



FOG-ceptor™ Z-50H, Z75H & Z250H Interceptor Installation Manual

PROCEDURE

Use this procedure together with the applicable installation drawing.

SCOPE

- 1. Standard buried tanks are designed to withstand the load of the pea gravel under gravity only, and NO additional load including but not limited to water table, vehicular load, snowbank load, building foundation, etc. are allowed on the tanks. For installations in traffic areas, a relieving slab must be installed as outlined in the Zurn Green Turtle Info Hub drawings section corresponding to the model installed.
- 2. For high water table installations contact your local Zurn Site works representative for engineer design help.
- 3. The bottom of the Proceptor tanks (both above ground and buried) should always be fully supported.

A. EXCAVATION

- 1. Excavation for the installation of a FOG-ceptor interceptor must conform to OSHA and/or local excavation codes and standards. Topsoil removed during excavation should not be used as approved backfill material.
- 2. Excavation should include an allowance for shoring and bracing where required. For multiple tank units, ensure adequate space between tanks for performing compaction when required and making connections between tanks.
- 3. Install a geo-textile fabric in the excavation to prevent migration of small particles in the backfill if native soil has small particles and more that 3% of its weight passes through a #8 sieve (2.38mm square screen opening) regardless of backfill material. The contractor is responsible for purchasing and installing the filter fabric.
- 4. In areas with a high water table, contact Zurn Green Turtle for custom tank design.

B. INSTALL AND LEVEL GRANULAR BASE

- 1. 6" layer of pea gravel (or approved equivalent backfill. If equivalent backfill is used, it must be compacted to 98% S.P.D. - see end of document for backfill specifications) must be installed and leveled at the bottom of the excavation to the proper elevation for the installation of the separator base.

C. CONCRETE ANCHORING SLAB

A concrete anchoring slab is recommended for all tank installations. 20 MPa (3000 psi) concrete shall be poured around the lower portion of the tank as shown on the installation drawing.

Please note that if ground water table may rise **more than one foot higher than the bottom of the tank**, a custom designed tank and proper anti buoyancy slab should be used. Please contact GT for more information.

Please skip step "C" if not using anchoring slab



- 1. If backfill material other than pea gravel is used, compact backfill in 6" to 8" layers to 98% S.P.D.
- 2. Install and level the tank on the backfill. Use metal lifting lugs on upper sides of tank for handling, if equipped. Do not use any of the pipe fittings on the tank for lifting purposes. When lifting with slings, use load level beams.
- 3. The contractor must fill the separator with water up to the outlet pipe prior to pouring concrete around the unit.
- 4. Pour ready mix concrete slab all around the separator cells to the volume, height, and dimensions shown on the Installation Drawing. Ensure that the anchor brackets (if equipped) on the side of the tank are covered.

D. BALLAST TANK

If continuing from Step B), fill the separator with water up to the outlet pipe.

E. GRANULAR BACKFILL TO THE INLET AND OUTLET PIPES

- Pea Gravel (or an approved equivalent backfill compacted to 98% of Standard Proctor Density in each layer) must be placed in uniform layers of 150 mm (6") to not more than 200 mm (8") in depth up to the bedding for the inlet and outlet pipes.

Note: Backfill is not to contain topsoil. See end of document for backfill specification.

F. INLET, OUTLET AND VENT PIPES

- 1. Install standard pipe bedding for the inlet and outlet pipes per the sewer design. Attach inlet and outlet pipes to the FOG-ceptor unit. If this is a PDI installation, install the flow control provided by manufacturer on the inlet of the tank, with the vent up. Connect the flow control vent according to local plumbing code and PDI requirements.
- 2. Vent port is provided on the top of all FOG-ceptor separators. The vent port should be extended to above grade per the Plumbing Codes governing the installation location. Vents maintain equilibrium with the atmosphere and prevent the creation of a vacuum within the FOG-ceptor. A goose neck must be provided at the top of the venting system to help prevent foreign particles and storm water from entering the FOG-ceptor or plugging the vents

G. CONNECT EXTENSION COLLAR TO TANK BODY

FOG-ceptor separators are manufactured with a short neck at the top, which is marginally less in diameter than the extension collar. The fiberglass extension collar slides over the neck. Use only Green Turtle fiberglass extension collar. This collar is designed to fit physically and perform structurally for this application.

- 1. To trim the extension collar to fit, dry fit on the tank and measure from bottom of collar to Final Finished Grade. (= A).



- 2. Measure the height that the frame and cover will add to the collar (= B). Note that the cast iron cover bell fits over the collar. If the frame and cover is fiberglass, it should be bonded with Sikaflex to the extension collar, or, for above ground installations, bonded directly to the FOG-ceptor tank manway lip.
- 3. If the frame and cover is cast iron, allow for a gap (approx. 1") between the frame and extension collar so that loading at grade is not transferred to the extension collar. This gap should be filled with flexible sealant after installation. (Gap=C)
- 4. Calculate the required collar height: $A - B - C = \text{Final extension height}$.
- 5. Measure and cut the fiberglass extension collar with a grinder or other appropriate cutting tool. Suggested grinding wheel material is zirconia alumina grit 24.
- 6. Place the extension collar on the tank.
- 7. Seal the joint between the tank and collar from the inside, with SIKAFLEX 221 or 255. A standard caulking gun will hold a 300 mL tube of Sikaflex. This joint is normally dry on the inside, but if the sewer line backs up the oil or grease may rise in the extension. Sealing the joint at the time of installation prevents backed up oil or grease from leaking into the ground.

H. CLEANOUT AND SAMPLE PORTS

- Extend to grade or cap as required by customer, design engineer or local code. Please refer to installation drawings for locations.

I. ACCESSORIES (OPTIONAL)

- Extensions - If burial depth deeper than 3 feet is required, one additional 3 foot bell extension collar per manway may be purchased to achieve the maximum allowable burial depth of 6 feet. These additional extension collars have an integral bell coupling designed to fit over the already supplied 3 ft. extension collars. Use the supplied Sikaflex bonding agent to create a water tight bond between extension collars.

J. BACKFILL TO ABOVE THE BASE OF THE EXTENSION COLLAR

- Backfill with pea gravel (or an approved equivalent compacted to 98% S.P.D.) to 18" above the base of the extension collar.

K. BACKFILL TO THE SURFACE RELIEVING SLAB

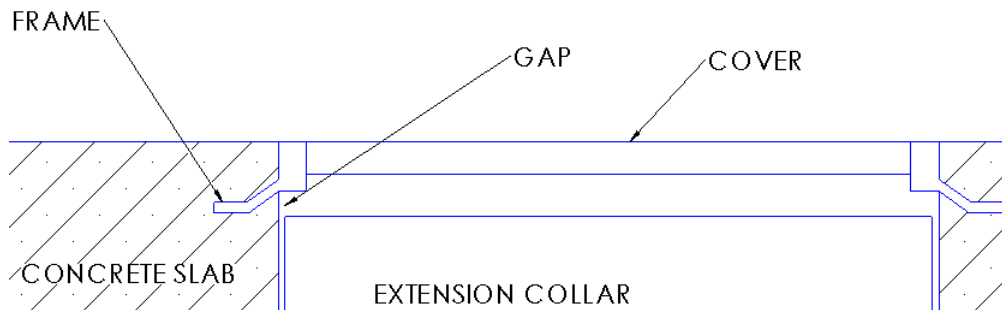
- Pea gravel (or an approved equivalent backfill compacted to 98% S.P.D. in each layer) must be placed around the extension collar to the bottom of the concrete bearing slab, surface grade or pavement sub-grade in layers 150 mm (6") to 200 mm (8") thick.



L. FRAME AND COVER



Place the frame above the extension collar with the cover at finished grade elevation. Leave a gap between frame and top of extension of approx. 1 inch to prevent the vertical load transfer from the frame to the tank. Pour concrete around the frame to secure it in place, size to be determined by Engineer or local code based on site use. If necessary, seal any small gaps between collar and frame with flexible watertight material, i.e. Sikaflex.



M. REINFORCING (BEARING) SLAB - FOR TRAFFIC LOADING ONLY



Pour concrete relieving slab, 25 MPa (3600 psi), at the surface with traffic loading frame and cover embedded in slab and centered over extension collar to secure the frame and transfer live loads to the surrounding soil around the tank. The design of the slab shall be based on AASHTO H-20 loading; 16,000-pound dynamic wheel load. Pour the concrete slab in place with steel reinforcing bars as shown on the Proceptor installation drawings.

Slab design is available from Green Turtle.

The Contractor must verify that the concrete relieving slab design is suitable for the application and conforms to local codes and standards.

Notes:

Elevations and Accessibility: Please see drawings for elevation instructions

Safety and Health: Please wear personal protective equipment

Clearance: Please allow 18" min. above and around the manways to provide access for maintenance

Maintenance and Cleaning: Please see owner's manual for maintenance schedule

GRANULAR BACKFILL SPECIFICATION



PEA GRAVEL


Pea Gravel is a naturally rounded aggregate with a particle size not less than 3mm (1/8") and not greater than 18mm (3/4"). Gravel must be clean and free flowing, free from large rocks, dirt, sand, roots, organic materials or debris. Upon screening, analysis of the backfill material must have no more than 3% of its weight passing through a #8 sieve (2.38 mm square screen opening). Dry density must be a minimum of 96.3 lbs/ft³.

CRUSHED STONE (APPROVED EQUIVALENT TO PEA GRAVEL)

Crushed stone or gravel is not less than 3 mm (1/8") and not greater than 12mm (1/2"). Aggregate must be clean and free flowing, free from large rocks, dirt, sand, roots, organic materials or debris. Materials should be washed or screened to remove fine particles. Upon screening, analysis of the backfill material shall have no more than 3% of its weight passing through #8 sieve (2.38 mm square screen opening). Dry density must be a minimum of 95 lbs/ft². During placement, this backfill material must be compacted to 98% S.P.D.

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