

INSTALLATION GUIDE

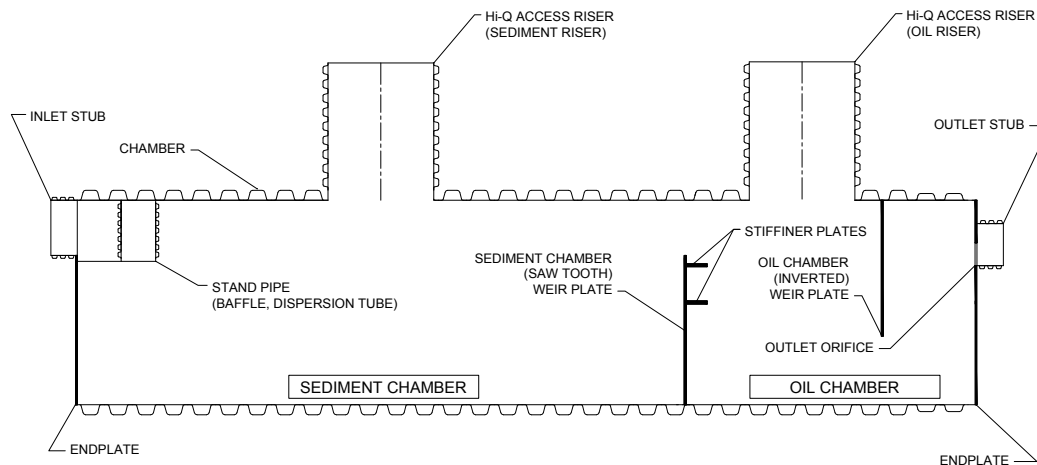
Storm Water Quality Units – Maintenance & Inspection

IG 2.02
October 2008

Description / Basic Function

The Hancor Water Quality Unit harnesses the proven concepts utilized in municipal sewage treatment systems and transforms it into a compact Water Quality Unit.

The unit is ideal for storm water applications including gas stations and fast food restaurants; this system gives you a highly effective BMP solution to meet EPA requirements.



Risers

The Hancor Water Quality Unit consists of two risers. A 24" riser is centered over Sediment and Oil Chambers. These two risers provide access to the individual chambers of the Storm Water Quality Unit for maintenance and inspection. Entry into the WQU should be considered an OSHA confined space and appropriate guidelines should be followed.

Maintenance Overview

The purpose of maintaining a clean and obstruction free Water Quality Unit is to ensure the system performs its intended function. A build up of debris in excess of the design storage volume could reduce the efficiency of the system.

A company specializing in such activities should perform inspection and maintenance of the Water Quality Unit.

Inspection / Maintenance Frequency for the Hancor Water Quality Unit

- Inspected quarterly (4 times a year) and after major storm events.
- Cleaned (pumped and pressure washed) a minimum of once a calendar year
- Site or surrounding site conditions may require more inspections and maintenance



Inspection

An inspection should be performed when the system is installed. This allows the owner to measure the invert prior to accumulation of sediment. This survey will allow the monitoring of sediment build-up without entering the system, thereby eliminating the need for confined space entry. Documentation of pre-inspection data should be captured.

Procedures

1. In the By-Pass Structure inspect for blockage. Inspect the diversion structure and weir for damage and sediment buildup. Any damage should be repaired and sediment should be removed as required.
2. On the Water Quality Unit, locate the risers. The risers will be 24" in diameter.
3. Remove the lid of each riser. It is recommend that this be done one at a time so an open riser is not left exposed during inspection or maintenance of the other risers.
4. In the 24" riser over the Sediment Chamber, inspect the amount of floatable debris. Then measure the sediment buildup with a measuring device such as a Sludge Judge® Also inspect that the inlet pipe does not have any blockage. Blockage inspection is better suited after unit is vacuumed. Any confined space entry would be done through this riser and OSHA requirements must be followed.
5. In the 24" riser over the Oil Chamber, measure / inspect the oil depth.
6. Inspect structure and components for any damage.
7. Replace all riser lids.

Maintenance

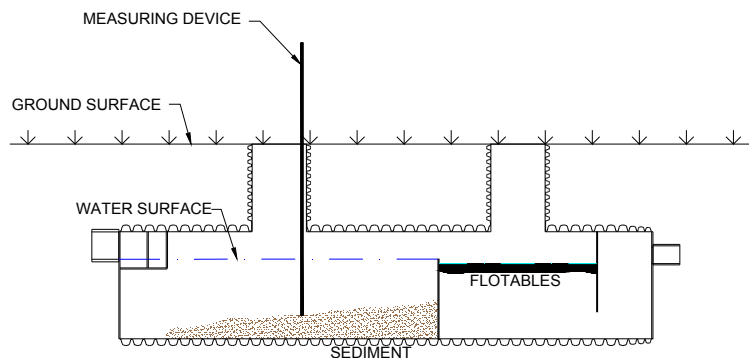
Cleaning should be performed if ***sediment volume has reduced the storage area by 20% or if the depth of sediment has reached approximately 25% of the diameter of the structure (See Table 1 for cleanout depth information).*** Furthermore, the system may need cleaning in the event a spill of a foreign substance enters the unit.

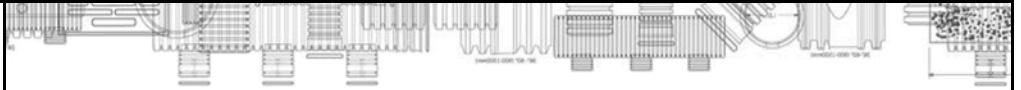
Inspection Procedures (Measuring Sediment Depth)

1. Lower measuring device into sediment riser of unit.
2. Read measurement at ground surface.
3. Subtract the current measurement reading from the distance between the ground surface to the invert of the SWQU (obtained when unit was first installed or is clean).
4. Compare calculated difference to the respective value in Table 1. If resulting value is equal to or greater than the respective value on the Table 1, maintenance shall be performed. The figure below illustrates the inspection procedure.

Table 1
Sediment Depth at Cleanout

| Model Number | Diameter (jn) | Sediment Depth (in) |
|--------------|---------------|---------------------|
| 3620WQ | 36 | 9 |
| 3640WQ | 36 | 9 |
| 4220WQ | 42 | 10 |
| 4240WQ | 42 | 10 |
| 4820WQ | 48 | 12 |
| 4840WQ | 48 | 12 |
| 6020WQ | 60 | 15 |
| 6040WQ | 60 | 15 |

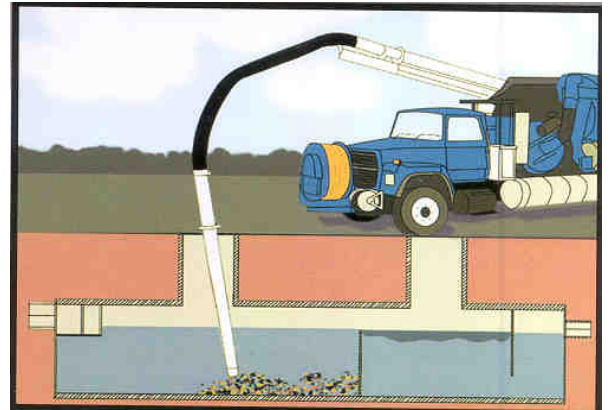




Cleaning Procedures

1. Insert vacuum hose into By-Pass Structure and pump out. Inspect By-Pass Structure for any damage.
2. Insert vacuum hose into 24" riser and pump out the Sediment Chamber. Pressure wash this Chamber if needed. Inspect for any damage. Inspect the inlet pipe for any blockage. Also inspect weir plate for damage.
3. Insert vacuum hose into other 24" riser. This will pump out the Oil Chamber. Inspect for any structural damage. Pressure wash this Chamber if needed.
4. Refill water quality unit with water.
5. Replace all riser lids.

The owner or operator is responsible for meeting all federal, state, and local laws and regulations during the maintenance and cleanout operations.



Material Disposal

Owners are responsible for complying with all federal, state, and local regulations when disposing of material collected from the storm water quality unit. Water and sediment from cleanout procedures should not be dumped into sanitary sewer.