



Cyclone Vacuum Dust Separator. Version 4.1 (1 to 1-1/2" hose)



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Summary

New Version 4.1 of my Custom Designed Cyclone Dust Separator for shop dust collecting

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Tags: [vacuum](#) [dust](#) [dustcollector](#) [separator](#)

January 31-2025 Version 4.1 released!

Version 4.1 is released! minor mods and tweaks!

November 26- 2024 Version 4 release!

(note - v3 and v4 lower cone is the same(NOT V4.1!!) , only the upper inlet/outlet section is new so you can reuse the lower cone! though I also split the lower cone into two pieces for shorter print times)

Custom Designed Cyclone Dust Separator for my Wet/Dry Vac and CNC machine!

I designed and printed this as I wanted to try the whole Cyclone hype, but not willing to spend the money of a glorified Oil Funnel with some holes cut in it! (ok, it's more than that but the pricing does seem kinda steep for what they are) The Hype IS JUSTIFIED though! they work great!

This is NOT a snap together model and will take some gluing/fitting/aligning by you! I know it sounds crazy, but I HIGHLY recommend using a Hot Glue Gun for assembly! it holds amazingly well and air seals at the same time! I also recommend spraying the whole unit OUTSIDE with a paint/sealer what ever, 3D printing is often not air/water tight and just coating the outside will seal the smallest of pin holes!. I DON'T recommend spraying inside!! the vacuum force may just peel it off, as well as the materials spinning around will eventually just wear out!

- **Version 4.1 is a complete remake, but mostly just cleaning up the CAD files so it's the same design as version 4! There are minor tweaks throughout out the whole thing though so no parts are interchangeable!**
- **Version 4.1 changes - I've finally added alignment tabs for assembly! - The wall thickness is slightly thinner to save print time and filament! (still more than thick enough!! It was way over kill before.) - Mounting screw holes are moved out a tad on the plate to make it easier to get a screw driver/tool in.**

Version 4, lower cone is the same single piece so can be reused from V3, but also I split in 2 to make for shorter print times on older machines if you don't like to let the printer run forever!

Use a LOT of side walls and top/bottom layers, but it doesn't need to be solid, just structurally sound!

YES, THE SCREWS ARE OFF CENTER, this is to stiffen the mount with 3d printing infill patterns. In short, If centered the plate can flex and pull away. By sliding slightly to one side closer to a structure fin it stiffens the mount a lot.

material shouldn't matter, (mine's from PLA rolls of left overs and samples)

Version 4 includes adaptors to screw onto standard Wet-Dry vac hoses!! These are DESIGNED TO BE OF TPU!!! these will NOT fit if printed in hard plastic!!!!!!

*V3 has a screw on lid to access inside if needed at some point in the future for what ever reason.

(PS, I also have one of these for 4"/100mm pipe, would love feed back from people! -)

4 Inch dust separator

Model files



canisterlowerv34.3mf



lidspunv3.3mf



canisterlowerv34.stl



lidspunv3.stl



canisterupperv3.stl



canisterupperv3.3mf



v4topcap.3mf



v4inlettube.3mf



v4splitlower-b.3mf



v4lower.3mf



v4splitlower-a.3mf



cyclone-to-hose-adaptor.3mf



v4outlet-tube.3mf



v41outlet-tube.3mf



v41cone-upper.3mf



v41inlet.3mf



v41cone-base.3mf



v41cap.3mf

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