

Tim's Taper Tool For Nocks and Tips



Installation and Operating Instructions for use on Table Saws and Large Sanders

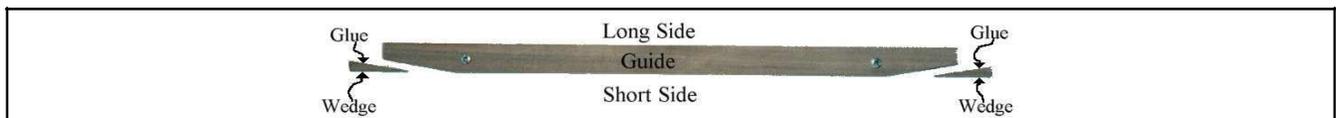
CAUTION !

DO NOT USE YOUR TAPER TOOL WITH A SAW BLADE. USE ONLY WITH A SANDING DISC!!

BE FAMILIAR WITH YOUR SAW OR DISC SANDER OPERATIONS AND FOLLOW ALL SAFETY PRECAUTIONS.

Read all directions before you start. Please follow these directions carefully and do not hurry through the process.

1. Place the guide inside the slot on your table saw or disc sander. If the guide is too large, slowly sand or cut down the short side of the guide until it fits into the slot.



2. Once the guide fits into the slot, push it to the bottom of the slot. Place a good grade of wood glue on one of the wedges and push into place. Glue and place the second wedge. Now apply firm pressure to the ends of both wedges to force them against the guide. Allow to dry.
3. After the glue has dried, attach the taper tool to the guide with the thumb screws. Finger tighten.
4. Remove the assembled tool from the slot and set aside. You are almost ready to begin tapering your arrow shafts, BUT

5. Inspect your sanding wheel carefully! If the sand paper is loose or damaged **REPLACE** it! The taper tool fits closely to the wheel and loose sand paper will damage the tool and ruin your arrow shafts. 80 grit sand paper is recommended for tapering your arrow shafts but any grit from 60 to 120 will work.



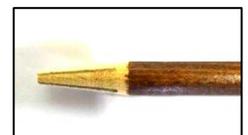
80 grit will leave the surface of the taper rough which provides an excellent glue surface. If you will be using the same sanding disc to barrel taper your shafts, use only 120 grit.

6. If you will be using a table saw, raise the wheel to its full height. Square the sanding wheel to the table.
7. Place your assembled taper tool back in the guide slot and position the tool so that the taper will occur at the part of the wheel that is rotating down to the table.

Are your arrow shafts straight? If not, the tool will do a very good job tapering the shafts, but a better job will be done if your arrow shafts are straight. Take the time to straighten the shafts **BEFORE** you taper.

Set up time will take a few minutes. Do not use good shafts that are already cut to length for finished arrows. Use a disposable arrow shaft, a 3/8" dowel or multiple shafts that have not been cut to length. Set up will take a few tries and will use an inch or two of an arrow shaft.

9. Place a sheet of 100 or 120 grit sandpaper or 3 sheets of printer paper between your taper tool and the sanding disc. Push the taper tool gently but firmly against the paper and tighten the thumb screws.
10. Remove the paper. Loosen the thumb screw on the stop. Move the stop toward the center of the tool as far as it will go.
11. **Reinspect the wheel to make sure the sandpaper is not loose or damaged.** Rotate the wheel by hand to make sure that the sand paper does not contact the tool. If you are using a table saw, you may lower the sanding wheel to a comfortable working height. You are now ready to taper your arrow shafts. For set up use the groove closest to the sanding wheel.
12. Make sure the shaft stop is all the way toward the center of the tool. Slip a shaft into one of the slots and push it toward the stop. Use the thumb screw on top of the hold down to adjust pressure. The shaft should turn freely, but should not be loose in the slot. Back the shaft out so it does not contact the sanding wheel. Start your table saw. Push the shaft back towards the stop, and as the wood starts to be sanded away, rotate the shaft counterclockwise. Continue to rotate the shaft until you do not hear wood being removed.
13. Back out the shaft and adjust the stop slowly until you get the correct taper length. Remove the shaft from the tool and check the taper. Make several lines on the taper with a pencil as shown in the picture on the right. Using a field tip rotate the shaft in the ferule of the tip while pushing the tip firmly onto the shaft.



When the shaft is tapered properly the pencil lines will be smudged as seen in the photo to the right. If the pencil lines are not smudged the full length of the taper, shut off your table saw. Loosen one thumb screw slightly, and move one end of the tool **AWAY** from the disc. Adjust the tool so that you will sand off more of the portion of the taper that has the smudged pencil lines. Tighten the thumb screw and spin the disc by hand to ensure clearance between disc and



taper tool.

Sand off about 1/8 of an inch of the length of the taper using the groove that is square to the sanding disc. Repeat the process until the pencil lines are smudged the entire length of the taper.

The tool may be adjusted to taper your arrow shaft to fit all points. All points do not have exactly the same ferule taper, but by changing the angle slightly, all points will fit perfectly.

Operation

Now that set up is complete you are ready to taper your shafts. Before tapering any finished shafts, always check that the taper tool is adjusted properly. Once you know it is adjusted properly you can cut your shafts to length and taper them. ALWAYS move the stop to the center of the tool and then adjust taper length as needed. Then taper one end of all of your arrows. Before tapering the other end, move the arrow stop toward the center of the tool and adjust taper length.

USE CLEAN AND SHARP SANDING DISCS.

DO NOT TAPER SHAFTS THAT HAVE PAINT OR WATER BASED FINISH APPLIED. PAINT OR WATER BASED CLEAR FINISH WILL FILL SANDPAPER AND RENDER IT USELESS VERY QUICKLY.

STRAIGHTEN SHAFTS BEFORE TAPERING.

USE ONLY GOOD QUALITY SHAFTS. IF YOU USE OUT OF ROUND SHAFTS, THE TAPER WILL ALSO BE OUT OF ROUND.