

CAMaster Options for the Panther Line of CNC Routers

Recoil Indexing Lathe

The Indexing Lathe is mounted on the side of the machine so it does not interfere with the table top when it is not in use. It comes with a head stock, tail stock, rails, and motor/drive system. The tail stock is a removable, live center point. The head stock comes with a 1" x 8 TPI threaded shaft. The Panther's spindle/router moves bi-directionally along the length of the material and does the carving. *Indexing* means that the work material can be rotated 360 degrees.

Panther PT- 404:	For carving stock up to 12" diameter and 48" in length
Panther PT- 408:	For carving stock up to 12" diameter and 96" in length
Panther PT- 508:	For carving stock up to 12" diameter and 96" in length
Panther PT-510:	For carving stock up to 12" diameter and 120" in length

Recoil Indexing Lathe Ready:

The option allows you to add a Recoil Indexing Lathe in the future. Machine comes with a 4th axis controller and drive installed and enabled in the software. The Gantry is extended to accommodate the recoil and the motor wires to the recoil are also installed making it ready for future "plug in" of a recoil head.

Counter Balance:

The role of a Z-Axis Counterbalance is to equalize the forces in both up and down directions on the Z-Axis. This helps increase the performance of your machine's Z-Axis and also increases the longevity of your Z-Axis motor which sees all of the up and down movement while cutting. It requires compressed air to operate and uses a standard 1/4" NPT air fitting. It comes with an air regulator preset to the correct resistance. *This option comes standard with the X3 Option or ATC Options.*

Fast Tool Change (FTC):

If your work requires frequent tool changes, the FTC option is a safety feature as well as a fast way to make tool changes within a program. It comes with a "micro touch plate" mounted to the side of the table that measures the length of the new cutting tool and gives that information to the operating software making tool changes a "touch and go" operation. *This option comes standard with the X3 Option or ATC Options.*

Laser Cross Hair:

The laser pointer is a great way to quickly set the starting position of the spindle's both the X and Y axis, similar to the way the laser cut line works on miter saws. The high strength red diode places a "cross hair" on the material allowing a user to set an X-Y zero where the cutting tool will start machining. Since the dust boot covers the cutting tool the laser light is the perfect solution for placing the work piece right where it needs to be on the table.

Panther Performance Packages: A great deal! (Not Available with the X3 or ATC Option)

Performance Package – Basic

This package includes the **Fast Tool Change and Laser Cross Hair** options offering you a savings of \$145 over the \$790 it would cost to buy these options individually.

Performance Package – Plus

This package includes ***Fast Tool Change, Laser Cross Hair and a Counter Balance***. This package offers you a savings of \$190 over the \$935 it would cost to buy these options individually.

Phenolic Table Top

The Phenolic Table Top option upgrades you from the standard MDF Top. A Phenolic Top is utilized just as the MDF, but with these added advantages:

- a) Phenolic is a non-porous substrate that is a great option if you plan to cut nonferrous metals with your CNC Router as it will not absorb moisture from the lubricant used while cutting. An MDF Top will absorb the moisture and swell up, distorting the accuracy of the machine.
- b) With the Phenolic being non-porous, it is great for vacuum tables. On standard tables the MDF can bleed air, losing valuable vacuum or CFM.

T-Slot Clamping Table and Extra Clamps

Five Aluminum T-Slot tracks are recessed into the supplied tabletop. Four clamps are included and may be slotted into the appropriate tracks to accommodate work pieces of different sizes. (The Panther PT-510 comes six tracks instead of five). Extras clamps are available in sets of 2.

Vacuum Table Top

A vacuum table top, routed into the standard MDF or Phenolic Top will hold your work pieces in place by the air pressure exerted by a vacuum pump. A vacuum pump eliminates the need for clamping your work piece to the table top and can be a time-saver if your work requires a constant parade of work piece changes throughout the day. CAMaster will rout out a vacuum plenum with the appropriate number of standard zones for each Panther model and will install all plumbing, connections and valves for the operation of the zoned table. CAMaster can provide you with a vacuum pump; prices vary depending on pump size.

Vacuum Table Top with T-Slots Tracks

A vacuum table top combined with aluminum T-Slot tracks. This gives you the ability to use either use a vacuum system or clamping to hold down your work pieces. Four clamps are included and may be slotted into the appropriate tracks to accommodate work pieces of different sizes.

The Hurricane Vacuum System

The Hurricane Vacuum System operates on Single Phase 220-230V Power. This is ideal for small shops as it saves them from expensive phase converters or power drops. The Hurricane Vacuum System creates 382 CFM as well as 9.5 In Hg. If purchased with your machine, a vacuum grid is routed on your table top and the table is fully plumbed and zoned for easy and direct connection to the vacuum system. T-Slots Tracks can be added to the vacuum table.

Spindle Options

a) *1.0 KW (1.34 HP) HSD Collet Spindle*

This is an HSD air cooled electro-spindle made in Italy. It utilizes the ER20 collet and includes collet sizes (one each) 1/4", 3/8", and 1/2". This option comes with Spindle Speed Control which gives user precise control of Spindle RPM through WinCNC. This option also comes standard with Spindle On/Off, controlled via G- Code.

b) 1.7 KW (2.28 HP) HSD Collet Spindle

This is an HSD air cooled electro-spindle made in Italy. It utilizes the ER25 collet and includes collet sizes (one each) 1/4", 3/8", and 1/2". This option comes with Spindle Speed Control which gives user precise control of Spindle RPM through WinCNC. This option also comes standard with Spindle On/Off, controlled via G- Code.

c) 3.0 KW (4.02 HP) HSD Collet Spindle

This is an HSD air cooled electro-spindle made in Italy. Utilizes the ER32 collet and includes collet sizes (one each) 1/4", 3/8", and 1/2". This spindle comes standard with Spindle Speed Control for precise control of Spindle RPM through a WinCNC. This option also comes standard with Spindle On/Off, controlled via G- Code.

d) 3.9 KW (5.22 HP) HSD Collet Spindle

This is an HSD air cooled electro-spindle made in Italy. It utilizes the ER32 collet and includes collet sizes (one each) 1/4", 3/8", and 1/2". This option comes with Spindle Speed Control which gives the user precise control of Spindle RPM through WinCNC. This option also comes standard with Spindle On/Off, controlled via G- Code.

e) 5 HP HSD Automatic Tool Change (ATC) Spindle

ISO 30 ER 32 ATC Spindle. Includes a 8 Tools on a gantry mounted Rotary Carousel for quick tool changes. Comes with 8 Tool Holders, 8 Tool Forks and 8 Collets. Also comes with spindle speed control for precise control of Spindle RPM through a WinCNC. This option includes a Counter Balance.

Gantry Lift

This option gives you 2" more of work room under the Gantry. With this option, the machine work room is 10" instead of 8". This option increases the Z travel of the machine to 11.45" with 10" below the gantry.

CAMaster X3 Option

The X3 allows you to add two 2.25 HP Milwaukee routers alongside the installed cutting head, one on each side. Each side router is pneumatically raised/lowered and turned on/off via G-Code commands, making project completion faster because you don't need to spend as much time changing the tools. Also included is the Fast Tool Change (FTC) and the Counter Balance. You can upgrade the center router to any of the Spindle Options above. [Click Here To Read More on the X3.](#)

Oscillating Tangential Knife

An Oscillating tangential knife is designed to provide high accuracy cutting of a wide range of soft and semi rigid materials including but not limited to Graphic Foam boards, Closed Cell Foam, Plastic-covered Foam, Corrugated Cardboard and Plastic, Gasket Materials, Rubber, Cork, Carpet, Felt and other Single-ply Cloth or Fabric, Vinyl and more. Electrical Blade oscillation and tangential control ensures that the cutting blade delivers accurate cuts even on thicker materials without excessive over cut. The Oscillating knife is available with a wide range of blade lengths to suit a wide variety of materials. Comes standard with an air permeable cutting mat that is placed on the vacuum table top of your CNC machine when using the knife.

Non-Oscillating Tangential Knife

A Non-oscillating tangential knife is designed where the blade is rotated by an actuator in each direction of cutting. It comes with a gliding shoe that is used to hold down the material when cutting and can be adjusted depending on the holding force required. Comes standard with an air permeable cutting mat that is placed on the vacuum table top of your CNC machine when using the knife.

Popup Locating Pins

Pop up pins are the most reliable method of ensuring quick and easy material positioning. With the full pneumatic retraction, there is no fear of any cutting tool collision with the pin. Your machine is configured with three pins. The pins are integrated to the deck of the machine and are fixed in place. The pins cannot be knocked out of alignment and can stand up to the repeated impacts of locating materials in place on the bed for the life of your machine.

Mister System

The Mister System provides a cost effective solution for cutting nonferrous metals. When used in non-ferrous cutting applications, the Mister System dispenses small amounts of Micro-Drop synthetic or vegetable based lubricant to cool and lubricate the cutting tool. Compared to flood cooling, there is no coolant sump to maintain or used coolant to dispose of. A phenolic top is recommended as it will not absorb moisture from the lubricant used while cutting.

USB Wireless Adapter

A USB Wireless Adapter is an easy way for your computer to connect to the Internet wirelessly. If a wireless network is already in place, you simply need to plug the Wireless Adapter into an available USB port on the computer, start up the computer, and you will be connected to the internet. Our USB Wireless Adapter is tested to ensure that it is compatible with the computer that comes with your machine.

Maintenance Kit

The Maintenance Kit contains almost everything you need to tune-up your machine in one convenient package. The Kit includes a Grease Gun, Needle Adaptor, Two Tubes of Grease and Maintenance Instructions.

Remote Handheld Keypad

The Remote Handheld Keypad is a great way to operate your CNC Control PC without having to use a cumbersome keyboard. The keypad connects to your PC via a 15' USB cable. The keypad is made to withstand dusty conditions and high temperatures. The keypad comes with 20 pre-programmed buttons. No driver or additional software is needed making it a true plug and play system.

10 Piece Starter Bit Set

A range of 10 bits to get you started carving in several substrates: wood, acrylic, and non-ferrous metals. These bits are manufactured by Southeast Tools and made in the USA.

1/4" 60° 3-Flute V-Bit

1/4" 2-Flute Spiral Upcut

1/2" 90° 2-Flute V-Bit

1/2" 60° 2-Flute V-Bit

1/4" Ball Nose 2-Flute Upcut

1/8" Ball Nose 2-Flute Upcut

1/4" 60° 2-Flute V-Bit

1/4" O-Flute

1/4" 2-Flute Spiral Downcut

1 1/2" Stair Tread & Bottom Cleaning Bit (Spoilboard Surfacing Bit)

Training Options

CAMaster personnel can assist you with training in the use of software and/or machine operation, depending on your needs. Training can be done either at Customer's location, at CAMaster's facility or Online

Thank you for your interest in the Panther line of CNC Routers. At CAMaster, we are focused and driven to bring the best value and service to the CNC market. If you have any questions, please contact a sales associate who will be more than glad to help you with your new CNC Router purchase.

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