

SWPPP Binder Insert Perimeter Protection

ERTEC S-Fence™ (SF)

(Perimeter Sediment Control - alternative to silt fence)

Definition

A temporary sediment barrier made of high density polyethylene (HDPE) containing an integrated filter. During construction, the device is placed along job site perimeters or at the base of slopes where soil is disturbed. (Installation guidelines are available at www.ertecsystems.com). S-Fence resolves several issues associated with silt fence: it will not deteriorate or blow down, can be removed with minimal disturbance to landscaping, stores and transports compactly, can last four plus years, reusable, allows water to flow off-site with high sediment retention, is ZERO waste (made from recycled materials, reusable and can be recycled at the end of life).

Purpose

S-Fence intercepts and filters sediment laden water and significantly reduces the sediment and associated pollutants that would otherwise leave the job site and reach the storm water system. The system reduces the velocity of water and allows it to flow-through, discouraging end-around flows, under and overflow. The system filters certain sized smaller particles in suspension, captures a high percentage of total solids and prevents them from flowing through the barrier and into the street. The filter develops a filter cake which in turn filters smaller and smaller particles over time.

Conditions Where the Practice Applies

S-Fence is recommended wherever silt fence is used including at the base of stabilized slopes. 10" S-Fence provides enough freeboard for 98% of site perimeters. Use 14" S-Fence on job perimeters where more concentrated flows may occur, or for higher risk perimeters. 20" S-Fence is also available. The product should be installed in a 3 to 4 inch slot (trench) (SF10, SF14) and 4-5" trench (SF20). If inserted to 4", stakes may not be necessary with the 10" S-Fence. Always stake the 14" & 20" S-Fence. Do not use S-Fence in areas exposed to vehicular traffic (refer to ERTEC Perimeter Guard for cross traffic applications).

Design Criteria

- Filter Material or outer Jacket: Use ERTEC's HDPE Product. For detailed product characteristics contact ERTEC Environmental Systems, LLC. @ (866) 521-0724 or www.ertecsystems.com. The unit weight of the system is 0.30 lbs per foot (10" S-Fence) and 0.42 lbs/ft (14" S-Fence), 0.62 lbs/ft (20" S-Fence). Each segment is 6'8" usable feet in length (recommended overlap is 4").
- For installation procedures, follow the instructions on the attached two drawings. The last in-line SF should be bent and dog-legged upslope to ensure sediment containment.

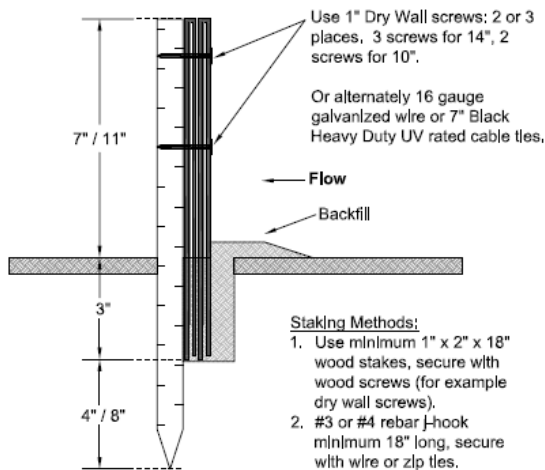
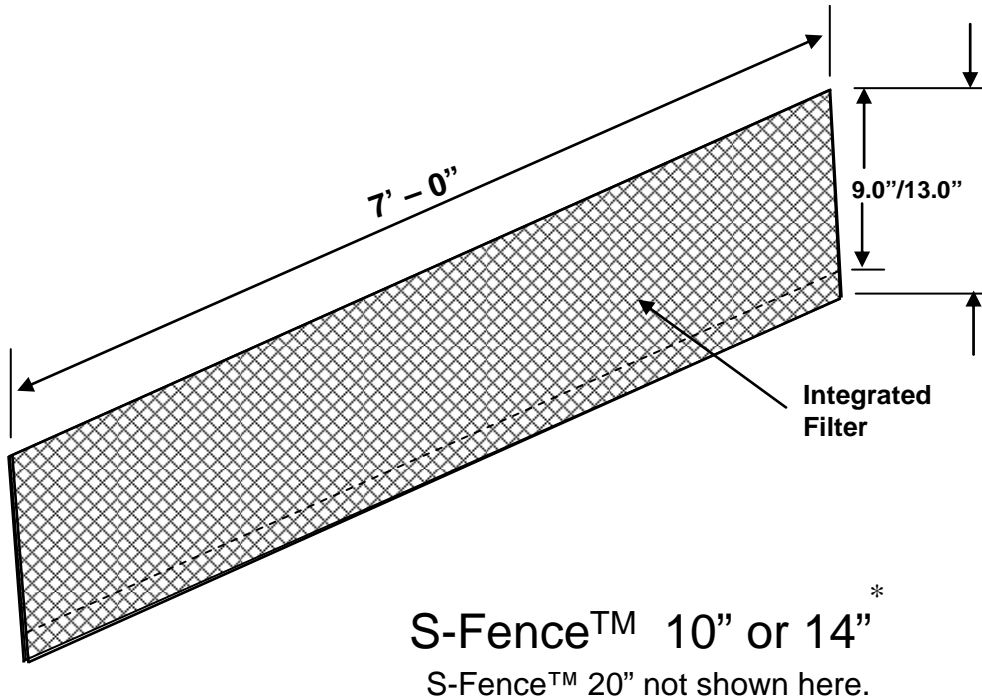
Maintenance

Repair or replace split or torn SF. Inspect SF when rain is forecast. Perform maintenance as needed or as required. Inspect SF following rainfall events and at least daily during prolonged rainfall. Maintain SF to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches 50% of the barrier height. Removed sediment shall be incorporated in the project at designated locations or disposed of outside the project or the road right-of-way in conformance with requirements. Remove the SF after the site has been stabilized. SF is highly reusable. The product is recyclable at the end of life as HDPE.

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Installation Details - ERTEC S-Fence™

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Notes:

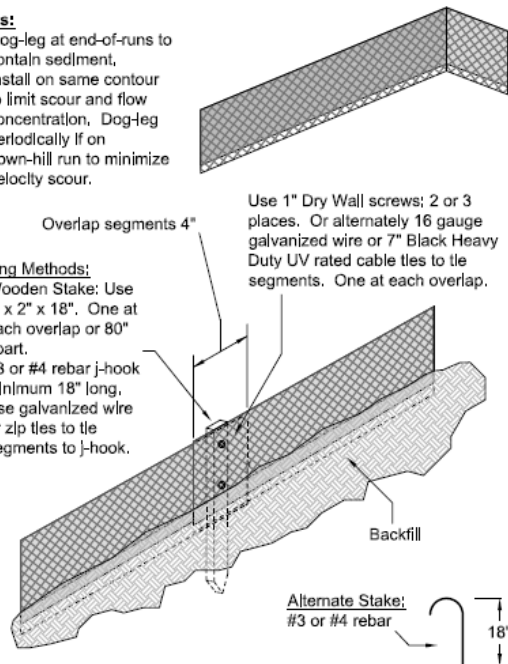
1. Cut trench 1½" to 2" wide, 3" to 4" deep.
2. Install in slot against downstream side of trench wall, backfill the trench to grade level.
3. Overlap segments by at least 4". Install stakes on downstream side of segment overlaps.
4. Use 1" Dry Wall screws; 2 or 3 places. Or alternately 16 gauge galvanized wire or 7" Black Heavy Duty UV staple cable ties (zip ties) to tie segments together.

Notes:

1. Dog-leg at end-of-runs to contain sediment.
2. Install on same contour to limit scour and flow concentration, Dog-leg periodically if on down-hill run to minimize velocity scour.

Staking Methods:

1. Wooden Stake: Use 1" x 2" x 18". One at each overlap or 80" apart.
2. #3 or #4 rebar j-hook minimum 18" long, Use galvanized wire or zip ties to tie segments to j-hook.



S-Fence™

ERTEC
Environmental
Systems

www.ertecsystems.com
Toll Free: 866-521-0724

* For SF20 obtain Install Guidelines available at www.ertecsystems.com or call 866-521-0724.