



Operating Instructions for Raytech's Tumbler Starter Kit (Stone Finishing Only)

Your new **Raytech Starter Kit** is useful for a wide variety of finishing applications. Some of these applications include grinding and polishing “baroque” gemstones from rough chips, smoothing and polishing preformed cabochons and small slabs, and polishing seashells.

Your New Starter Kit Includes:

- (1) TV-5 Tumble-Vibe Tumbler
- (1) TV-5 Spare Bowl
- (1) GS-H2 Stonefinish Kit

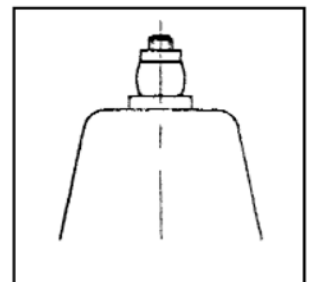


Health & Safety Cautions:

- Do not cover the machine with anything such as a blanket or a box to insulate the noise as this could cause overheating and eventually will become a fire hazard.
- Always connect the tumbler to a properly grounded outlet.
- This tumbler is not designed to “walk” during normal operation. We strongly recommend that the tumbler be placed on a solid floor and away from any combustible materials.
- Never attempt to operate this tumbler with other than recommended medias and compounds.
- Never place your hands inside the bowl while the tumbler is in operation. Always unplug your tumbler prior to this step as this tumbler uses wet applications and may cause electrical shock.
- This tumbler and contents within the bowl are not recommended for children. If younger children intend to use this tumbler, we strongly recommend adult supervision on all levels.
- Only one (1) bowl should be used when operating the tumbler. Never use both bowls at same time.

General Set-Up & Instructions:

Your new **Raytech Starter Kit** comes complete and ready to operate. Upon opening the box you will find a motorized base, (2) bowls, clear lid, and (2) rubber nuts. Inside the top bowl you will find (4) bags of tumbling grit that are labeled Step 1 – Step 4. Each step represents a different grit. Step 1 = Silicon carbide Grit-100/120, Step 2 = Silicon carbide Grit-700F, Step 3 = Iolox 50 and Step 4 = Raybrite TL. These (4) steps take you from rough grind to final polish. Take the top bowl, which contains all (4) grits off the tumbler base, leaving one bowl on the threaded shaft. Secure the bowl to the tumbler base using one of the rubber nuts provided. After tightening, there should be a bulge in the rubber nut. This is normal and will prevent the bowl from vibrating off the base. Note: the larger end of the rubber nut should set against the top of the bowl. See illustration depicting correct installation of the rubber nut. The working capacity of the Tumbler-Vibe 5 is approximately .05 cubic feet or approximately 3 pints, which also equates to a holding weight of (4) pounds. We have included a spare bowl with this kit, as it is common and recommended that one bowl be used for your grinding and pre-polish steps and the other bowl for your final polish step. This practice will eliminate possible contamination of the different grits. It is important to check the tightness of the hardware as well as inspect the interior of the bowl to ascertain any wear after every 500 hours of use.



Using Your Different Grits, Capacities:

Raytech tumblers are very useful for smoothing and polishing a wide variety of stones. They are particularly useful for finishing sawed or ground to shape preforms where the surface of the stone must be smoothed and polished without destroying the basic shape. It is recommended that the tumbler bowl be filled to capacity for the tumbling action to be effective. If too much of the stone is lost in the rough grinding step, it is better to make two batches of rough ground rock and choose only the best of those to continue with the subsequent steps. The stones will finish the best if there is a mixture of sizes included. A considerable portion of small pieces of stone is very helpful in finishing the hollow areas. Note: Stones of mixed hardness usually do not finish well if combined in the same batch. In most cases it is more beneficial to finish only one type of material at a time. It is good practice to scrub and wash the stones thoroughly between steps to avoid contamination, thus the reason why we recommend a second bowl as the rougher grits can become embedded in the walls of the bowl, preventing the stones from being polished.

STEP	GRIT	QUANTITY OF GRIT	WATER REQUIRED	CYCLE TIME	COMMENTS
I Rough Grind	Silicon Carbide 100/120	2 teaspoons every 12 hours. Rinse out sludge every other time grit is added. New grit required as old grit breaks down and sludge no longer feels gritty.	If rocks are dry, add 4 tsps. If rocks are wet from rinsing, add half the quantities above. If tumbling actions slows down from evaporation, add enough water to restore tumbling action. Check every 8 hours.	5-10 days	The Tumble-Vibe is especially useful for finishing stones where the shape should not be greatly altered, as with sawed or ground preforms. For full rounded stones, Step One is best completed with a rotary tumbler.
II Fine Grind	Silicon Carbide 700F	2 teaspoons	Same As Above	1 - 2 Days	If soft stones tumbled, this step should continue long enough to break down the grit to a fine particle. At least 2 days will probably be required after last grit addition.
III Pre-Polish	Iolox 50	2 teaspoons	Same As Above	1 Day	Eliminate this step with soft stones such as Dolomite, Malachite, Rhodochrosite, etc.
IV Polish	Raybrite TL	2 teaspoons	Same As Above	1 - 2 Days	Change entire load after 1 day.

