

250 g Spool Adapter for the CFS Print & Use Guide

Two printed halves that thread together through a 250 g spool and present it to the Creality CFS as a full-size one — no hardware, no adhesive.

Two Printed Pieces

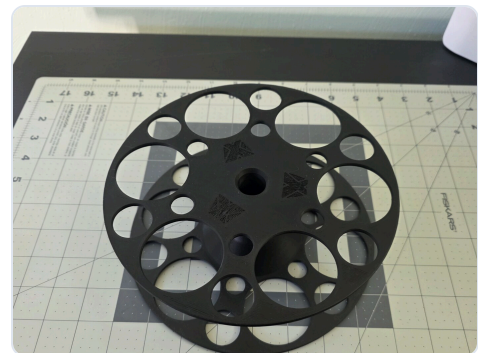
Threaded, No Hardware

Pre-Configured 3MF

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The CFS is built around 1 kg spools, which are **200 mm across**. A 250 g sample spool is far smaller, so it sits loose and off-center and can feed badly or jam. These two halves clamp that small spool between them and give the machine the 200 mm outside diameter it expects.

That is the whole idea, and it is why the part is a pair of wide discs rather than a bushing: the machine locates a spool by its **rim**, not its bore, so anything that only fills the center hole still leaves a small spool rattling around in a bay sized for a big one. Nothing here is glued, screwed or taped — the two halves thread into each other and the spool is trapped between them.



The two halves threaded together with no spool in them. The hub in the middle is the thread that draws them shut.

In the download

File	What it is
...-both.3mf	Start here. Two plates — one nut half and one screw half, which is one complete adapter. Tested profile already set up.
...-nut.3mf ...-screw.3mf	The halves on their own, for reprinting a single piece rather than the pair.
Two .stl files nut, screw	The raw meshes, for your own slicer and your own profile.

One adapter carries one spool

Unlike a tray or a bracket, this is not a print-once part. Each 250 g spool you want loaded at the same time needs **its own pair of halves**. Print the pair again for every slot you want to fill.

Print it

Both plates are already configured in `...-both.3mf`. Nothing needs supports and nothing needs a raft.

Plate	Holds	Time and filament
Plate 1 — nut half	The shallow half. This is the face that seats in the CFS.	2 h 47 m 52.07 g
Plate 2 — screw half	The deep half. Its threaded hub passes through the spool.	3 h 51 m 64.81 g
One adapter	Both plates — the complete pair	6 h 38 m 116.88 g

Settings

Layer height	0.10 mm
Walls	3
Top / bottom shells	5 / 3
Infill	10% gyroid
Supports	None required
Material	PLA, 220 °C nozzle
Sliced on	Creality Hi 2, 0.4 mm nozzle, epoxy resin plate

The project shows supports switched on. Leave it — none get made

Open the 3MF and you will see supports enabled, set to tree. **No support material is actually generated:** nothing on either half overhangs past the threshold angle, so the sliced G-code contains no support extrusions at all. The setting is harmless and the figures above are the real ones.

Dimensions

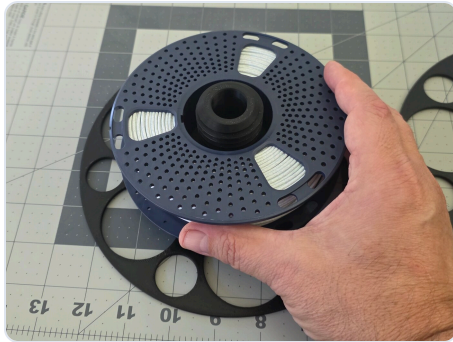
Piece	Size	Per adapter
Nut half	200 × 200 × 33 mm	One
Screw half	200 × 200 × 68 mm	One

Both halves are **200 mm across** because that is the outside diameter of a standard 1 kg spool. The third figure is depth — the screw half is deeper because that number includes its threaded hub. A 200 mm circle is a lot of first layer, so start from a clean, level bed: a disc this wide will not seat flat if a corner lifts.

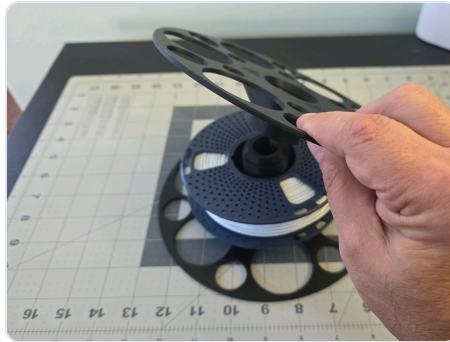
Put the spool in

What you supply

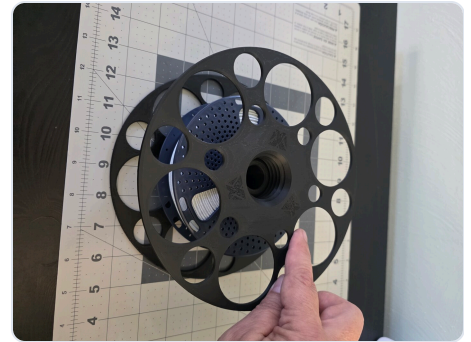
One thing, and that is the whole list: **the 250 g spool you want to run**. There is no hardware to source — no screws, no magnets, no adhesive. The two halves thread directly into each other.



The spool drops over the hub and sits flat on the lower half. The hub is what centers it.

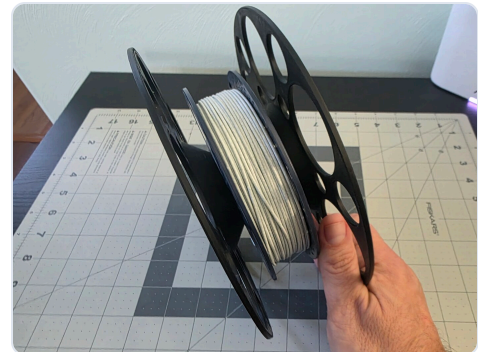


The second half goes on over the same hub and threads down until the spool is held.



Closed. The small spool is captured on the center hub with the filament still free to unwind.

- 1 **Lay the nut half flat**, hub upward. This is the shallow one.
- 2 **Drop the spool over the hub**. It should sit flat against the face with the hub standing up through its center bore.
- 3 **Lower the screw half onto the hub** and start the thread by hand. Keep it square as it takes — a cross-threaded start is the one way to make this go wrong.
- 4 **Turn it down until the spool is held**. Snug is enough. You are locating the spool, not clamping it, and overtightening only puts a bow in a printed disc.
- 5 **Check it spins**. Hold the adapter by its rim and turn the spool — the filament has to pay out freely. If it binds, back the thread off a fraction.



Edge on — the spool sits between the flanges, and the pair is now 200 mm across like any 1 kg spool.

The thread is what handles different spools

Sample spools are not all the same width. Because the halves screw together rather than clip, **how far you turn them sets the gap** — so a narrower or wider 250 g spool is just a different number of turns, not a different part.

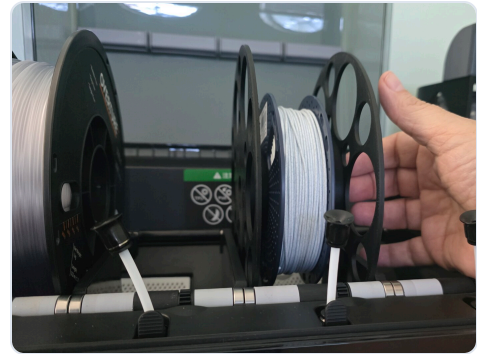
Load it and live with it

Loading

Load it exactly as you would a 1 kg spool — into any slot, filament fed into the same inlet. Nothing about the machine changes and there is nothing to configure. Check that the adapter turns freely in the bay before you close the lid.

Which way round

The **nut half** is the shallow face and it is the one that seats in the machine. Loading it the other way up still works mechanically, but the deeper screw half takes more room in the bay, so keep the shallow face down and you will never have to think about clearance.



Loaded in the CFS beside full-size spools. From the machine's point of view it is just another 200 mm spool.

Feed direction

The filament should come off the spool the same way it does on a full-size one. If a sample spool is wound the opposite way, turn the whole adapter over rather than restringing it — the part is symmetrical about its own axis and does not care.

Do not put this in a filament dryer

It is PLA, which starts to soften around **140 °F**, and a dryer runs to about **158 °F**. A 200 mm disc that slumps even slightly will no longer run true in the machine. Dry the *spool* out of the adapter and assemble it afterwards. If you want one that can go in the dryer, **print it in PETG**, which softens nearer 176 °F.

One last thing — print the pair, keep the pair

The halves are matched by their thread, so keep each set together. If you are running several sample spools at once, print a pair for each and label them on the flat face — there is plenty of room. Questions, or something that does not fit? makerxdesigns.com