

OPERATING PROCEDURE FOR:

18” POWERMATIC® VARIABLE SPEED DRILL PRESS

SAFETY RULES:

Warning: Willful violations of these safety rules, disruptive actions or horseplay may result in loss of the privilege to use the tools and machinery in the workshop.

As with all machines, there is a certain amount of hazard involved with the use of this drill press. Use the machine with the respect and caution demanded where safety precautions are concerned. **You are responsible for you own safety.**

Read and understand the operating procedures for this machine before attempting operation.

Personal Protective Equipment. At a minimum eye protection and hearing protection must be worn when operating this machine. Eye protection must be safety glasses with side shields, goggles, or face shield, which meet ANSI Z87.1. Remove tie, watch, rings, and other jewelry. Button sleeves or roll up sleeves above the elbow. Remove loose outer clothing and confine long hair. **Do not wear gloves.**

Use the appropriate NIOSH approved respirator in dusty work conditions (N95, N100, P95 or P100). Wood dust has been listed as a known carcinogen by the U.S. government.

Make all machine adjustments or maintenance with the machine disconnected from the power source.

Guards. Keep the belt guards in place.

Work Area. Keep the floor around the machine clean to minimize the danger of tripping or slipping. Be sure the worktable is free of scrap or foreign material. Make sure the dust collector is hooked up and operating.

Operator Position. Maintain a balanced stance and keep your body under control at all times, so that you do not fall or lean against the moving parts. Do not overreach or use excessive force to perform any machine operation.

Careless Acts. Give the work you are doing your undivided attention. Looking around, carrying on a conversation, and “horseplay” are careless acts that can result in serious injury.

Disconnect machine before performing any service or maintenance. A machine under repair must be Locked Out to show it should not be used until the maintenance is complete.

Maintain Tools In Top Condition. Keep drill bits sharp and clean for safe and best performance.

Use the **right tool** at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it is not designed.

Do not use bits with screw tips. These bits will pull the work piece up from the table and start to spin, causing a serious risk of injury.

Whenever possible use the fence. It will help secure the work. Also use jigs, fixtures or clamps where needed to secure the work piece.

Turn off machine and disconnect from power source before cleaning. Use a brush to remove chips or debris --- do not use your hands.

Material Condition. Reclaimed or pressure treated wood is not to be used on this machine.

Job Completion. If the operator leaves the machine area for any reason, the drill press should be turned “off” and the drill bit should come to a complete stop before his departure. In addition, if the operation is complete, the operator should clean the drill press and the work area.

If you are not thoroughly familiar with the operation of drill press, obtain advice from an instructor or qualified person.

Drugs, Alcohol, Medication. Do not operate this machine while under the influence of drugs, alcohol, or any medication. Do not operate this machine if you are tired, sick, or distracted.

Familiarize yourself with all caution and warning decals used on this machine.

Specifications:

Swing	18”
Maximum Drilling Capacity.....	5/8”
Chuck Size.....	5/8”
Spindle Travel.....	4 3/8”
Chuck Distance to Table.....	30”
Chuck Distance to Base	46”
Table Size	16” x 14”
Table Size Fully Extended.....	16” x 26”
Range of Speed.....	400 to 3000 RPM

OPERATION:

Install bit into the chuck jaws with about 1” insertion. When using a small bit do not insert it so far that the jaws touch the top flutes of the bit. Make sure the bit is centered in the chuck before tightening the chuck. **The chuck is a keyless model; simply rotate it by hand to tighten the bit.**

For clean, splinter-free holes, place a piece of scrap wood on the table below the work piece.

Perform operations with a minimum extension of the quill. Adjust table position rather than using excessive quill travel.

Turn on machine and listen for odd noises and check for excessive vibrations. Locate and correct these before proceeding.

Set rotation speed. As a general guide when boring hardwoods:

- $\frac{1}{4}$ " and smaller = 1500 - 2000 rpm
- $\frac{1}{4}$ " - $\frac{1}{2}$ " = 1100 - 1500 rpm
- $\frac{1}{2}$ " - 1" = 800 - 1100 rpm
- 1" - 1 $\frac{1}{2}$ " = 500 - 800 rpm
- 1 $\frac{1}{2}$ " and larger = 300 - 500 rpm

Spur bits are recommended for most wood boring operations or Forstner bits for large diameter holes. **Never use a spur or Forstner bit when drilling metal.**

When using Forstner bits 1" or larger, the stock must be clamped to the table and preferably against the fence.

Feed the bit into the material with only enough force to allow the bit to work.

On deep cuts, or when there are signs of smoke or burning, back out often to clean out the hole.

If the bit binds in the work piece, turn off the machine immediately. Unplug the machine, and then free the bit from the work piece. Do not try to free a jammed bit by starting and stopping the tool.

When job is complete, shut off machine and clean area.