

OPERATION, INSPECTION AND MAINTENANCE GUIDE

STORMSAFE HELIX

BY: FABCO INDUSTRIES

INSPECTION AND MAINTENANCE

The StormSafe Helix, like any other stormwater remediation device, requires regular maintenance intervals to remain effective as a stormwater filter. Since maintenance requirements and frequency are dependent on the pollutant load characteristics of each site, Fabco recommends a regular inspection and maintenance regime to maintain peak performance of the helical filters.

For new installations, Fabco recommends at least two (2) inspections per year. Additional inspections are recommended following major rain events. Cleaning and filter replacement should be “as needed” based on these inspections. Fabco recommends an initial filter replacement frequency of once per year until sufficient historical data predicts otherwise.



INSPECTION PROCEDURE

1. Remove the 36” and 30” manhole cover. Allow several minutes for the system to vent.
 - CAUTION: Grates can be extremely heavy. Some type of lifting mechanism is highly recommended.
 - Follow all confined entry procedures and local regulations before entering the enclosed structure.
2. Visually inspect both chambers for heavy sediment, trash and debris loading that may limit or prevent water flow into the filter housings. A battery powered flashlight or droplight is recommended for thorough inspection.
3. Some telltale signs that cleaning or filter replacement is necessary are as follows:
 - Waterline marks less than 12-in below the top of the bypass weir.
 - Water level differential between the influent chamber and the effluent chamber.
 - For most installations, not more than three-quarters (3/4) of the filter housing diameter should be submerged on a dry day.
4. Record observations and comments on the maintenance log sheet. Include any necessary photos and/or sketches to maintain the most accurate records.

MAINTENANCE PROCEDURE

1. Remove both the 36" and 30" manhole access covers located over the influent and effluent chambers of the StormSafe. Follow all confined entry procedures and local regulations before entering the enclosed structure.
2. Remove all sediment, oils, liquid, and debris from the structure. It is recommended that a vacuum device be utilized to remove accumulated material.
3. If helical filter replacement is deemed unnecessary, reinstall both the 36" and 30" manhole access covers. Clean the jobsite as necessary and record pertinent information on the attached "Maintenance Log Sheet" to complete the job.
4. If helical filter replacement is deemed necessary, vault entry is required, removal of the helical filters is done from the influent chamber. Due to possible slippery floor conditions, care should be taken to avoid falls.
 - Remove the diffuser assembly located on the face of each filter housing tube. Each diffuser assembly is attached to the housings by means of three (3) wing nuts.
 - With the diffuser assembly removed, the helical filters are exposed and can be pulled directly out of the housing. In general, each housing will contain five (5) separate helical filters. Each helical filter contains a centrally located eye-nut. The eye-nut conveniently allows for a pole hook to aid in the removal of each helical filter.
 - i. In the unusual circumstance that a helical filter is difficult to remove by hand, wall anchors are provided and located directly across from the filter housings. The wall anchors can be used to attach a ratchet pulling device or a crank puller.
 - Remove the helical filters from the housing one at a time and using a rope or chain and hook assemble (rated for a 100-lb load min.) lift the spent helical filter out of the vault. Repeat this process until all the spent helical filters have been removed from the vault.
 - With the helical filters removed, visually inspect the housing tube(s) for any sign of damage. Remove as much sediment and /or debris as possible to allow for a clean installation of the new helical filters.
 - Again, using the eye-nuts located on either side of the helical filters, lower each new filter through the 36" manhole opening to the vault floor.
 - Carefully push each new helical filter into the housing tube, ensuring that each filter is fully inserted prior to installing the next.
 - After installing the five (5) helical filters into each of the housing tubes, replace the diffuser assemblies and secure in place by tighten the wing nuts.
5. Dispose of all liquid, oils, sediment, debris, trash and other accumulates in accordance with local, state, and federal regulations.
6. Finish the maintenance by placing the grate and/or lid back into the structure and securing it as necessary.



**StormSafe Helix
Maintenance Log**

Site Name:		Company:	
Location:		Contact:	
City and State:		Phone:	
System Owner:		Email:	

Date	Water Depth	Sediment Depth	Observations / Notes	Initials