**PURPOSE & DESCRIPTION**

Filtrexx® SiltSoxx™ is a three-dimensional tubular sediment control and stormwater runoff filtration device typically used for Sediment/Perimeter Control of sediment and soluble pollutants (such as phosphorus and petroleum hydrocarbons), on and around construction activities.

**APPLICATION**

Perimeter control is to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. Perimeter control is effective when installed perpendicular to sheet or low concentrated flow, and in areas that silt fence is normally considered appropriate. 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
- Along the toe of stream and channel banks
- 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. Perimeter control used for control of sediment and soluble pollutants in storm runoff shall meet Filtrexx®SiltSoxx™ Material Specifications and use Filtrexx® CertifiedSM FilterMedia™.
2. Contractor is required to be Filtrexx Certified or use pre-filled Filtrexx® SiltSoxx™ products manufactured by a Filtrexx Certified Manufacturer as determined by Filtrexx International (call Filtrexx at 877-542-7699 for a current list of installers). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application. Look for the Filtrexx Certified Seal.
3. Perimeter control will be placed at locations indicated on plans and in a manner as directed by the Engineer or Manufacturer.
4. Perimeter control should be installed parallel to the base of the slope or other disturbed area. In challenging conditions (i.e., 2:1 slopes), a second perimeter control shall be constructed at the top of the slope, or staking may be increased.
5. Effective Sox™ height in the field should be as follows: 5” diameter Sox™ = 4” high; 8” diameter Sox™ = 6.5” high; 12” diameter Sox™ = 9.5” high; 18” diameter Sox™ = 14.5” high; 24” diameter Sox™ = 19” high.
6. Stakes should be installed through the middle of the perimeter control on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. 5” diameter Sox™ may use 1” (25 mm) x 1” (25 mm) x 18” (0.5 m) wooden stakes. In the event staking is not possible, i.e., when perimeter control is used on pavement, heavy concrete blocks shall be used behind the perimeter control to help stabilize during rainfall/runoff events.
7. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
8. Loose compost may be backfilled along the upslope side of the perimeter control, filling the seam between the soil surface and the device, improving filtration and sediment retention.
9. If the perimeter control 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.
10. Perimeter control is not to be used in perennial, ephemeral, or intermittent streams.

See design drawing schematic for correct 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. Perimeter control should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional perimeter control may be required to reduce effective slope length or sediment removal may be necessary. Perimeter control shall be inspected until area above has been permanently stabilized and construction activity has ceased.

1. The Contractor shall maintain the perimeter control in a functional condition at all times and it shall be routinely inspected.
2. If the perimeter control has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove perimeter at the base of the upslope side of the perimeter control when accumulation has reached 1/2 of the effective height of the Soxx™, or as directed by the Engineer. Alternatively, a new perimeter control can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. Perimeter control 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, perimeter control 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.

ADDITIONAL INFORMATION
For other references on this topic, including additional research reports and trade magazine and press coverage, visit the Filtrexx website at www.filtrexx.com

Filtrexx International, Technical Support
61 N Clev-Mass Rd, Ste E, Akron, OH 44333
877-542-7699 | 234-466-0810 (fax)
www.filtrexx.com | info@filtrexx.com
Call for complete list of international installers.

BactoLoxx, DuraSoxx, EarthBloxx, EnviroBloxx, EnviroSoxx, Filtrexx, GardenSoxx, GreenLoxx, GroSoxx, Let Nature Do It, MetalLoxx, NutriLoxx, PetroLoxx, and Trinity are Registered Trademarks of Filtrexx International.


Filtrexx Certified and its accompanying logo are Service Marks of Filtrexx International.

The information contained herein may be subject to confidential intellectual property of Filtrexx International, including but not limited to US Patents 7,226,240; 7,452,165; 7,654,292; 8,272,812; 8,439,607; 8,740,503; 8,821,076; and 9,044,795 or Patents Pending and is the property of Filtrexx International.

Copyright 2005-2017, Filtrexx International, all rights reserved. Unauthorized reproduction prohibited.
Table 1.3. Maximum Slope Lengths for Filtrexx® Perimeter Control Based on a 1 in (25 mm)/24 hr Rainfall Event.

<table>
<thead>
<tr>
<th>Slope Percent</th>
<th>5 in (125 mm) Sediment control</th>
<th>8 in (200 mm) Sediment control</th>
<th>12 in (300 mm) Sediment control</th>
<th>18 in (450 mm) Sediment control</th>
<th>24 in (600 mm) Sediment control</th>
<th>32 in (800 mm) Sediment control</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (or less)</td>
<td>360 (110)</td>
<td>600 (180)</td>
<td>750 (225)</td>
<td>1000 (300)</td>
<td>1300 (400)</td>
<td>1650 (500)</td>
</tr>
<tr>
<td>5</td>
<td>240 (73)</td>
<td>400 (120)</td>
<td>500 (150)</td>
<td>550 (165)</td>
<td>650 (200)</td>
<td>750 (225)</td>
</tr>
<tr>
<td>10</td>
<td>120 (37)</td>
<td>200 (60)</td>
<td>250 (75)</td>
<td>300 (90)</td>
<td>400 (120)</td>
<td>500 (150)</td>
</tr>
<tr>
<td>15</td>
<td>85 (26)</td>
<td>140 (40)</td>
<td>170 (50)</td>
<td>200 (60)</td>
<td>325 (100)</td>
<td>450 (140)</td>
</tr>
<tr>
<td>20</td>
<td>60 (18)</td>
<td>100 (30)</td>
<td>125 (38)</td>
<td>140 (42)</td>
<td>260 (80)</td>
<td>400 (120)</td>
</tr>
<tr>
<td>25</td>
<td>48 (15)</td>
<td>80 (24)</td>
<td>100 (30)</td>
<td>110 (33)</td>
<td>200 (60)</td>
<td>275 (85)</td>
</tr>
<tr>
<td>30</td>
<td>36 (11)</td>
<td>60 (18)</td>
<td>75 (23)</td>
<td>90 (27)</td>
<td>130 (40)</td>
<td>200 (60)</td>
</tr>
<tr>
<td>35</td>
<td>36 (11)</td>
<td>60 (18)</td>
<td>75 (23)</td>
<td>80 (24)</td>
<td>115 (35)</td>
<td>150 (45)</td>
</tr>
<tr>
<td>40</td>
<td>36 (11)</td>
<td>60 (18)</td>
<td>75 (23)</td>
<td>80 (24)</td>
<td>100 (30)</td>
<td>125 (38)</td>
</tr>
<tr>
<td>45</td>
<td>24 (7)</td>
<td>40 (12)</td>
<td>50 (15)</td>
<td>60 (18)</td>
<td>80 (24)</td>
<td>100 (30)</td>
</tr>
<tr>
<td>50</td>
<td>24 (7)</td>
<td>40 (12)</td>
<td>50 (15)</td>
<td>55 (17)</td>
<td>65 (20)</td>
<td>75 (23)</td>
</tr>
</tbody>
</table>

* 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 perimeter control device, 1 in/24 hr (25 mm/24 hr) rain event.

** Effective height of perimeter control after installation and with constant head from runoff as determined by Ohio State University.
DETERMINED BY ENGINEER.

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS

NOTES:

WORK AREA

SECTION VIEW

AREA TO BE PROTECTED

WORK AREA

TOP VIEW

FLOW

AREA TO BE PROTECTED

OVERLAPPING SECTIONS

FORM CONNECTION

STAKE

ALTERNATE STAKING OPTION

CLOSED END

18" min

FILTREXX® PYRAMID STAKING DETAIL

(2) 2"x2"x48+" HARDWOOD STAKES, WRAPPED TOGETHER WITH 16 GAUGE WIRE, 10' O.C.

2"x2"x36" HARDWOOD STAKE, 10' O.C., STARTING 5' FROM ANGLED STAKES

FILTREXX® SILT SOXX™

FILTREXX® SILT SOXX™

FILTREXX INTERNATIONAL

35481 GRAFTON EASTERN RD.

420-926-2607

WWW.FILTREXX.COM

12345678

CLOSED END

DATENAME

REV.

CHECKED

DRAWN

ANGULAR:  BEND  2°

DIMENSIONS ARE IN INCHES

TWO PLACE DECIMAL     .015

THREE PLACE DECIMAL   .005

NOTES:

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS,
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS,
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.