

DUROMAXX[®] RAINWATER HARVESTING MAINTENANCE GUIDE



DuroMaxx® Rainwater Harvesting Maintenance

A DuroMaxx® Steel Reinforced Polyethylene (SRPE) Cistern

Overview

SRPE Cisterns should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system. Cisterns for rainwater harvesting should have appropriate pretreatment to remove sediment, debris, and pollutants prior to collection in the cistern.

Setup and Safety

If applicable, set up safety and warning equipment around the access to the cistern to notify pedestrian and vehicle traffic of potential hazard. All OSHA and Confined Space requirements should be followed. If a pump or electrical equipment is present in the system, the power supply should be disconnected and locked out before maintenance activities commence.

Inspection should be performed when the cistern is empty.

Most rainwater harvesting systems will include a mechanical pump and filter system. This system should be turned off and power isolated to prevent operation while the tank is empty. The water should be emptied from the tank using a submersible pump to completely empty the cistern.

Inspection

Inspection is the key to effective maintenance. Quarterly inspections from the surface are recommended during the first year of operation to establish seasonal trends for a specific location. Quarterly inspections can be performed through the manhole access riser provided. It is recommended that a maintenance schedule be

implemented based on the findings of the first year quarterly inspections. It is recommended that the cistern be drained and inspected internally on an annual basis at a minimum. It is recommended that records be kept of each inspection. A sample inspection log is included for reference.

Inspection from the surface:

- Inspect the surface of the water collected in the cistern. Remove floating debris.
- Inspect and note water levels in the cistern.
- Cistern:
 - Measure and note sediment levels using a sludge sampler along the centerline of the cistern. Sediment depth greater than 4" indicate that maintenance is needed.
- Pump Sump:
 - If a sump is provided to house a submersible pump, measure the depth of sediment in the sump using a sludge sampler. Sediment depth greater than 4" indicate that maintenance is needed.

Internal inspection

- Cistern wall inspection
 - Inspect the interior walls of the cistern for any cracks or holes.
- Calming inlet:
 - Visually inspect the calming inlet for any obstruction and debris. Calming inlet should be free of any obstruction allowing water to freely flow into the cistern in a non-turbulent manner.
- Pumps:
 - Refer to the pump maintenance manual for inspection instructions.

Cleaning

Cleaning should be done during the dry season when there is little or no water in the cistern. The cistern should be empty and all inlets should be blocked before entry in the cistern.

Calming inlet

Remove all debris and obstructions from the calming inlet.

- Cistern
 - Vacuum all sediment from the sump area of the cistern. Accumulated sediment can typically be evacuated through the manhole access riser. A standard power washer and vacuum truck can be used.
- Pump Sump
 - Remove pumps and vacuum all sediment from the sump area. A standard power washer and vacuum truck can be used.
- Pumps:
 - Refer to the pump maintenance manual for maintenance instructions.

Repairs

SRPE cisterns are manufactured from Hydrostatic Design Basis rated HDPE. Should a need arise for repair, only qualified HDPE welding providers should be used. Contact Contech Engineered Solutions, LLC for a list of qualified HDPE welding vendors.

Factory Contact

For additional service needs, please contact:

CONTECH ENGINEERED SOLUTIONS LLC
 1 800 338 1122
www.ContechES.com

Inspection & Maintenance Log Sample Template

<i>_____ " Diameter System</i>			<i>Location: Anywhere, USA</i>		
Date	Depth of Sediment	Accumulated Trash	Maintenance Performed	Maintenance Personnel	Comments
12/01/24	2"	None	Removed Sediment	B. Johnson	Installed
03/01/25	1"	Some	Removed Sediment and Trash	B. Johnson	Swept parking lot
06/01/25	0"	None	None		
09/01/25	0"	Heavy	Removed Trash	S. Riley	
12/01/25	1"	None	Removed Sediment	S. Riley	
04/01/25	0"	None	None	S. Riley	
04/15/25	2"	Some	Removed Sediment and Trash	ACE Environmental Services	
	○				



Support

Drawings and specifications are available at www.ContechES.com.

Site-specific support is available from our engineers.

CONTECH
ENGINEERED SOLUTIONS
A QUIKRETE[®] COMPANY

800.338.1122
www.ContechES.com

© 2025 Contech Engineered Solutions LLC, a QUIKRETE Company

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, earth stabilization and stormwater treatment products. For information, visit www.ContechES.com or call 800.338.1122.

NOTHING IN THIS CATALOG SHOULD BE CONSTRUED AS AN EXPRESSED WARRANTY OR AN IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. SEE THE CONTECH STANDARD CONDITION OF SALES (VIEWABLE AT WWW.CONTECHES.COM/COS) FOR MORE INFORMATION.

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266; related foreign patents or other patents pending.