

Turning Baseball Bat Blanks



Required Materials

- 3" x 37" (approx.) baseball bat blank:
 - sandpaper: 60 - 400 grit
 - varnish
 - finishing wax
 - woodburning tool (optional)
- PSI **BBAT** 6 pack or equivalent.
- parting chisel
- spindle or roughing gouge
- measuring calipers

Mounting and Marking

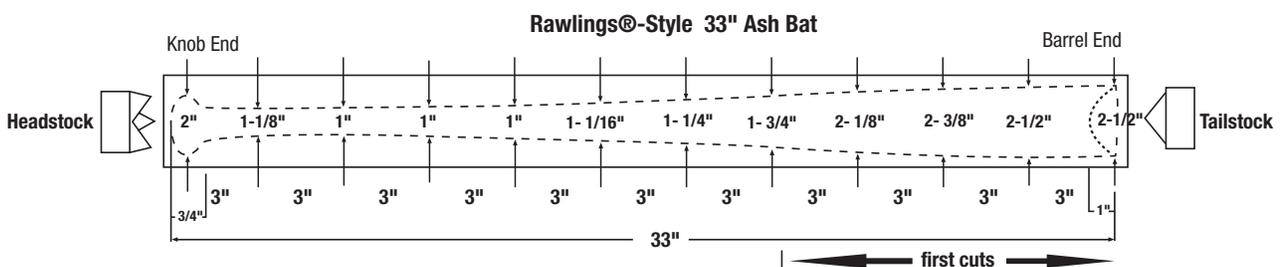
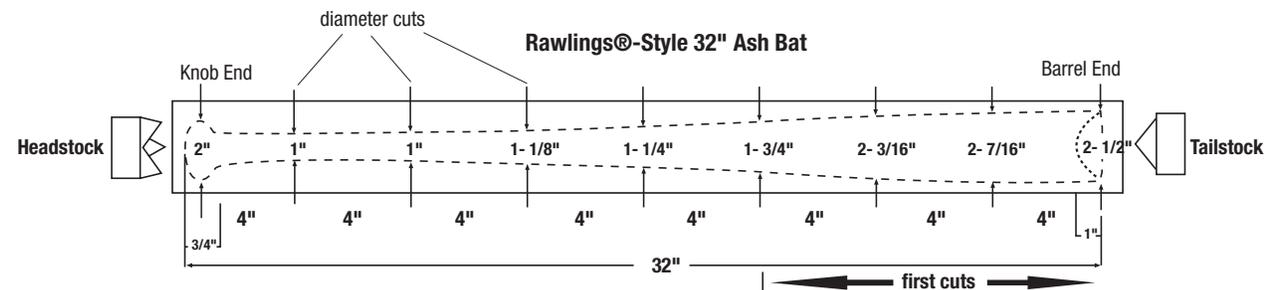
1. Mount the wood on the lathe using a spur center or any similar type of mount. Use wood 3" in diameter or larger. (If you plan on cupping the barrel end, mount the end you want as the handle towards the headstock.) (See **Cupping Your Bat.**)
2. Use a spindle gouge or roughing gouge to round the blank along its length making it completely round and symmetrical.
3. With a pencil, mark 4" increments along the entire length. (Use 3" increments for a 33" bat length.) See diagrams below.

Turning

4. Start at the barrel end with the diameter cuts for the first 12" as shown. To make a diameter cut, take your parting tool and cut a groove, taking off a little bit at a time. Stop frequently and use your calipers to measure the diameter of the groove. Please see chart below for bat diameters.

Bat Diameter Measurements

From a Rawlings®-Style 32" Ash Bat		From a Rawlings®-Style 33" Ash Bat	
Increment	Diameter	Increment	Diameter
Knob	2"	Knob	2"
4"	1"	3"	1 1/8"
8"	1"	6"	1"
12"	1 1/8"	9"	1"
16"	1 1/4"	12"	1"
20"	1 3/4"	15"	1 1/16"
24"	2 3/16"	18"	1 1/4"
28"	2 7/16"	21"	1 3/4"
32"	2 1/2"	24"	2 1/8"
		27"	2 3/8"
		30"	2 1/2"
		33"	2 1/2"



PSI Woodworking Products- Turning Baseball Bat Blanks

5. Use the gouge to connect all diameters in the first 12" at the bottom of the grooves.
6. Again, using the gouge, take off a good amount of stock from the handle area. This will allow you to cut the handle easier because you will have less material to cut. Make sure not to go thinner than the desired handle diameter.
7. Re-mark the blank as necessary towards the handle end. Make the rest of your diameter marks and cut with scow in 4" increments or 3" increments for a 33" bat. Connect the rest of the diameters with a gouge for the remainder of the bat.
8. Measure the desired total length of the bat from the barrel end. Make a mark at that spot. This is where the knob of the handle will start. To make the knob, leave about 3/4" from the very end and use your skew chisel to round off the end of the knob just like you did to round off the barrel. From about 3/4" in from the end of the knob, take your parting tool and go in taking off just enough so that you can get your skew chisel in to round the other end of the knob. After both ends are rounded, use your gouge to blend the handle into where it meets the knob. The knob diameter should still be around 2". The handle is up to your own personal feel. Do not part the bat from the lathe until completing the sanding and finishing steps.
9. Make sure there are no bumps and the taper looks correct. If there are bumps, smooth them with your gouge.

Cupping Your Bat

10. Cupping the barrel end of your bat is optional. Its purpose is to make the bat lighter by removing material from the barrel end. Not all bats are cupped, some are finished with a rounded end. If you decide to cup your bat, use caution to avoid snapping the bat from the lathe. Make sure to leave good size tenon on the end. Begin by backing the tail stock away. Then lower the lathe speed. Using a flute gouge, dig into the end of the barrel, making a semicircular cavity. According to major league rules, the maximum depth one can cup a bat is 1".

Sanding

11. Sanding is the most time consuming and important step. Start with 60 or 80 grit paper and continue through 120, 180, 220, 320, and 400. You can use a sanding block for each. The 60 grit takes the longest. (Any grades of sandpaper can be used as long as you start low like 50 or 60 grit and use graduating grits to 220 grit or higher.)

Woodburning

12. If you choose to woodburn your name into the barrel, make sure you woodburn on the "cone-shaped" grain side, not the straight-grained side. (When hitters use bats they hold the label up. If the label is on the weak side of the grain it will break much easier.)

Finishing

13. Apply finish while lathe is running. Use a varnish such as Olympic brand varnish. You can also add stain and then finish or use lacquer finish. Apply two coats and allow the finish to dry.
14. Apply wax. Use Min-Wax paste wax from a can or an equivalent. Buff the wax with lathe running.
15. Use a parting tool to make the tenon at the knob end smaller so it is able to be easily cut off with a hacksaw. Reduce the tenon at the cup end with your flute gouge just small enough so it doesn't break off the lathe, but can be cut off with a chisel.
16. Remove bat from lathe and cut off the tenon at knob with hacksaw. Remove the tenon at the barrel with chisel. Use a chisel to fix any spots where the tenons may have not come off cleanly. Use sand paper to touch up spots where tenons were.
17. Apply varnish and wax to spots where the tenons were removed.

