POWERMATIC PM3000 14” Table Saw

POWERMATIC has long enjoyed a reputation for quality, function and innovation in woodworking machines. The POWERMATIC PM3000 is our latest high capacity table saw offering where quality, function and long-term durability were at the top of the design criteria list. Incorporating many of the innovative features of our renowned PM2000 10” saw, the POWERMATIC PM3000 sets a new standard in the 14” cabinet saw class.

Trunnion Evolution

Though long regarded as the best in the industry, the POWERMATIC designers refined our heavy-duty trunnion mechanism even more. The super rigid box-style cast iron construction, high end bearings and conical-shaped worm gear drive with increased contact area enhance the smooth, solid feel of the tilt and height adjustments. Adjustable backlash means that should years of use produce a small amount of play, the user can easily adjust the mechanism back to factory-fresh clearances and feel.

Most table saw mechanisms feel smooth in the showroom but it is how they function when the inevitable dust contamination sets in that really matters. The POWERMATIC PM3000 mechanism uses specially designed threads that allow it to function smoothly and accurately in the real world conditions found within a table saw cabinet.

A pair of oversized 8”-diameter cast iron hand wheels, each with large spinner handles makes blade height and bevel adjustments virtually effortless. The hand wheels are as attractive as they are comfortable with painted centers and chrome plated rims. Even the center locking pins and knobs are made from steel, spin freely and lock the adjustment without changing the setting. To prevent long-term use from loosening the hand wheels on their shafts, they are locked in place with machined grooves and keys rather than setscrews that are so common throughout the industry.

The POWERMATIC PM3000 cabinet is fabricated from heavy gauge steel and provides exceptional stability and virtually eliminates vibration. The cabinet puts the cast iron table surface at a comfortable 35” above the floor.

To maximize dust evacuation from within the POWERMATIC PM3000 we designed a special floor pan that
slopes down to the 4”-diameter external port at the lower rear of the cabinet. This floor configuration does a very good job of directing the dust to the port and keeps the interior of the cabinet surprisingly clean. This standard-diameter port makes connecting your 4” dust collector hose quick and adapter free.

The bevel scale on the front of the cabinet has large, easy to read numerals and an adjustable pointer. We also added a pair of markers that can be placed as needed to make returning to often-used bevel angles fast and accurate.

A large, hinged motor cover provides easy access to the cabinet interior when needed. When closed, this cover enhances dust collection.

The full-length 1”-diameter arbor is precision machined from stress-proof steel to exceptionally high tolerances for accuracy. The arbor threads are specially designed to eliminate the frustrating dip between them and the shaft that can allow thin dado chippers to hang out of alignment with the rest of the stack. The arbor length was designed to handle stacked dado sets up to 12”-diameter at their full 13/16” width. The arbor rides in high end, pre-loaded bearings that insure super-smooth operation for decades to come.

A high quality poly-v belt drives the arbor through precisely machined pulleys that guarantee the ultimate in concentricity. Poly-v belts are far superior to regular v-belts, especially multiple v-belt configurations because they produce far less vibration. The poly-v belt also transmits more power without slippage and that translates to considerably less heat generated that could compromise the bearings. This efficiency of operation means that poly-v belts last far longer and require less maintenance.

A pushbutton arbor lock and the included full-sized, forged steel 32mm combination wrench make blade changing easy and safer by keeping your hands farther from the blade. The 15” length of the wrench provides tremendous leverage to make loosening or tightening the blade nut a virtual no-strain task. We do ask that you apply that leverage wisely when tightening the blade nut. The blade rotation and cutting force work to tighten the blade-retaining nut, not loosen it. You need only tighten it firmly.

The arbor system, combined with the 14”-diameter blade give the PM3000 large cut capacities. With the blade 90-degrees to the table the maximum cut depth is 5 1/8”. With the blade set at 45-degrees, maximum cut depth is 3 ½”!
Table Surface

The 26”-wide (left-to-right) by 38”-deep primary cast iron table surface expands to 48”-wide when the included 11”-wide by 38”-deep cast iron extension wings are bolted up. A tough, 38” by 33” laminate-covered extension table is also included with the PM3000. Added to the cast iron table surface overall support grows to a whopping 81”! The extension table includes a pair of steel support legs, equipped with fully adjustable rubber-tipped feet for added stability and support.

All cast iron surfaces are finely ground to insure a smooth, mar-free work surface that provides plenty of support for the big jobs. We bevel the front and rear edge of the primary table and the extension wings to eliminate the sharp corner commonly found on many table saws where it meets the extension wings. Eliminating that corner may sound insignificant but it can easily gouge the wood or an errant hand.

The t-shaped 3/8”-deep by ¾”-wide miter slots are precision machined for consistent width, depth and parallelism. Standard sizing of the miter slots means they are compatible with all popular accessories.

Removing the 21 5/8”-long by 4 ¼”-wide throat plate provides expansive access for blade changing and working with our unique guard and splitter system. The standard and zero-clearance (accessory #1791080) POWERMATIC PM3000 throat plates are slotted for use with the splitter installed for maximum performance and safety. Placement of the throat opening provides a full 15 ½” of table surface in front of the blade! Our large throat plate (left) provide plenty of access for changing blades. The spring-loaded balls (right) automatically keep the plates tightly in place.

POWERMATIC PM3000 standard throat plate
features a pair of spring-loaded balls that prevent vibration, locate the plate in its cavity and prevent movement during use. The accessory zero-clearance insert has adjusting screws that allow precise fitting to the cavity.

**Power and Control**

The POWERMATIC PM3000 is available with a 5HP, 1 phase, 230V motor (#1720304K) or with a 7.5HP 3 phase, 230/460V motor (#1720305K, pre-wired 230V). All POWERMATIC motors are high quality, high output and rated using a continuous duty cycle for the truest representation of their power – not the “peak” or “maximum developed” figures some other manufacturers continue to advertise.

To safeguard against accidental startups when you are not around we added a removable magnetic “Key” that disables the Start/Stop switch when it is not in place. When you leave the shop you can drop the key in your pocket or stick it on a handy metal surface in the shop.

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This magnetic switch also protects against under and over voltage conditions. If the electrical power being delivered to the POWERMATIC PM3000 strays below or above safe levels, the switch automatically shuts the saw down.

We also built in power outage protection that prevents the POWERMATIC PM3000 from starting unexpectedly should the electrical power be interrupted and then come back on. Once the power goes out, the POWERMATIC PM3000 will not restart until the OFF ring is depressed and then the ON button pressed to restart the saw. The safety implications here are obvious – the saw starts when you tell it to, not whenever the power comes back on.

**High-Tech Guard System**

Even the blade guard and splitter system has been given extensive engineering attention. Designed to be totally tool-free, this modular system makes it easy to configure the POWERMATIC PM3000 blade guard/splitter system for the job at hand.
Independent side leaves allow the blade guard to follow the stock being cut closely and leave one side flat on the table when making narrow cuts. This increases safety and enhances dust collection by keeping more of the blade area enclosed. Both side leaves can be rotated up out of the way independently to make measuring cut widths easy and more accurate. The entire side leaf assembly can be removed from the splitter by depressing a button at the hinge point to increase access for blade changes without having to remove the splitter assembly.

When necessary for procedures like cutting dados, the splitter assembly can be removed by simply flipping its locking lever within the throat opening and lifting it out.

Because the splitter is mounted directly to the blade mechanism, the gap between it and the blade never changes during height or angle adjustments. This maintains the safety a splitter affords in virtually all cutting situations.

**Accu-Fence**

A key feature of any table saw is the fence system. To maximize accuracy and safety, the POWERMATIC PM3000 comes with the POWERMATIC exclusive Accu-Fence. Based on the venerable T-square design, the POWERMATIC Accu-Fence takes this concept to new levels.

The Accu-Fence on the PM3000 has a maximum rip capacity of 50” to the right of the blade. It also affords 14” of rip capacity to the left of the blade. Even high-end fence systems are based on a length of square or rectangular steel with laminate-covered wooden faces. Manufacturing tolerances in the tubing itself require shimming to straighten the face material mated to it. POWERMATIC takes the extra step of milling the square tubing to be sure that it and the face it supports are straight without having to be shimmed.
In place of the common laminate-covered wood, the POWERMATIC Accu-Fence has a pair of ¾”-thick HDPE (high density polyethylene) slabs that are both very rigid and have exceptional lubricity properties that allows wood to slide along them easily and predictably. The faces can be adjusted vertically to either ride just above the table or flush with the surface, whichever is safest for the material being cut. Oversized access holes along the underside of the Accu-Fence make reaching the fasteners to remove or reposition the HDPE faces much easier.

The T-square portion of the Accu-Fence is made from heavy-gauge steel and is precisely welded to the main tube. Easy to use adjuster screws allow fine-tuning Accu-Fence square to be parallel to the miter slots.

The single handle locking mechanism is made using high-tech powdered metal technology that allows forming extremely precise parts. The powdered metal process also produces exceptionally tough parts that resist wear and retain their effectiveness indefinitely.

The Accu-Fence rides on a heavy gauge steel support tube and rail system that insures precision and durability. A high-tech powder coating process keeps the guide tube and rails protected and looking great. To provide clean metal-to-metal contact areas for the fence locking mechanism to grip along the guide tube, strips of bare metal are left and given a rust inhibitor treatment.

**Advanced Miter Gauge**

The standard miter gauge supplied with the POWERMATIC PM3000 pivots 60-degrees to either side and locks with a twist of the push handle. However, that is where the similarities with other standard models end.

The guide bar has a disk follower that engages the T-groove miter slots and prevents it from lifting during a cut. A pair of expander mechanisms allows fitting the guide bar precisely to the miter slot to eliminate side play. This enhances both safety and precise cuts in crosscut and miter modes.

The miter head has precisely located detents at 0, 30 and 45-degrees to the left and right. To make setting any required angle more precise, a special gear drive is built into the detent knob. Loosen the locking handle, pull the detent knob out to engage the gear drive and turn it to move the miter head to the exact angle needed. It simply cannot be easier or more accurate!
The large 12 ¾”-long by 2 ¾”-tall extruded fence can be positioned closer to or farther from the blade by releasing the two finger-operated levers. This allows setting the miter fence at the optimum distance from the blade at all cutting angles for maximum accuracy and safety.

Slots in the face and top edge of the miter gauge fence accept hex head fasteners to make attaching your custom auxiliary faces or shop-made jigs easy and very secure.

**Accessories**

**Throat Inserts**

In addition to the standard throat insert shipped with the POWERMATIC PM3000, we offer a composite zero clearance insert (#1791080) and a metal dado insert (#1791081). The dado insert is sized to accept up to 12”-diameter multi-plate stacked dado sets at their full 13/16” width.

Like the standard insert, the dado version also features the spring-loaded balls that keep it snug in the opening. The zero clearance insert has adjuster screws that allow you to fine-tune its fit in the opening.

The standard and zero clearance inserts are slotted for use with the splitter and guard assembly installed.