

Motor Cooling Fan - Press Fit



kaje

[VIEW IN BROWSER](#)

updated 18. 8. 2021 | published 18. 8. 2021

Summary

Replacement for a broken motor cooling fan.



4.33 hrs



1 pcs



0.20 mm



0.40 mm



PET



58 g



Prusa
MK3/S/S+

[Hobby & Makers](#) > [Mechanical Parts](#)

To use this print you will likely need to start with the original CAD file, in order to adjust the parameters to fit your particular motor. The included PDF file shows the dimensions for this print; all of the dimensions shown can be modified in the parametric CAD file. In particular, the hub ID needs to be small enough so that it makes a tight press fit onto the motor shaft, but not so tight that the hub cracks.

This fan was created as a replacement for a broken electric motor cooling fan (see photos). The original fan was press-fitted onto a splined shaft (see photo), and this print was dimensioned to fit that shaft and motor.

Print Instructions

I printed in PETG on a textured build plate. This might work in PLA, but that would not be my first choice. Since this part is a press fit, the plastic used

needs to have some “stretch” (nylon would probably be a good choice as well, but I do not have any of that).

If you look at the 3mf file, you will see that I used a cylindrical modifier to increase the perimeters for the hub. I used grid infill with the idea that it is slightly stronger than rectilinear infill. It is important that any infill used be uniform so that the fan will be balanced.

I printed with 0.2mm layer height. The print took about 4-1/2 hours to print.

CAD

The OnShape parametric CAD files for this are here :

<https://cad.onshape.com/documents/81a6e848a3cfe91eb01b2dc1/w/68ab4479d2ff82fec2074759/e/cfbb3b046bcc11f0b2159d28>

Model files

motor2-fan.3mf




motor2-fan.stl



Print files

motor2-fan_02mm_petg_mk3s_4h20m.gcode



 PET  0.40 mm  0.20 mm  4.33 hrs  58 g  Prusa MK3/S/S+

Other files



drawing-v2.pdf

[Find source .stl files on Thingiverse.com](#)

License ©

This work is licensed under a
Creative Commons (International License)



Public Domain

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