

## PVC Herbicide Stamper: Instructions for Assembly and Use

This tool is the herbicide stamper used at the Holden Arboretum for cut-stump woody invasive plant control with glyphosate (the active ingredient in herbicide). This herbicide stamper tool is designed to use the least amount of glyphosate possible to the greatest effect on woody invasive plants. It is also designed to keep the user safe when used correctly and with proper PPE. The tool also greatly reduces the risk of harming other living things and desirable plants. Please only use this tool as directed to protect yourself and other living things. This tool is meant to be used only when the person using it can identify invasive vs. native plants.

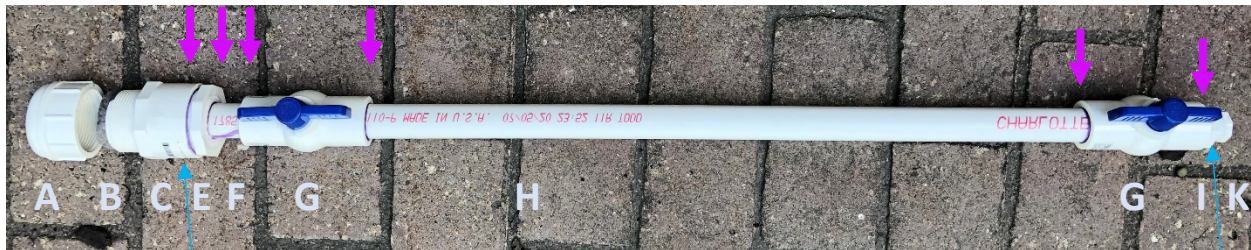
**Parts:**

Reference	Part Name	Amount
A	1 ½" female threaded cap	1
B	Felted wool, ½" thick, 1 ½" wide, 5 ½" long, rolled tight	1
C	1 ½" male thread x 1 ½" slip adapter	1
D	¼" x 1 7/8" aluminum rod in between adapter and reducing bushing	1
E	1½" to ¾" slip reducing bushing	1
F	¾" schedule 40 pipe cut to 3 inches	1
G	¾" schedule 40 slip ball valve	2
H	¾" schedule 40 pipe cut to 24 inches	1
I	¾" slip to ½" female threaded reducing bushing	1
J	½" Teflon tape, wrapped 4-5 times around male end of plug	1
K	½" male threaded plug	1

**Other tools/items needed:**

- PVC primer and cement
- Adjustable wrench
- *Recommended:* bench vice, PVC pipe cutter, sandpaper, reaming tool, funnel, graduated container measuring fluid ounces

Purple arrows = cemented connections



D (inside)

J (inside)



### ***Proper Filling and Maintenance:***

Always ensure you are wearing personal protective equipment when handling herbicide.

#### *First Time Filling:*

With tip end facing down, loosen and remove top plug (K), open the top valve (G top), close bottom valve (G bottom), and ensure applicator cap (A) is on. Using a small funnel pour 3 – 4 fluid ounces of herbicide into the stamper, add 3 – 4 drops of marker dye. Close the top valve and reinstall and tighten the top plug. With the stamper vertical and stamper end facing down, open the bottom valve allowing herbicide to begin saturating the felted wool applicator. Plan ahead because it may take up to a day to saturate. Remove applicator cap periodically to ensure that herbicide has saturated tip which will be color of marker dye and wet when fully saturated. Once saturated, turn stamper upside down and close bottom valve.

#### *Refilling:*

See instructions for first time filling, altering amount of herbicide to 1 – 2 fluid ounces.

#### *Storage:*

Replace applicator cap. With top valve closed and bottom valve open invert stamper (felted tip pointed up). While inverted close bottom valve (any herbicide in stamper is now isolated between the two valves). Invert (felt tip pointed down) and place in a bucket. Caps at top and bottom ends of stamper should be tightly secured.

### ***Using Your Stamper:***

#### *Instruction:*

- Cut invasive plants within 2-3 inches of ground with sharp tool (ie loppers and pruners) leaving a clean cut for best absorption of herbicide.
- With felt wool saturated and herbicide isolated between two closed valves (see storage instructions) remove applicator cap.
- Hold stamper vertically with felt tip pointed down and apply cut stump with herbicide.
  - o If cut stump is greater than the diameter of the stamper, then herbicide only needs to be applied to the perimeter of the stump.
  - o *\*Helpful Hint\** Cut stumps should not be left unstamped for more than fifteen minutes, otherwise they can callous over and block absorption of herbicide.
- Once applicator is out of herbicide, open bottom valve and allow tip to re-saturate. Once saturated, invert stamper, close valve, then return to stamping.

*Required:*

- Herbicide. **\*\*FOLLOW ALL LABEL INSTRUCTIONS\*\*** We recommend using a brand of herbicide with an active ingredient concentration of approximately 50% glyphosate.
- Marker Dye (ie. Mark-It-Blue)
- Non-leather, closed-toe shoes (that you are ok accidentally getting herbicide on, though with care you can avoid this)
- Long pants
- Plastic gloves
- Cutting tool(s)
  - Large diameter stems (larger than a thumb): pruning saw
  - Small diameter stems (smaller than a thumb): pruners
  - Large area of woody invasives (and relatively low/no desirable plants): brush cutter

*Recommended:*

- Extra plastic gloves
- Long sleeves
- Spill soakers

***Troubleshooting Tips:***

- If you plan to use the stamper multiple days in a row, store it vertically, stamp-end down in the bucket. This will ensure the herbicide is near the end of the wand.
- If the herbicide seems to be not flowing/working very well...
  - Is it really cold outside? It could be a temperature issue (glyphosate seems to get viscous in colder temperatures). Try bringing the wand into a heated indoor area for a couple hours to get it running again.
  - Is this your first time using the stamper or have you just refilled it? The herbicide may not yet have wicked all the way down through the felted wool. Keep stamping in one place (where you don't mind herbicide) until you see the dye or put a *small amount* of water in the cap, screw it on, and flip the wand to get the felt wet and help the herbicide wick into it.
  - Have you been using the wand for a while? Check the felt—if there are debris or if it's really starting to fray, you can try trimming off the frizzled, frayed end (use scissors or your pruners... remember to clean off the herbicide from the blades) to get a new fresh and clean end on the stamp.
- If you get herbicide on a non-target (good) plant - bummer. We've made that mistake too. There's nothing much you can do, but if you *just* stamped something, cut off the end you stamped (remove the blue) and the stump may regrow.

