

Upside Down salt shaker

The principle of the shaker is that when you shake it, salt falls out, returning it to the upright, nothing. From the drawing you will see how it works. When the shaker is shaken, the salt, which was lying in the bottom of the chamber bounces off the dome at the top of the chamber and some will fall through the central tube. There is only one critical dimension and that is the distance between the tube and the dome, it must be $\frac{1}{2}$ " (13mm).

Blank dimensions:

Body blank: $2\frac{1}{2} \times 2\frac{1}{2} \times 6\frac{1}{2}$ ". (64) x (64) x (165mm).

These dimensions include sufficient wood for both parts of the shaker and a spigot/dovetail.

Mount the blank between centres and rough turn to a cylinder turning a spigot/dovetail as shown. Part at the indicated cut line.

Body ~ Part 1

Mount the spigot/dovetail in compression mode and face off the base. Using a $1\frac{1}{2}$ " forstner bit, drill in $1\frac{5}{8}$ " (41mm) or thereabouts, this is not a critical measurement. Using a $\frac{1}{2}$ " round nosed scraper turn a dome in the top. Sand the inside, don't seal. Using a beading and parting tool turn a $\frac{1}{8}$ " (3mm) wide step, $\frac{1}{8}$ " (3mm) deep in the base. Mark out the outside dimensions for the body. Turn the bottom bead at this time. Remove from the lathe.

Insert

Mount the spigot/dovetail in compression mode and face off the base. Form an internal funnel $1\frac{3}{8}$ " (34mm) diameter and $1\frac{9}{32}$ " (15mm) deep into the end.

Using a Jacobs drill chuck in the tailstock and drill a hole $1\frac{3}{8}$ " (35mm) deep using an appropriate size drill. Insert hole sizes: *Fine table salt* – $\frac{5}{64}$ " (2mm). *Fine sea salt* - up to $\frac{1}{8}$ " (3.00mm).

Turn the outside diameter to fit the shaker's base. $1\frac{3}{4}$ " (44mm). Keep offering up the body to ensure a good fit. Next turn the step which will be $\frac{1}{8}$ " (3mm) wide and should equal the diameter of the inside of the shaker $1\frac{1}{2}$ " (38mm). The remaining wood is now turned to this diameter. With a live centre in the tailstock for support, taper the outside of the funnel to a shaft, which is $1\frac{3}{32}$ " (10mm) diameter.

Use a depth gauge to accurately, measure the depth of the hole in the main body of the shaker to the centre of the dome. Take $\frac{1}{2}$ " (13mm) from this and mark out the length on the insert as shown.

Remove the tailstock and part squarely to this length. Sand the stem and the outside of the funnel. Do not apply any finish where the salt will touch. The insert should fit snugly into the base of the shaker.

Before gluing the two together pour a little salt into the base and holding the insert in place, shake the shaker and confirm that the right amount of salt emerges. Re-drill the salt hole accordingly. Remove the funnel.

Body ~ Part 2

Mount the body either on a jam chuck or in expansion jaws. Bring the tailstock up to give support and proceed to turn the body to its final shape. After shaping and sanding, finish as required. The insert, is then glued in place using Superglue (Cyanoacrylate) and buffed using White Diamond and a coat of Renaissance wax.



