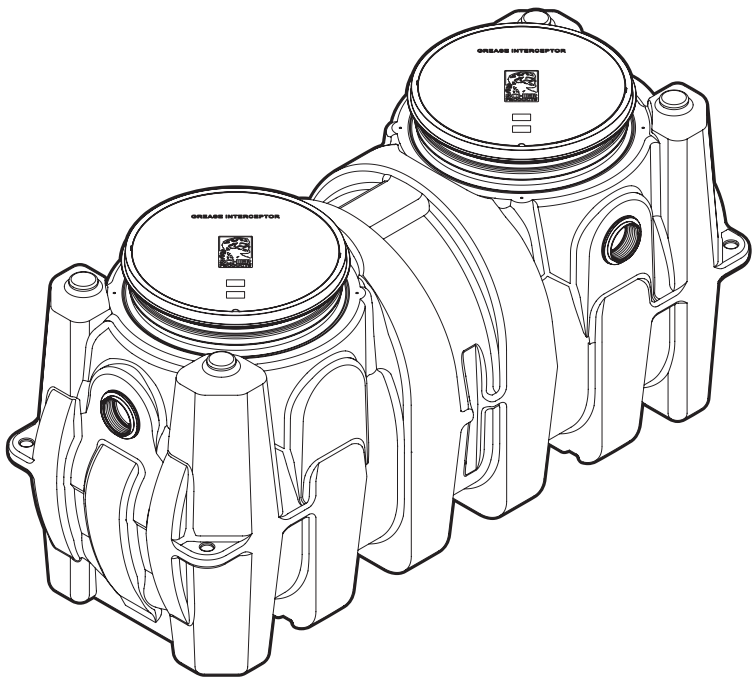


# INSTALLATION GUIDE



Failure to follow this guidance  
voids your warranty

## GB-250 100/200 GPM Great Basin® Indoor/Outdoor Grease Interceptor



### Contents

Special Precautions .....	2-3
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*Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.*



# SCHIER®

LIFETIME GUARANTEED **GREASE INTERCEPTORS**

# SPECIAL PRECAUTIONS

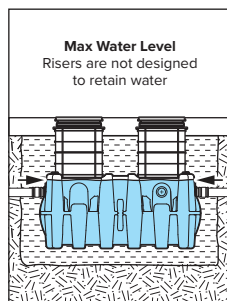


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## Pressure Testing

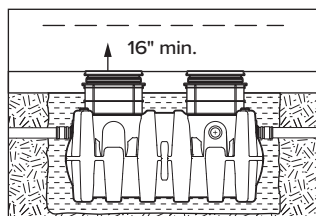
Do not air test the interceptor or riser system. Doing so may result in property damage, personal injury or death. The interceptor is intended for open system (vented) gravity drainage use only and should not be used in closed system pressure applications.

Before installation, the interceptor should be tested for water tightness. See page 5 for details. The risers are not designed to retain water and should not be water tested.



## Required Clearance Above Covers

Allow at least 16" of clearance above the interceptor for routine maintenance.

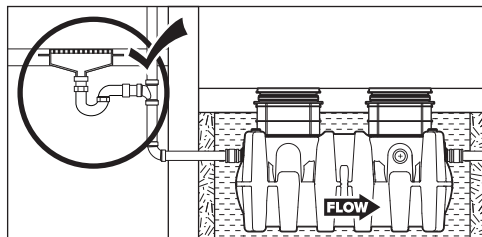


## High Temperature Kitchen Water

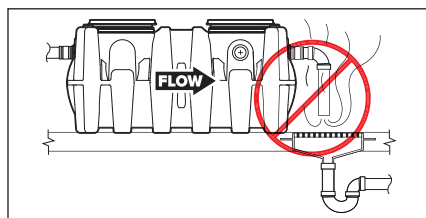
Wastewater entering the interceptor should not exceed 150° F. If wastewater temperatures will exceed 150° F, a drain water tempering valve (DTV) should be installed to cool the water.

## ODOR ALERT!

The interceptor is not a sewer gas trap. All upstream fixtures must be trapped.

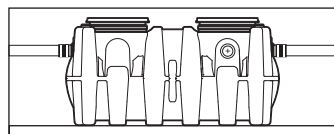


Do not install an air gap on the outlet side of the interceptor.



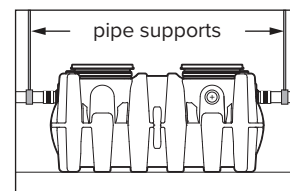
## Fully Support Base of Unit

The interceptor should be installed on a solid, level surface in contact with the entire bottom footprint.



## Support Piping

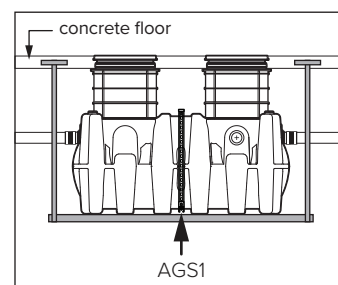
Inlet and outlet piping must be properly supported.



## Suspended Installations

Design the trapeze to support the wet weight of the interceptor. Fully support the base of the interceptor by installing on a solid, level surface in contact with the entire bottom footprint. Do not partially support with metal u-channel.

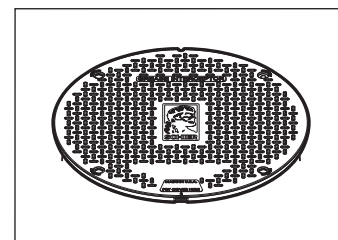
An above grade support kit (model AGS1) is required when suspending the GB-250.



## Indoor Cover - Composite

C24BC bolted composite covers should be used for above grade and pedestrian rated applications. Not recommended for outdoor use.

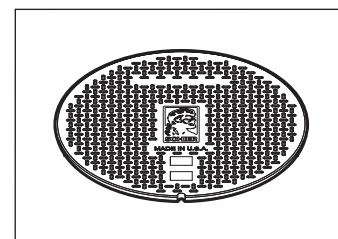
*Composite, bolted 24", rated to 2,000 lbs., for indoor and above grade*



## Outdoor Cover - Cast Iron

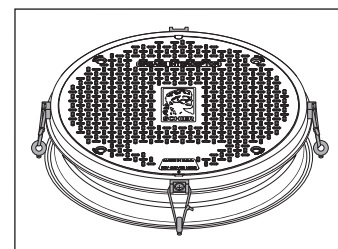
C24HP pickable cast iron covers should be used for outdoor buried and vehicle rated applications. Not recommended for above grade or indoor use

*Cast iron, pickable 24", H-20 rated to 16,000 lbs., for outdoor*



## Secure Cover Adapters

Cover adapters must be secured to base units in above grade installations with increased head pressure conditions. Use cover adapter tie-down kit model ATD1.



# SPECIAL PRECAUTIONS



Failure to follow this guidance voids your warranty

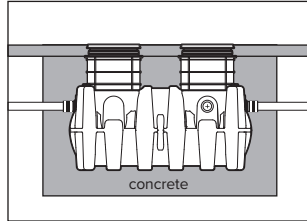
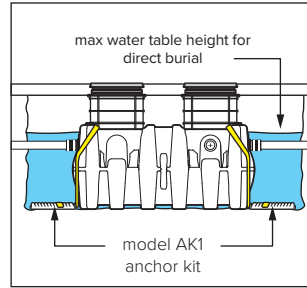
## High Groundwater Levels

**Anchor Kit Required:** If the interceptor is at risk of being exposed to groundwater, an anti-flotation anchor kit is required. Great Basin model GB-250 uses model AK1 anchor kit.



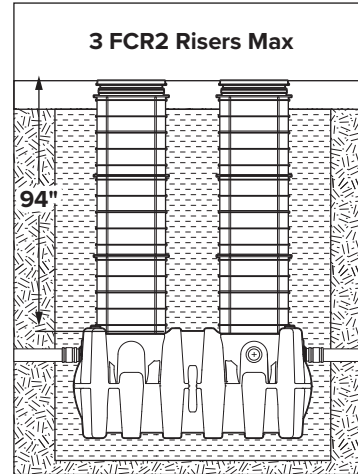
**High Groundwater Level Warning:** Interceptors and risers are not intended to withstand groundwater levels higher than the top of the tank body. Exposure to such elevated groundwater levels may compromise the structural integrity of the interceptor. If the interceptor is at risk, additional protection is required.

**Additional Protection Required:** If the interceptor is at risk of being exposed to groundwater levels higher than the top of the tank body, it must either be encased in concrete or installed inside a watertight concrete vault. Please contact Schier for concrete encasement guidance.



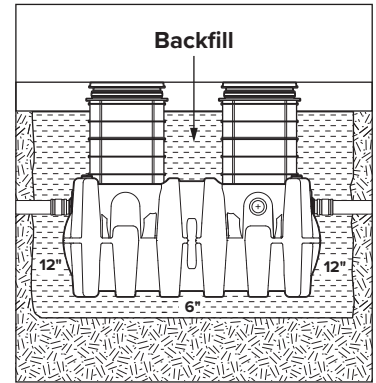
## Maximum Burial Depth

The interceptor should not be buried deeper than 94" from the top of the unit to grade.



## Approved Backfill

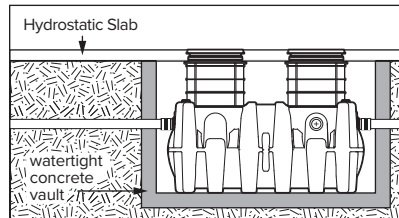
Backfill must be clean, crushed stone approximately 1" in size (AASHTO M43 Size #57 or similar) free of debris and fines. **Native soil and sand are not approved backfill materials.**



**Note:** High risk areas include coastal regions, floodplains and other areas susceptible to excessive stormwater accumulation. When available, consult the geotechnical report to determine the elevation of the seasonal high groundwater level.

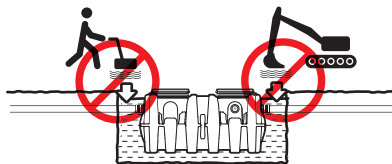
## Hydrostatic/Pressure Slabs

Hydrostatic Slabs are designed to withstand upward groundwater pressure and water infiltration when the slab is located at an elevation lower than the water table or high groundwater level. Schier interceptors and risers should not be directly buried underneath a hydrostatic slab. If the interceptor and risers will be located underneath a hydrostatic slab, they must be installed inside a watertight concrete vault.



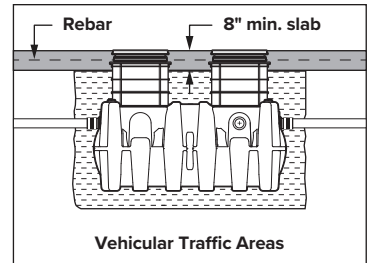
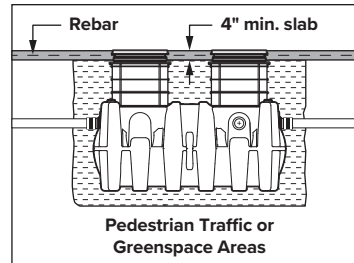
## DO NOT COMPACT BACKFILL MECHANICALLY

Compact by hand only



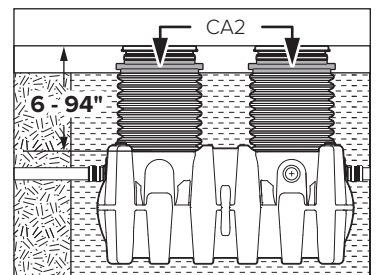
## Concrete Slab Required at Grade

A concrete slab at grade is required for all buried applications. See page 11 for details.



## Corrugated Riser Pipe Requirements

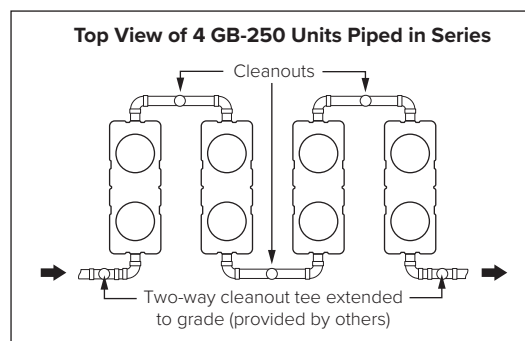
If 24" corrugated pipe risers will be used, a CA2 Adapter is required. The CA2 will allow for the cover adapter to be adequately supported by the required concrete pad at grade. Failure to install the CA2 may result in cover adapter failure.



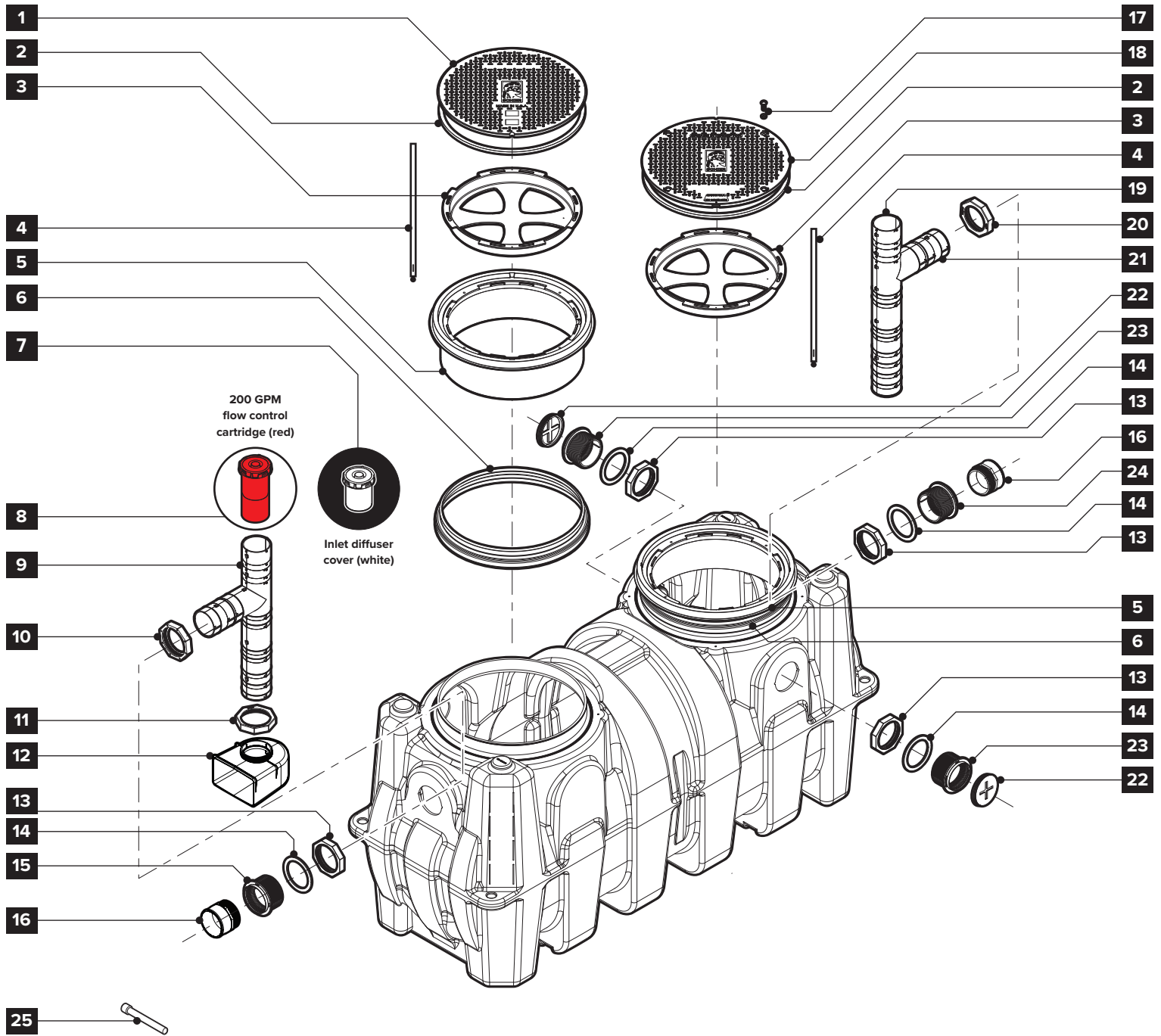
## Series Installations

For lower flow rates and higher grease storage requirements. Piping between units and two-way cleanout tees by others.

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



# GETTING TO KNOW THE GB-250

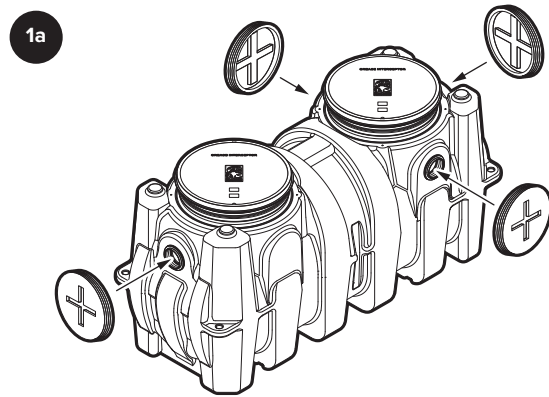


1. Pickable cast iron cover (standard)
2. Cover gasket
3. Safety Star® access restrictor (x2)
4. Safety Star® tether (x2)
5. Cover adapter (x2)
6. Cover adapter gasket assembly(x2) with upper and lower stainless steel band clamps
7. Inlet diffuser cover (white)
8. Flow control cartridge (for >13' below kitchen, 200 GPM only), see page 7 for more information.

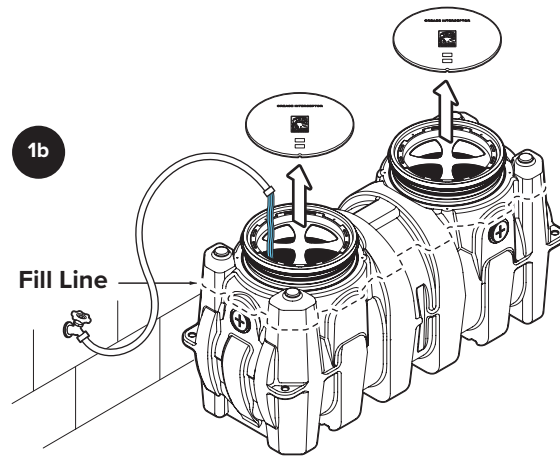
9. Inlet diffuser
10. Inlet diffuser retaining nut
11. Inlet diffuser foot retaining nut
12. Inlet diffuser (foot)
13. Bulkhead connection retaining nut
14. Bulkhead connection gasket
15. Inlet bulkhead connection 4" FPT
16. 4" plain end fitting (x2)
17. Composite cover bolts and washers (x8)

18. Bolted composite cover (optional)
19. Air relief/visual access
20. Outlet diffuser retaining nut
21. Outlet diffuser
22. 4" cleanout plug (x2)
23. Outlet bulkhead connection (optional) 4" FPT (x2)
24. Outlet bulkhead connection (standard) 4" FPT
25. 7/16" nut driver bit

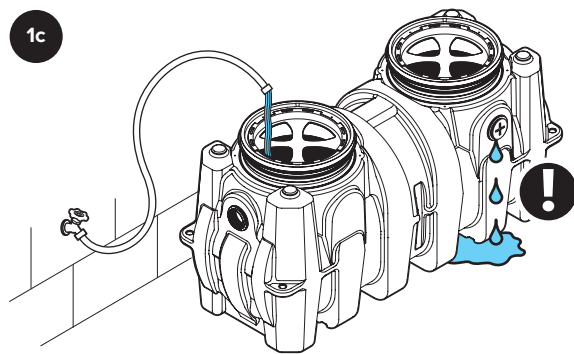
# 1 Test Tank for Water Tightness



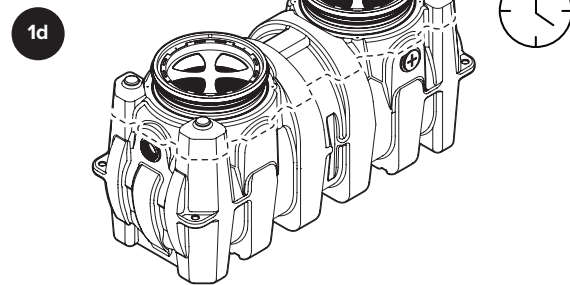
Cap all interceptor connections with the 4" cleanout plugs provided. Use pipe thread sealant or tape approved for use with plastic.



Remove covers and fill the interceptor with water to above the highest connection.



Inspect the interceptor body, connections and gaskets for leaks.

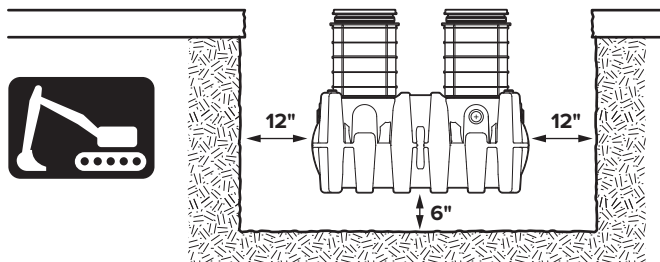


Check the water level inside the interceptor at specific intervals per code.

**Have a Leak?** Call customer support at 913-951-3300

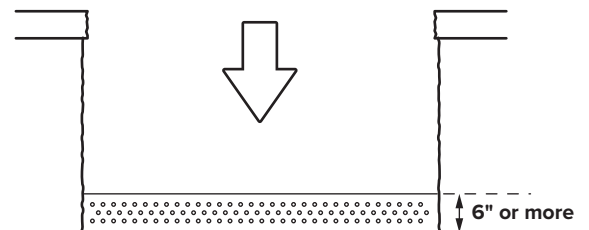
## 2 Excavate Burial Pit

Excavate the interceptor burial pit to at least 12" larger than the interceptor on all sides and 6" deeper than the interceptor bottom.



## 3 Burial Pit Base Layer

Lay a level layer of well-packed, crushed aggregate at the base of the pit.

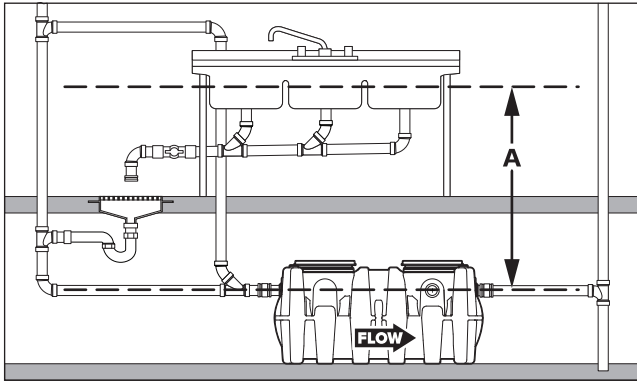


Base layer material must be clean, crushed stone approximately 1" in size (AASHTO M43 Size #57 or similar) free of debris and fines.

**Native soil and sand are not approved backfill materials.**



# 4 Configure the Inlet Diffuser



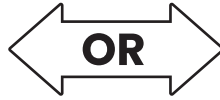
The GB-250 is supplied with additional components (inlet diffuser cover/flow control cartridge) that may be necessary for high flow and increased head pressure conditions.

- If dimension "A" is 13 feet or less, no additional components are needed, **go to Step 5.**
- If dimension "A" is more than 13 feet, or a high flow or increased head pressure condition exists, **follow the steps below.**

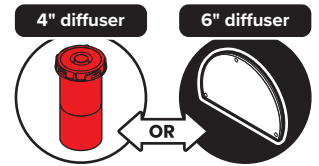
## 4a Choose the appropriate inlet diffuser component based on flow rate and diffuser size.

(Diffuser components are located in the yellow parts bag)

**100 GPM**  
Install inlet diffuser cover (white)



**200 GPM**  
Install flow control cartridge (red) or plate

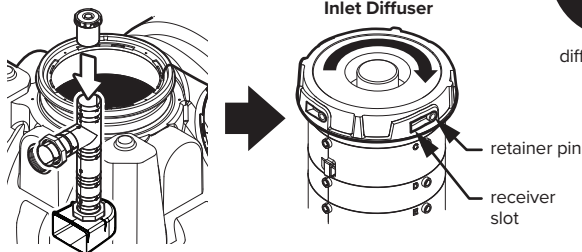


At 100 GPM this unit is certified to ASME A112.14.3 (Type D) and CSA B481.1 and does not require flow control. This inlet diffuser cover will eliminate overflow and limit pressure.

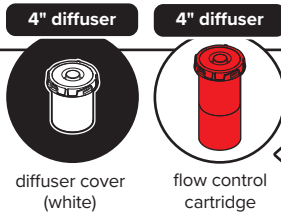
At 200 GPM this unit is certified to ASME A112.14.3 (Type C) and CSA B481.1 and requires internal flow control.

## 4b Install chosen component

### 100/200 GPM w/4" Diffusers

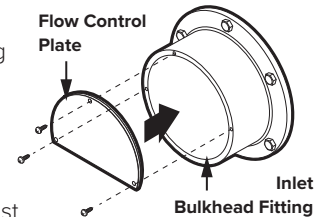


Slide chosen component into top of inlet diffuser and rotate clockwise until cartridge drops onto the retainer pins. Continue rotating clockwise until pins are fully seated.



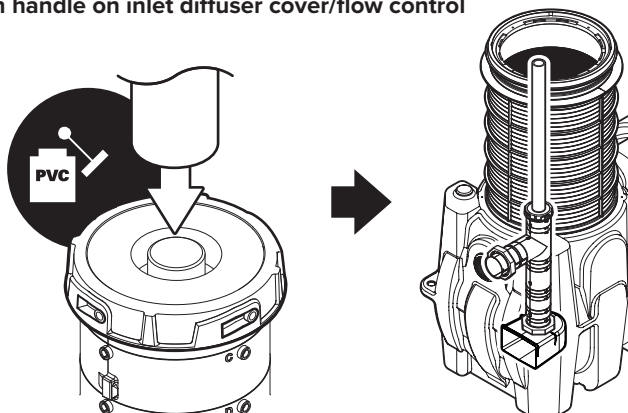
### 200 GPM Unit with 6" Diffusers

Before connecting piping and burial, fasten flow control plate to inlet bulkhead fitting using supplied screws. Holes in plate must line up with pre-drilled holes in bulkhead fitting and grooved side of plate must face the unit.



## 4c OPTIONAL FOR 4": Install extension handle on inlet diffuser cover/flow control

For deep burial installations, a 1-1/2" PVC SCH. 40 pipe may be used for easy access to the inlet diffuser cover/flow control cartridge. Before risers have been installed, cut PVC pipe to length and attach to the top of the inlet diffuser cover/flow control cartridge using PVC primer/cement. The extension handle should be about 12" shorter than the total riser height.



**ONLY**

# 5 Configure Outlet Diffuser

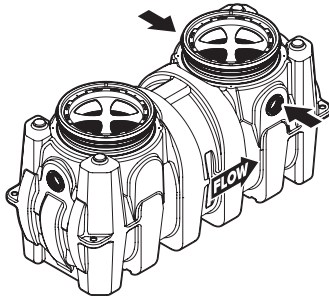
The GB-250 is manufactured with three outlets. Only one outlet will be connected to the drainline and the other two must be capped with the 4" cleanout plugs provided. The outlet diffuser comes pre-installed on the straight through end wall outlet connection.

If the straight through outlet connection will be used, **go to Step 5c.**

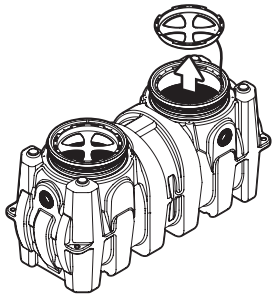
## 5a Choose the appropriate side outlet location

### Side Outlet:

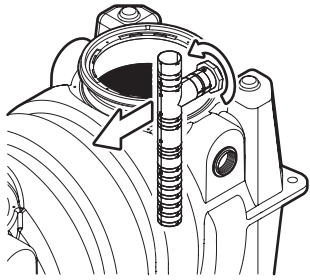
Go to Step 5b.



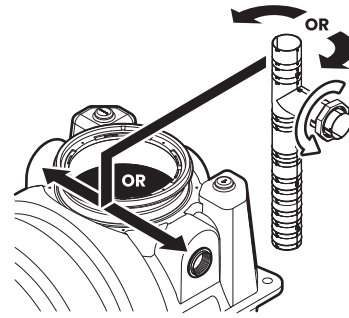
## 5b Reposition outlet diffuser from the straight through outlet to the chosen side outlet



Remove the Safety Star® leaving it tethered to the interceptor

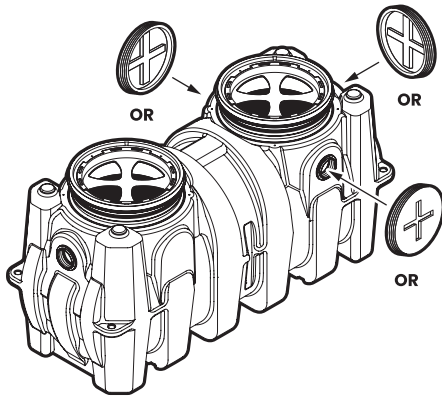


Untighten the green diffuser retaining nut and remove the outlet diffuser



Insert outlet diffuser into chosen connection and hand tighten green diffuser retaining nut

## 5c Cap unused connections (all configurations)



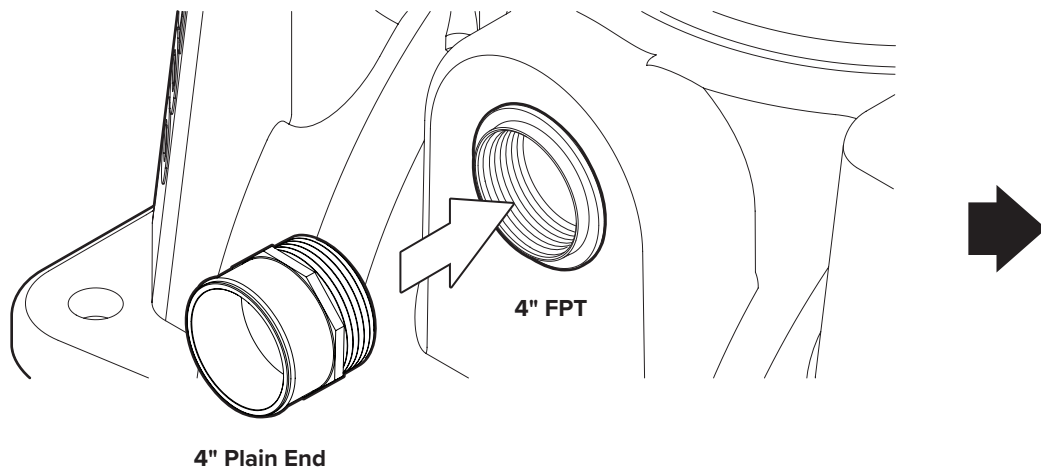
Cap the remaining two unused outlet connections with the 4" cleanout plugs provided using thread sealant or tape approved for use with plastics. **Do not cap the inlet or outlet connections with diffusers.**

# 6 Connect Piping to Interceptor

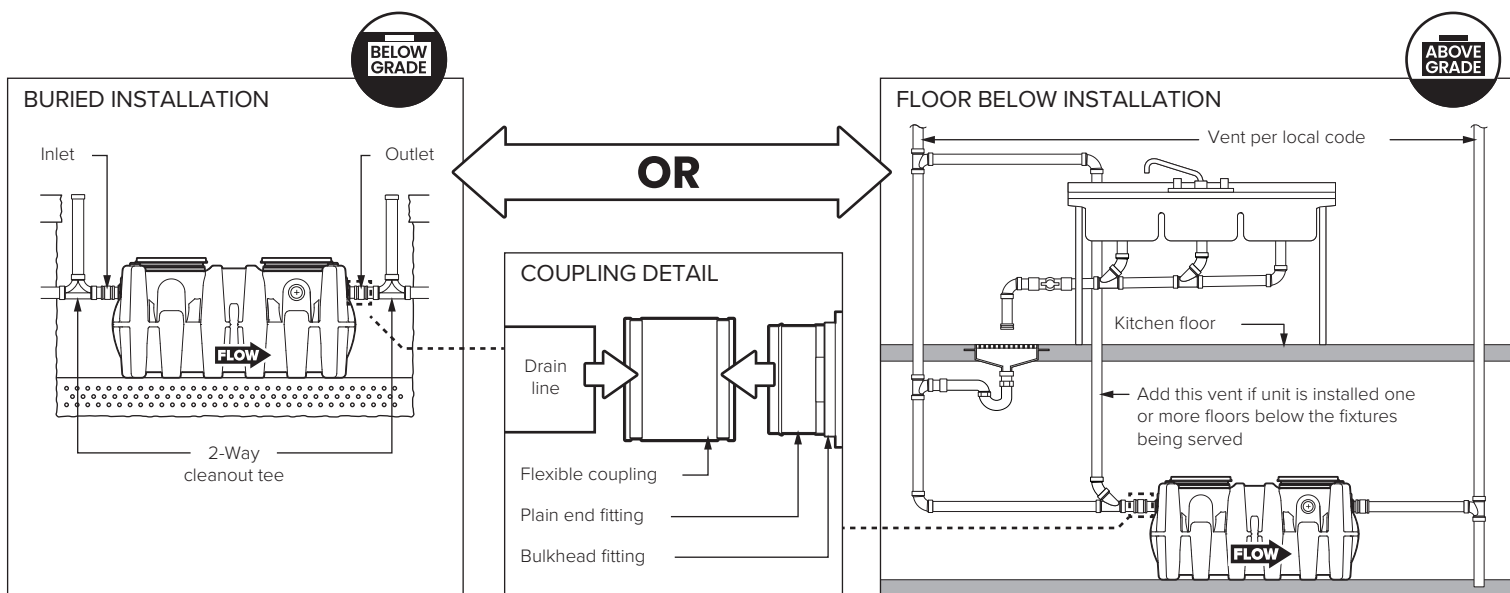
## 6a Install plain end fittings

Screw plain end fittings (2 - 4" MPT x 4" plain end fittings provided) into the inlet and outlet bulkhead fittings on the interceptor using pipe thread sealant or tape approved for use with plastics.

**Note:** 6" connections come pre-installed from the factory.



## 6b Connect the interceptor to drain lines



Place the interceptor into its final position and set level. Mechanically couple the inlet and outlet fittings to the drainline using a flexible coupler. **Do not glue or solvent weld.**

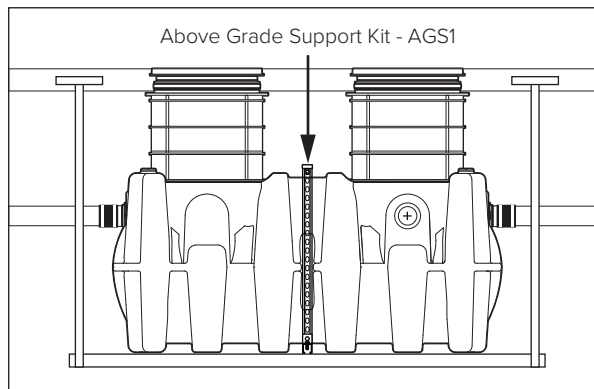
**Notes:** Ensure all upstream fixtures are trapped. Vent the drainline per local code. The installation of 2-way cleanout tees to grade is recommended for buried installations.



## 7 Install AGS1 Above Grade Support Kit (Suspended applications only)



The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation in suspended applications. To maintain the structural integrity of the interceptor, an above grade support kit is required when suspending the GB-250.



## 8 Wet or Air Test Piping Per Local Code

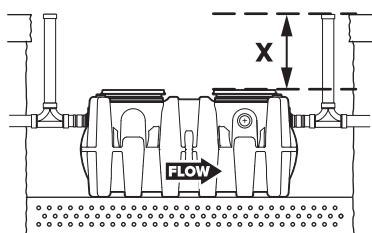
**! WARNING!** DO NOT AIR TEST UNIT OR RISER SYSTEM!  
Doing so may result in property damage, personal injury or death. The interceptor is intended for open system (vented) gravity drainage use only and should not be used in closed system pressure applications.

## 9 Bring Covers Flush-to-Grade



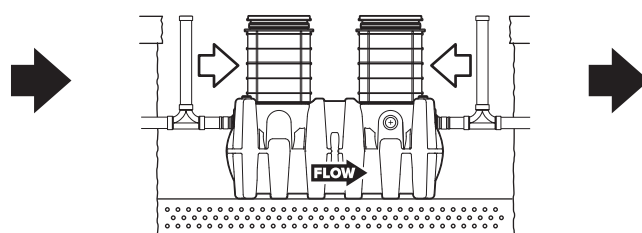
The GB-250 has a dimension of 13-1/2" from the centerline of the inlet and outlet to the top of the interceptor. The cover adapter (pre-installed) can add up to an additional 4" to that dimension. Deeper burials will require risers to extend the cover adapter to grade.

### 9a Measure dimension X to determine the riser height needed.



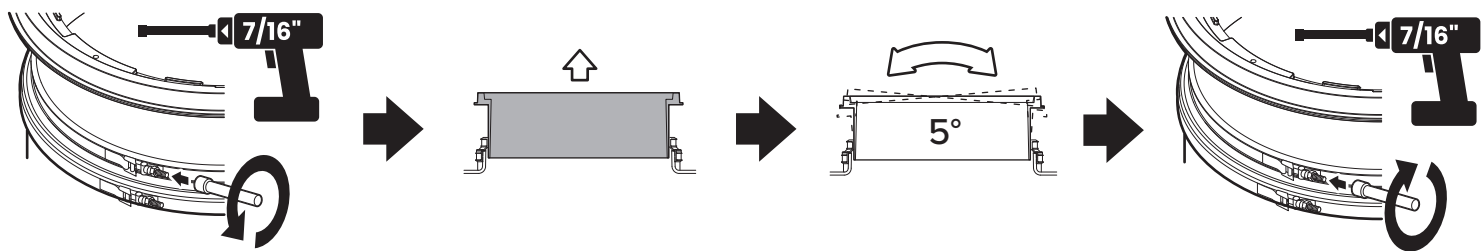
Riser Height Needed	Risers Required
0" - 4"	None (use adapter)
>4" - 34"	FCR2 (x2)
>34" - 64"	FCR2 (x4)
>64" - 94"	FCR2 (x6)

### 9b Install risers if required



See FCR2 riser instructions.

## 9c Make final cover adapter adjustments



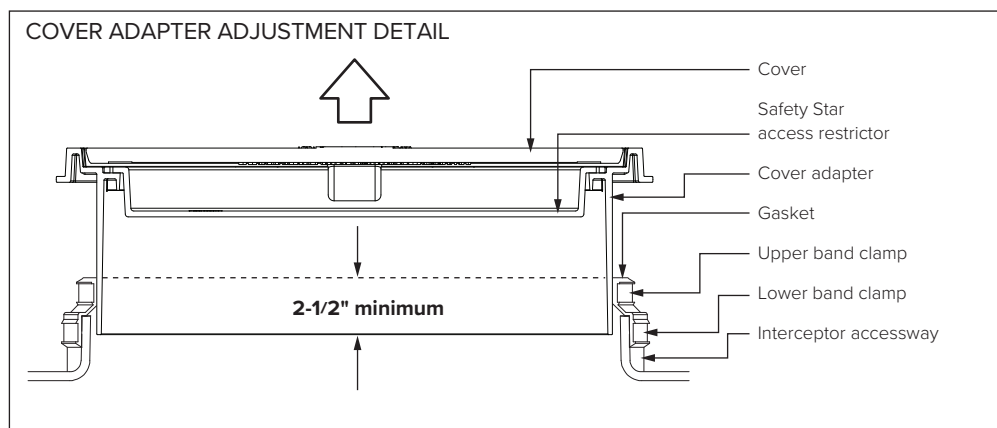
Loosen the upper band clamp using a 7/16" nut driver bit (provided)

Adjust cover adapter heights as needed.

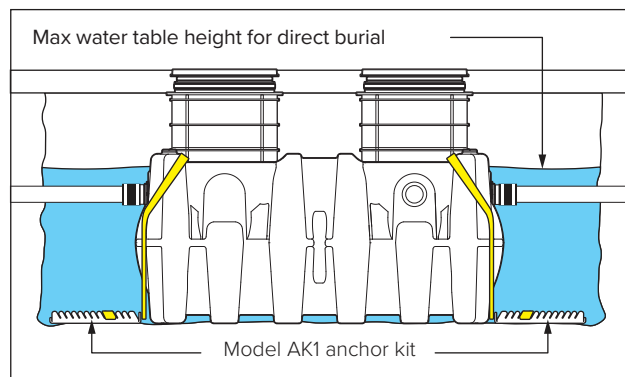
The cover adapters may be tilted up to 5° in any direction.

Tighten the upper band clamp to 5-8 ft. lbs. of torque using the 7/16" nut driver bit

**Note: Maintain a minimum 2-1/2" insertion depth of the cover adapter into the interceptor accessway.**



## 10 Install Anti-Flotation Anchor Kit (High Groundwater Level Applications Only)



If the interceptor is at risk of being exposed to groundwater, an anti-flotation anchor kit is required. Great Basin model GB-250 uses model AK1 anchor kit.

**Additional Protection Required:** If the interceptor is at risk of being exposed to groundwater levels higher than the top of the tank body, it must either be encased in concrete or installed inside a watertight concrete vault. Please contact Schier for concrete encasement guidance.

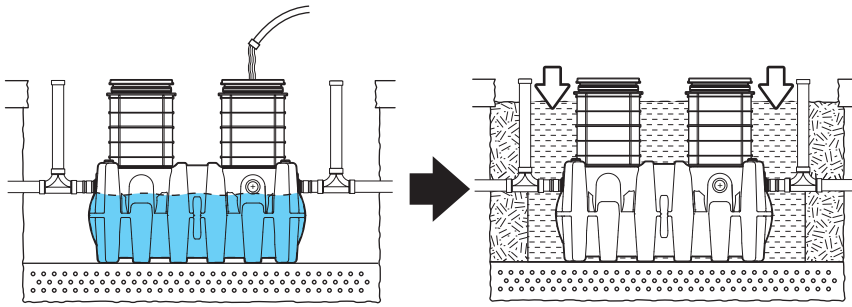
# 11 Backfill Around Interceptor



ONLY



Failure to follow this guidance voids your warranty



**11a** Fill the interceptor with water.

**11b** Backfill evenly around the interceptor and risers with clean, crushed stone approximately 1" in size (AASHTO M43 Size #57 or similar) free of debris and fines. **Native soil and sand are not approved backfill materials.**

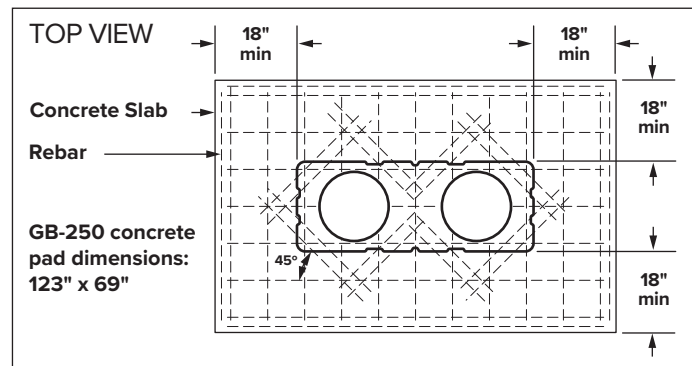
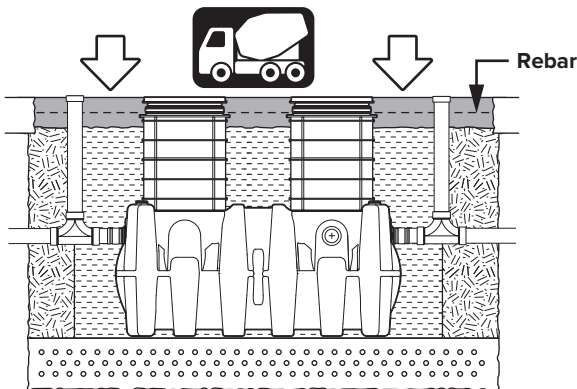


**Note:** Do not mechanically compact the backfill overtop and around the interceptor.

# 12 Concrete Slab at Grade Required



ONLY



## 12a Vehicular Traffic Areas

- Concrete slab at grade must have a minimum thickness of 8" and be reinforced with rebar.
- Pad dimensions must extend 18" beyond the silhouette of the interceptor; 123" X 69" for the GB-250
- Concrete should have 28 day compressive strength of 4,000 PSI
- Use No. 4 rebar ( $\varnothing \frac{1}{2}$ ") grade 60 steel per ASTM A615: connected with tie wire
- Rebar to be 2- $\frac{1}{2}$ " from the edge of the concrete and spaced in a 12" grid with 4" spacing around access openings.

## 12b Pedestrian Traffic or Greenspace Areas

- Concrete slab at grade must have a minimum thickness of 4" and be reinforced with rebar.
- Follow all other guidelines for vehicular traffic areas