Pine Shelf Project





Rip cut: cutting in the same direction as the grain.



To economize on clamps, choose a partner and clamp two panels in one set of clamps. (Just don't glue your panel to your partner's!)

PROCEDURES:

The class will be divided into two groups: 'Blue' & 'Green'.

Group 'BLUE': Making the Shelf

- 1. **Cross-Cut** two Pine boards to 26" in length;
- 2. Joint Concave Face (one pass) and the better Edge
- Plane board (one pass) to no less than 7/8" thick;
- 4. **Rip** each board into 2-1/2" strips;
- Keep three strips and give the fourth to a Group 'GREEN' person;
- 6. Laminate the three pieces alternating the grain direction as demonstrated.

Group 'GREEN': Making the Shelf

- 1. Cross-Cut one Pine board to 26" in length;
- 2. Joint Concave Face (one pass) and the better Edge.
- Plane board (one pass) to no less than 7/8" thick;
- 4. **Rip** the board into 2-1/2" strips;
- Keep the two strips and take the third from a Group 'BLUE' person;

Everyone: Laminating the Shelf

- 1. Lay two bar clamps on a table protected by cardboard sheets.
- Alternate the end grain (up & down) of the three boards ensuring any rough edge remains on the outside of the panel.
- 3. Laminate the three pieces by applying a bead of glue to each smoothed edge. Smear with your finger.
- Add a third clamp to the top of the panel and tighten all three clamps ensuring protective strips are placed between the clamps and your boards.





Examine your panel to determine if any imperfections can be removed by the mitre or table saw while cutting to achieve the finished size.

Everyone: Making the Supports & Back Board

- Cross-Cut a new Pine board to 33", joint and plane it to ¾" thickness;
- 2. **Rip** the board to a finished width of 5";
- 3. Square each end on the mitre saw;
- Cross-Cut two 6" lengths from one end of this board;
- With a pencil, lightly sketch your cutting profile of the support brackets. See teacher for approval. Always leave a minimum of 1.5" of wood at top and back of bracket.
- Using relief cuts as necessary, cut them on the **band saw**. Use the first one as a template for the second bracket;
- Rip the remaining piece (Back Board) to 4" finished width.

Everyone: Completing the Shelf Board

- Remove the clamps from your shelf board and scrape away excessive amounts of glue as demonstrated;
- Plane the stock (jointed surface down for first pass) to a finished thickness of ¾";
- 3. **Rip** the panel to a finished width of 6-1/2";
- Cross-cut very little off the better end and then cross-cut the opposite end to a finished length of 24".



Everyone: Making the Chamfers

- Refer to the drawing provided. With a pencil, lightly mark with an 'x' the edges that require a chamfer – top front & sides, and bottom front edge of backboard. Side brackets cannot be chamfered using a router;
- 2. See the teacher for the next steps at the **router table**.



Everyone: Assembly

- With a pencil, mark the nine locations where the screws are to be used;
- Using a **counter-sink bit**, **drill** holes at these nine locations;
- Drill pilot holes into the tops of the support brackets and the top and ends of the back piece;
- Apply a small bead of glue to the surfaces and spread evenly – carefully fasten the pieces together using 1 ½" screws and a screwdriver – NOT a power drill;
- As demonstrated, **install Pine plugs** to conceal the tops of the screws;
- Sand smooth.



Everyone: Finishing

- Carefully sand all surfaces;
- Using the air compressor, blow the dust off all surfaces. Do not point the air-stream at you or anyone else!
- On a cardboard surface, lightly apply a coat of the provided water-based finishing product;
- If painting a design, now is the time to do it...assuming the clear coat finish is completely dry;
- Reapply a final coat of the water-based finish.



Everyone: Installation

- Don't waste. Put your final product proudly on display – installation is worth 10% of your final project mark;
- Install it and place items on it to really show it off;
- Provide a minimum of two photographs showing your shelf installed;
- It can be installed in your home, a cottage, a shed, a garage, an ice-hut, etc.

