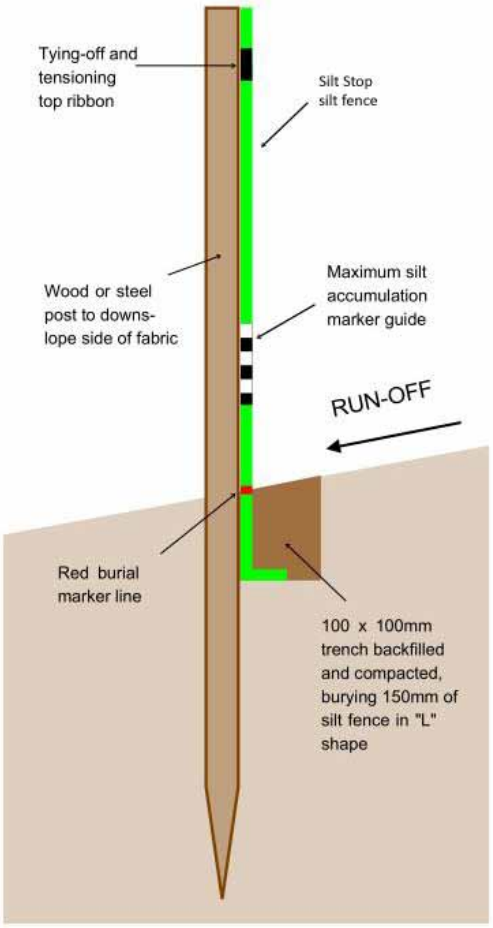
Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk

Silt Stop - Installation Guide

Figure 1: Silt stop premium



1 - Silt fences sections should be continuous and transverse to the expected flow. The silt fences should follow the contours of the site as closely as possible. Place the fence such that the water cannot runoff around the end of the fence, extending the ends upslope enough to allow the water to pond behind the fence (See figure 2).

2 - A trench shall be excavated approximately 100mm wide and 100mm deep on the upslope side of the proposed silt fence location.

3 - Bury bottom 150mm of the silt fence to the red burial marker in a “L” configuration in the trench so that no flow can pass under the silt fence. Backfill the trench and compact soil over the geotextile so that the compacted soil fills the trench.

4 - Compaction prior to installing posts is generally recommended. Compact the back-fill soil immediately next to the silt fence geotextile. Compact the upslope side first, and then the downslope side. The soil adjacent to the buried silt fence geotextile shall be compacted to achieve no less than 50% of its original insitu strength, unless otherwise specified.

[Note 1] Poor compaction is one of the main causes of silt fence failure. Installed posts may interfere with compaction by large equipment adjacent to the silt fence. Compaction is commonly accomplished with the front wheel of the tractor, skid steer, roller or other device, as well as with manual tamping or other manual means, taking care not to damage the silt fence.

5 - When joints are unavoidable, the fabric shall be spliced together only at a support post, with a min. 300mm overlap, and securely sealed so that there are no gaps, voids or other loss of integrity of the barrier, ideally by wrapping the overlap around the post.

6 - Place the posts tight to the downslope side of the silt fence at 1.50m spacing. Drive posts a minimum of 500mm into the ground. Increase depth to 600mm if fence is placed on a slope of 3:1 or greater.

[Note 2] Where 500mm depth is impossible to attain, posts should be adequately secured/braced to stop overturning of the fence due to sediment loading.

7 - Fasten the filter fabric securely and taut to the upslope side of the posts using top ribbon (see figure 3), wire/cable ties threaded through the silt fence, or 30mm long extra wide head galvanised clout nails (the fabric shall not be stapled to existing tress). Where required, tighten top edge of fabric by looping top ribbon over posts, and stain/brace posts to maintain fence tension and stability (See figure 1)
[Note 4]: If a silt fence is to be constructed across a ditch line or swale, the fence length must be sufficient to eliminate end flow, the plan configuration shall resemble an arc or horseshow with the ends orientated upslope and post spacing a maximum of 1.00M.

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Maintenance

1 The contractor shall inspect all temporary silt fences immediately after each rainfall, and at least daily during prolonged rainfall. The contractor shall immediately correct any deficiencies.

2 The contractor shall also make a daily review of the location of silt fences in areas where construction activities have altered the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, as determined by the engineer, additional silt fence shall be installed as directed by the engineer.

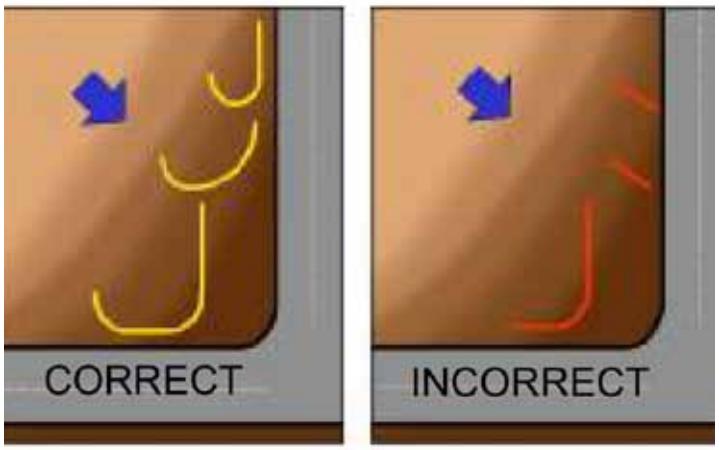
3 Repair damaged or otherwise ineffective silt fences or replace promptly.

4 Either remove sediment deposits when the accumulation reaches one third the height of the exposed fence, or install a second silt fence as directed by the engineer.

5 The silt fence shall remain in place until the engineer directs in to be removed. Upon removal, the contractor shall remove and dispose of any excess sediment accumulations, dress the area to give it a pleasing appearance, and vegetate all bare areas in accordance with contact requirements.

6 Removed silt fence may be used at other locations provided the geotextile and other material requirements continue to be met to the satisfaction of the engineer.

Figure 2: Silt fence placement



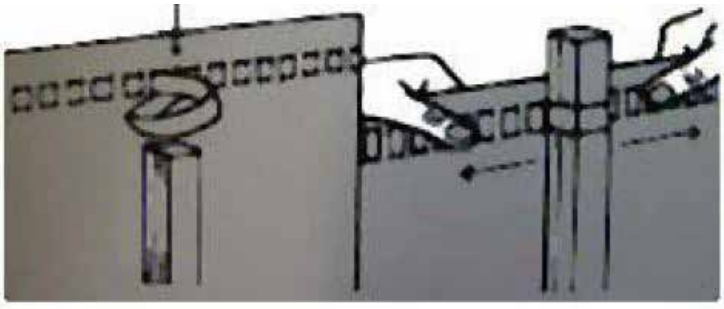


Figure 3: Ribbon attachment to post

Alignments called 'U' or 'J' hooks ensure water & sediment pond behind each fence.

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