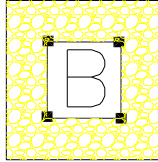


Type B - Hardware Fabric and Stone Inlet Protection

Plan Symbol



Design hardware fabric and stone inlet protection to have an 80 percent design removal efficiency goal of the total suspended solids (TSS) in the inflow. The Design Aids located in the Rock Check Dam section of this Handbook may be used to properly design hardware fabric inlet protection.

Materials

Use hardware fabric or comparable wire mesh with maximum openings of 0.5-inches x 0.5-inches as the supporting material.

Use 48-inch steel posts that meet the following minimum physical requirements:

- Be composed of high strength steel with minimum yield strength of 50,000 psi.
- Have a standard “T” section with a nominal face width of 1.38-inches and nominal “T” length of 1.48-inches.
- Weigh 1.25 pounds per foot ($\pm 8\%$).
- Be painted with a water based baked enamel paint.

Use heavy-duty wire ties to attach the wire mesh material to the steel posts.

Place Aggregate No. 5 washed stone against the hardware fabric on all sides.

Installation

Excavate a trench 6-inches deep around the outside perimeter of the inlet.

Use hardware fabric or comparable wire mesh with maximum openings of 0.5-inches by 0.5-inches as the supporting material. Extend the fabric a minimum of 6-inches into the ground. Backfill the trench with soil or crushed stone and compact over the fabric.

Use steel posts with a minimum post length of 48-inches consisting of standard “T” sections with a weight of 1.25 pounds per foot ($\pm 8\%$). Install the wire mesh fabric above grade a minimum of 18-inches without exceeding 24-inches.

Space the steel posts a maximum of 3-feet apart around the perimeter of the inlet and drive them into the ground a minimum of 24-inches.

Use heavy-duty wire ties spaced a maximum of 6-inches apart to attach the wire mesh material to the steel posts.

Place Aggregate No. 5 washed stone to a minimum height of 12-inches, and a maximum height of 24-inches against the hardware fabric on all sides.

Inspection and Maintenance

- If the stone becomes clogged with sediment, pull the stones away from the inlet and clean or replace them.
- Since cleaning of gravel at a construction site may be difficult, an alternative approach would be to use the clogged stone as fill and put fresh stone around the inlet.



Hardware Fabric and Stone Inlet Protection

Preventive Measures and Troubleshooting Guide

Field Condition	Common Solutions
Excessive sediment is entering the inlet.	Ensure that soil stabilization and sediment control devices are installed upstream of inlets. Ensure that the barriers around the inlet are installed correctly.
Sediment reaches 1/3 the height of the structure.	Remove sediment.
Stone filter material becomes clogged with sediment.	Pull stones away from inlet and clean them, or replace them with new stones.
Ponded water causes a traffic concern.	Use alternate BMPs upstream. Remove drain inlet protection if necessary.