Australian Men's Shed Association
SHOULDER TO SHOULDER

DRUM SANDER
IMPORTANT SAFETY INSTRUCTIONS WARNING

Preventing injuries is the number one priority when using a ***drum sander***. While there are obvious safety precautions such as wearing protective eye wear, proper handling of the sander is crucial.

Different safety precautions should be taken depending on whether you are working with a drum sander that is mounted to an oscillating motor on a bench or using a smaller hand-held version.

Dangers of Drum Sanders

- One of the most dangerous areas of the drum sander is within 100cm of the oscillating sander bit. It is important to not move too quickly when sanding wood.
- The other important thing to be aware of is that you should not sand too deeply with one swipe because you may lose your grip and cause injury.
- Using irregularly shaped wood pieces may also cause risks -so be sure to inspect the wood carefully before deciding to sand it.

Hand-held Drum Sanders

While hand-held drum sanders can be quite convenient, they can also be more dangerous. The most common hand-held drum sander is actually a bit that can be added to any common drill and used for larger pieces where a stationary sander will not work.

Without careful eye coordination and a steady hand, it is easy for hand-held sanders to get away from you, not only causing harm to your project but to yourself as well.

Other Considerations

- Do not try to use a drum sander to work on pieces that are too small or not properly clamped. This is definitely a recipe for disaster-so be sure to clamp all small wood pieces properly before using the sander.
- Remember that the drum sander has much more power than most hand-held belt sanders and that they use courser grit paper. This alone can make the machine more dangerous.
- When working with hand-held drum sanders attached to drills that are not cordless, be careful with the cord and always keep it behind you and the piece that you are working on.
- Always make sure the exhaust ventilation is turned on while working-especially when working with larger pieces.
- Inspect the wood before beginning to the sand and check for any strange irregularities or impurities in the wood.
- When working with a drum sander for long periods of time, always wear proper hearing protection.

When Should Sandpaper be Changed?

Few things contribute to the final look and feel of your finished project as much as sanding. In the preparation work, between coats of paint or varnish and sometimes even after the final coat, sanding is a key ingredient.

It is time to change sandpaper when either one of two things happen:

i. The sandpaper is clogged with whatever you are sanding (wood dust, varnish, paint, etc.) or
ii. The abrasive gets worn down.

Often you can clear the paper of wood dust or dried paint-type products with a stir stick or stiff brush (old toothbrush is good) or even another piece of sandpaper and keep going.

When you are sanding fresh finishes, especially water-based products, there is a tendency for them to form slightly sticky 'balls' on the surface of the sandpaper. These are annoying because they often form quickly and just a couple of them hold the surface of the paper away from the surface you are trying to sand so that nothing is happening.

Keep a stir stick or old screwdriver handy to pick at them.

Start with a new piece when these little clogs overwhelm the current piece. When you have the time, the problem can be minimized by letting the finish dry longer before sanding.

The other situation is knowing when the sandpaper has just worn out from use.

When you are wet-sanding you will not normally get any clogging because the water carries away the slurry before the paper gets loaded up. (If you are still getting little sticky balls of finish on sandpaper when you are wet-sanding a 'fresh' finish, try adding a drop or two of liquid dishwashing soap to the water you are using; this will usually keep them from forming. If it is still happening, the coat is not dry enough and must have more time to dry before sanding.)

The easiest way to tell when it is time to change the sandpaper is to run your finger lightly over the part of the paper you have been using and do the same over a part that is still new – e.g. the part that is wrapped around a sanding block.) When you can feel a difference between the rough new part and the smooth old part, it is time to change it.

The abrasives on the more expensive papers last longer and so are often less expensive in the long run.

To reduce risk of injury:

1. Read and understand
   - The entire owner's manual before attempting assembly or operation
   - The warnings posted on the machine and in the manual. Failure to comply with all of these warnings may cause serious injury.

3. Replace warning labels if they become obscured or removed.

The drum sander is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a drum sander, do not use until proper training and knowledge have been obtained.

4. Do not use the drum sander for other than its intended use. If used for other purposes, any real or implied warranty may be voided.

5. Always wear approved safety glasses or face shield while using the drum sander. (Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.)

6. Before operating the machine, remove tie, rings, watches and other jewellery and roll sleeves up past the elbows. Do not wear loose clothing. Confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.

7. Kickback occurs when the work piece is thrown towards the operator at a high rate of speed. If you do not have a clear understanding of kickback and how it occurs, ***DO NOT*** operate the drum sander.

8. Wear hearing protection (plugs or muffs) during extended periods of operation.

9. Do not operate the machine while tired or under the influence of drugs, alcohol or any medication.

10. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.

11. Make certain the machine is properly grounded.

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

13. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
14. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.

15. Make sure the sander is firmly secured to the stand or work table before use.

16. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

17. Provide for adequate space surrounding work area and non-glare, overhead lighting.

18. Keep the floor around the machine clean and free of scrap material, oil and grease.

19. Keep visitors a safe distance from the work area. Keep children away.

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

21. Maintain a balanced stance at all times so that you do not fall onto moving parts. Do not overreach or use excessive force to perform any machine operation.

22. 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 was not designed. The right tool will do the job better and more safely.

23. Use recommended accessories; improper accessories may be hazardous.

24. Maintain tools with care. Keep conveyor and abrasives clean for the best and safest performance. Follow instructions for lubricating and changing accessories.

25. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use bare hands.

26. Do not stand on the machine. Serious injury could occur if the machine tips over.

27. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.

28. Remove loose items and unnecessary work pieces from the area before starting the machine.

29. Stand out of the path of work piece when feeding a board.

30. Always feed stock against the rotation of drum.
31. Keep hands clear when feeding parts onto the conveyor. The part will be forced down as it begins to feed, causing a pinching action between the part and the conveyor table.

32. Never reach into a running machine. Turn off sander, allow it to come to a complete stop and disconnect from power, before attempting to retrieve parts from beneath the drum.

33. Pay particular attention to instructions on reducing risk of kickback.

34. Don’t use in dangerous environment. Don’t use power tools in damp or wet location, or expose them to rain. Keep work area well lit.

WARNING: Drilling, sawing, sanding or machining wood products generates wood dust and other substances. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards for personal protection. Wood products emit chemicals