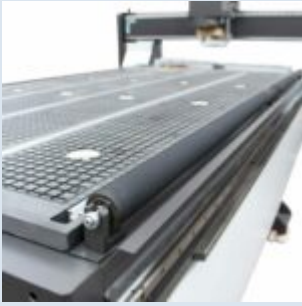
Control isolated vacuum zone locations with the press of a button.



### 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.



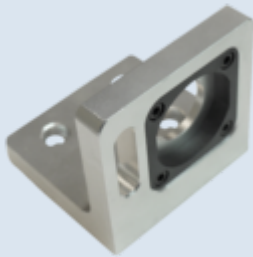
### **Easy sheet rollers**

Roll your sheets on with ease.



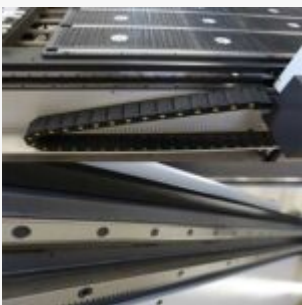
### **Integrated lubrication system**

Making maintenance simple and easy.



### **Tool change fixture**

On the rear of the CNC router bed you have a fixture to make it easy to tighten your collet on the tool holder.



### **Low maintenance**

The sealed motion components, enclosed cable carrier, linear rail covers, spindle cover and side gantry covers on the CNC router are designed to limit exposure to dust and debris. Minimizing the need for maintenance and frequent cleaning.



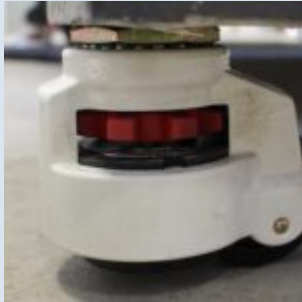
### **Pop up location pins**

Pneumatic pins to assist you with your workpiece alignment.



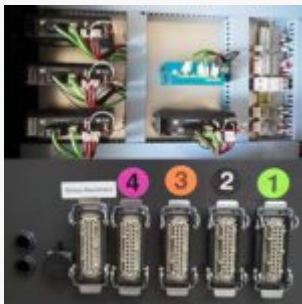
### **LED lights**

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.



### **Built in rotary plug**

Each C2 is outfitted with a spare servo driver allowing to add a plug & play rotary lathe to your equipment if needed.



### **Quick release tool holder**

For a quick swap to a new tool, press the button and the tool pop out.



### **Three Phase Vacuum Pump**

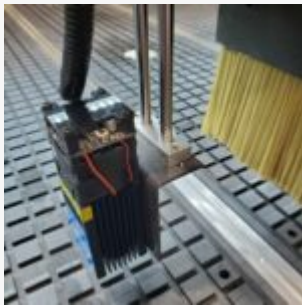
Three phase vacuum pumps can be more efficient on electrical consumption in comparison to single phase. The main benefit from the use of a three phase vacuum pump such as Becker is the additional holding pressure measured in Hg sealed vacuum, which means millimeters of mercury.

A three phase vacuum has the potential capability to hold down some material/substrate more effectively with less slippage for this reason. This product requires for you to have 208-600v three phase power available at your location.



### **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.

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.

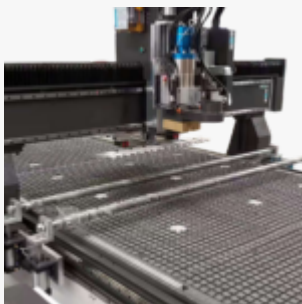
This rotary lathe is typically used with a masso controller to utilize the interpolating 4 axis feature. You can use a lathe to shape, engrave or mill wood, plastics and the like.



### **Two piece rotary lathe**

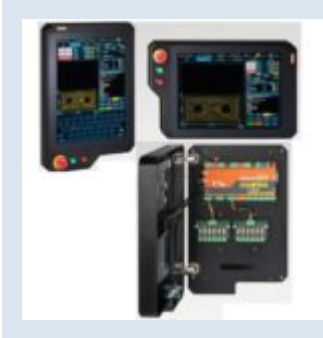
The two piece CNC router rotary lathe is meant for a light to medium duty workload.

This rotary lathe is typically used 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.



### **Hold Down Pressure Rollers**

2 fully automated rollers on each side of the cutting spindle envelope, which engage the sheet material to maintain firm contact with the router's table. The hold down pressure rollers are ideal for holding down warped stock, multiple stacked material, or when machining narrow, low surface area parts. Each roller offers full, independent control over regulating holding pressure. It is important to note that the rollers are designed to supplement (not replace) the standard vacuum holding, creating optimal performance and maximum speed without moving parts.



### 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	2500 mm x 1250 mm	98in x 49in
Z Travel	305 mm	12in
Gantry Height Clearance Standard	280 mm	11in
Gantry Height Clearance Option	203 mm or 381 mm	8" or 15"
Table Top	4 zone T-Slot/Vacuum Combo Table	4 zone T-Slot/Vacuum Combo Table
Location Pins	Included	Included
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	3450 mm x 2285 mm x 2032 mm	135in x 90in x 80in
Electrical Cabinet Size	560 mm x 1400 mm x 1020 mm	22in x 55in x 40in
Net Weight	3800 lbs/1725 kg	3800 lbs/1725 kg
Gross Weight	3800 lbs/1725 kg	3800 lbs/1725 kg

## Power

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

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	6.0 KW / 8 HP	6.0 KW / 8 HP
Max Speed	18000 RPM	18000 RPM
Collet Size	ER 32 ISO 30	ER 32 ISO 30
Spindle Upgrades	9.0 KW / 12 HP (ER32 ISO 30)	9.0 KW / 12 HP (ER32 ISO 30)
Variable Frequency Drive	N/A	N/A



Specification	MM	INCH
Cooling System	Air Cooled	Air Cooled
Tool Change Type	Automatic	Automatic
Tool Holder Positions	8	8

## Drive System

Specification	MM	INCH
Motor	Leadshine 7 Series	Leadshine 7 Series
Type	Servo	Servo
Transmission	X and Y axis - Helical Rack and Pinion Drive/Z axis - TBI Ball Screw/PMI Linear Guide rails for all axes	X and Y axis - Helical Rack and Pinion Drive/Z axis - TBI Ball Screw/PMI Linear Guide rails for all axes

## Speed

Specification	MM	INCH
Rapid Speed XY	1000 IPM	1000 IPM
Rapid Speed Z	400 IPM	400 IPM
Max Cutting Speed	1000 IPM	1000 IPM

## Tool Calibrator

Specification	MM	INCH
Fixed Position	Included	Included
Portable	Included	Included

## Accuracy

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