

# How to Tumble and Polish Rocks!

1. **First you need to choose and acquire a tumbling machine.** There are a couple types of tumblers, typically you will see rotary tumblers, which turn the stones over and over again. There are also vibratory tumblers which work faster, but can be very loud and require a little more baby-sitting since they tend to need water added more frequently. Take notes below if you like!

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2. **Find some cool rocks!** You'll need to keep in mind the hardness of the stones you are choosing. If you mix softer stones with harder stones, you may get some mixed results. Softer stones may simply disintegrate in the tumbler and nearly disappear if harder stones are mixed in. Try to stick with stones that seem to be about the same hardness. You can try using a hardness test kit (using the Mohs scale) if you are unsure. Good tumbling rocks will be hard, dense, and relatively smooth. Most of the best rocks to tumble will be between a 6 and an 8 on the Mohs hardness scale. This hardness range contains all of the many varieties of quartz including agate and jasper.

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3. **Fill your rotary tumbler to about 3/4 of the way full.** You may use filler beads (tumbling media) or extra rocks to achieve this if necessary, but if you are a true rockhound, it won't be hard to fill the tumbler with your favorite finds! You'll need water to make a slurry of rocks, filler beads (if needed) and grit. During the tumbling process your rocks will gradually get smaller and smaller as they get worn down. This means that for each tumbling step, the volume of the rocks in the barrel will decrease. That's where tumbling media comes in. You may need to add the beads in the later steps of tumbling.

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4. **Now you need the 4 stages of grit.** You'll start with the most coarse grit and work your way to the finer grits. There are several ways to do this. If you have one tumbling machine or one single drum, you'll need to wash it out VERY well between grits so as **not** to introduce a coarse grit accidentally to a batch on a finer grit, this would leave your rocks scratched and you may need to start over on your polishing steps. One technique is to buy a couple of extra drums for your tumbler and designate **one for the coarser grits** and **one for polish**, or you can even go so far as to designate **one drum for each stage of grit**. One more thing to note, often rocks need to be tumbled for a month at a time on each grit. Some instructions will say as little as a week—this will RARELY be enough time. If your stones still have sharp edges, put them back in the slurry and tumble them some more!

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**A few extra pointers:**

- The coarse grit step (usually referred to by hobbyists as ‘Step 1’) is **very important** because it’s where your rocks really take their shape. If you want your rocks to be well rounded with few bumps or irregular shapes then you want to take special care with this step. Once your rocks move beyond step 1 they won’t change shape much. It is worth leaving your rocks tumbling a little longer in order to achieve the rounded shapes you desire.
- Sometimes differently sized rocks tumble more smoothly and evenly, and result in more points of contact between the rocks and better grinding action. Use ceramic tumbling media as a substitute if you only have large rocks.
- Amount of grit to use—this is usually best at **2 Tbsp. per pound of rock**. You want to add about two level tablespoons of grit for every pound of rock. If you’re using two pounds of rock, then use four level tablespoons of grit. Note that that this doesn’t refer to the size of your barrel – it is the actual weight of the rocks you’re tumbling. The amount isn’t an exact science so don’t fret over exact measurements.
- Add water to make a good slurry—After adding the grit, all that remains is the water. Fill the barrel up so that the water just barely covers the top of the rocks – don’t fill it to the brim. Now that your barrel is filled it’s time to seal it up. Each model of tumbler barrel is a little different but the concept is the same – you just want to ensure that the seal is tight and completely waterproof. Check for any stray grit or bits of rock along the edges before sealing it up, otherwise the seal will gradually degrade and eventually you’ll end up with a big mess on your hands.
- CLEAN your rocks between grits—no really, **CLEAN them**. Wash them multiple times, use borax soap, and scrub! You don’t want any coarser grit getting into the next stage!! And CLEAN your drum with equal vigor. Rinse and rinse again, scrub and rinse.... Rinse and scrub some more. Don’t put the slurry down the drain! Your plumber won’t like you if you do. Colanders over a 5 gallon bucket work well for washing rocks. Take more notes below if you wish!

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**Additional resources:**

<https://rockhoundresource.com/how-to-tumble-rocks-get-great-results-every-time/>

<https://www.harborfreight.com/dual-drum-rotary-rock-tumbler-67632.html>

Various tumblers, as well as grit, can be found on Kingsley North websites, Lortone, Harbor Freight and Amazon.