

ARTISAN POLISHING SYSTEM

The Artisan Polishing System was developed to produce a medium or gloss sheen on Dymondwood, Decora, and Corian. While these materials are turned and sanded up through 600 grit on the lathe, standard lathe speeds are not high enough to quickly produce the medium or high gloss mirror-like finish that brings out the true luster of these materials. The Artisan Polishing System can also be used to produce the final finish on wood pieces that have a surface coat of lacquer, polyurethane, epoxy or Danish Oil. In fact, most surfaces can be brought to a satin sheen or high luster using this system.

The Artisan Polishing System uses 2 buffs and 2 different compounds. The Polish Buff and compound are used to remove the scratches left from the 600 grit abrasive paper and will leave the surface with a medium sheen. Some woodturners may prefer to use this as the final finish.

The gloss buff and compound are used to remove the very fine scratches left from the polishing buff and compound. When used with the flannel buffing wheel, the micro-fine abrasive in the wax binder will leave a high sheen finish and produce the ultimate surface to show the Dymondwood, Decora or Corian at its very best.

Polishing on the lathe:

1. Remove the nut and washer from the arbor shaft and install the sewn muslin buff, sliding it up to the shaft collar. Place the washer on the shaft and thread the nut up to the washer. Tighten with a wrench. The sewn muslin buff is the first buff used in the polishing process.
2. Slide the arbor into the headstock. Place a block of wood on the end of the arbor and rap the block with a hammer, seating the arbor securely in the headstock. A further safety precaution would be to put a ball bearing cone center into the tailstock and move and lock the tailstock in position so the cone center will prevent the arbor from coming loose during the buffing process.
3. Set the lathe speed at 600-1000 rpm and turn it on. Hold the medium buffing compound against the buffing wheel. Use light pressure and the compound will be transferred to the spinning buff. This process is called "charging" the wheel. In the beginning, the wheel will need to be charged each time it is used. As more and more compound is held in the cloth buff, charging is needed only when the buff will not polish the surface quickly.

The compound serves two purposes. First it provides the abrasive for removing the scratches and second it acts as a lubricant to prevent burning the surface due to friction from the spinning buff. Corian, Decora, and Dymondwood all contain plastics of various types that will surface burn if too much pressure is applied during buffing or if there is little or no compound on the buffing wheel. A little practice and you'll know when the buffing wheel is doing the job efficiently.

4. Once the buff is charged, you are ready to begin the polishing process. Hold the part to be buffed securely in your hand or between the fingers of both hands. Move the piece back and forth across the buff until the complete surface has been buffed to your satisfaction. **DO NOT LET THE BUFF PULL THE PIECE OUT OF YOUR HANDS.** If you do, the piece may get chipped or broken. If the

surface does not polish with a pass or two across the wheel, try (1) putting more compound on the buff or (2) apply more pressure or (3) slow down the movement of the piece across the buff. A little practice and you will soon get it right. A well polished surface will not have any sign of sanding scratches and will not show buffing marks when it is wiped clean with a soft flannel cloth.

5. Remove the muslin buff and put on the loose flannel buff.
 - Start the lathe at 600-1000 r.p.m.
 - Charge the buff with the red gloss buffing compound
 - Final polish the surface to a mirror-like glass finish
6. Examine the total surface of the work. If necessary, repeat some of the steps in #5.
7. Wipe the surface with a soft flannel cloth to remove any compound residue, dust or lint.
8. The part should be ready to assemble with the metal components. **CAUTION: DO NOT BUFF THE ASSEMBLED UNIT, AS THE BUFFING PROCESS MAY REMOVE THE GOLD PLATING.**
9. The procedure outlined above for lathe polishing is essentially the same as when using a double shaft motor, except the muslin buff would be mounted on one end of the motor shaft and the flannel buff mounted on the other end.

POLISHING WITH THE HAND DRILL

The procedure and information discussed in polishing on the lathe is much the same as polishing with a drill, except that the work to be polished is left on the mandrel and is spinning while the hand held drill and buff are applied to the work.

1. Secure the tapered mandrel in the drill chuck.
2. Wind the muslin buff (sewn) on to the tapered mandrel.
3. Start the drill and charge the buff with the medium buffing compound.
4. Start the lathe and run at 1500 – 2000 r.p.m.
5. Use the drill to run the spinning buff back and forth against the pen blank until the sanding scratches have been removed.
6. Remove the muslin buff and install the flannel (loose) buff.
7. Charge the flannel buff with the red gloss buffing compound.
8. Using the drill, run the spinning flannel buff back and forth against the pen blank until you attain the surface gloss you desire.
9. With the lathe running, use a soft flannel cloth to remove any compound residue, dust or lint.
10. The blank should be ready to assemble with the metal components.