

POWERMATIC PM1800 Bandsaw

The POWERMATIC PM1800 Bandsaw is the result of no-holds-barred design executed by equally enthusiastic engineering and manufacturing. This 38"-wide by 38"-long by 81"-tall, 800-LB bandsaw is built from high quality steel and cast iron to handle your bandsawing needs effortlessly for many years to come. Even the heavy steel cabinet doors are secured with all metal rotating cam locks! The remarkable 18" resaw and 18" blade-to-frame capacities, power and accuracy qualify the POWERMATIC PM1800 Bandsaw as a member of the legendary POWERMATIC lineup.

Power and Control

The POWERMATIC PM1800 Bandsaw is driven by a tough, 5HP 1PH 230V (#1791800) motor. A 5HP, 3PH motor version (#1791801) is also available. POWERMATIC motors are rated using a continuous duty cycle to provide a true representation of the power available during use, not in "spikes" or "peaks". The result is plenty of power to handle the tremendous cutting capacity of the POWERMATIC PM1800 Bandsaw and to breeze through that workload for hours on end.



The POWERMATIC PM1800 Bandsaw shows that dedicated engineering and high-end manufacturing add up to the last bandsaw you will ever need to buy!

The motor power is transmitted to the two-step drive pulley system via a tough Poly-V belt. This



The rugged 5HP Powermatic motor (left) sends its power through a smooth-running Poly-V belt system (right) with two pulley positions that generate the 1800 and 4200 FPM blade speeds.

style belt is known for its smooth, slip-free power transmission. Changing the belt between the 1800 and 4200-FPM (feet per minute) blade speed pulley positions is easy because the belt tensioning controls are on the outside of the lower cabinet, at the motor.

We even added

a large, chrome-plated handle to make raising this large motor to loosen the belt a comfortable task. Move the relaxed belt to the new pulley position and re-tension it. The whole process takes just seconds and makes using the proper blade speed for the job easy.

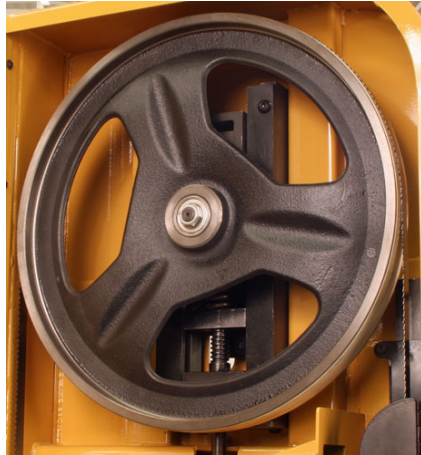
The motor is controlled and protected by an industrial style magnetic switch. This type of switch protects the motor from potentially damaging voltage variations. It also prevents the motor from restarting unexpectedly should the power be interrupted and then be restored. The operator must push the On switch to restart the POWERMATIC PM1800 Bandsaw after the power is restored.



The magnetic switch protects the motor and you. Plus, removing the "key" (yellow disc) can disable the saw when you are not around.

The switch has an illuminated center (start) button that is one indication that the machine is connected to power. A large red Off ring surrounds the On button. This ring is easy to push or “bump” to shut the POWERMATIC PM1800 Bandsaw down. We also added a magnetic “key” that when removed disables the switch so the POWERMATIC PM1800 Bandsaw cannot be used when you are not around. You can drop the magnetic key in your pocket or stick it to any steel or iron surface in the shop.

Blade Wheels



The oversized blade wheels are made from cast iron, fully machined, painted and fit with their rubber tires BEFORE being computer balanced to insure silky smooth operation.

The massive 18-1/2”-diameter blade wheels are crafted from high quality iron castings that are precisely machined, painted and even fitted with the tires BEFORE they are computer balanced. This procedure insures the ultimate in strength and smooth operation. Both the upper and lower wheels run on dual, high-quality ball bearings to further insure smooth operation with minimal drag and an extended life.

Even the crown of the wheels was given extensive engineering attention to obtain the greatest stability with all blade widths the POWERMATIC PM1800 Bandsaw is capable of using. This innovative wheel crown design makes setting and then retaining tracking adjustments easier and trouble free.

The tracking mechanism for the upper wheel has a locking lever that prevents “drifting” of this critical adjustment once it has been set. We also added a see-through window on the front edge of the upper cabinet so you can actually see the blade on the wheel from directly in front of it while making the adjustment. We even use white tires on the wheels that increase the contrast between them and the blade for even better visibility.

The massive weight of the cast iron blade wheels produces substantial levels of inertia that makes cutting even thick pieces of hardwood smooth. However, all of that inertia extends the coast down time considerably after the power is shut off. To help stop the blade more quickly we added a foot-operated blade brake. Incorporated into that braking system is a micro switch that automatically shuts off the power to the motor when the pedal is depressed. To restart the saw the On button must be pressed.



The blade brake pedal also has a micro switch that shuts down the motor when the pedal is depressed.

Tension – No Tension



The blade tensioning system (left) is simple, effective and works instantly. All of the controls are easy to access on the outside of the upper cabinet. We added a blade tracking window (right) and white tires to make seeing the blade during this critical adjustment easy.

The blade tensioning system was also designed to be tough but easy to use. A large cast iron handwheel operates a special Acme threaded screw that moves the blade mount block up and down. The Acme thread design keeps effort low, the motion smooth yet relatively quick. To make setting the proper tension easier we developed an exaggerated gauge on the rear of the upper cabinet that clearly shows the proper tension for blades in the 1/8” to 1-1/2”-wide (160”-long)

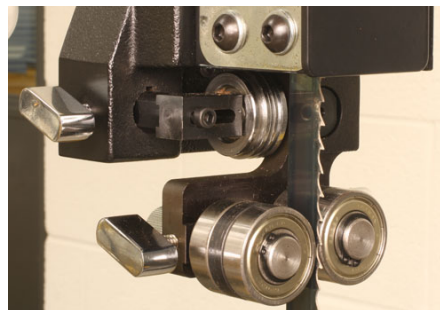
range that the POWERMATIC PM1800 Bandsaw is capable of using.

Relaxing blade tension when not in use is good for the tires and bearings as well as the blade itself. The POWERMATIC PM1800 Bandsaw is equipped with a large arm that takes blade tension through three settings quickly and with little effort, encouraging the operator to make use of this important procedure.

First is a “Partial Tension” position that relaxes the blade when not in use but maintains a low level of tension that is sufficient for making blade tracking adjustments. Also, when in the “Partial Tension” position, the large chrome-plated handle on the tensioning arm is clearly in the operator’s field of view to help prevent accidentally starting the saw without tensioning the blade for use. Next is the “Full Tension” position that applies the full tension as currently set to the blade for making cuts. Finally is the “Full Release” position that lowers the upper wheel fully to make changing blades faster and easier.

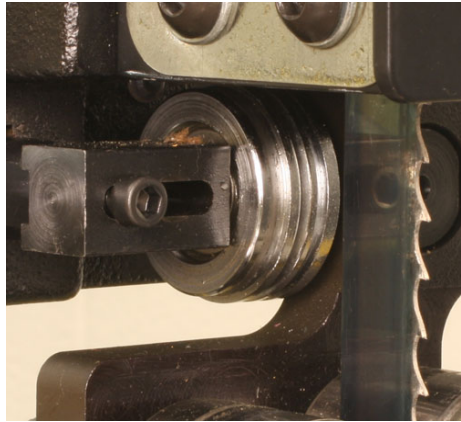
Guides, Post and Guards

The POWERMATIC PM1800 Bandsaw comes standard with high-quality ball bearing blade guides. The adjustment of both the upper and lower guide sets is tool-free. The side bearings are double row to adequately control blade widths up to 1-1/2”. All of the guide adjustments are easy to make, especially



The full roller bearing upper and lower guide sets (left) are tool free and fully adjustable for maximum control and accuracy. The spring steel inner guard (left, arrow) automatically extends and retracts as the guide post is raised and lowered.

in the tiny increments necessary for setting the POWERMATIC PM1800 Bandsaw up just right for accuracy and clean cuts. The thrust and both side bearing sets can be adjusted front-to-back individually without affecting the setting of any other guide bearings.



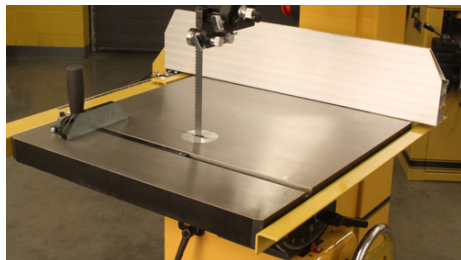
The specially designed thrust bearing handles the narrow scrolling blades easily and accurately!

A specially designed thrust bearing has two grooves in its surface to support the various blade designs exceptionally well. The V-shaped groove works well with very small blades commonly used for scrolling and replaces having to buy aftermarket blade stabilizers commonly used with the smaller scrolling blades. The flat-bottomed groove handles larger blades with that shape at their rear. The thrust bearing also has a flat surface area that can be used just like traditional thrust bearings with large blades.

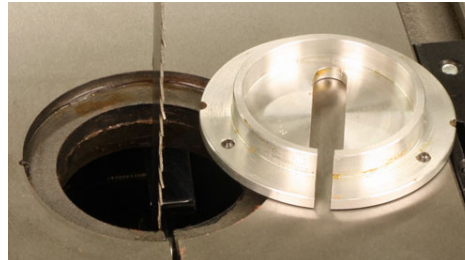
The post is raised or lowered using a handwheel that operates a gear drive. The up and down motion also moves a pointer along an easy-to-read scale on the front of the upper cabinet. A knob on the side of the cabinet by the handwheel locks the post in place.

The post has a flip-open guard on the operator side that allows access for changing blades. The inner side of the post has an automatically deployed spring steel guard that extends and retracts from a hidden track along the bottom of the upper cabinet as the post is raised or lowered.

Table and Fence System



The spacious cast iron table (left) provides plenty of support. The specially designed, machined aluminum insert (right) fits into a stepped recess and uses three leveling screws to be sure it is perfectly flat with the table surface. This is far superior to stamped drop-in plates.



The POWERMATIC PM1800 Bandsaw features a spacious 24" by 24" cast iron table that is precisely ground to insure flatness. The table tilts 45- degrees to the right

and 15-degrees left. A specially designed stop makes returning the table to level (90-degrees to the blade) fast and accurate. A unique moveable disc on the frame allows the sturdy table stop to pass into the frame, enabling the 15-degree tilt to the left without having to change the stop setting.

The table is tilted using a large-diameter cast iron handwheel operating a rack and pinion gear system. This handwheel and a large, easy-to-read scale make setting a desired table angle and then locking it in place accurate, fast and easy.

The slot in the table for changing blades runs from the center to the operator's edge. This makes

changing blades much easier because it comes straight off of the wheels without having to be turned to follow the traditional slot that runs out to the right edge of the table. The slot has a



press-in alignment pin that is retained on a cable to prevent its loss.

A full sized $\frac{3}{4}$ "-wide by $\frac{3}{8}$ "-deep miter slot is provided that accepts the included miter gauge or other common accessories designed to be used in a standard miter slot. The miter gauge has a pivoting head with positive stops at 45 and 90-degrees to either side. The miter gauge guide bar has expansion devices that allow fine-tuning its

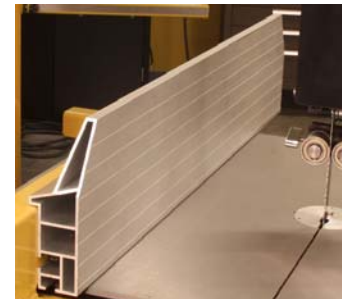
The table tilts using this large handwheel (left) that operates a gear drive. The massive solid steel resaw post (right) is included!

width to fit the miter slot precisely for maximum accuracy.

A precisely machined aluminum table insert surrounds the blade. This specially designed insert has a collar that slips into a close-fitting locating hole in the table. The flange-style rim of the insert fits into a recess in the table. Three leveling screws in the flange allow setting the insert dead flush with the table surface for smooth, catch-free cutting. This is a much better, far more user-friendly insert design than the simple stamped plates other bandsaws use.

The 30"-long by 6-1/2"-tall extruded aluminum fence slides along the fence arm on a steel guide rail, allowing it to be adjusted front-to-back as needed to best suit the current job. The fence has rail guides in two positions so that it can be used upright or laying flat on the table for maximum utility.

This is a true T-style fence with a full complement of adjuster screws just like the ones on high quality table saw fences. These adjusters mean the POWERMATIC PM1800 Bandsaw fence can be easily and accurately



The large, extruded aluminum fence can be used lying flat on the table (left) or upright (right). It can also be moved front to back to best support the job at hand.

adjusted to be square to the table surface vertically and parallel to the blade front to back. Drift correction adjustments are very easy and exceptionally accurate with this system. We also use a

high quality locking system built from powdered metal components that assure smooth, long-term operation and a solidly locked fence during use.

The POWERMATIC PM1800 Bandsaw comes with a massive, 2"-diameter by 6-1/2"-tall, all steel, chrome plated resaw post. The post is mounted to the fence with a large finger-operated knob. A mounting slot in the fence makes aligning the resaw post with whatever width blade is being used fast and simple.

Dust Collection



Dual 4"-diameter dust ports, along with a dust brush on the lower wheel and a special insert around the blade all encourage effective evacuation of dust from within the cabinet.

Because of the POWERMATIC PM1800 Bandsaw capabilities we added two 4"-diameter dust ports. Both are in the lower cabinet with one positioned directly below the table in line with the blade. A dust brush on the lower wheel and a special insert surrounding the blade both help direct the dust into the upper dust port.

A second dust port is located in the lower corner of the cabinet. This helps evacuate whatever dust escapes the upper brush/port system. The result is a remarkably efficient dust collection system on a bandsaw!

If you want a bandsaw and want to buy the last bandsaw you will ever need first, the POWERMATIC PM1800 Bandsaw was made for you. Its full range of user-friendly features, innovative design and the traditional POWERMATIC durability make the POWERMATIC PM1800 Bandsaw a must see for anyone wanting a bandsaw.