Trench Drain Filter
Operation & Maintenance Guide

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**Safety Precautions:**

*The Trench Drain Filters should be maintained by trained individuals who are familiar with local traffic safety regulations and disposal procedures.*

**Trench Drain Filter Description and Operation:**

The typical Fabco Trench Drain Filter™ is configured to fit within most flat bottomed trench drain inlets. The simple design traps sediment, trash and debris within the trench while allowing runoff water to pass through the filter and exit through the storm drain system. Fabco’s Trench Drain Filter™ is comprised of one or more perforated metal square tubes called debris shields and a Bypass hood assembly. The 4’ long debris shield is manufactured from perforated stainless steel screen which effectively keeps coarse material out of the filter and a replaceable filter media product for treating the water. The unique system can accept one of two treatment media types: Oil/Grease, and Phosphates/Nutrients.

**Product Features Summary:**

- Modular filter designed to collect solid materials, sediments, trash, debris, as well as hydrocarbons, and nutrients.
- Available in sizes to fit wide variety of trench drain widths.
- Performs as an effective filtering device at high or low flows.
- Manufactured from perforated, 14 gauge, 304 Stainless Steel sheets, 3/16-dia. Perforations.
- Debris Shield is hinged for easy access and replacement of the filter media element.
- Easy installation with Auto Adjust feature.
- Overflow / bypass port prevents flooding.

**Trench Drain Inlets:**

Trench drain inlets tend to trap sediment and oils that are washed off the road surface during a storm event. This sediment and trapped oils if not removed from the basins and inlets have the potential to pollute water bodies. Drain inlets need to be inspected and cleaned at a minimum annually, more often if necessary; to remove accumulated sediment, fluids, and trash. This maintenance should also include replacing the oil or P&N absorbing media booms.

**Maintenance Results:**

- Avoid or minimize sediment and pollutant discharges from the work area.
- Prevent parking areas, roads, drainage systems, and property from becoming pollutant sources.
- Maintain or restore the intended infrastructure function.
- Prevent or reduce flooding.
- Protect infrastructure.
**General Procedures:**

**Safety tips:**

- **Have a Plan.** Every road project should have a transportation management plan. The plan should consist of a temporary traffic control plan to protect workers by safely conducting traffic around or through the work zone.

- **Properly Control Traffic.** The work zone should consist of an advanced warning area with warning signs alerting motorists of upcoming changes in driving conditions, a transition area using traffic control devices for lane closures and traffic pattern shifts, a buffer area, the work area and a termination area to allow traffic to resume back to normal and a sign indicating that the work zone has ended. All traffic control devices whether its cones, barrels, barriers or signs should comply with the Federal Highway Administration’s Manual on Uniform Traffic Control Devices (MUTCD) along with any state agency requirements.

- **Wear Proper Safety Equipment.** Proper safety equipment should be worn by all personnel inside the work zone. Personal protective equipment (PPE) including hard hats, steel-toed boots, highly visible clothing and, depending on the noise levels, hearing protection. All PPE should meet or exceed the American National Standards Institute’s (ANSI) developed standards. All highly visible clothing whether it’s a vest, jacket or shirt should be bright fluorescent orange or lime/yellow and also have visible reflective material especially if working at night and should meet ANSI Class 2 or 3 standards.

- **Lifting Caution.** Grates can be extremely heavy. Some type of lifting mechanism is highly recommended.

- **Be Aware of Your Surroundings.** Regardless of what your job duties entail in the work zone you should always be mindful of what’s going on around you. Whenever possible, face traffic while inside the work zone or have a spotter available when you have to have your back turned.

- **Have a Competent Person on Hand.** A competent person should be onsite whenever work is being performed. According to OSHA, a competent person is someone who is “capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.” A competent person is needed to conduct hazard assessments and regular inspections of the worksite. A competent person is also needed to select the appropriate class of PPE to be used by workers and to approve the appropriate types of traffic control devices. Workers should report any unsafe hazards or equipment to the competent person assigned to the work zone so they can be corrected immediately.

**Inspection:**

Inspection and cleaning should be performed only after NO rainfall for at least 24 hours. Inspect trench drain inlet and the Trench Drain Filter at least once per year, more often if necessary. Periodically inspect the surrounding areas for pollutants, such as leaks from dumpsters, minor spills, and oil dumping. Act to have the pollutant source removed.
Visually inspect the trench drain for heavy sediment, trash and debris loading. A battery powered flashlight or droplight is recommended for thorough inspection. Some telltale signs that cleaning or filter replacement is necessary are as follows:
- Standing water in the trench drain.
- Cannot see the Trench Drain Filter unit due to sediment, trash and debris, etc.

Record observations and comments on the maintenance log sheet. In addition, the use of digital photographs and/or sketches may be warranted to maintain the most accurate historical records.

Cleaning Frequency:
There are no hard and fast rules in regard to cleaning frequency. The fact is, installation sites with higher than expected sediment loads or areas with significant trees and foliage require more maintenance. In general, Fabco Industries recommends cleaning trench drains when they become about one-third full in order to maintain sediment-trapping capacity and sustain optimum performance of the filter system. In addition, all cleaning operations should be performed in a manner that keeps removed sediment and contaminated water from being discharged back into the storm sewer.

Cleaning:
Be sure to follow all safety and traffic control protocols. With the trench drain grates removed, the Trench Drain Filter unit is now accessible for cleaning. It is not necessary to remove the filter unit from the trench drain for cleaning. Remove sediment and debris from the trench drain and filter system. This can be done manually or with a vacuum device. Then rinse the filter unit with a high pressure hose to dislodge and remove sediment and debris that may be clogging the perforated holes in the filter system. If a high pressure hose is not available, a stiff scrub-brush can be used instead. With the filter system clean, open the unit and replace the used filter media boom. Close the Trench Drain Filter unit and carefully reinstall the trench drain grate(s). Again, Record observations and comments on the maintenance log sheet. In addition, the use of digital photographs and/or sketches may be warranted to maintain the most accurate historical records.

When possible, measures should be taken to keep the inlet grates cleared of debris and litter.

Materials Handling:
Under typical local and state regulations, the collected material in the trench drain is considered equivalent to material collected during street sweeping operations. This material is normally considered contaminated non-hazardous solid waste. However as with all waste products intended for disposal, it is up to the generator to properly characterize the waste prior to disposal. After proper characterization the generator can proceed with disposal under the guidance of local, state and federal regulations.
## Inspection and Maintenance Log Sheet
- Trench Drain Filter™ -

### Maintenance Company

**Company Name:**

**Onsite Technician:**

**Contact Phone Number:**

### Treatment System

**Date of Maintenance:**

**Trench Drain Filter Type (1,2,3 or 4 filter booms?):**

**Trench Drain Location:**

<table>
<thead>
<tr>
<th><strong>Maintenance Item</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Grate is Clear of Debris Prior to Maintenance (Y/N):</td>
<td></td>
</tr>
<tr>
<td>Standing Water Depth (prior to maintenance) in Drain, in:</td>
<td></td>
</tr>
<tr>
<td>Structural Damage:</td>
<td></td>
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<tr>
<td>Maintenance Performed:</td>
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<tr>
<td>Additional Work Required:</td>
<td></td>
</tr>
<tr>
<td>Structural Repairs:</td>
<td></td>
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<tr>
<td>Other:</td>
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