

## PARALLEL SURFACE PLANER

The surface planer has one function, that is to plane the top side of a board, after the bottom side has been trued up on the jointer/planer, and make both surfaces parallel. It does this by passing the board on a roller under a top cutting roller on a flat bed with a belt to provide friction. The machine is started in two steps.

1. First the bottom roller is lowered so as not to touch the cutters and leave a clear space for the board to pass through
  - a. Then turn on the bottom roller and belt.
  - b. Put a board on the belt and assure that it passes through easily.
  - c. Now slowly crank the lower roller and belt with a board on it up until the cutters touch the board.
2. Now engage the cutters.
  - a. Be sure the cutting area inside the machine is clear (board is taken out).
  - b. Feed your board into the mouth of the machine and when you feel the belt grab the board release the board and let the planer do the work.
  - c. Go to the back side of the planer and catch the board as it comes out. Again, let the planer do the work. Don't pull the board wait for it is free of the cutters.

Use the crank to slowly raise the board up into the cutters (there are directions on the planer to give you recommendations on how much to crank up at one time) and feed the board in repeatedly until you have the desired results.

## SAFETY and TIPS

1. Read or be familiar with tool operation. Refer to general operating instruction posted on the machines. Each planer is slightly different in its operation procedure
2. Open vacuum vents before cutting
3. Cut with edge grain to prevent chip out. If you cut against the grain, especially with hard or curly wood you increase the possibility of chip out
4. Boards have to be at least 10" long
5. If board is narrower than 1/2", use a shooter board under it
6. Things that can not be run through the planer:
  - i. No painted or varnished surfaces
  - ii. No plywood, particle board, MDF
  - iii. No old cutting boards as they will gum up the blades
  - iv. No wood with loose knots. (knock them out). (Check all knots after each pass as tight knots can become loose) a. They can damage the cutters
  - v. No old wood (barn siding) or weathered wood.
  - vi. Nails, dirt, sand, and rock embedded in the wood will nick the cutters
7. Don't plane cross grain of the wood (i.e. picture frames, paneled doors)
8. Place board in machine, till it just touches rollers (on left planer) or anti-kickback fingers (on right planer)
9. Have a helper on the back side of the machine to catch boards.
10. Never look into the planer while the machine is running.
11. Don't stand directly behind machine because of possibility of kickback
12. Never place your hand into the planer to free wood

13. Too fast a speed and too deep a cut make for more chatter marks that have to be sanded.  
Shallower cuts make for less chatter marks and less sanding
14. Too prevent snipe on the end of a board
  - i. Take shallower cuts
  - ii. Butt a board against the end as it is going through
  - iii. Cut you board over length so that snipe can be cut off
15. Close vacuum vents after cutting
16. Clean up mess when done
17. If in doubt or have questions?????, check with floor monitor