

Bulkhead Fitting for Rain Barrel

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Summary

This is a bulkhead fitting to allow a valve to be installed in the wall of a rain barrel.

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This is the bulkhead fitting needed to install a valve in the wall of a rain barrel. While commercial fittings are available, they can be expensive.

The ID of the fitting is sized for a 1/2" pipe thread valve (very common in the US). The OD is 1-1/8" x 12 TPI, left hand threads. Left hand threads on the OD allows the nut and the valve to be tightened (They work against each other to allow tightening. If both are right hand threads there is nothing to grab to tighten either of them). Installation instructions:

1. Use a 1-1/8" hole saw to add a hole to the barrel. From the outside do a test fit to make sure the fitting fits through the hole. If it does not, use a file or rotary tool to adjust the hole until it fits.
2. Install the TPU washer on the fitting.
3. Use a string with a bent piece of wire through the ID of the fitting to lower the fitting through a top bung hole until it is near the 1-1/8" drill you added. Through the added hole grab the ID of the fitting with your finger or a piece of wire. Pull the fitting through the added hole.

4. Hold the OD of the fitting while starting the nut (don't forget it is left hand thread).
5. Switch to holding the fitting in the ID while further threading the nut until it is finger tight.
6. Thread a valve into the ID of the fitting.
7. Tighten the nut and the valve. You may need to loosen the nut and rotate the entire assembly to get the valve facing downward.
8. Notes: You may want a second washer on the outside. You may want to use Teflon tape on the valve. You may want a little silicone caulk on both sides of the washer. There are videos online showing the installation of commercial rain barrel fittings if you want to see an installation.

Notes on printing:

1. For the fitting and nut I used PETG, 4 walls, 25% infill, no supports.
2. For the washer I used TPU, 15% infill.
3. If the nut is too tight initially, try reprinting it at 101% or 102%.

Model files



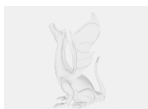
bulkhead-fitting.stl



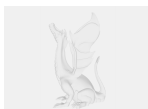
nut-lh-thread.stl



gasket-for-bulkhead-fitting.stl



gasket-for-bulkhead-fitting.f3d



bulkhead-fitting.f3d



nut-lh-thread.f3d

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