



## Spacer/lid riser with filament pass-through for Fixdry filament dryer

A ArchimedesMP

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### Summary

**No more fumbling with the lid: Simple filament changes. Plus 2-part variant for smaller beds! Inspired by @Tobi**

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**Since there was some confusion on other models like this: I used measures taken from my Fixdry dryer, bought in March 2024.**

**Offers three variants with different hole sizes; plus a two-part you can screw together.**

**How does this improve your 3D printing life?**

- 1. Better fit large spools, like PolyMaker 2.5kg (these rub on the top of the lid for me)**
- 2. Simpler filament insertion, without the lid:**
  - 1. Take just the base**
  - 2. Put the spacer into the base**
  - 3. Insert the filament into your dryer's base; ensure the spool rolls nicely**

4. Comfortably feed filament through a hole in the spacer directly into your PTFE
5. Only after you're done, close the dryer with the lid
3. When using the dryer with two printers at once, change one printer's filament and don't worry about messing with the other printer's in-use spool

Careful: Since this is a large print, you need to consider material shrinkage. Especially for ABS, but also PETG or PLA. This is also affected by post-print shrinkage, e.g. I already had 30cm PLA parts shrink by as much as 1.5mm.

I added a "test part", a simple, offset cross that should fit into the base. The two distances are 270.70mm and 195.20mm. You can use that to scale your final print (but remember to let it cool down, due to cooling-related shrinkage!).

For those with sub 300-sized printers, I also added a split variant that can be screwed together. You should be fine on a 200x200 bed with that. (Mind I didn't test it).

Additional printing hints:

- The STL is sized exactly "as the physical thing should be" (though I added 2\*0.15mm of tolerance per edge!).
- I recommend PETG, but ABS ("or better") should also work, as long as you're able to print long and narrow objects without warping/adhesion issues. PLA could work, but if you dry e.g. PC at 70C over 8h it might deform or creep, so I would recommend against it.
- Layer height only matters for your subjective aesthetic preferences - I did not design with a specific layer height in mind. Variable layer height between 0.15 and 0.3mm can help getting nicer fillets. Or just go 0.2 or 0.3mm. I printed at a fixed 0.2mm (with 0.25mm first layer).
- 3 wall loops (on 0.4 nozzle) should produce solid bottom and top walls.
- Play around with infill and check the preview - I used 10% cross hatch to avoid long spans of infill pulling on the material.
- Supports should not be necessary
- Don't be shy to use inner+outer brim - the interface area to the bed isn't that large to begin with, and the print is really long, a recipe for warping. I was conservative and went with 6mm.

Hardware depends on variants:

- 6mm hole variant: Use up to 6x PC4-M6 screw-in PTFE collets. You can plug unused holes with a screw, or use your slicer to add a "positive

volume” to fill them during the print. Though these small holes should not hurt the drying performance, so just use as many/few collets as you want.

- 4.2mm hole variant: No hardware required, just push a 4mm OD reverse bowden tube through.
- 3mm hole variant: Use a 4mm or 4.2mm drill to get a very accurate hole, then push the 4mm OD PTFE tube through. This was originally a design mistake (used radius value for diameter) I noticed post printing, but works quite nice; so I share it with you ;-)

If you print the split version, you additionally need 2x M3x12 and 2x M3 nuts to join them. (Longer also work).

This is an original work, but essentially a re-implementation of @Tobi's design, which you can find over here: <https://www.printables.com/model/628593-fxdry-lid-spacer>

His design seems not to fit for everyone. After measuring his STL I came to the conclusion that it wouldn't fit on my dryer, neither. We briefly chatted on Discord, and Tobi gave me his blessings to just go ahead and publish an alternate design <3

Still licensed under the same license as his work, and I'd ask you credit this work as “design by @ArchimedesMP, inspired by @Tobi” (make sure to link @names to the respective design here on printables, or include links to both designs!). Thank you very much, and enjoy :)

## Model files



6mm holes, PC4-M6

2 files



xdry-riser-6mm-holes.stl

|| For use with up to 6x PC4-M6 collets



xdry-riser-split-6mm-holes.stl

|| For use with up to 6x PC4-M6 collets



4.2mm holes, just insert PTFE

2 files



ǵxdry-riser-42mm-holes.stl

|| Just insert the PTFE tube



ǵxdry-riser-split-42mm-holes.stl

|| Just insert the PTFE tube



3mm holes, drill to 4.2mm, then insert the PTFE tube

2 files



ǵxdry-riser-3mm-holes.stl

|| Drill to accurate 4 or 4.2mm holes, then insert the PTFE tube



ǵxdry-riser-split-3mm-holes.stl

|| Drill to accurate 4 or 4.2mm holes, then insert the PTFE tube



test-part.stl

|| If this fits into the base, the actual part should fit, too. Some play is okay.

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