



be quiet! Pure Base 500 airflow mod for front cover (.STP)



filimonic

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Summary

be quiet! Pure Base 500 airflow mod for front cover.

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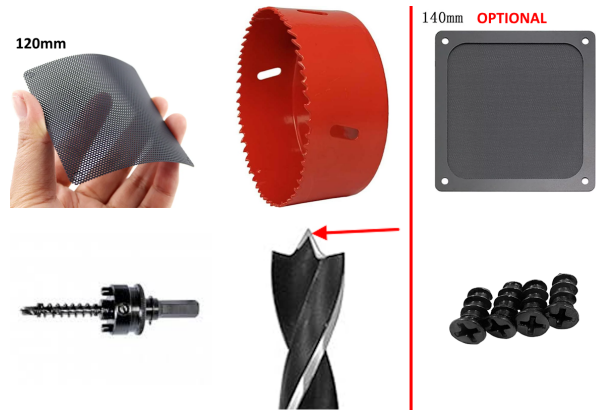
Tags: [case](#) [mod](#) [pc](#) [500](#) [pccasemodding](#) [pccase](#)
[pccasemod](#) [bequiet](#) [purebase](#) [pccasefan](#)

Adding two 120mm holes to the front panel of be quiet! Pure Base 500 (not dx\fx) PC case.

Same thing is [on Thingiverse](#).

Additional parts needed:

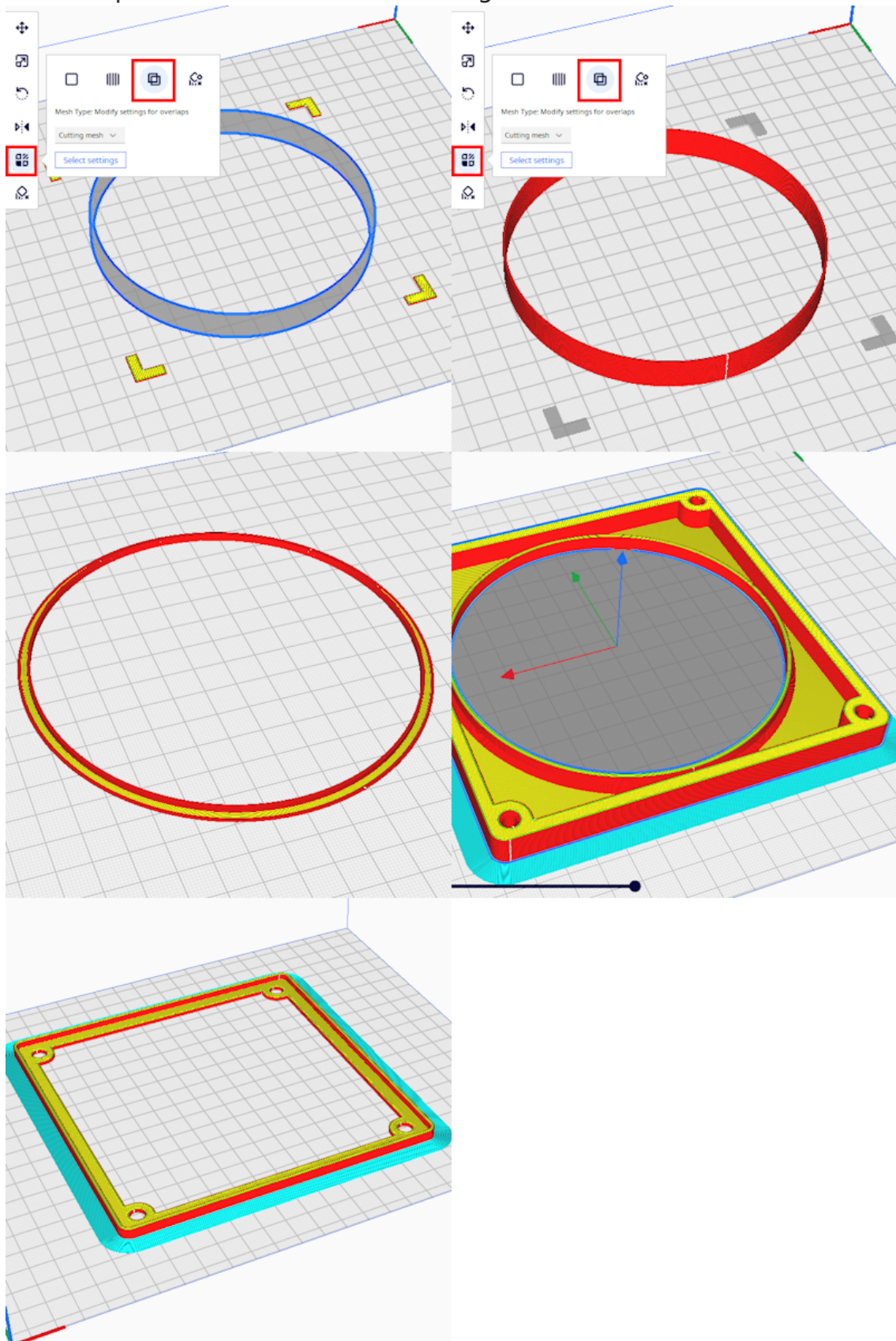
- Metal mesh cover 120x120 mm for pc cases
- (OPTIONAL) Mesh cover 140x140 mm with small cell size as dust filter with 4 pc fan screws.
- TOOL: 120mm hole saw (bimetallic bit for metal)
- TOOL: Shank for bimetallic bits (remove the spring)
- TOOL: screwdriver or drill with low speed
- TOOL: drill bit for wood with diameter less than shank drill has.
- GLUE: **Viscous** glue in color of your case (black or white). I use T-7000
- GLUE: **Cyanoacrylate** glue
- CONSUMABLE: few short wooden planks that you can stack to drill on and that will fit inside cover from the internal side. Those wooden planks must be narrower than internal noise absorbing sticker.



Instructions:

1. The nozzle will scratch metal. be warned.
2. Take plastic in color of metal mesh, it is preferred.

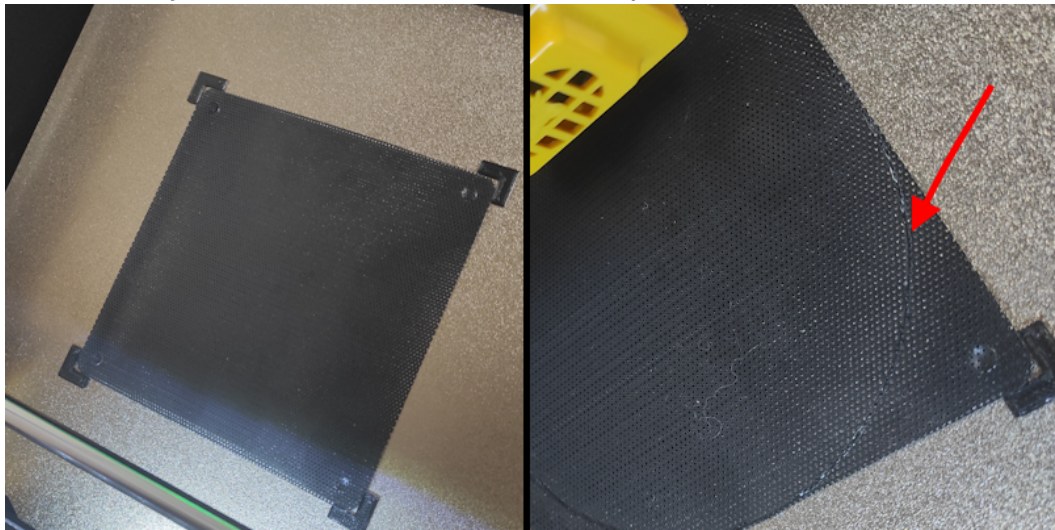
3. See this picture for reference in slicing:



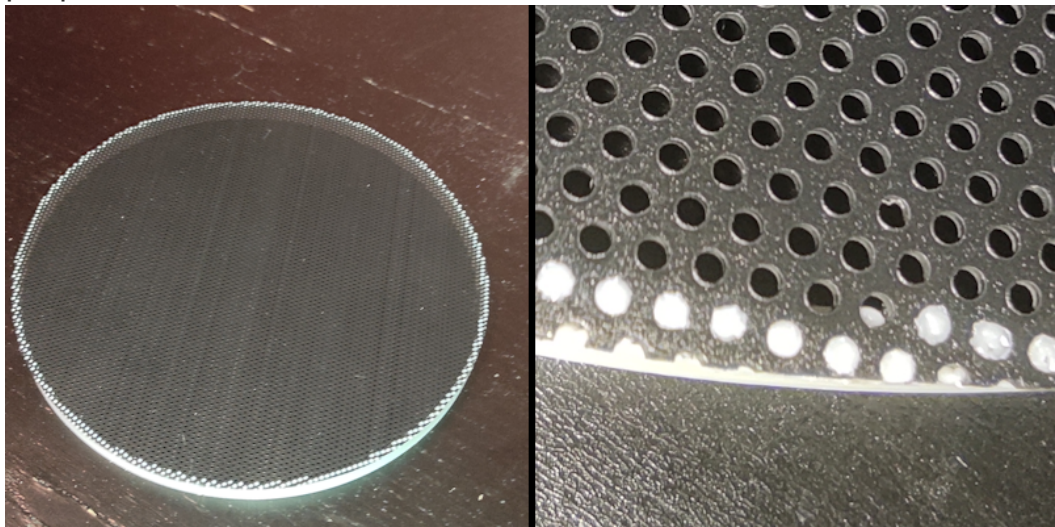
4. Imprinting tube to metal mesh cover.

1. Take IMPRINTABLE_TUBE_WITH_ALIGN_CORNERS file into slicer, select all models (CTRL + A in Cura) and align it in slicer as you want.

2. Remove the central tube (so only corners left), using deleting model or setting model to a cutting mesh type
3. Slice it
 1. Build plate adhesion type: None
 2. Quality: draft
4. Save as corners.gcode file
5. Cancel deletion\cutting mesh type (CTRL + Z in Cura)
6. Remove corners same method, slice it and save as tube.gcode file
7. Print corners file. Don't let the heatbed to cool down.
8. Place metal 120mm cover to fit corners
9. Print tube just over metal mesh (black plastic here used)

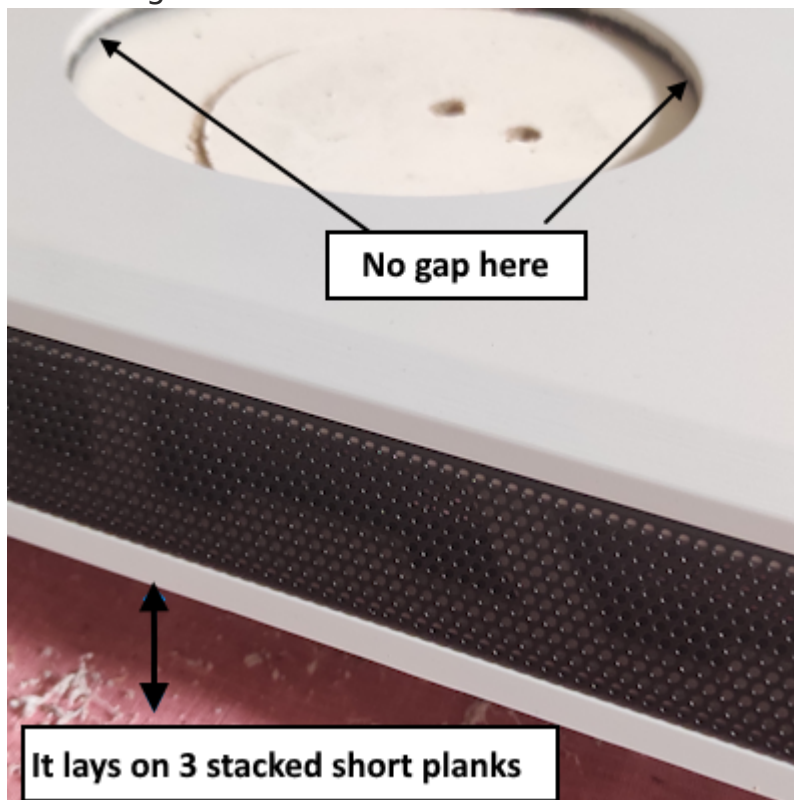


10. Wait heatbed to cool down
11. Remove the mesh with imprinted tube
12. Cut all mesh extends the tube
13. Result is like this (here I used white plastic for demonstration purpose):



5. Print EXTERNAL_COVER with the finest quality you can
 1. Top/Bottom pattern: Concentric
 2. Z seam alignment: Random

3. Build plate adhesion type: None
4. Layer height: 0.1mm - 0.15mm (no need to make it thinner)
6. Print (optionally) INTERNAL_MESH_MOUNT and INTERNAL_MESH_COVER with standard quality
 1. Build plate adhesion type: Brim
7. Repeat for number of holes you want
8. Take off front cover
9. Cover it with masking tape
10. Mark centers of holes where you want
11. Put it front-up on a wooden pieces you will damage with drill. Those wooden pieces should be narrower than internal sound noise absorbing sticker



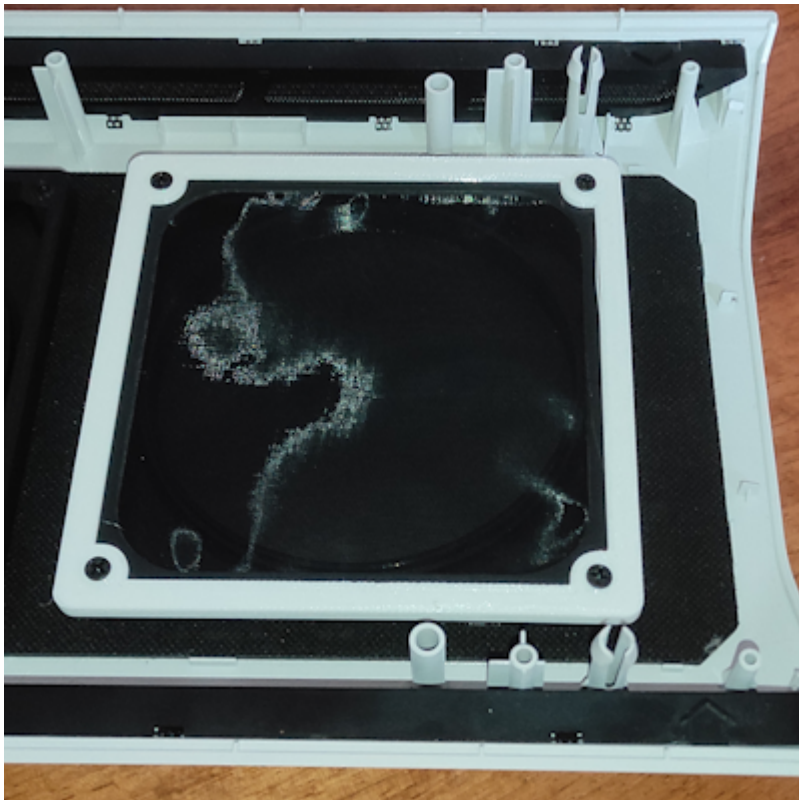
12. Drill hole in center with drill for wood. It must be less diameter than your shank's center guiding drill.
13. Drill the big hole using 120mm bit
14. Insert in EXTERNAL_COVER
15. Insert in tube imprinted with mesh
16. Disassemble, assemble back gluing it.
 1. Glue EXTERNAL_COVER with cyanoacrylate glue to front panel
 2. Glue tube to hole walls using **viscous** glue.

17. (OPTIONAL) If installing small mesh filter

1. glue INTERNAL_MESH_MOUNT to tube with cyanoacrylate glue. 4 spots of glue will be enough.



2. place 140mm mesh to INTERNAL_MESH_MOUNT , cover it with INTERNAL_MESH_COVER and screw this sandwitch using pc fan screws.



18. Result:



Inspired with [u/Geri00's mod](#).

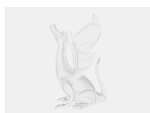
This case reddit page [here](#).

Model files



STEP

1 file



bq_pb500_cv_mod_120mm__v20240106__assembly.step



STL

4 files



bq_pb500_cv_mod_120mm__v20240106__part_imprintable_... .stl



bq_pb500_cv_mod_120mm__v20240106__part_external_cov... .stl



bq_pb500_cv_mod_120mm__v20240106__part_internal_mes... .stl



bq_pb500_cv_mod_120mm__v20240106__part_internal_mes... .stl



3MF

4 files



bq_pb500_cv_mod_120mm__v20240106__part_external_cov... .3mf



bq_pb500_cv_mod_120mm__v20240106__part_imprintable... .3mf



bq_pb500_cv_mod_120mm__v20240106__part_internal_mes... .3mf



bq_pb500_cv_mod_120mm_v20240106__part_internal_mes... .3mf

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