



# Silt Sock

EROSION CONTROL PRODUCTS

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

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I. Definition

Silt Sock is a cylindrical erosion control device used for slope interruption, perimeter control, and inlet protection. The Silt Sock is a fabric skin filled with a filter material designed to slow sediment-laden runoff and process the flow using filtration and temporary ponding.

II. Purpose

The purpose of the installation of these products is to reduce uninterrupted slope length to slow the velocity of runoff so as to retain transported sediment from the disturbed areas.

III. Application

Silt Sock is to be installed where the following conditions may apply:

1. Any perimeter control application.
2. Where sheet and rill erosion occurs.
3. Where interruption of disturbed and erodible slopes is needed.
4. On sites where access is limited to equipment needed for installation of other products.
5. At the rim and base of retention basins.
6. On solid surfaces where Silt Fence cannot be trenched.
7. Around inlets or drains.
8. Through sensitive areas where trenching is detrimental to soil or vegetation.
9. On frozen ground where trenching is difficult.

IV. Criteria

This section covers the minimum standards for design, installation, and performance requirements.

- A. Product Classes – Products are organized into classes based on height. It is important to differentiate height from diameter. The effective height is slightly less than the installed diameter.

**Silt Sock Product Classes**

Product Height Class	Installed Height Above Grade (inches)
Class I	6-9
Class II	10-15
Class III	16-20
Class IV	21-25
Class V	>25

- B. Orientation- Silt Socks should be placed on the contour whenever possible but need to be installed between 45 and 90 degrees from the direction of flow.\*
- C. Overlap 12-24 inches overlap between pieces, shingled in the direction of flow.\*
- D. Support- Stake or anchor as needed. Staking and anchoring will vary based on risk of runoff. Staking can be done through the sock or on the down slope side of the sock at an angle where downhill water pressure helps pinch the sock to the ground. Spacing of staking should not be more than 10'. Hardwood 1.5"x1.5" stakes are preferred and at a length that allows for driving the stake 12" below the surface and leaving a minimum of 2-4" above the sock.
- E. Product Stacking- Silt Sock may be stacked in a pyramid manner (i.e. one on top of two). If sediment accumulates to ½ the height of the sock, then a second sock may be stacked immediately upslope of the original in lieu of removing sediment.
- F. Entrenchment- If the Silt Sock is being installed on undisturbed ground entrenchment is counterproductive. If the areas has been disturbed the product can be installed on a flat plane or slightly entrenched. The key point is to address areas where the Sock may be undermined such as loose areas of soil or tire tracks and ruts.
- G. Spacing- The spacing is a correlation of class as related to height, length of slope, and steepness of slope.

**Max Spacing (ft) per Product Class**

Slope	Class I	Class II	Class III	Class IV	Class V
<2%	540	675	900	1150	1500
2% - 5%	360	450	500	590	700
5% - 10%	180	225	270	360	480
10% - 33%	125	150	180	290	400
>33%	NA	65	80	100	125

- V. Considerations
  - A. Products should be considered effective for trapping sediment where sheet and rill erosion occur.
  - B. If possible products should be installed prior to disturbing the upslope area.
  - C. To protect products from damage in areas of active construction or heavy traffic consider flagging to improve visibility.
  - D. To help ensure effectiveness products should be inspected and repaired as necessary prior to rain events.
  - E. Vehicle traffic should be diverted around the product when possible. If vehicle traffic crosses product return the product to its original position and repair if needed.

\*See installation guidelines