

INSTRUCTIONS

Initial Assembly (3-pc long Makutu and 2-pc short Makutu). No tools necessary. HAND-TIGHTEN ONLY!

- **3-PC:** Thread the bottom section (cap on one end and fitting on the other) of reservoir into the bottom of the section with the clear pipe at top. Thread entire reservoir assembly into bottom of valve and insert wick assembly into the top of the valve.
- **2-PC:** Thread reservoir into the bottom of the valve. Thread wick assembly into the top of the valve.

Caution! The plastic threads should turn **easily** on entering the valve. Cross threading will ruin the plastic threads.

Note: The fittings inside each end of the valve should remain in place at all times after initial assembly.

Filling the Reservoir

1. Remove wick holder (**top half of wick assembly**) and set aside.
2. Open valve by turning the handle (when open, the handle will be parallel to the wand).
3. Use a funnel to fill the primary reservoir (the clear section of PVC pipe will show when the reservoir is full).
4. Close valve by turning the handle clockwise. This prevents herbicide flow to the wick.
5. Replace the wick holder (when tightened, the wick retaining screw should be in line with the valve handle).

Note: Yellow gas line tape is applied to the threads of the wick holder. It may be necessary to replace it if you notice leakage. The tape is available in most places that sell plumbing supplies. To apply, firmly press the end of the tape to the threads and wrap the tape and slightly overlap the ends.

Using the Makutu

1. Open valve to wet the wick while pointing the wand toward the ground.
2. Close the valve when wick is wet. Leaving the valve fully open can lead to dripping.
3. Adjust the valve opening to control the flow of herbicide needed for the application. You will have good flow when herbicide wets the surface of the cut and trickles down the sides of the stem.
4. Remember to **dab, not rub, while treating cut stems.**

Cautions:

- When laying the wand on the ground, place wick on oil absorbent cloth or shop towel.
- Leaning the wand against a tree or other object is not recommended. If it falls in frigid temperatures or onto a hard surface, the wand may break.
- While one can use herbicides mixed with forestry oil, **do not use diesel fuel or kerosene as a carrier**, as it will clog and possibly damage the fittings.
- Some Makutu fittings have been known to break at either end of the valve because of the tendency to use too much force to apply herbicide on larger cuts, especially during cold temperatures. **Use the valve to control the herbicide flow to the wick as needed.** To treat cuts of woody vegetation larger than 1.5 inches, use a small hand pump sprayer set to trickle or simply open the valve further to increase flow to the wick.

Emptying the Reservoir

1. When finished, hold the wand so that wick assembly is pointing **upward**. Open the valve to transfer any remaining herbicide from the wick assembly into the reservoir. After the wick assembly is drained, close the valve.
 2. Remove the wick holder (**not the entire wick assembly**) leaving the wick in place and put the wick holder in a leak proof container.
- Note:** You may want to obtain a threaded 3/4" PVC plug to insert into the part of the wick assembly that remains attached to the valve. The plug will stop herbicide clinging to the interior threads from leaking. One may also completely drain all of the herbicide from the Makutu into an herbicide container.
3. Use rag to wipe off any herbicide residue from the wand and place the rag in a leak proof container.

Replacing the Wick

1. Purchase Varathane Brand Applicator Refill **for Oil Based Finishes** (Rustoleum #989731) if you plan to use oil-soluble herbicides. You can find the pads at Home Depot, **but only online and only by the case** (10 pads, enough for 50 wicks). While it is possible to find individual refill pads elsewhere, expect them to be more expensive per single pad, sometimes ridiculously so.
2. You *can* buy individual Varathane Brand Applicator Refill pads for use with water-soluble herbicides from Home Depot and other vendors, but I have never field-tested these pads and can't *guarantee* the results or longevity.
3. Remove the wick retaining screw and old wick.
4. Cut the 10 inch by 5 inch pads into five 2 inch wide strips
5. Roll the pad into a tight cylinder and insert into the wick holder.
6. Replace wick retaining screw and avoid over-tightening.