BUILD YOUR OWN OYSTER SHELL BARREL STORMWATER TREATMENT SYSTEM

Oyster shells are a great natural resource to remove heavy metals from roof outflows. Here’s how to build your own treatment system like the ones we use at the Port of Seattle.

1. Drill a 5-inch hole in barrel in the side of the barrel for a drain. Approximately 18 inches from the top of the barrel.

2. Drill a hole in the barrel’s lid. Make sure it is offset so it doesn’t flow directly into the interior pipes.

3. Install 4-inch schedule 80 PVC bulkhead fitting in the hole drilled in step one.

4. Install 4-inch schedule 80 PVC threaded nipple on to bulkhead fitting.

5. Build interior piping with 4-inch schedule 40 PVC Tee and pipe.

6. Install interior piping to the bulkhead fitting.

7. Install 4-inch schedule 40 PVC 90-degree elbow downspout to the threaded nipple.

8. Optional: used only if the overflow part of the tee inside drum is not going to be utilized.

9. Fill with 25-30 gallons of cleaned crushed oyster shells, about 2-3 inches below the interior overflow pipe.
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PVC Pipes and Fittings
- 4-inch schedule 80 PVC bulkhead fitting
- 4-inch schedule 40 PVC san. Tee
- 4-inch schedule 80 PVC threaded nipple 8 inches long (one of these will cover two drums)
- 4-inch schedule 40 DWV or PVC pipe (estimated length: 4 feet)
- 4-inch schedule 40 PVC 90-degree elbow
- 4-inch rubber cap (JIM cap) (optional, used only if the overflow part of the tee inside drum is not going to be utilized)

Other Materials
- 30-gallon plastic drum with lid
- 25-30 gallons of cleaned crushed oyster shells (about 10-12 5-gallon buckets)
- Christy’s Pro-lube (pipe joint lubricant, all purpose)
- Oatey Heavy Duty Clear PVC Cement
- Oatey Clear Primer (for CPVC, PVC)

A. 4-inch schedule 40 DWV or PVC pipe (about 4 feet will be needed)
B. 4-inch schedule 40 PVC 90-degree elbow
C. 4-inch schedule 40 PVC san. Tee
D. 4-inch schedule 80 PVC bulkhead fitting
E. 4-inch schedule 80 PVC threaded nipple 8 inches long
F. 4-inch rubber cap (JIM cap) - Optional

QUESTIONS?
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