

1-05

## Filtrexx InletSoxx™ for Inlet Protection



### Description

Filtrexx InletSoxx™ are used on construction sites that need to keep sediment out of storm drains. Typically, sediment migrates to storm drains when perimeter control is poor. As such, when better perimeter control is in place, it helps inlet protection improve. When NO perimeter control is in place, inlet protection alone is not an adequate defense against construction site sediment. Installations of Filtrexx InletSoxx™ allow the Soxx™ to be slightly shorter than the curb, allowing water to flow over the Soxx™ in severe storm events. A variety of grates and curb cut designs require a change for installation procedures of InletSoxx™. These may include addition of spacers behind the Soxx™ to prevent vacuuming of the Soxx™ into the storm drain outlet itself. Due to the filtration ability by the Filter Media used to fill InletSoxx™, this product is one of the few on the market that offers filtration of motor oil and other hydrocarbons. InletSoxx™ offer unique 3 way filtration, unavailable in most other types of erosion and sediment control devices, by including physical filtration (settling of solids), chemical filtration (some binding of metals and nutrients) and biological filtration (some destruction of harmful substances) filtration from the unique compost media blend contained in the netting materials.

### Conditions where practice applies

Filtrexx InletSoxx™ are used as a storm drain inlet protection on hard paved surfaces by providing a physical barrier that reduces the rate at which sediment-laden water can enter the storm drain. Compost (Filter Media) used to manufacture InletSoxx™ has been tested and provides additional filtration of chemicals and provides biological action to help

break down other chemicals contained in stormwater runoff. Inlet protection allows construction to continue while protecting storm systems from sediment overloads. Inlets are normally protected until final vegetation and seeding is complete, thereby reducing amount of sediment reaching the drains.

## **Planning considerations**

Inlet protection using Filtrexx InletSoxx™ is not considered to be a primary means of sediment control and should be used within an overall integrated Erosion and Sediment control program. The blocking of the storm drains by the use of InletSoxx™ should be considered in the overall site planning, especially where ponding water will create disturbances.

Preconstruction meetings should be conducted to educate construction site personnel about the tools used and acceptable traffic patterns that avoid running over InletSoxx™ with heavy equipment.

## **Specifications for Using Filtrexx InletSoxx™**

Section \_\_\_\_: Filtrexx InletSoxx™ Installation and Maintenance

### **1.0 Description:**

This work shall consist of furnishing, installing, maintaining and dispersing (if needed) a water permeable compost filter sock (Filtrexx InletSoxx™) to contain soil erosion and sediment by removing soil particles from water moving off site into adjacent waterways or storm water drainage systems. InletSoxx™ will be used as a form of inlet protection for storm drainage systems.

### **2.0 Compost Products used to fill Filtrexx InletSoxx™**

**1. Composted Product:** Compost (Filter Media) used for Filtrexx InletSoxx™ shall be weed free and derived from a well-decomposed source of organic matter. The compost shall be produced using an aerobic composting process meeting CFR 503 regulations, including time and temperature data indicating effective weed seed, pathogen and insect larvae kill. The compost (Filter Media) shall be free of any refuse, contaminants or other materials toxic to plant growth. Non-composted products will not be accepted. Test methods for the items below should follow USCC TMECC guidelines for laboratory procedures:

- A. PH – 5.0-8.0 in accordance with TMECC 04.11-A, “Electrometric pH Determinations for Compost”
- B. Particle size – 99% passing a 2” sieve and a minimum of 70% greater than the 3/8” sieve, in accordance with TMECC 02.02-B, “Sample Sieving for Aggregate Size

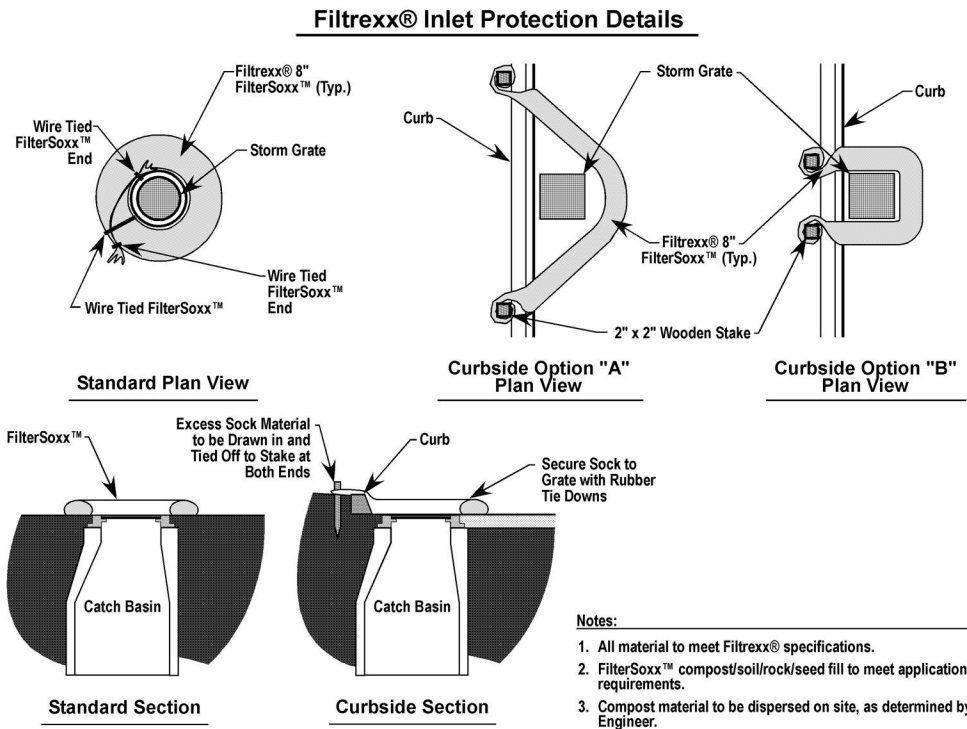
Classification". (In the field, the product commonly requested is between ½" and 2" particle size.)

- C. Moisture content of less than 60% in accordance with standardized test methods for moisture determination.
- D. Material shall be relatively free (<1% by dry weight) of inert or foreign man made materials.
- E. A sample shall be submitted to the engineer for approval prior to being used and must comply with all local, state and federal regulations.
- F. Compost product shall be an approved Filtrexx FilterMedia™, as determined by testing procedures outlined by Filtrexx International, LLC. A copy of an approved report shall be kept on file.

### **3.0 Construction and installation of Filtrexx InletSoxx™:**

1. Filtrexx InletSoxx™ will be used as a form of inlet protection on construction sites that require protection against sediment-laden water before & after storm drains become operational.
2. Filtrexx InletSoxx™ will be placed at locations indicated on plans as directed by the Engineer. InletSoxx™ should be installed in a pattern that allows complete protection of the inlet area.
3. Installation of Filtrexx InletSoxx™ will ensure a minimal overlap of at least one foot on either side of the opening being protected. The InletSoxx™ will be anchored to the soil behind the curb using staples, stakes or other devices capable of holding the InletSoxx™ in place.
4. Standard sizes of InletSoxx™ for inlet protection will be 8" diameter products. In severe flow situations, larger InletSoxx™ may be recommended by the Engineer. During installation, Soxx™ will be compacted to be slightly shorter than curb height.
5. InletSoxx™ shall be constructed of a knitted mesh material and filled with a compost product that passes the criteria listed in section 2.
6. If the InletSoxx™ become clogged with debris and sediment, they shall be maintained so as to assure proper drainage and water flow into the storm drain. In severe storm events, overflow of the InletSoxx™ may be acceptable in order to keep the area from flooding.
7. The InletSoxx™ shall be positioned so as to provide a complete physical barrier to the drain itself, allowing sediment to collect on the outside of the InletSoxx™. See attached schematic for Filtrexx InletSoxx™ Installation.

- For drains and inlets that have only curb cuts, without street grates, a spacer is required in order to keep the InletSoxx™ away from the drain opening. This spacer should be a hog wire screen bent to overlap the grate opening and keep the sock from falling into the opening. Use at least one spacer for every 4 feet of curb drain opening. The wire grid also prevents other floatable waste from passing over the Soxx™.



#### 4.0 Maintenance:

- The Contractor shall maintain Filtrexx InletSoxx™ in a functional condition at all times and it shall be routinely inspected.
- Where the InletSoxx™ requires repair, it will be routinely repaired.
- The contractor shall remove sediments collected at the base of the InletSoxx™ when they reach 1/3 of the exposed height of the InletSoxx™, or as directed by the Engineer.
- The Filtrexx InletSoxx™ will be dispersed on site behind the curb when no longer required, as determined by the Engineer. The mesh netting material will be disposed of in normal trash containers or removed by the contractor.
- Regular maintenance includes lifting the Filtrexx InletSoxx™ and cleaning around & under them as sediment collects.

#### 5.0 Method of measurement:

Bid items shall show measurement as 'Filtrexx InletSoxx™' per linear foot, installed or per inlet, as specified by the Engineer.

## **6.0 Performance:**

1. Contractor is responsible for establishing a working erosion control system and may, with approval of the Engineer, work outside the minimum construction requirements as needed.
2. Where the InletSoxx™ deteriorates or fails, it will be repaired or replaced with a more effective alternative.
3. Contractor is required to be a Certified Filtrexx Installer as determined by Filtrexx International, LLC (440-926-8041 or visit website at Filtrexx.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application.

## **7.0 Application guidelines:**

1. Filtrexx InletSoxx™ shall either be made on site or delivered to the jobsite using Filtrexx InletSoxx™ materials in a 5 mil continuous, tubular, HDPE 3/8" knitted mesh netting material, filled with compost passing the above specifications for compost products as outlined in 2.0.
2. Filtrexx InletSoxx™ netting materials are available only from Filtrexx International, LLC and are the only Certified mesh materials accepted in creating Filtrexx products on site or as delivered to the job site.

## **8.0 Available Vendors**

Filtrexx InletSoxx™ may be purchased from the following Certified Filtrexx Installers:  
(Contact website for complete list of installers)

Filtrexx International, LLC

35481 Grafton Eastern

Grafton, OH 44044

440-926-8041

440-926-4021 (fax)

[www.filtrexx.com](http://www.filtrexx.com)

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