



# Powermatic Model 31A Combination Belt-Disk Sander Safety Rules

The Powermatic Model 31A Combination Belt-Disk Sander is used to sand edges of the workpiece. It can also be used to sand the surface of short workpieces, but it does not do this well. This sander can be used primarily for sanding contours, such as sanding up to a line on a piece that has been band sawn. It has two work tables; one for a 12" diameter disk sander and another for a 6" x 48" sanding belt. The articulating table mounted to the 6" x 48" sanding head can be used vertically, horizontally, or angled to accommodate diverse jobs. The belt head has an indexing pin with stops at 0°, 45° and 90°. In general, the disk sands more aggressively than the belt. Failure to follow the safety rules will result in a loss of shop privileges.

## Combination Belt-Disk Sander Safety Rules:

1. **WARNING: The abrasives used on this sander are capable of removing skin, flesh and bones from your hand very quickly. Always ensure that the workpiece is gripped securely and keep your hands away from the abrasive surfaces.**
2. Follow the 3" rule; always keep fingers at least 3" from the sanding belt or disk.
3. Don't sand stock that is not flat on the bottom without a Shop Leader approved jig that will hold the work in a stable position.
4. Keep a balanced stance at the sander.
5. Never clear chips from the table with your hand while the sanding disk or belt is moving.
6. Unplug the sander, and maintain control of the plug, when installing or removing the abrasive disk or belt on the sander.

## Start with a Risk Assessment to ensure a safe work area:

1. A three foot perimeter around the sander should be kept clear of people, debris and sawdust that might impair traction or footing to avoid slips and falls.
2. Safety glasses with side shields or a face shield and hearing protection must be worn.
3. A NIOSH approved respirator must be worn while sanding.
4. Remove loose fitting clothing, jewelry, and tie back long hair.
5. Do not wear loose fitting gloves or anything that would allow a hand, fingers or clothing to be caught by the revolving disk or belt.
6. Give the work your undivided attention.
7. Check the sanding disk and belt for tears or rips before operating the sander. Report any damaged belts or disks to the Shop Leader.

## Operational Safety Rules:

1. Approach your work in the Club Shop and on the combination belt-disk sander with a safe attitude!

2. Make all adjustments with the power shut off.
3. Keep all guards and covers on the machine when it is on and running.
4. Always turn on the dust collector before using the sander.
5. Use only sanding belts and disks provided by the Club.
6. Always allow the sander to come to full speed before starting to sand.
7. Do not use the sander to sand metal, plastic, rubber or any material other than wood. Sanding metal, even a protruding screw, can create a spark and start a fire in the dust collector.
8. Use the support table as a backstop when sanding with the belt in a horizontal position.
9. Always hold the workpiece firmly against the support table.
10. Only use the left-hand side of the sanding disk so that the rotation of the disk helps to hold the workpiece tight against the table. This also ensures that the sanding dust is directed downward into the dust collection system.
11. Avoid awkward hand positions where a sudden slip could cause a hand to move into the sanding belt or disk.
12. Do not sand pieces that are too small to be properly held or supported. Sand these pieces by hand or use another method. In some cases, small pieces can be safely sanded if the workpiece is held by a clamp (e.g. a hand screw).
13. Ensure that the sanding belt is tracking so that it is centered on the platen. Make all tracking adjustments slowly, as small changes can move the belt quickly. Aggressive sanding generates a lot of heat and may cause the sanding belt to track off center. If the sanding belt rubs against the enclosure, it may break or tear. If a sanding belt will not track properly, replace it.
14. If the sanding belt or sanding disk breaks or tears, stop the machine immediately and notify the Shop Leader.
15. All replacements of the sanding belt or disk are to be done under the direction of the Shop Leader.
16. The initial tracking of a sanding belt that has been installed is to be done by rotating the belt by hand. Once the belt appears to be tracking properly, start the machine and quickly turn it off. Make additional tracking adjustments as needed while the belt is coasting down. When the belt appears to track properly while coasting, start the sander and make the final tracking adjustments.
17. Never start the machine without the support table clear of everything, including the stock you are sanding.
18. Turn the sander off and wait for it to stop before walking away from the machine.
19. Never stop the rotation of the sanding disk or belt with your hands or fingers.
20. Always clean the support tables and work area upon completion of the sanding task. Do not use your hands or blow the dust; use a bench brush or vacuum.