

POWERMATIC 54A/54HH 6" Jointer

Creating flat, straight surfaces is crucial in the quest to build elegant projects. Virtually all forms of joinery and the tools that cut them depend on straight edges and square cuts. The POWERMATIC 54A/54HH 6" Jointer makes it easy to achieve the high levels of accuracy you need in this always-crucial operation.



The Powermatic 54A/54HH 6" Jointer has been designed and built to provide the ultimate in accuracy and dependability.

Base Cabinet

The 21"-wide by 13"-deep all steel base cabinet provides stable footing for the POWERMATIC 54A/54HH 6" Jointer and puts the table surface at a comfortable 32" above the floor.



The all-steel base cabinet not only provides stable footing for the jointer, it houses the motor and dust collection outlet.

The 1 HP, 1Ph, 115/230V motor (pre-wired 115V) is factory-mounted within the base cabinet and can be converted to use 230V power should that be desirable. The motor is on a special mount within the base cabinet that allows the user to adjust belt tension should that become necessary.

The base also contains the dust collection chute that evacuates debris from below the cutterhead. The chute guides that debris to the exterior 4"-diameter port near the floor. Locating the outlet port near the floor helps keep the hose out of the way and puts it at a similar height as the inlet of our popular dust collectors such as the PM1300.

3-Knife Cutterhead (54A Model)

The POWERMATIC 54A Jointer features a 3-knife cutterhead fitted with adjustment cams that make setting critical knife height easy and extremely accurate. Each knife is 6 1/16"-long, 3/4"-tall and 5/64"-thick and made from high quality steel.

The knives are secured by a set of 4 gib screws and a gib plate. Below each knife are two adjustment cams. The included manual provides complete instructions (with illustrations) that make changing and setting the knives easy. They even show how to offset one or more of the knives for cutting small rabbets or to compensate for small nicks in a knife.



The 54A cutterhead (top in this photo) features our Quick Set knife system that uses cams to position the knives precisely so they cut smoothly and work together equally to disperse wear.

Helical Cutterhead (54HH Model)

There are many cutterhead designs that carry the helical moniker, including simple straight blades broken into segments and dispersed around the cutterhead cylinder. However, despite the name, they retain many of the liabilities of the long blade designs. While designing the POWERMATIC 54HH 6" Jointer we wanted to incorporate the performance of a true segmented, shear-cutting helical head.



The helix head (right side of the image) uses full carbide inserts that greatly extend durability as well as the quality of the cut. Sound is also drastically reduced over nearly all other cutter configurations.

The helical cutterhead is so effective because its carbide inserts are arranged in spiral-shaped rows. The inserts have a 4" radius ground into them and are mounted so they approach the wood at a 14-degree angle. That creates a true shear cut that eliminates much of the impact and the resulting fiber disturbance other cutterhead designs deliver to the wood.

heavily figured wood.

The helical cutterhead cuts so efficiently that it dramatically reduces the noise made when cutting wood. In fact, it is so quiet, new POWERMATIC 54HH 6" Jointer users often think it is not cutting wood at all, until they see the results. The shearing effect of the helical cutterhead produces a remarkably smooth surface on even

The helical cutterhead inserts are precisely machined from solid high-grade carbide, each with four identical cutting edges. If an edge eventually goes dull, you simply index it to the next cutting edge! Each insert has a marking at one edge that makes indexing all or any number of them the same way very easy, though needing to do that is unlikely.

Because the inserts themselves and the seats into which they fit are so precisely machined, there is no adjustment or "fitting" necessary. Indexing or replacing an insert takes just seconds. Simply loosen its retaining screw, turn the insert to its new position and tighten the screw.

The durability of the carbide combined with the low impact, shear cutting action mean the inserts have an extremely long life, far exceeding that of straight blades. The potential life span of these carbide inserts means that many woodworkers may go years before having to index them. Should a hidden piece of metal be encountered and actually damage a few of the carbide inserts only the ones actually contacting the metal need to be indexed or replaced.

Tables

At 7 1/4"-wide and 66"-long the cast iron POWERMATIC 54A/54HH Jointer table is one of the longest available in this class and provides plenty of support for even large work pieces. The tables are precision-ground to insure flatness and each is mounted on dovetailed ways that keep them perfectly aligned through height changes. The ways are equipped with gib screw adjusters that allow the user to adjust out any wear-related play should that occur in years to come. The outfeed table is equipped with a 1/2" by 1/2" rabbeting channel along its outer edge.

The outfeed table height is adjusted with a handwheel mounted below the table. A finger-operated gib screw locks the table in position once it is set.



The infeed table height adjustments are truly unique. The handle can be moved up and down for coarse height changes or, after snugging the locking knob (to the left) the long handle can be rotated to make very fine, precise infeed table height adjustments.

The infeed table height is adjusted using a unique lever system. This single lever provides both coarse and fine adjustment capabilities that make tiny changes simple to make with a new level of accuracy. After loosening the handwheel on the side of the machine, the infeed table adjustment lever can be used for major infeed table height changes. Snug the locking knob down and the same adjustment lever can now be rotated (twist the handle) to make very small infeed table height changes with extreme accuracy. Each full turn of the adjustment lever handle creates 1/16" of infeed table height change. When the infeed table is set to the desired height, a thumbscrew on the rear can be engaged to secure it.

An easy to read scale on the front side of the infeed table allows setting specific cut changes quickly and precisely.

Versatile Fence



Whether used in the full vertical (left) or 45-degree position (right) in or out, the Powermatic 54A/54HH fence provides plenty of support for truly accurate cuts.

The all cast iron 4"-tall by 38"-long fence system is, like the tables, precisely ground to assure straightness. Even the supporting and tilt mechanism is made up of large cast iron pieces that make this system as accurate and repeatable as it is durable.

The fence tilts up to 45-degrees towards and away from the tables. Fully adjustable stops at 90-degrees (vertical) and each 45-degree position make setup fast and help keep the POWERMATIC 54A/54HH Joints accurate with minimal maintenance. The 90-degree stop

is a simple flip-out design that makes releasing or engaging it fast and tool free. An easy to use locking handle secures the fence at the desired angle.

An easy to use handle locks and releases the cross-table movement of the fence. The handle easily locks the fence in any position across the table and holds it there securely.

Mobility

If being able to move the POWERMATIC 54A/54HH Joints around within your shop is important we offer the #2042374 mobile base. This base is heavily built and makes moving the POWERMATIC 54A/54HH Joints surprisingly easy. All of the wheels can be locked to keep the POWERMATIC 54A/54HH Joints stable when in use.



When you need to move the 54A/54HH joints around in your shop, our specially designed mobile base makes that an easy task.

The POWERMATIC 54A/54HH Joints has been designed and built to make your wood straightening tasks easy and accurate. The heavy-duty construction and materials mean that the POWERMATIC 54A/54HH Joints will remain an important part of your woodworking shop for many years to come.