Plastic Bucket Filter

version: 01/24/2013

Jeff Davis jeffdavis0124@gmail.com

aka Puffergas







This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-nd/3.0/.

You are free:

• to Share — to copy, distribute and transmit the work

Under the following conditions:

- **Attribution** You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).
- **Noncommercial** You may not use this work for commercial purposes.
- No Derivative Works You may not alter, transform, or build upon this work.

The license applies to this document. You can use the technology described in this document as you see fit.

Good luck,

Jeff



Abstract: A Producer Gas filter made from a recycled plastic bucket.

Links:
Email
Youtube
Bioenergy



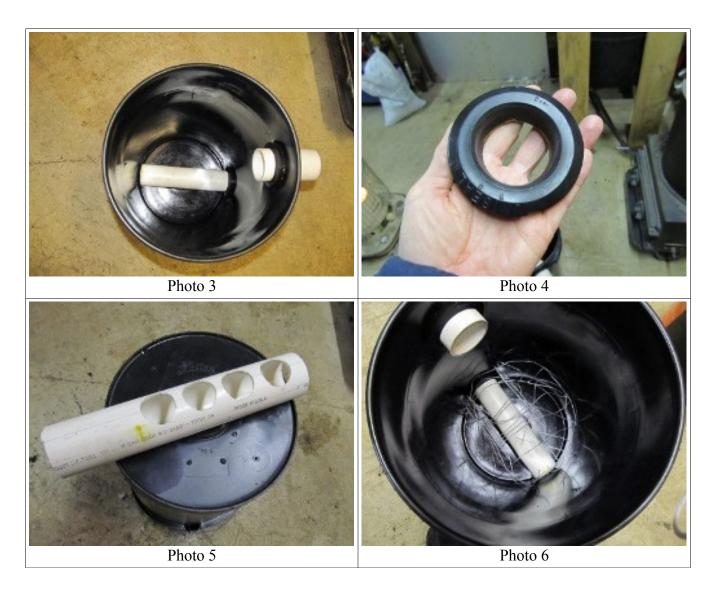
Photo 1

I though I would try using polyester batten as a packed bed filter media. Feel free to use your favorite material.



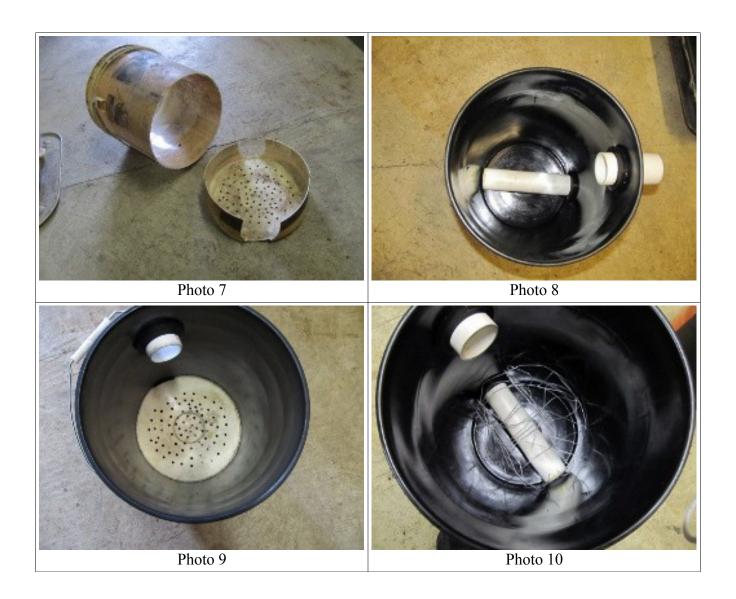
Photo 2





At first a Uniseal slip fitting (Photo 4) was used to couple the pipe to the bucket which can be seen in photos 3,4,6, 8, 9, 10, 15, 21 and 22. They work very well and cost about \$5.50ea. but this is a good example of where a fool and his money soon part, in this case. Later you will see how to make the bucket into a slip seal.





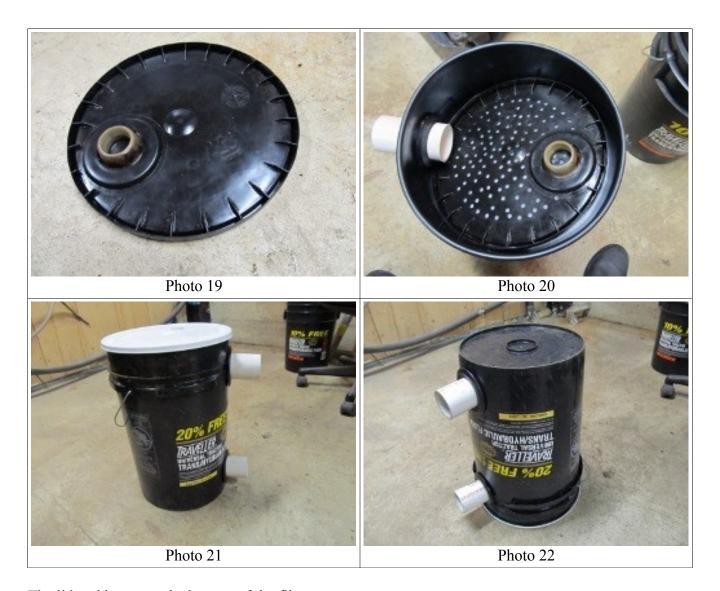












The lid end becomes the bottom of the filter.

As of 2014 the Uniseals are no longer used because of cost. The below method uses heat to form the bucket to the shape of the inlet/outlet pipe after drilling an undersized hole. Don't make the hole too small, in relation to the pipe, or else the plastic wall of the bucket could split. If a split does form apply some silicone RTV to the crack.





The bucket it self can become the slip fitting.

- Drill a hole in bucket
- Chamfer the end of the pipe or make a rounded plug insert for the pipe.
- Heat bucket wall.
- Use a hollow backing block, in this case a jar.
- Press chamfered end of pipe into heated bucket wall.









