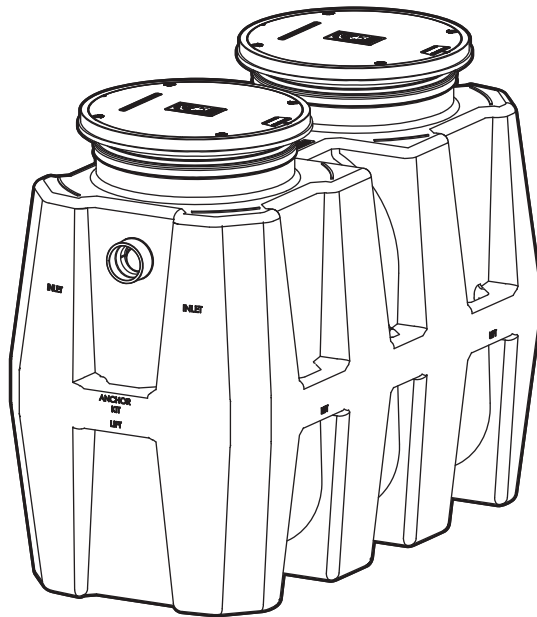


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# INSTALLATION GUIDE

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**Model #GB-250-FO** 100 GPM Grease Interceptor  
For Indoor/Outdoor Use



## Contents

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Special Precautions .....	2
General Installation Instructions .....	3
Field Cut Riser Installation Guidelines .....	4
Anchor Kit Installation .....	4
Expanding Grease Capacity .....	5
Application Specific Details .....	6



**SCHIER**  
**LIFETIME GUARANTEED**  
**GREASE INTERCEPTORS**

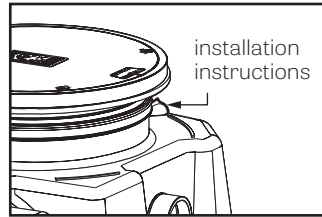


# SPECIAL PRECAUTIONS

For All Schier Grease Interceptor Installations - Failure to follow this guidance voids your warranty

## Installation Instructions

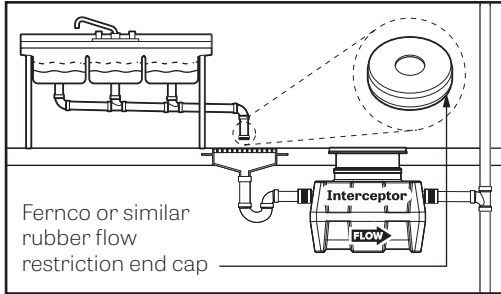
Installation instructions and additional components are included with the interceptor. Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.



## When Installing Interceptor Inside

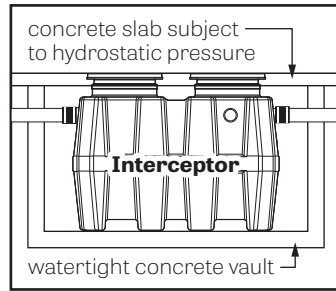
If your dishwashing sink(s) discharges into a floor drain/sink (drain), you must regulate the flow into the drain to avoid an overflow of water onto the kitchen floor. This can be done by installing a valve or flow restriction cap on the sink piping that discharges into the drain. See drawing above for guidance. For detailed guidance on indirect connections, go to:

[http://webtools.schierproducts.com/Technical\\_Data/Indirect\\_Connections.pdf](http://webtools.schierproducts.com/Technical_Data/Indirect_Connections.pdf)



## Hydrostatic Slabs (or Pressure Slabs)

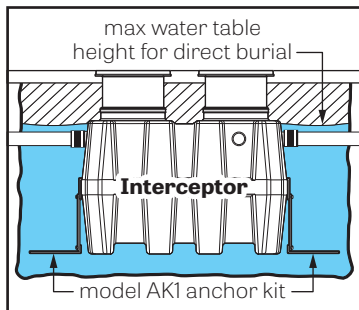
When installed under a hydrostatic slab (slab designed to withstand upward lift, usually caused by hydrostatic pressure) interceptor must be enclosed in a watertight concrete vault.



## High Water Table Installations

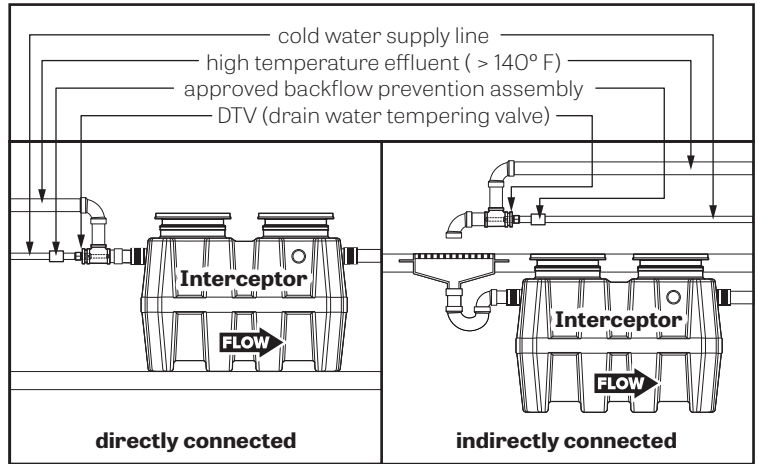
Interceptors and risers are not designed to withstand water table height in excess of the top of the unit when buried (see figure). If it is possible for this to occur, install the interceptor and risers in a water-tight concrete vault or backfill with concrete or flowable fill (wet concrete and flowable backfill should be poured in stages to avoid crushing the interceptor). At risk areas include but are not limited to tidal surge areas, floodplains and areas that receive storm water.

Models GB-50, GB-75, and GB-250 that are direct buried in high water table scenarios must be installed with model AK1 anchor kit.



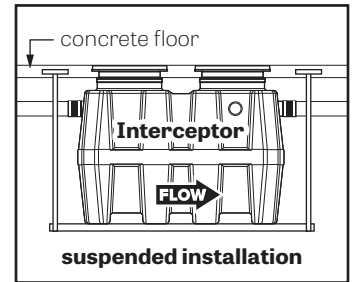
## High Temperature Kitchen Water

If water is entering the interceptor at excessive temperature (over 140° F), a drain water tempering valve (DTV) and approved backflow prevention assembly must be installed. Most state and local plumbing codes prohibit water above 140° F being discharged into the sanitary sewer. Water above 140° F will weaken or deform PVC Schedule 40 pipe, poly drainage fixtures like interceptors and erode the coating of cast iron (leading to eventual failure).



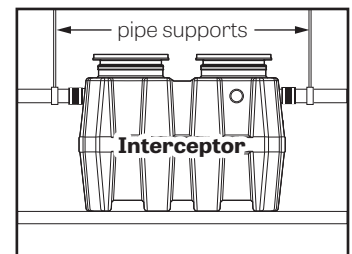
## Fully Support Base of Unit

Install unit on solid, level surface in contact with the entire footprint of unit base; for suspended installations design trapeze to support the wet weight of the unit. Do not partially support unit or suspend unit using metal U-channel to create a trapeze



## Support Inlet and Outlet Piping

For above grade installations ensure heavy inlet and outlet piping (such as cast iron or long runs) is properly supported or suspended during the entire installation process to prevent connection failure or damage to bulkhead fittings.



# INSTALLATION (1 of 3)

**WARNING! DO NOT AIR TEST UNIT OR FIELD CUT RISER SYSTEM! Doing so may result in property damage, personal injury or death.**

## LEAK/SEAL TESTING

Cap/plug all base unit plumbing connections and remove covers. **For base unit testing**, fill with water to just above the highest connection. **For riser system testing** (if required) fill with water to finished grade level. **CAUTION: Risers must be supported before filling with water to prevent tipping.** Inspect unit, connections and all gaskets and clamps (if applicable) for leaks. Check water level at specific time intervals per local code.

## GENERAL INSTALLATION INSTRUCTIONS

Schier grease interceptors are manufactured with an internal flow control system. They do not require an external flow control system or air intake vent. Schier grease interceptors are not to be installed in any other manner except as shown. Consult local codes for separate trapping requirements, cleanout locations and additional installation instructions.

- Flow control is not pre-installed** on this unit - two flow control plates are provided in a bag fastened to the neck of the unit (for either 100 or 200 GPM). When unit is installed 13 feet or more below fixtures being served, or a high flow/increased head pressure condition exists (causing a flow rate above the desired flow rate), install the appropriate inlet diffuser flow control plate to maintain proper flow rate.
- Set unit on level solid surface as close as possible to fixtures being served.
- Outlet diffuser is permanently attached to end of unit.
- Connect inlet and outlet drainage lines to unit. Mechanically couple pipes to unit. **Do not solvent weld.**
- For unit with cast iron covers, remove retainer clips prior to burial.

**NOTE:** Do not install below a hydrostatic slab.

## BELOW GRADE INSTALLATION INSTRUCTIONS EXCAVATION

- Surrounding soil must be undisturbed soil or well compacted engineering fill.
- Width and length of excavation shall be a minimum of 12" greater than the tank on all sides and depth shall be 6" deeper than tank bottom.
- Set the tank level on a 6" deep layer of well-packed crushed aggregate material and connect waste piping per General Installation Instructions.

## BACKFILL

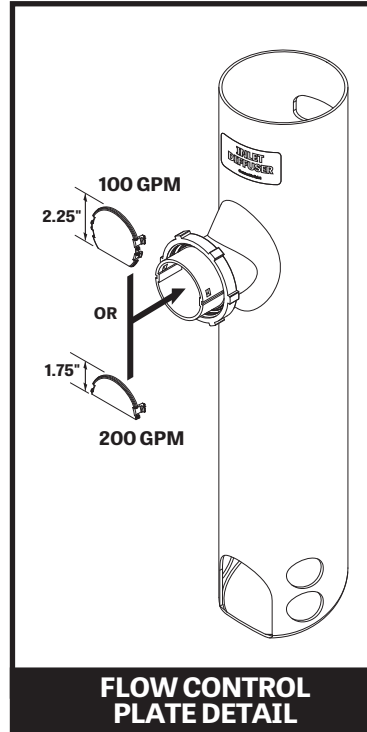
- Preparation of sub grade per geotech recommendations.
- Stabilize and compact sub grade to 95% proctor.
- Fill unit with water before backfilling to stabilize unit and prevent float-out during backfilling. Secure covers and risers (if necessary) to the unit.
- Backfill evenly around tank using crushed aggregate (approximately 3/4" size rock or sand, with no fines), or flowable fill. **Do not compact backfill around unit.**

## FINISHED CONCRETE SLAB

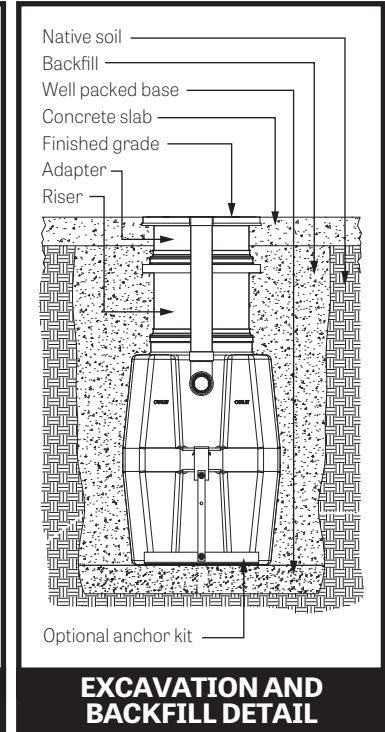
Slab must extend 18" minimum outside the footprint of the unit.

**Pedestrian traffic or greenspace areas:** 4" Thick reinforced concrete slab required.

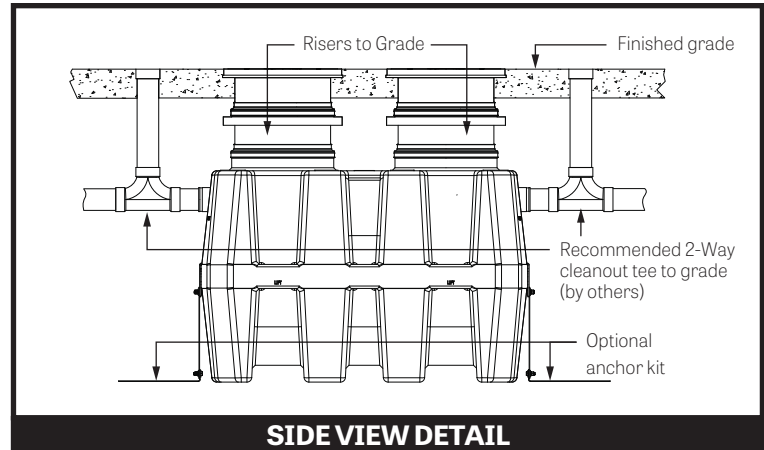
**Vehicular traffic areas:** Minimum 8" Thick concrete slab with rebar required. Thickness of concrete around cover to be determined by specifying engineer. If traffic loading is required the concrete slab dimensions shown are for guideline purposes only. Concrete to be 28 day compressive strength to 4,000 PSI. Use NO. 4 rebar (ø 1/2") grade 60 steel per ASTM A615: connected with tie wire. Rebar to be 2-1/2" from edge of concrete and spaced in a 12" grid with 4" spacing around access openings.



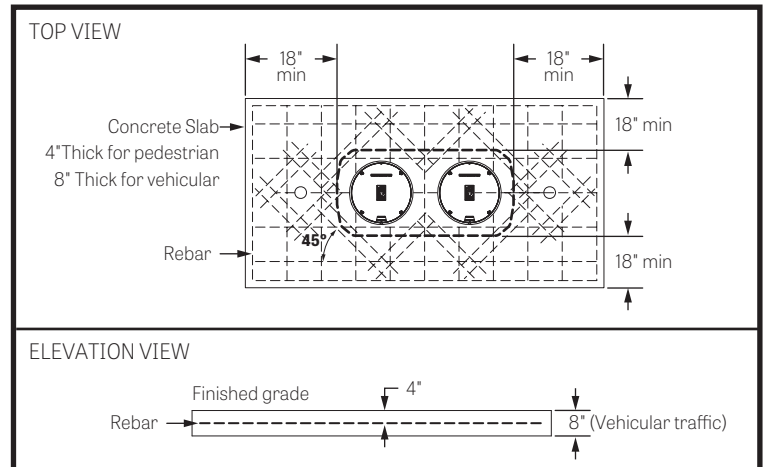
**FLOW CONTROL  
PLATE DETAIL**



**EXCAVATION AND  
BACKFILL DETAIL**



**SIDE VIEW DETAIL**



**CONCRETE SLAB DETAIL**

# INSTALLATION (2 of 3)

## FIELD CUT RISER (24 SERIES) INSTALLATION GUIDELINES

**Tools needed:** 7/16" Nut driver tool/bit (included), marker (included), tape measure and drill with 1/2" chuck. Jigsaw, circular saw or reciprocating saw will be needed if risers need to be cut.

**NOTE:** To remove a component or adjust its position, the Upper Band Clamp needs to be loosened or removed using nut driver bit. **The Lower Band Clamp is factory set and should not be removed.** For proper fastening ensure clamps are tightened to 5 - 8 ft lbs. of torque (same as a rubber no-hub coupling) prior to installation.

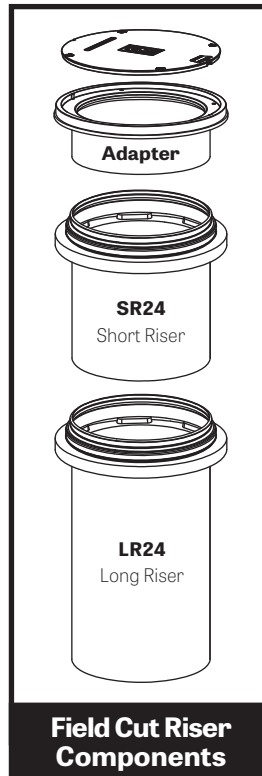
### Riser Assembly Instructions/Steps

1. Set unit so the pipe connections line up with job site piping and measure riser height needed from top of cover to finished grade. See Table 1 to select risers needed.
2. Remove covers from adapters. Remove adapters from main unit. On a level surface, pre-assemble the risers and adapters, adjusting the components upwards or downwards to achieve the riser height needed. Make sure to maintain minimum and maximum insertion depths as shown in Figure 2. If components are too long, make a circular line around the sidewall with marker and cut with a power saw. The lowest cut line on the riser assembly will be 6" beyond the riser height needed to allow for ideal insertion depth (See Figure 1). An alignment mark should be drawn 2" beyond the riser height needed which will align with the top of the base unit gasket. **DO NOT** cut the alignment mark. The Adapters and risers should sit level with each other. Tighten upper clamps to keep riser/adapter assembly from shifting. Make alignment marks on the sidewalls at the top of all riser gaskets to aid final assembly.
3. **IMPORTANT:** Before the next step, make sure both diffusers are installed inside the main unit at the appropriate locations. Check if there needs to be any flow control adjustment at the inlet diffuser (see general installation instructions).
4. Take apart riser assembly and clean all sidewalls and insides of gaskets to remove dust/debris. Install components into the main units starting from the lowest riser and work your way up to finished grade. Ensure that riser will not interfere with diffuser, allow min. 1" clearance. Maintain minimum and maximum insertion depths for all components (see Figure 2). Tighten Upper Clamps to specified torque after correctly positioning components. Riser assembly may need to be supported during backfill.
5. If tilting of the adapter is required to be flush with grade, do so **AFTER** all clamps have been tightened with riser(s)/adapter in a vertical and level position. Tilting is done using gasket flexibility. Tilting before tightening clamps may ruin a perfect gasket seal. Schier recommends tilting only the adapter versus the entire riser assembly to make sure your riser height and proper tank access is maintained.
6. If riser height conditions change after completing above steps, there may be room for adjustment. As long as minimum and maximum insertion depths are maintained (see Figure 2), the adapters/risers can be adjusted/cut as many times as necessary. When riser system installation is complete, see Leak/Seal Testing procedure if required (pg 3 of 6).

## ANCHOR KIT INSTALLATION

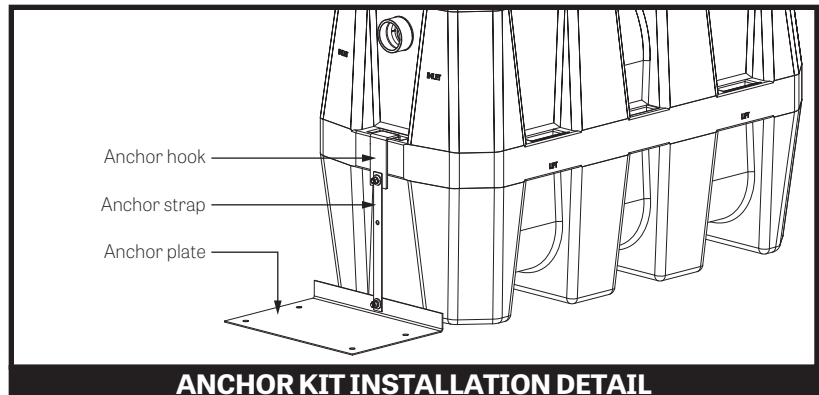
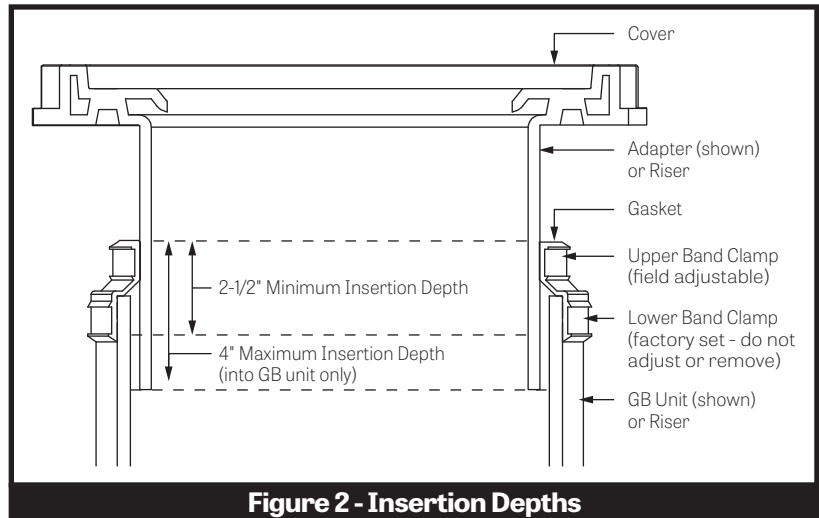
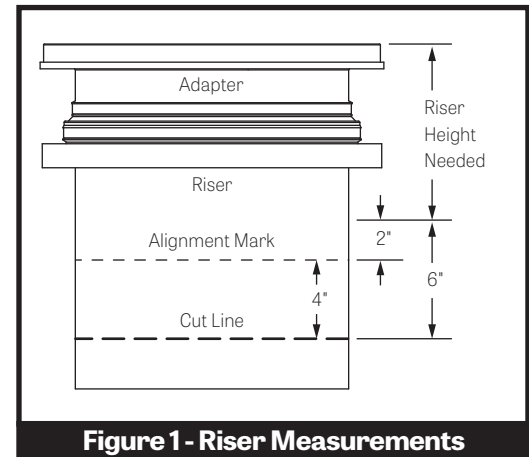
Stainless steel anchor kit is recommended for installation in high water table conditions to prevent float out. Necessity to be determined by specifying engineer. Hold down force achieved by backfill weight acting on Anchor Plate.

Slide Anchor Hook over tie down point on end wall and bolt to Anchor Strap. Bolt Anchor Strap to Anchor Plate using provided stainless steel hardware. If required, Anchor Plate may be bolted to concrete slab using provided holes.



**Table 1**

Riser Height Needed	Risers Required
0 - 3-1/2"	None (use adapter)
5" - 23"	SR24 (x2)
>23" - 38"	LR24 (x2)
>38" - 43"	SR24 (x4)
>43" - 58"	SR24 (x2) + LR24 (x2)
>58" - 72"	LR24 (x4)



# INSTALLATION (3 of 3)

## EXPANDING GREASE CAPACITY

Multiple grease interceptor configurations must be piped as shown to ensure the system works properly as designed. For below grade installations, all units must be level in the excavation pit. Hybrid systems combining parallel and series installations are available per written approval from Schier.

All inlet manifolds, outlet manifolds, piping between units and two-way cleanout tees by others.

## SERIES INSTALLATION OF MULTIPLE GREASE INTERCEPTORS

For lower flow rates and higher grease storage requirements.

For below grade installations it is recommended to install a two-way cleanout tee extended to finished grade before the inlet of the first unit, after the outlet of the last unit and in between units (if there is a long run of pipe between units) for line cleaning purposes.

**NOTE:** When the flow control plate is required, it should only be installed on the first unit in the series.

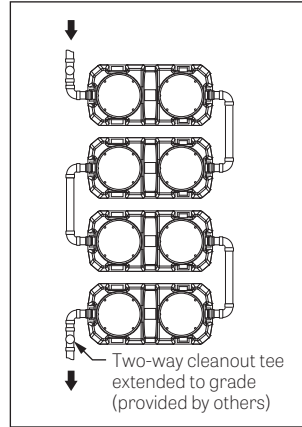
## PARALLEL INSTALLATION OF MULTIPLE GREASE INTERCEPTORS

For flow rates above 100 GPM and higher grease storage requirements.

Units must be equally spaced to ensure equal effluent flow distribution.

For below grade installations it is recommended to install a two-way cleanout tee extended to finished grade before and after each unit for line cleaning purposes.

Flow Splitter™ (FS-DUO, FS-TRIO, FS-QUAD) sold separately.



Top View of 4 GB-250 Units Piped in Series

## Rated Grease Capacities for Units Piped in Series

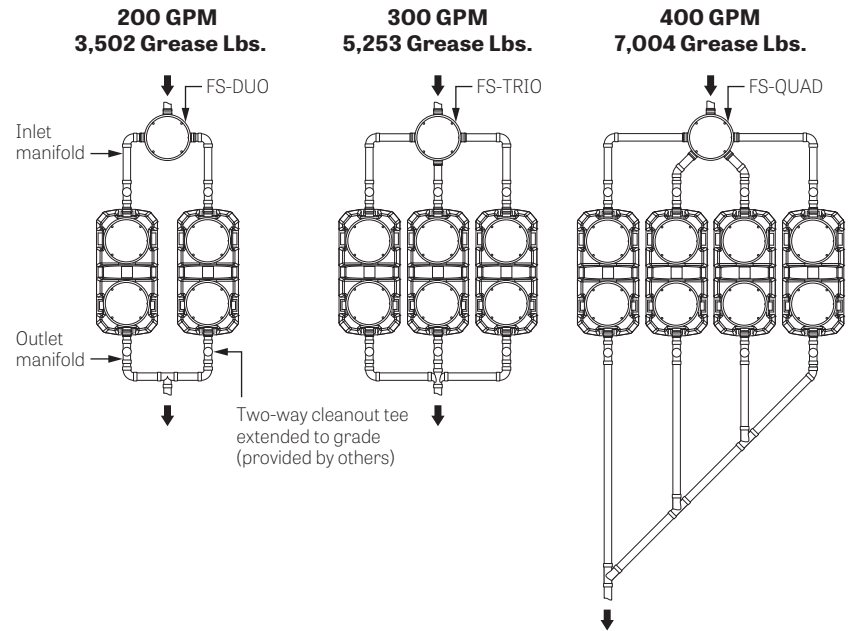
No. of Units in Series	Removal Efficiency		
	100 GPM	99%*	200 GPM
2	3,613 lbs.	2,593 lbs.	2,392 lbs.
3	5,364 lbs.	4,373 lbs.	3,588 lbs.
4	7,226 lbs.	6,153 lbs.	4,784 lbs.
5	8,977 lbs.	7,933 lbs.	5,980 lbs.
6	10,839 lbs.	9,713 lbs.	7,176 lbs.
7	12,590 lbs.	11,493 lbs.	8,372 lbs.
8	14,452 lbs.	13,273 lbs.	9,568 lbs.



Units piped in series are certified to ASME A112.14.3 (Type C) and CSA B481.1 and include an internal flow control. External flow control with vent not required. Testing was performed on a series installation of 2 GB-250 units, capacities for more than 2 units piped in series were calculated using the results of the 2-series test.

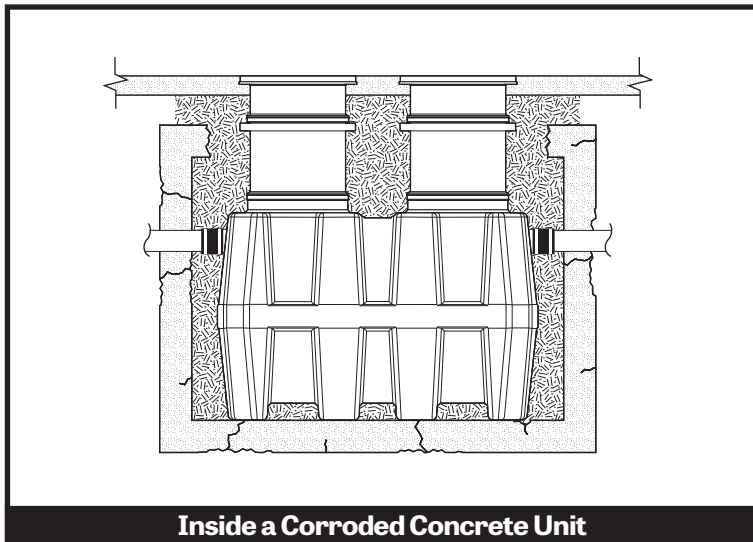
\* Satisfies Miami DERM 99% efficiency requirements

## SERIES INSTALLATIONS (Preferred)

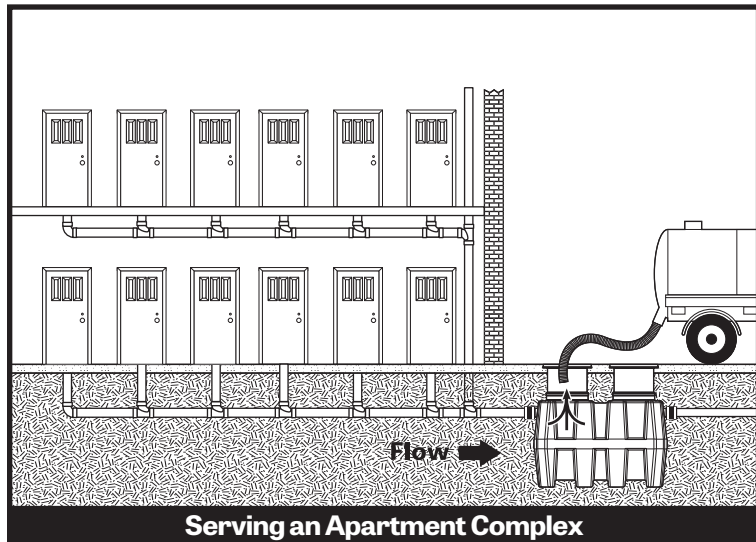


## PARALLEL INSTALLATION CONFIGURATIONS

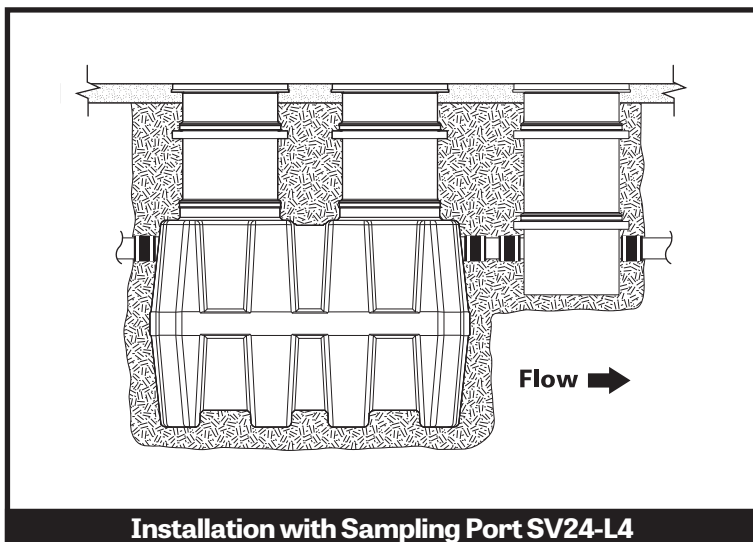
# APPLICATION SPECIFIC DETAILS



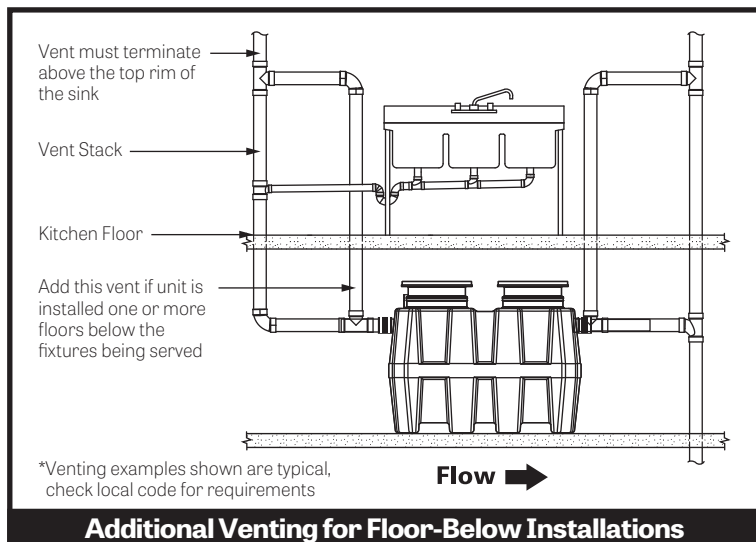
**Inside a Corroded Concrete Unit**



**Serving an Apartment Complex**

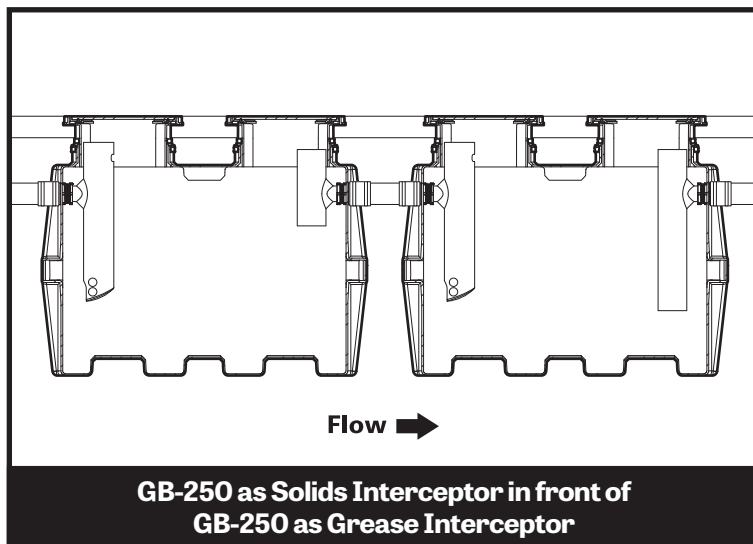


**Installation with Sampling Port SV24-L4**



\*Venting examples shown are typical, check local code for requirements

**Additional Venting for Floor-Below Installations**



**GB-250 as Solids Interceptor in front of GB-250 as Grease Interceptor**