

POWERMATIC 31A Belt & Disc Sander

Sanding may not be your favorite woodworking task but it is a part of every project. We designed the POWERMATIC 31A to bring the power, accuracy and versatility you need to breeze through the toughest of sanding tasks in many woodworking and metal working applications. The combination of belt and disc sanding in one machine saves space and money while maximizing the capabilities of both abrasive types.

Power

The POWERMATIC 31A features a 1 ½ HP TEFC (totally enclosed fan cooled) motor mounted within the enclosed base cabinet. As with all POWERMATIC motors, the 1 ½ HP rating was computed using a continuous duty cycle rather than peak or maximum developed ratings that often have little to do with the real world. The motor is wired during assembly for 115V, 12 Amp (1 Ph) current but can be converted to use 230V, 6 Amp power.

The motor delivers its power to the belt and disc units through a pair of precisely made and balanced pulleys using a quality V-belt. Belt tensioning adjustments are easily accessible through a large door on the rear of the enclosed base cabinet.

Enclosed Base



The all-steel base cabinet provides a stable platform for the Powermatic 31A, including when placed on one of our universal mobile bases. Note the 4"-diameter dust port located near the floor level to help keep the hose out of the operators' way.

The fully welded, all steel enclosed base cabinet is 20"-wide, 17 ¼"-deep and 27 ½"-tall. In addition to enclosing and protecting the motor and dust collection chute, the base cabinet provides a stable platform for the POWERMATIC 31A. The height of the base cabinet places the disc sanding table 34 ½" off the floor and the belt (in the horizontal position) to 37". Those heights plus the stability of the cabinet and the overall 246-lb weight make the POWERMATIC 31A easy and comfortable to work at.

Dust Collection

A built-in dust collection system helps keep your shop and the air within it cleaner. The dust collection system is fully ducted within the POWERMATIC 31A and terminates in a 4"-diameter port near the bottom of the enclosed base cabinet.

This built-in system is very efficient when combined with your (300-400 CFM minimum suggested) dust collector. Specially designed collection ports are incorporated into the housings at the belt and disc sections. Both of these inlet ports are designed



The Powermatic 31A Belt & Disc Sander makes many sanding tasks easier and more accurate.

to be “always on” to help minimize airborne dust without compromising the collection efficiency at the portion being used.

Belt Sander

The 6”-wide by x 48”-long belt turns on large 4 3/8” diameter by 6 1/4” long drums that generate a highly efficient 2409 feet per minute belt speed.



The belt can be used in the horizontal or vertical positions, plus at virtually any angle in between. The multi-purpose cast iron table can also be used in a wide range of positions that make it exceptionally versatile.

The belt arm is built around a large iron casting for the maximum in strength and stability. The belt arm can be positioned anywhere from 0-degrees (horizontal) to 90-degrees. A “shot pin” is built in to index the arm at 0, 45 and 90-degrees. The arm can be positioned at any angle between those presets and secured with the locking handle. A removable work stop mounted on the belt arm prevents the piece from being thrown off when the belt is in the horizontal position.



Removable (tool-free) panels offer easy access for changing belts or sanding curves off the round end. Note the full-sized, machined aluminum drums that keep the belt turning smoothly and consistently.

A large 14 3/4”-long by 6 1/2”-wide cast iron platen fully supports the belt between the rollers providing an exceptionally flat, stable surface for more predictable sanding. This super stable surface makes all types of sanding easier and more precise by eliminating frustrating belt deflection.

A curved (hinged) metal cover at the lower belt roller can be rotated out of the way for many types of contour sanding. This curved piece and the side cover are secured with finger knobs that make moving them out of the way for belt changes or cleaning a tool-free operation. All of the belt controls are also knob-operated so those adjustments are also tool-free and can be made quickly

with minimal down time.

To make belt tracking more user friendly we use a fine threaded shaft on the adjuster control that allows ultra precise adjustments to be made without the hypersensitivity of the coarse threads so common with other manufacturers. The result is a very easy to use but very accurate belt tracking system.



Easy to use, tool-free belt tension and tracking adjusters are accessible with the belt in any position.

A large 13” W x 7 1/2” L fence can be mounted in various positions on the belt arm to accommodate a wide range of sanding needs. It functions as a conventional tilting table when the belt arm is in the

vertical (90-degree) position. However, the table mount and an array of bolt holes along the edge of the belt arm extend the versatility of this fence/table to help you be more accurate in more situations.

Disc Sander



Using the disc section is made more accurate with the included miter gauge and the oversized cast iron, tilting table.

Set into a cast iron shroud and base, the 12"-diameter, adhesive-backed disc mounts to an aluminum drive plate. That plate is accurately machined and balanced to insure smooth vibration and chatter-free sanding. The disc spins at approximately 2,380 rpm to provide a good balance between material removal power and fine sanding control.

A large 17 1/4" -long by 9"-deep cast iron table provides a solid, spacious platform that both supports and stabilizes even large project pieces. The table tilts up to 45-degrees and is secured by a large handwheel on either side of the table. The table surface has a full-sized 3/8"-deep by 3/4"-wide miter slot that accepts the included miter gauge plus makes it easy to build specialty jigs in your shop.

The versatility of the belt and disc sections of the POWERMATIC 31A can be greatly expanded by using the wide range of abrasive grits and styles available. Visit your favorite JET/POWERMATIC dealer to see the variety of abrasives they have available for your sanding job.

If you need a solid, full-featured, fully capable sanding machine, the POWERMATIC 31A Belt/Disc Sander will handle your needs today and in the future.



The disc table has a tilt scale and locking handles built in that make setting up for your job fast, easy and very accurate.