



UNEEDA ENTERPRIZES, INC.

EXCELLENCE IN COATED ABRASIVES

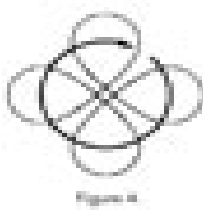
RANDOM ORBITAL SANDING

Air Requirements

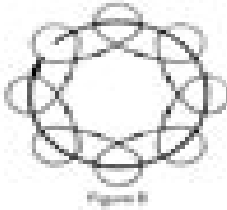
- Sander air pressure must be maintained at 90 p.s.i. while the tool is under load.
- Air Supply should be clean and absolutely free of moisture.
- Maximum air hose length should be kept to 20 feet from the main feed line.
- Most brands of random orbital sanders require an air volume of 15 to 18 cubic feet per minute (cfm).
- Ideal air line size is 1/2" line with 3/8" couplings.
(1/4" coupling and air lines will restrict the amount of air flow needed to run the tool at optimum levels)
- Flexible air hoses should be at least 3/8" in diameter. Flexible air hoses should be kept as short in length as possible.
- It is best to use high airflow rated quick air couplings.

Orbit Size

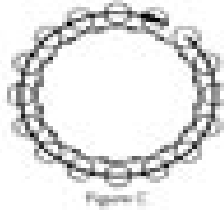
- 3/8" orbit – quickest cut available. Designed for very heavy stock removal. Rarely used in cabinet manufacturing plants.
- 3/16" orbit - most standard in the cabinet manufacturing industry for white wood sanding. Recommended for grits up to #180 grit.
- 3/32" orbit – cuts slower, but leaves the best finish. Recommended for sanding between coats (i.e. sealer sanding). Sometimes used for whitewood sanding if a better finish is desired. Should be used with #220 grit and finer.
- 12,000 RPM orbital sanders are recommended



3/8" orbit



3/16" orbit



3/32" orbit

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Sanding Operator Techniques (when using a random orbital sander)

- The sander should always be placed on the part before starting the sander.
- The sander should be removed from the part before stopping the sander.
- Consistent LIGHT pressure should be applied to the tool while sanding. It is best to use (2) hands if possible.
- The sander should be constantly moving smoothly back and forth across the surface.
- Do not let the sander “skate” out of control. This will result in sander trail marks.
- The sander should NEVER be tipped onto the edge of the sanding pad. This can cause a gouge in the wood.
- The sanding pad should never be extended more than half of the width of the pad over the edge of the part being sanded. If the pad is extended too far over the edge, it can cause the sander to tip, which will round off the edge of the part.

Oiling Pneumatic Air Sander

- (2) drops of light machine oil should be dropped into the air coupling of the sander per 8 hour shift. (do not over lubricate the machine)

Goals of Sanding

- 1st Goal – Remove all visible defects and raised fibers from the wood.
- 2nd Goal - Sand the entire surface evenly to open up the pores of the wood to allow the finish to penetrate uniformly.

(Do not excessively sand over and over the parts. This can polish the wood and cause inconsistent stain penetration. This will typically result in a blotchy look or areas of darker and lighter color.)

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Typical Causes of Swirl marks

- Using incorrect sanding abrasives.
- Insufficient air supply to the orbital sander
- Improper sanding techniques such as applying too much pressure or moving the sander too fast across the surface.
- Worn bearings in the orbital sanding machine.
- Lack of sander lubrication.
- Too much sander lubrication.
- Sander was dropped or pad was bent.
- Wrong type of backing pad.
- Insufficient dust collection (grinding the dust into the wood can leave swirl marks. If possible all sanding should take place on a down draft table)
- Wrong type of backing pad
- Orbital Sander RPM is too slow.
- Excessive moisture in the wood.
- **Starting** the sander before contacting the surface and/or **Stopping** the orbital sander on the surface (remember START ON....STOP OFF)
- Incorrect sander orbit
- Dirty or damaged backing pads
- Wrinkled or torn paper
- Water in the air supply

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