

POWERMATIC PJ-882HH 8" Parallelogram Jointer

When you require the ultimate in accuracy, capacity and user-friendly features, the PJ-882HH 8" Parallelogram Jointer fits the bill – and then some.

Built from heavy-duty iron castings for long-term durability the PJ-882HH 8" Parallelogram Jointer weighs in at a hefty 744 lbs. The full 8" cut width and 82" overall bed length make straightening the largest project pieces exceptionally accurate. Add the fully adjustable parallelogram tables, easy knife setting and the PJ-882HH 8" Parallelogram Jointer rises above the competition.



If power, capability and durability are important, the Powermatic PJ-882 8" Jointer fits the bill – and then some.

There are four variations of the PJ-882HH 8" Parallelogram Jointer, all are identical except for the motor/power or cutterhead design. The machine in the accompanying photos is the PJ-882HH (#1610082) that comes with a 2HP motor wired for 220V, 1 phase power and is equipped with a helical cutterhead. The PJ-882HH (#1610083) is also equipped with the helical cutterhead but has a 3HP motor wired for 230V (460V capable) and 3 phase power. The PJ-882 (#1610079) has our three knife cutterhead and is powered by a 2HP motor running on 220V, 1 phase power. The PJ-882HH 8" Parallelogram Jointer (#1610080) also has our three knife cutterhead but has a 3HP, 3 phase motor that runs on 230/460V power. All four motors are TEFC (totally enclosed fan cooled) design.

Base Cabinet



The all-steel base cabinet provides solid footing, houses the motor and sends the dust to the 4"-diameter port.

The fully welded, all steel base cabinet provides a solid platform for the PJ-882HH 8" Parallelogram Jointer. At 20 ½"-long by 15"-deep and 20 ½"-tall, the base cabinet puts the PJ-882HH 8" Parallelogram Jointer bed at a comfortable 31 5/16" above the floor.

The base cabinet also houses the motor and its adjustable mount for adjusting belt tension when necessary. A door on the rear of the base cabinet provides ample access to the motor and its mount. All of the wiring and electronic components are also housed within the base cabinet, including the magnetic starter.

An on/off switch is mounted to a mast that puts it within easy reach while operating the PJ-882HH 8" Parallelogram Jointer.

Also contained within the base cabinet is an effective dust evacuation chute. The chute runs from under the cutterhead to a 4"-diameter outlet fitting located near the floor on the end of the base cabinet. Positioning the dust outlet low on the base helps to keep the hose flat on the floor to be less of a trip hazard. This position also creates a more direct path that enhances evacuation of the

substantial amount of chips and dust that the PJ-882HH 8" Parallelogram Jointer is capable of creating.

Parallelogram Tables

For a jointer to straighten wood accurately the infeed and outfeed tables must be coplanar - perfectly aligned with each other side-to-side and front-to-back. The tables on the PJ-882HH 8" Parallelogram Jointer have been accurately aligned at the factory but they could possibly need adjustment in the future. To make those once complicated adjustments much easier we built in special cams, two on the front and two on the rear of each table. These cams allow the user to correct this alignment should that become necessary and do it quickly saving time and money.



Each corner of the infeed and outfeed tables has an adjustable cam for correcting coplanar misalignments. The outboard cams on the front of the machine are under the height levers.

The mechanism that moves the tables up and down also keeps them close to the cutterhead throughout their range of travel. Keeping the tables close to the cutterhead produces cleaner, more accurate cuts and a superior finish on the wood.

Table Heights



Both tables use levers to adjust their heights. The infeed table lever is augmented by an automatic depth limiter that can be released for deep cuts with the twist of a small knob.

The outfeed table is fitted with limiting stops that control the full up and full down travel. A lever moves the outfeed table up and down and another lever locks it in place. Rabbits up to 1/2" by 1/2" can be cut on the PJ-882 8" Parallelogram Jointer. Note: Rabbits cannot be cut with the models equipped with the helical cutterhead.

The infeed table also has an easy to use lever for locking it in position. However, a much longer lever makes adjusting the height of the massive table to set cut depth (up to 1/2"-maximum) exceptionally accurate.

A handy depth stop knob automatically limits cut depth to 1/8". To increase cut depth simply pull that knob out, rotate it 90-degrees and the infeed table can be set to make cuts up to 1/2" deep. A scale on the side of the infeed table makes it easy to set the exact cut depth you want.

Precision Fence

The PJ-882HH 8" Parallelogram Jointer comes with a fully adjustable fence system that makes high precision bevel cuts easy to do. The 38 3/16"-long by 4 3/4"-tall cast iron fence is supported by large iron components that assure stability and truly accurate cuts at any angle. The fence even has a special non-mar insert that allows it to glide over the cast iron table smoothly without leaving annoying scratches.



The fence has an insert (left) that prevents scratching the table when it is moved. The operating mechanism (right) allows precise bevel setting and a very stable fence when locked.

The fence has adjustable stops at 90-degrees (vertical) and 45-degrees in or out. Changing fence angles is made especially precise by a rack and pinion gear drive system operated by a 3 3/4"-diameter cast iron handwheel fitted with a spinner handle. A large lever locks the fence at any bevel angle desired. Of course, the fence can be positioned at any point across the width of the tables and is locked with a separate handle.

A handy scale on the fence mechanism indicates the bevel angle. A magnified lens over the scale makes reading it easier.



Our controlled chip, three knife cutterhead feature jack screws (arrow, left photo) that make setting precise knife heights very easy. We also include a simple knife-setting jig (right). When the knife is at the correct height, if the first arrow is placed at the end of the outfeed table and the knife rotated under the jig, the jig should move so the second mark is at the edge of the outfeed table.

surface easy. We even include an easy to use knife setting block to make the alignment process faster and easier.

Having the knives aligned perfectly is crucial to the quality and accuracy of the cut and the longevity of the cutting edge. When the knives are all set correctly, wear is distributed evenly over all three, drastically slowing the rate at which the cutting edge dulls.

Knife Cutterhead

The PJ-882 (#1610079) is equipped with our controlled chip three knife cutterhead. To make aligning the knives easy we use a jack screw system that allows making tiny adjustments to knife height simple and predictable. Each knife has two jack screws, one on either end to make setting its overall height and getting it parallel to the table

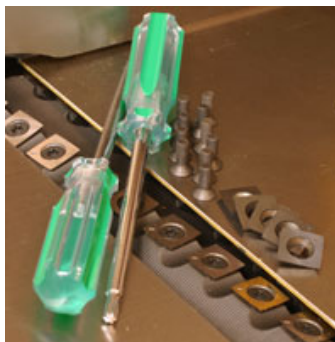
Helical Cutterhead

There are many cutterhead designs that carry the helical label, 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 PJ-882HH 8" Parallelogram Jointer we wanted to incorporate the performance of a true segmented, shear-cutting helical head.

The PJ-882HH 8" Parallelogram Jointer 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.

The helical cutterhead cuts so efficiently that it dramatically reduces the noise made when cutting wood. In fact, it is so quiet, new PJ-882HH 8" Parallelogram 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 heavily figured wood.



The solid carbide cutters in the helical head last far longer than straight knives, but just in case, we provide extra cutters, screws and drivers to install them



The helical cutterhead (left) uses individual solid carbide cutters, each with four cutting edges that can be "indexed" four times should the first edge become dull. We include five extra carbide cutters, screws and two drivers with the PJ-882HH. One driver is placed in a screw to hold the head steady while the other driver loosens the screw at the cutter to be replaced or indexed.

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 PJ-882HH 8" Parallelogram Jointer users 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.

Mobility

When moving the PJ-882HH 8" Parallelogram Jointer within your shop is necessary we offer a specially designed, all-steel mobile base, #1610078. Fitted with large fixed wheels on one end and full-swivel casters on the other, moving the PJ-882HH 8" Parallelogram Jointer around the shop is easy. All four wheels have locks that keep the PJ-882HH 8" Parallelogram Jointer steady when in use.



If moving the PJ-882 around in your shop is a priority, the optional mobile base makes that an easy task.