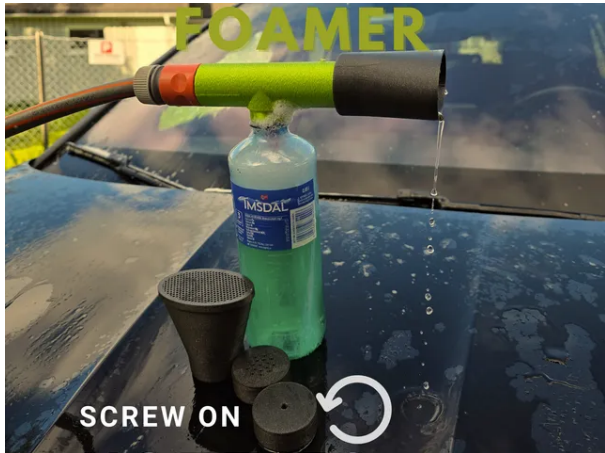




PET Bottle Foamer for Garden Hose and Modular nozzles - VENTURI INJECTION



CulinaryDiver

[VIEW IN BROWSER](#)

updated 4. 6. 2025 | published 4. 6. 2025

Summary

Attach any standard PET bottle filled with soap to your garden hose and create foam on demand. Screw on nozzles included



8.28 hrs



6 pcs



0.20 mm



0.40 mm



PLA



146 g



Prusa MK4S

[Household](#) > [Outdoor & Garden](#)

Tags: [water](#) [nozzle](#) [gardena](#) [soap](#) [hose](#) [hoseadapter](#)
[hoseconnector](#) [foam](#) [venturi](#) [carcleaning](#) [foamer](#)
[hoseattachment](#)

- This foamer uses the Venturi effect as an injection method, no pressurized systems
- Gardena-compatible hose connector
- Interchangeable screw-on nozzles: spray, jet, foam, and fan(only the foam nozzle works at high pressure with the soap)(the others are mainly for regular water spraying)

- PET bottle adapter fits standard soda bottles (PCO 1810) – glue-in(not the bottle but the 3D printed threads)
- Designed to minimize supports – prints cleanly on most FDM printers
- Great for bikes, patios, cars, and even summer fun!
- can also be used as a fertilizer
- I used **paint-on supports** as shown below – no supports needed for threads or internal chambers.
- Instead of the included straw pipe, you can use a regular drinking straw.
Recommended: small-diameter tube(10 mm inner diameter) (there is a tube connector file)
- you might want to use a O-ring on the Gardena attachment part,
- the pet bottle threads is supposed to be glue-on

Tips for use:

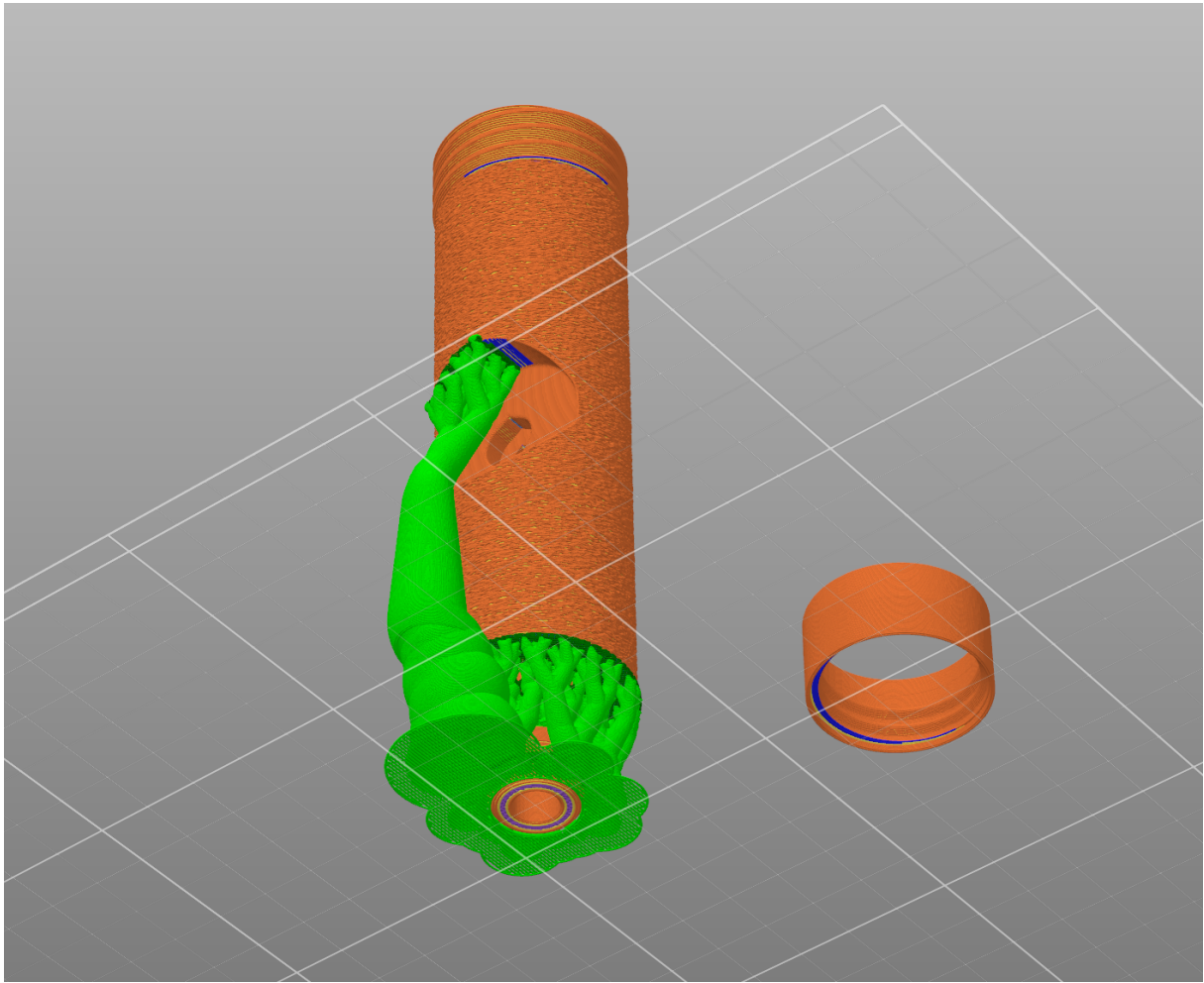
Use diluted soap (1:5 ratio) and make sure your PET bottle has air space.

note: only the former nozzle works when using the venturi suction. (The other creates too much resistance in the front chamber for the effect to work optimally)

the other nozzles work fine with just water.

Left: orientation of the foamer with painted supports.

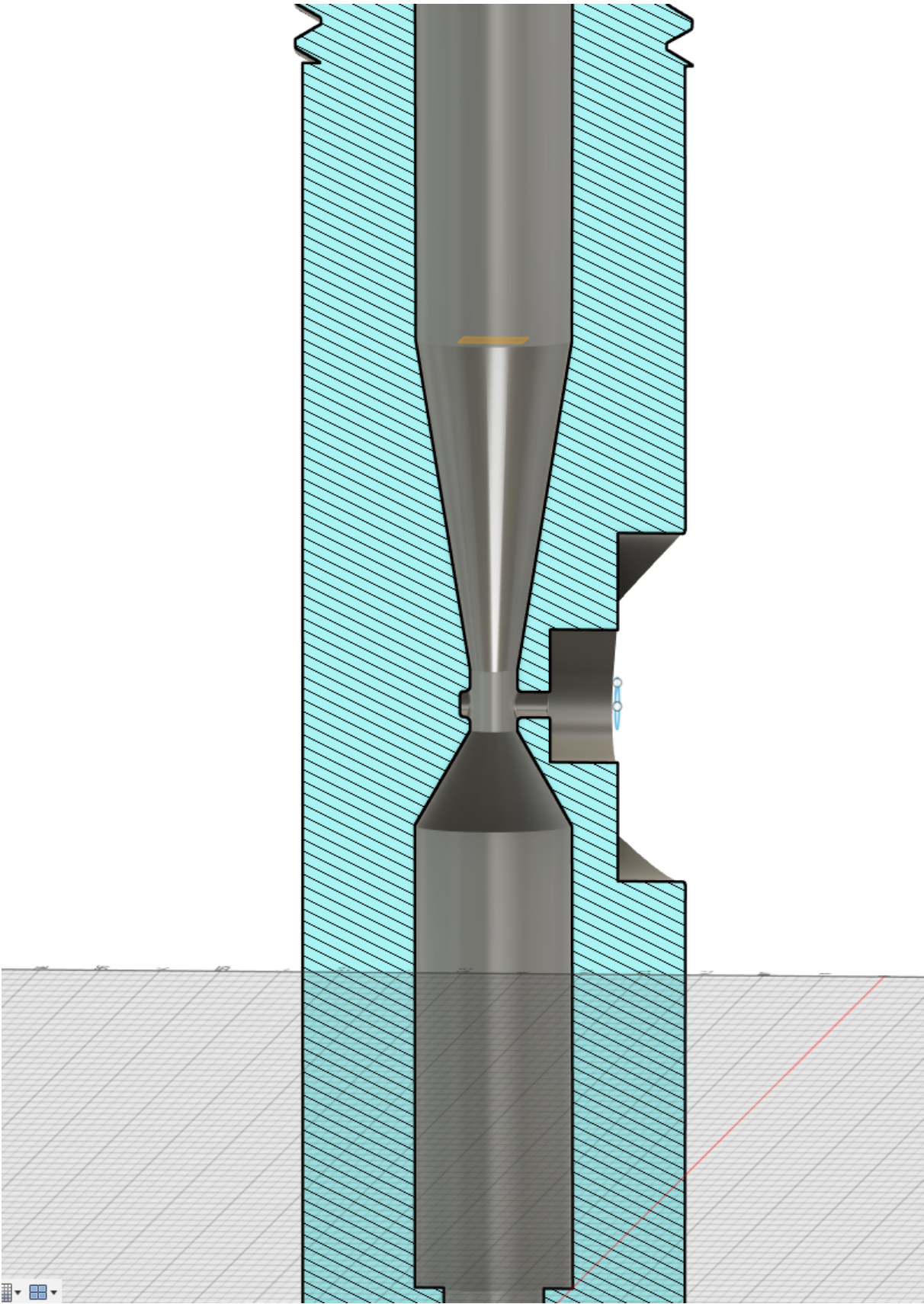
Right: Paint on supports as shown on the foam nozzle



If you want a larger bottle or use a tube you can glue-on the small pipe(tube connector)



Glue-on Threads and tube connector as shown
HOW IT WORKS: VENTURI INJECTION



Model files



foamer-bodystl_2.stl



all-bodies.stl



make-your-own-nozzle.stl



foamer-nozzle-stl_2.stl



meshstl_10.stl



pet-bottle-threadsstl_4.stl



tube-connectorstl_1.stl

Print files



straw-pipe_04n_02mm_pla_mk4s_1h30m.bgcode

⊗ PLA ⊕ 0.40 mm ≡ 0.20 mm ⌚ 1.50 hrs ⚖ 9 g 🖨 Prusa MK4S



nozzles_04n_02mm_pla_mk4s_1h31m.bgcode

🌀 PLA 🌀 0.40 mm 📏 0.20 mm ⌚ 1.51 hrs ⚖️ 35 g 📄 Prusa MK4S



foamer-body-_04n_02mm_pla_mk4s_2h58m.bgcode

🌀 PLA 🌀 0.40 mm 📏 0.20 mm ⌚ 2.89 hrs ⚖️ 48 g 📄 Prusa MK4S



foamer-nozzle-_04n_02mm_pla_mk4s_2h1m.bgcode

🌀 PLA 🌀 0.40 mm 📏 0.20 mm ⌚ 2.02 hrs ⚖️ 51 g 📄 Prusa MK4S



pet-bottle-adapter-v7_04n_02mm_pla_mk4s_8m.bgcode

🌀 PLA 🌀 0.40 mm 📏 0.20 mm ⌚ 0.13 hrs ⚖️ 2 g 📄 Prusa MK4S



tube-connector_04n_02mm_pla_mk4s_14m.bgcode

🌀 PLA 🌀 0.40 mm 📏 0.20 mm ⌚ 0.23 hrs ⚖️ 1 g 📄 Prusa MK4S

License ©



This work is licensed under a
[Creative Commons \(4.0 International License\)](https://creativecommons.org/licenses/by-sa/4.0/)

Attribution-ShareAlike

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition