# Faceplate Turning

In this exercise you will turn a form from a block of wood mounted on the lathe using the faceplate technique. This technique is typically used to turn bowl or plate forms; however, you may turn any type of form you wish. The direction of grain in a faceplate turning usually runs perpendicular to the turning axis of the lathe. Use the method described in class, also described below. (A more generic version of how to mount work for faceplate turning can be found in a separate lathe turning hand-out).

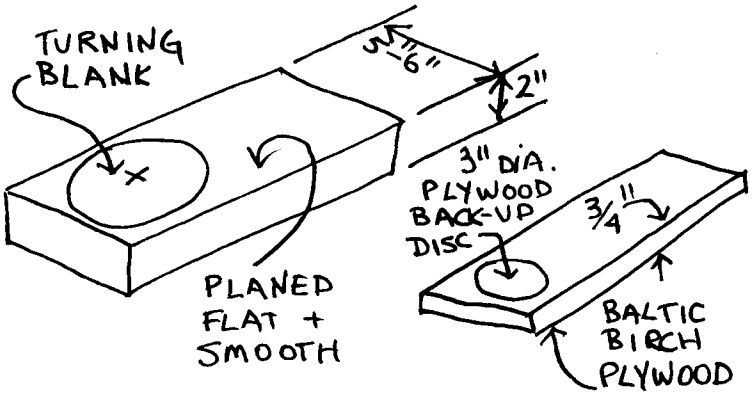
If this is your first turning, ***keep it small and simple***. First learn the basics of the process and the machine before working larger or on more complicated work. I suggest beginning with a block of hardwood about 5" or 6" in diameter and 2" thick. ***Any wood will work however a harder wood will hold detail better than a softer wood***. The method described below is for making a bowl or plate form, however, you may choose to make any type of form you wish in completing this exercise.

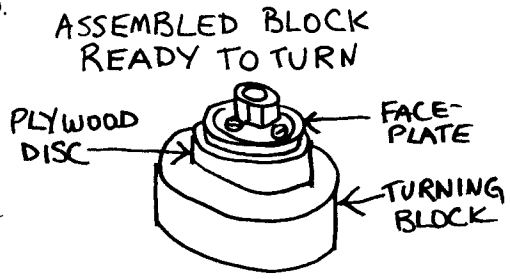
**Method:**

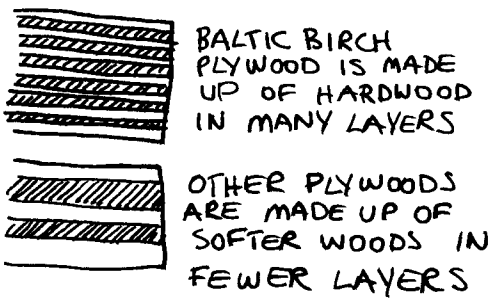
Mounting the work on the lathe: The turning block is mounted to the lathe using a metal faceplate which is held to the bottom of the wood block with wood screws. If you want to prevent the screws from making holes in the bottom of your work, you can glue on a piece of plywood to the base of your wood block (to be removed later). In order to glue on plywood, the base of the wood block must be planed or sanded smooth and flat. This is necessary to form a good glue surface between the plywood and your wood block. I can provide you with wood which has already been planed from which you can cut your block. ***Do not cut the block before the board is planed. Once the block is cut small, it is too short to plane*** and must be sanded instead.

Materials:
·A block of turning wood. For this, get a plank of 2" hard wood from me (planed on one side) and use the band saw to cut a disc about 5" or 6" in diameter.
·A disk of plywood. For this, get a piece of ¾" Baltic Birch plywood from me and use the band saw to cut a 3" diameter disc.
·White glue.
·Three wood screws: #8 x ¾".
·Masking tape for depth stop.

Tools:
·Power drill (or drill press).
·Band Saw.
·Circle compass.
·Pencil.
·7/64" HSS twist drill bit.
·Lathe faceplate (inboard, 3").
·Clamp.



1. After you have cut your turning disc and your plywood disc, glue them together with white glue and clamp. Try to centre the plywood as best you can. Make sure you glue the plywood to the planed side of the turning disc. Leave aside to dry for about 30 minutes.

2. Once the glue is dry, attach the faceplate to the plywood using wood screws. To do this, you need to first drill holes in the plywood for the screws. With the faceplate held in position, use the pencil to make the positions of the screws. Remove the plate and drill the holes for the screws.

3. Tighten a 7/64" drill bit into the chuck of the power drill or drill press. Wrap a piece of tape around the bit to indicate a hole depth and prevent you from drilling through the plywood and into your turning block.

4. Attach the faceplate to the plywood with 3 flat head wood screws. Use #8 x ¾" Robertson screws and the red Robertson screwdriver. ***Make sure the screws are tight.***

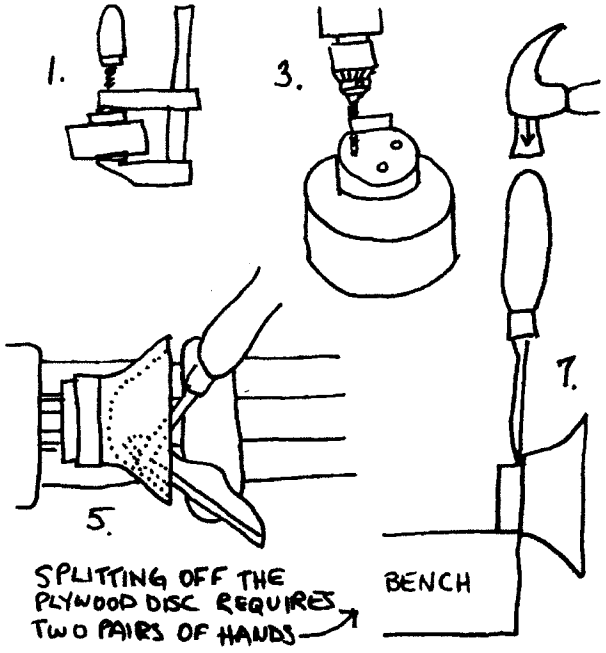
NOTE: We don't have many faceplates in the shop. Others may need the faceplate you plan to use. Please do not attach the faceplate to your work until you are ready to turn. ***Do not take faceplates out of the shop.*** If you want to take your work out of the shop before your turning is complete, you must remove the faceplate. If you want, you can store your incomplete turning (with the faceplate attached) in the wooden locker (with the combo lock) so that if someone else needs the faceplate, they can remove it from your work. If you need a faceplate and there are none in the lathe cabinet, you may remove one from someone else's work, but please be careful and leave the screws behind in their block.

5. Adjust the speed of the lathe to slow. Mount your work on the lathe and turn your form. (Refer to Lathe Handout for a more detailed description of the turning process.) Use the scraping tools. ***Stay away from the gouges when doing faceplate work, especially if you're a beginner.*** Use heavy cuts to rough out your form. Keep moving the tool rest as close to the work as possible. (The tool rest will fit right inside a hollow form.) Use lighter and lighter cuts as you approach your final surface. Sharpen your scraping tool, increase the speed of the lathe and take very light final passes leaving the smoothest possible surface.

Note: The end grain surfaces you encounter when faceplate turning are very challenging to turn and avoid grain tearing. It is not easy. You are advised to avoid difficult and complex shapes until you master a strong technique, otherwise you'll be sanding forever. Nobody likes sanding!

6. Sand your work starting with the coarsest papers and ending with the finest. Remove all the scratches and tear marks left by the scraping tool with the coarsest sandpaper (usually 80 grit) before moving on to the finer papers. **Don't forget to take the tool rest away from the work before you sand.**

7. Apply a wax finish and remove your work from the lathe. Split off the plywood back-up disk. Use the belt sander to clean-up and plywood residue from the bottom of your bowl. Apply some paste wax to the bottom of your bowl by hand and polish.

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