



# SWPPP Cut Sheet

Last Updated: 1-1-08

## Section 1: Erosion and Sediment Control – Construction Activities

### 1.1 Filtrex SiltSoxx™

#### *Sediment & Perimeter Control Technology*

#### **PURPOSE & DESCRIPTION**

Filtrex SiltSoxx™ are a three-dimensional tubular sediment control and storm water runoff filtration device typically used for **perimeter control** of sediment and other soluble pollutants (such as phosphorus and petroleum hydrocarbons), on and around construction activities.

#### **APPLICATION**

Filtrex SiltSoxx™ are to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. SiltSoxx™ are effective when installed perpendicular to sheet or low concentrated flow. Acceptable applications include:

- Site perimeters
- Above and below disturbed areas subject to sheet runoff, interrill and rill erosion
- Above and below exposed and erodable slopes
- Around area drains or inlets located in a 'sump'
- On compacted soils where trenching of silt fence is difficult or impossible
- Around sensitive trees where trenching of silt fence is not beneficial for tree survival or may unnecessarily disturb established vegetation.
- On frozen ground where trenching of silt fence is impossible.
- On paved surfaces where trenching of silt fence is impossible.

#### **INSTALLATION**

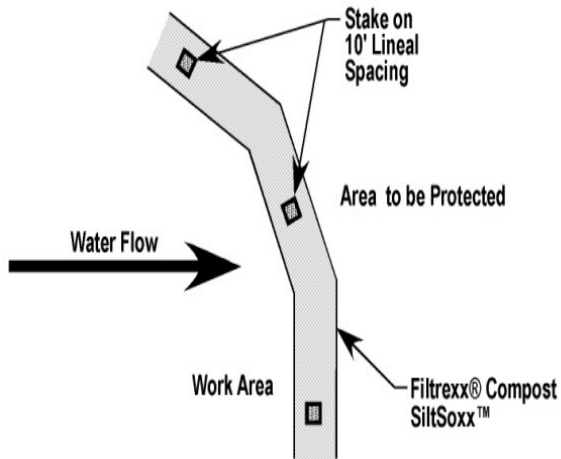
1. SiltSoxx™ used for perimeter control of sediment and soluble pollutants in storm runoff shall meet Filtrex Soxx™ Material Specifications and use Certified Filtrex FilterMedia™.
  2. Contractor is required to be Filtrex Certified™ as determined by Filtrex International, LLC (440-926-2607 or visit website at [www.filtrex.com](http://www.filtrex.com)). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current listing can be found at [www.filtrex.com](http://www.filtrex.com)). Look for the Filtrex Certified™ Seal.
  3. SiltSoxx™ will be placed at locations indicated on plans as directed by the Engineer.
  4. SiltSoxx™ should be installed parallel to the base of the slope or other disturbed area. In extreme conditions (i.e., 2:1 slopes), a second SiltSoxx™ shall be constructed at the top of the slope.
  5. Stakes shall be installed through the middle of the SiltSoxx™ on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. In the event staking is not possible, i.e., when SiltSoxx™ are used on pavement, heavy concrete blocks shall be used behind the SiltSoxx™ to help stabilize during rainfall/runoff events.
  6. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
  7. Loose compost may be backfilled along the upslope side of the SiltSoxx™, filling the seam between the soil surface and the device, improving filtration and sediment retention.
  8. If the SiltSoxx™ is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for establishment of permanent vegetation. The Engineer will specify seed requirements.
  9. Filtrex SiltSoxx™ are not to be used in perennial, ephemeral, or intermittent streams.
- See design drawing schematic for correct Filtrex SiltSoxx™ installation (Figure 1.1).

#### **INSPECTION and MAINTENANCE**

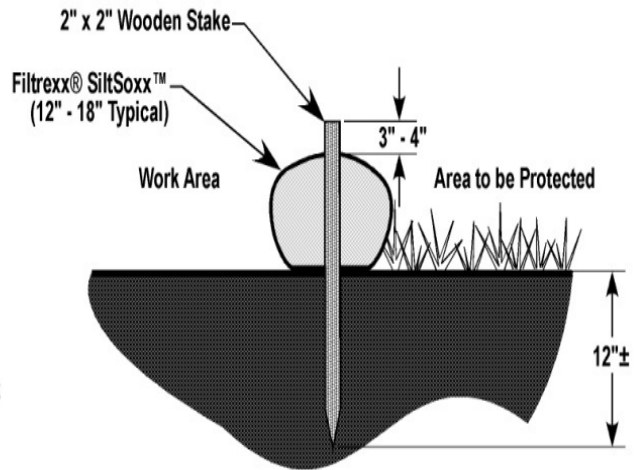
Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. SiltSoxx™ should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional SiltSoxx™ may be required to reduce effective slope length or sediment removal may be necessary. SiltSoxx™ shall be inspected until area above has been permanently stabilized and construction activity has ceased

1. The Contractor shall maintain the SiltSoxx™ in a functional condition at all times and it shall be routinely inspected.
2. If the SiltSoxx™ has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove sediment at the base of the upslope side of the SiltSoxx™ when accumulation has reached 1/2 of the effective height of the SiltSoxx™, or as directed by the Engineer. Alternatively, a new SiltSoxx™ can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. SiltSoxx™ shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.
5. The FilterMedia™ will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.
6. For long-term sediment and pollution control applications, SiltSoxx™ can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment and soluble pollutants (contained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.

## Filtrex® SiltSoxx™ Details



**Filtrex® SiltSoxx™  
Plan View**



**Filtrex® SiltSoxx™ Section**

### Notes:

1. All material to meet Filtrex® specifications.
2. SiltSoxx™ compost/soil/rock/seed fill to meet application requirements.
3. SiltSoxx™ depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.

Slope Percent	Maximum Slope Length Above SiltSoxx™ in Feet (meters)*				
	8 in (200 mm) SiltSoxx™	12 in (300 mm) SiltSoxx™	18 in (450 mm) SiltSoxx™	24 in (600mm) SiltSoxx™	32 in (800mm) SiltSoxx™
	7 in (175 mm)**	10 in (250 mm) **	15 in (375 mm) **	20 in (500 mm) **	26 in (650 mm) **
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
5	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

\*Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 ft (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 1 in/ 24 hr (25 mm/24 hr) rain event. \*\*Effective height of Silt Soxx™ after installation and with constant head from runoff as determined by Ohio State University.