For Immediate Release

Five Rules for Saving Woodworking Men and Machines: The Proper Use of Advanced Abrasive Technologies

The right touch can make employees and sanding equipment more efficient and durable

Experienced shop managers know that productivity is harmed not by catastrophe but often by common errors. For example, a worker who bears down on a sander is not only working himself too hard, he may very well be damaging the equipment. Fortunately, woodwork abrasive experts say that breakdowns and inferior results can be avoided, and profits can be improved, if everyone in the shop heeds the five rules for saving men and machines.

The five rules don't require equipment upgrades, large expenditures of capital or woodworking genius. But a little common sense and cooperation among management and staff can significantly improve productivity and morale.

1) Air Orbital Sanders Require Consistent Air Supply

Without sufficient and consistent air supply, air orbital sanders will not perform to expectations. In fact, this common problem may be the culprit if your shop is experiencing an unacceptable level of swirl marks on wood product surfaces. Experts say workers too often blame abrasives for surface problems when, in fact, a compressor malfunction is at fault.

Lack of air supply on sanders may be the result of an air compressor's size or placement. A small compressor may lack the capacity necessary to ensure proper compression. But even more problems may occur when a compressor is located too far away from the work area. For example, distance may cause a unit to lose pressure, which may result in erratic

performance of your air orbital sander. If this is the case, check the connecting hose for flaws and test its fittings for air-tight connections.

Also, your sander may experience problems if too many attachments have been applied, or too many other machines are drawing from the same compressor.

2) Match PSI Settings to Strength of Backings and Grits

Wide belt Pounds per Square Inch (PSI) settings should change as backings and grits change. Otherwise, abrasives will wear out quickly, which will result in more time-consuming change-outs than are necessary.

Abrasive technicians agree that observing one basic rule should keep a shop productive and efficient: The more pressure you must apply to a product surface, the heavier the backing and the coarser the grit should be. Conversely, less pressure means using settings at the other end of the spectrum.

Also, for the best results, observe recommended PSI settings: paper belts 45-55 PSI; cloth belts 55-65 PSI; and polyester belts 65-75 PSI.

Jared Waken is a purchasing manager for Lorts Manufacturing, an Arizona furniture maker founded in 1966. For abrasives products and consultation, he says his firm relies on KLINGSPOR, a North Carolina-based manufacturer of industrial-quality sanding and grinding products. “For us they’re the belts that seem to work best and last longer. After all the testing we do, that’s what it comes down to.”

3) Let the Sander Do the Work

Applying too much pressure on equipment may induce or aggravate repetitive motion issues: carpal tunnel syndrome occurs when the median nerve, which runs from the

forearm into the hand, becomes pressed or squeezed at the wrist. Too much pressure also causes excessive wear on the equipment and premature sandpaper wear.

A worker who is applying too much pressure may think he is accomplishing more work at a faster rate, but most likely the opposite is true. The equipment has a job to do. For best results, experts say operators need only provide direction and control – not "muscle."

4) Open Coat Abrasives Avoid Clogging

Clogging of abrasives is a woodworking issue that slows down productivity. Clogging begins with some abrasives because a great deal of static builds up during the sanding process.

The KLINGSPOR solution to this annoyance relies on anti-static strategies, which includes what is called an "open coat" process. By maintaining space between grit clusters, resins and sanding dust naturally fall away rather than adhere to the abrasive. This allows a shop's dust collection system to easily remove particles from the environment. Also, a stearate, which acts like a dry lubricant, is applied to some abrasives to discourage clogging.

The use of closed coat abrasives is recommended on hardwoods like cherry and oak while open coat abrasives should be used on soft woods such as pine, balsa and any of the firs. The use of closed coat abrasives on hardwoods ensures you will get a good abrasive life, rate of cut and the best finish possible. It may even allow you to reduce the number of grits in your sanding sequence. The use of open coat abrasives on softer woods will allow you to sand for longer periods of time per belt as the spacing of the grain will help alleviate the loading or clogging common in soft wood sanding. Some of the open coat materials in cloth are also washable, another way to get some extra abrasive life when sanding problematic soft woods.

5) Remove PSA Discs from Sander While Hot

Pressure Sensitive Adhesive (PSA) discs must be removed from a sander's back-up plate, or pad, before they cool. Most PSA material is heat sensitive and the adhesive properties are activated while in use. When you activate the properties then allow the disc and adhesive to cool while on the back-up pad or plate, the two bond together. Now removal consumes more time and may damage equipment in the process.

On the larger diameter PSA discs (12" or larger) putting a thin film of paraffin on the metal plate for the stationary disc sanders will help make for easier removal of the disc when change-out is necessary.

A better solution is a hook and loop system, which works like Velcro. This removes the temperature control problem and allows for speedy, efficient change-out of discs.

For more information, contact KLINGSPOR by calling 1-800-645-5555 or by visiting KLINGSPOR's internet site at http://www.klingspor.com/