

# SMARTFENCE 42

## SEDIMENT & PERIMETER CONTROL

# INSTALLATION INSTRUCTIONS

**STEP 1:** Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lbs./ft. and minimum 72" length into the ground. Drive post into ground a minimum of 36" depth. Post spacing must be no greater than 6 ft maximum (max. 4 ft. across channels and swales).

**STEP 2:** Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

**STEP 3:** For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post using steel wire staples or nylon ties at the four (4) orange-colored band locations (minimum 4 attachment locations).

**STEP 4:** For fastening SMARTfence® 42 to studded metal T-posts, use one of the following methods:

**Method 1:** Using 16-gage wire, attach SMARTfence® 42 to metal T-posts using 304 SS wire with mitered ends, securing the fence to the post using safety pliers.

**Method 2:** Use 8-inch nylon, heavy-duty, UV-stable Zip-ties with min. 120-lb. tensile strength. Puncture two 0.25-inch openings, spaced a width apart equivalent to the width of the post, and secure fence to the post.

**STEP 5:** Drive the initial post with the attached fence into the ground to **36-inch depth**.

**STEP 6:** Drive the interior T-posts of the fence system into the ground at least 36 inches.

**STEP 7:** Move to the next T-post while pulling SMARTfence® 42 **tightly**. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four **(4) orange-colored band locations** as instructed in Step 4.

**STEP 8:** After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by **pulling the final section of fencing taut**, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post **at all four (4) orange-colored band locations** with the steel wire or nylon ties per Step 4. Drive the final post into the ground to 36-inch depth.

**STEP 9:** Place bottom 8 inches of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 *Standard Practice for Silt Fence Installation*). Do not damage the fabric during compaction (damaged fabric shall be replaced).

## SPLICING

The splicing of adjacent sections of SMARTfence shall Follow the requirements of Tennessee Department of Transportation (TDOT) Standard Drawing EC-STR-3E. The TDOT-developed standard for EC-STR-3E is attached.

### INSTALLATIONS ACROSS DRAINAGE DITCHES AND SWALES

**STEP 1:** Excavate trench a maximum of 4 inches wide and 6 inches deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb. per ft. and a minimum 72-inch length. Drive post into ground a minimum of **36 inches depth**. Post spacing must be **3 feet (maximum)**.

**Installation Steps 2 through 9 are the same as given previously with the following stipulation:**

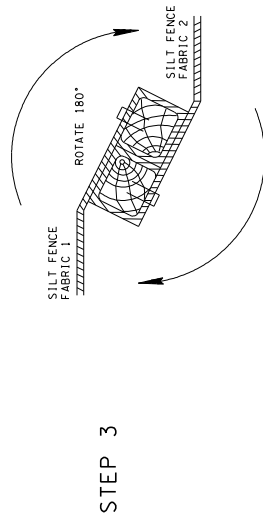
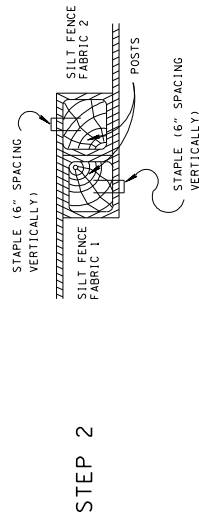
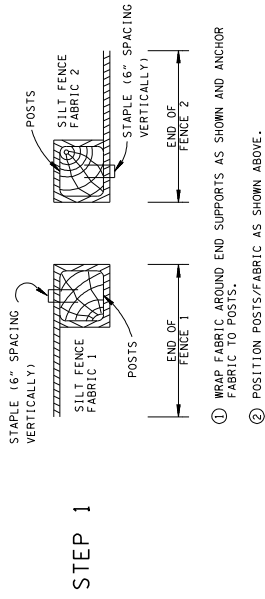
For SMARTfence® 42 to be constructed across a ditch line or swale, the measure must be of sufficient length to eliminate endflow, and the plan configuration shall resemble an arc or horseshoe with ends oriented upslope. SMARTfence® 42 shall be used with a **maximum 3 ft post spacing**.

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**SMARTfence® 42 is 100% American Made and  
Is NTPEP Compliant.**

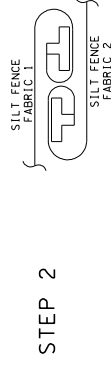
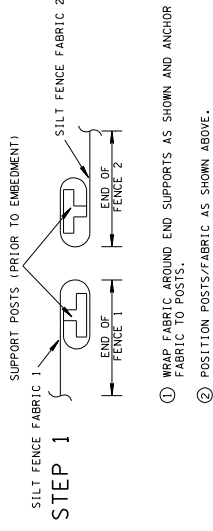


- REV. 4-1-08, REFORMATTED SHEET TO REVISED RULES, MISC. EDITS TO DRAWING.
- REV. 4-1-08, MISC. EDITS TO DRAWING, CHANGED DRAWING NAME, REFORMATTED SHEET.

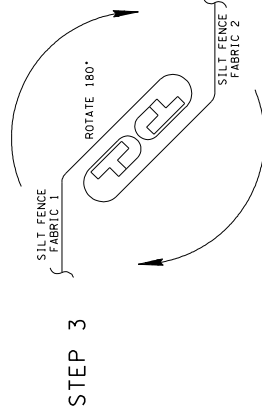


- ① ROTATE BOTH POSTS WITH FABRIC CLOCKWISE AT LEAST 180°.
- ② EMBED BOTH POSTS INTO GROUND PER SILT FENCE STANDARD DRAWING EC-STR-3B.

**PLAN VIEW**  
JOINING SILT FENCE  
FABRIC SECTIONS (WOOD POSTS)



- ① POSITION THE SILT FENCE FABRIC 2 POST INSIDE OF THE SILT FENCE FABRIC 1 POST AS SHOWN ABOVE.



- ① ROTATE BOTH POSTS WITH FABRIC CLOCKWISE AT LEAST 180°.
- ② EMBED BOTH POSTS INTO GROUND PER APPLICABLE SILT FENCE STANDARD DRAWING. (EC-STR-3B, EC-STR-3C, OR EC-STR-3D)

**PLAN VIEW**  
JOINING SILT FENCE  
FABRIC SECTIONS (STEEL POSTS)

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

SILT FENCE  
FABRIC JOINING  
DETAILS

12-18-02 EC-STR-3E