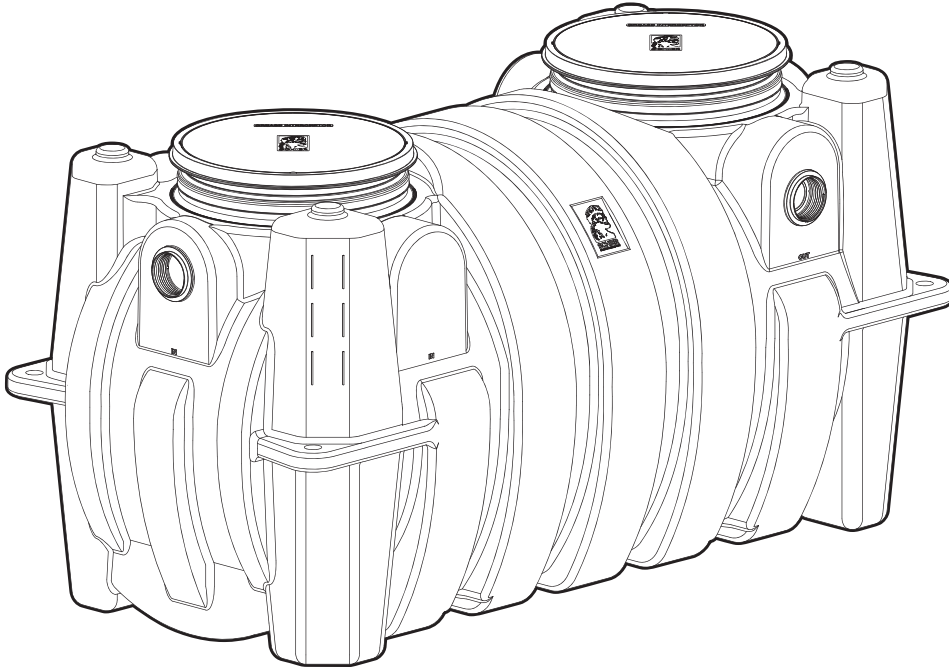

INSTALLATION GUIDE

GB-500 100 GPM Grease Interceptor for Indoor / Outdoor Use



Contents

| | |
|----------------------------------|-------|
| Special Precautions | 2-3 |
| Getting to Know the GB-500 | 4 |
| Buried Installation | 5-9 |
| On the Floor Installation | 10-13 |
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SCHIER

LIFETIME GUARANTEED **GREASE INTERCEPTORS**

Part #: 4075-001-01

Find these instructions online at: schierproducts.com/gb-500

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SPECIAL PRECAUTIONS

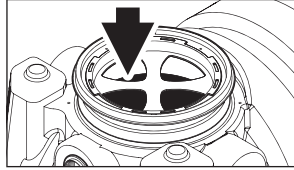
For Schier Grease Interceptor Installations – Failure to follow this guidance voids your warranty

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

CAUTION! Do not install this unit in any manner except as described in these instructions.

Installation Instructions

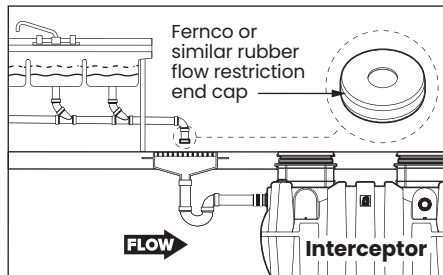
Installation instructions and additional components are included with the interceptor. Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.



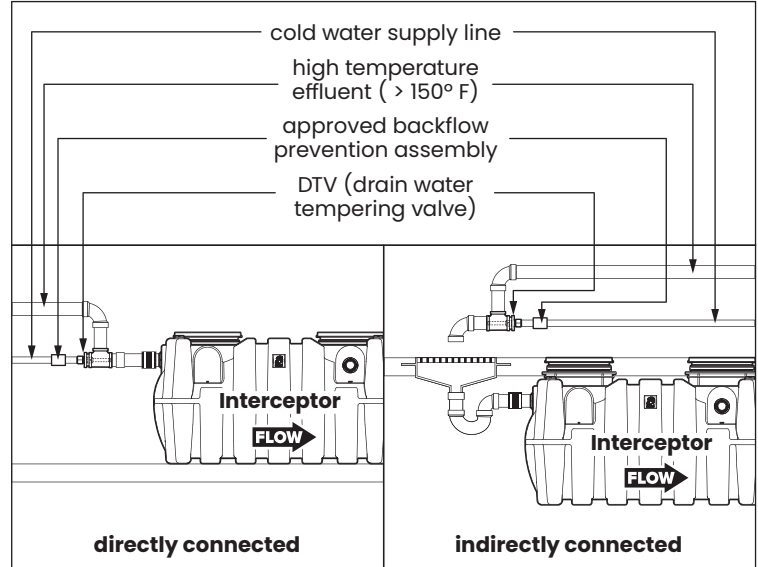
When Installing Interceptor Inside

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 for guidance. For detailed guidance on indirect connections, go to: webtools.schierproducts.com/Technical_Data/Indirect_Connections.pdf



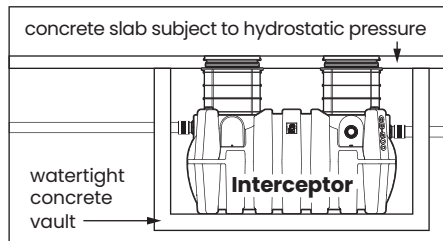
High Temperature Kitchen Water



If water is entering the interceptor at excessive temperature (over 150° F), a drain water tempering valve (DTV) and approved backflow prevention assembly must be installed. Most state and local plumbing codes prohibit water above 150° F being discharged into the sanitary sewer. Water above 150° 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).

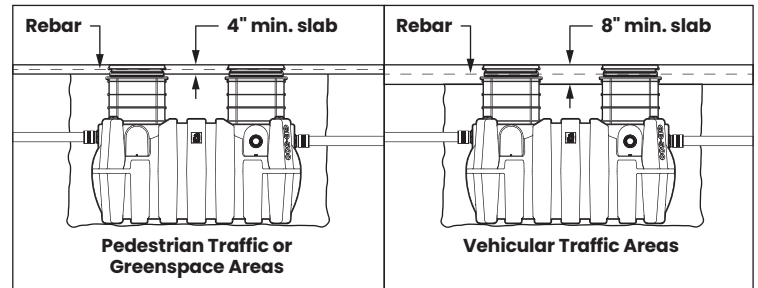
Hydrostatic Slabs (or Pressure Slabs)

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.



Below Grade Installation Slab Requirements

A concrete slab to finished grade with rebar is required when installing interceptor below grade.





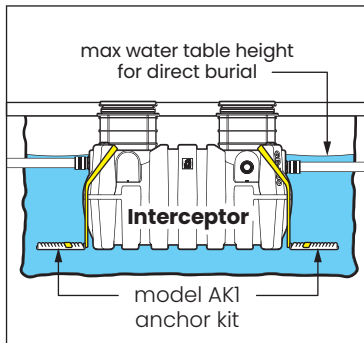
SPECIAL PRECAUTIONS

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

High Water Table Installations

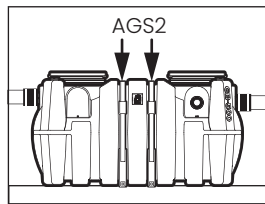
Interceptors and risers are not designed to withstand water table height in excess of the top of the unit when buried (see figure). If it is possible for this to occur, install the interceptor and risers in a water-tight concrete vault or backfill with concrete or flowable fill (wet concrete and flowable 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. Great Basin™ models that are direct buried in high water table scenarios must be installed with an anchor kit. Model GB-500 uses model AK1 anchor kit.



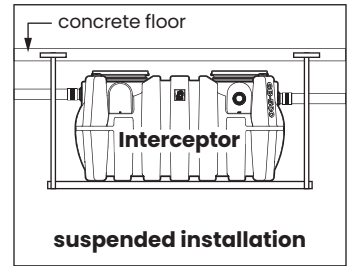
Above Grade Installation Support (for Model GB-500 Only)

The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation when installed above grade. Model GB-500 installed above grade must be installed with Above Grade Support Kit model AGS2 to maintain structural integrity.



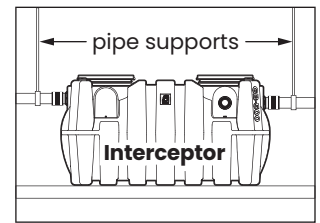
Fully Support Base of Unit

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.

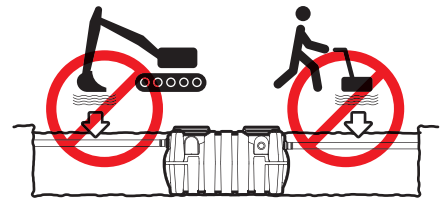


Support Inlet and Outlet Piping

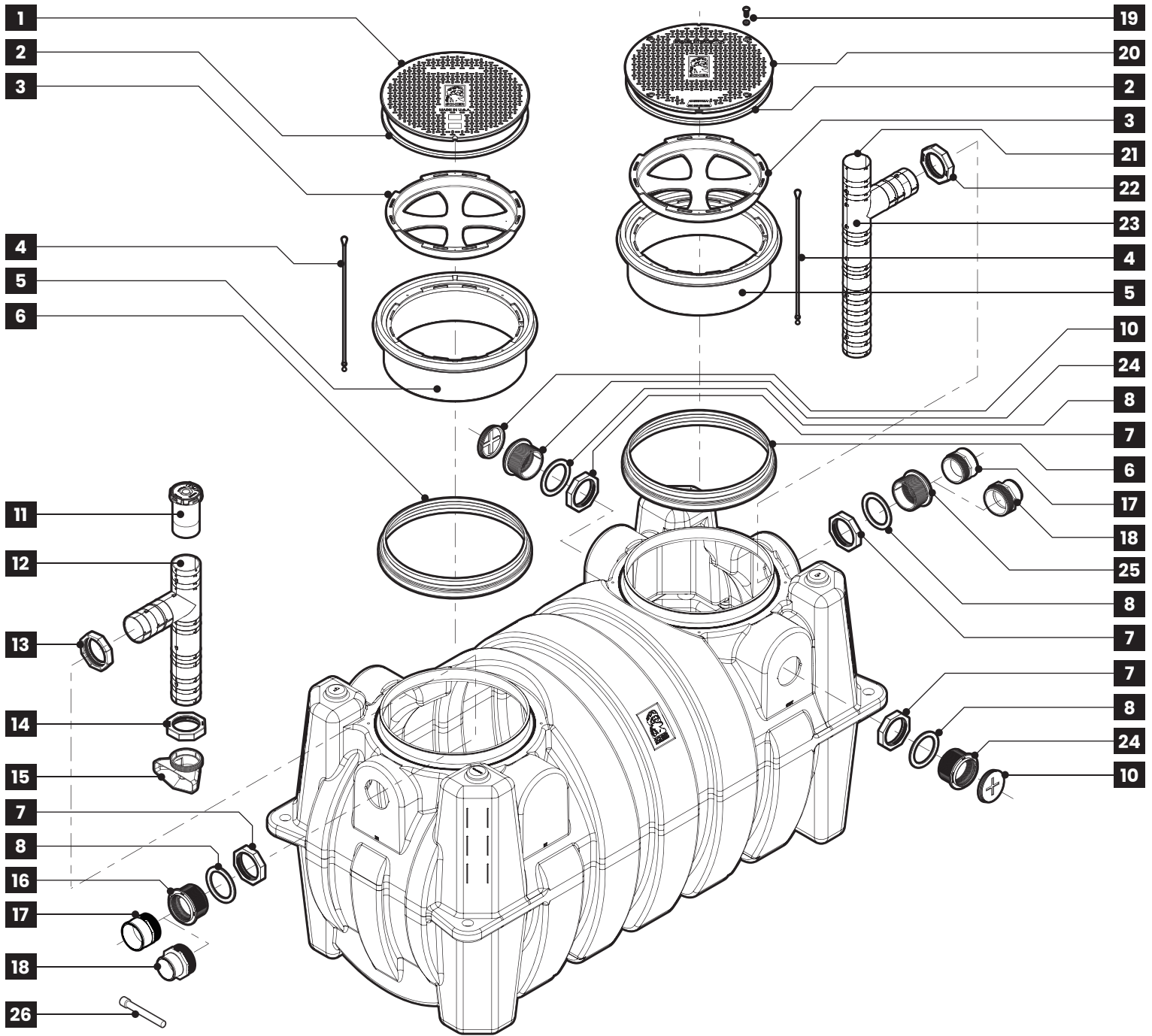
For above grade installations ensure heavy inlet and outlet piping (such as cast iron or long runs) is properly supported or suspended during the entire installation process to prevent connection failure or damage to bulkhead fittings.



DO NOT COMPACT BACKFILL



GETTING TO KNOW THE GB-500



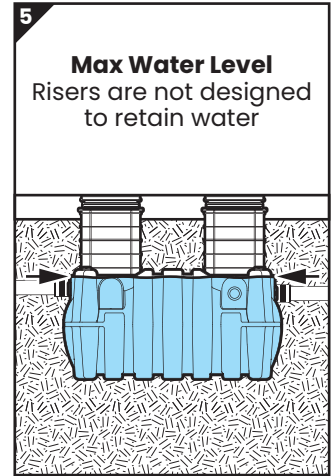
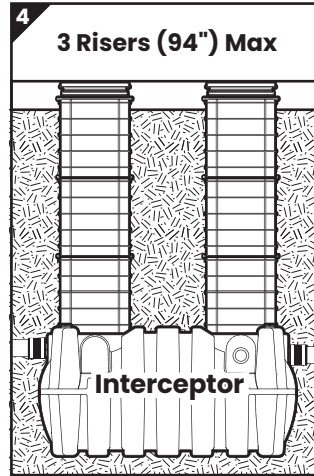
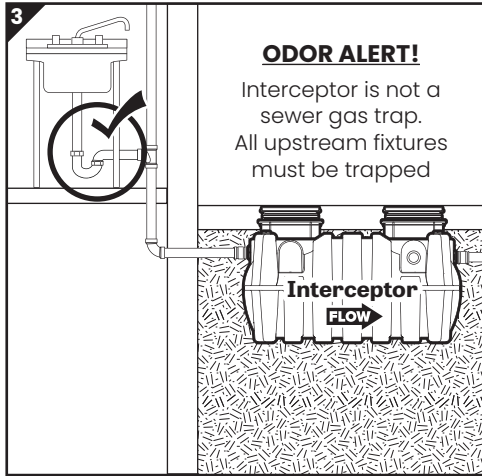
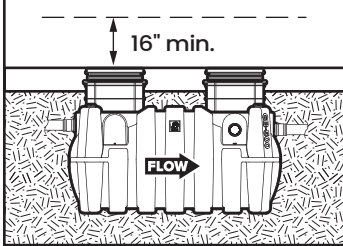
- | | | |
|---|--|---|
| 1. Pickable Cast Iron Cover (standard) | 11. Flow Control Cartridge (>13' below kitchen only) | 19. Composite Cover Bolts and Washers (x8) |
| 2. Cover Gasket | 12. Inlet Diffuser | 20. Bolted Composite Cover (optional) |
| 3. Safety Star (x2) | 13. Inlet Diffuser Retaining Nut | 21. Air Relief/Visual Access |
| 4. Safety Star Tether (x2) | 14. Inlet Diffuser Foot Retaining Nut | 22. Outlet Diffuser Retaining Nut |
| 5. Cover Adapter (x2) | 15. Inlet Diffuser (Foot) | 23. Outlet Diffuser |
| 6. Cover Adapter Gasket Assembly(x2) with Upper and Lower Stainless Steel Band Clamps | 16. Inlet Bulkhead Connection (standard) 4" FPT | 24. Outlet Bulkhead Connection (optional) 4" FPT (x2) |
| 7. Bulkhead Connection Retaining Nut | 17. 4" Plain End Fitting (x2) | 25. Outlet Bulkhead Connection (standard) 4" FPT |
| 8. Bulkhead Connection Gasket | 18. 3" Plain End Fitting (x2) (optional) | 26. 7/16" Nut Driver Bit |
| 10. 4" Cleanout Plug (x2) | | |

BURIED INSTALLATION

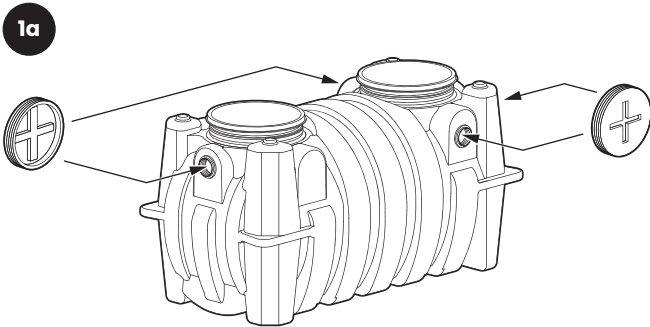
Special Precautions

1 Install interceptor as close as possible to fixtures being served

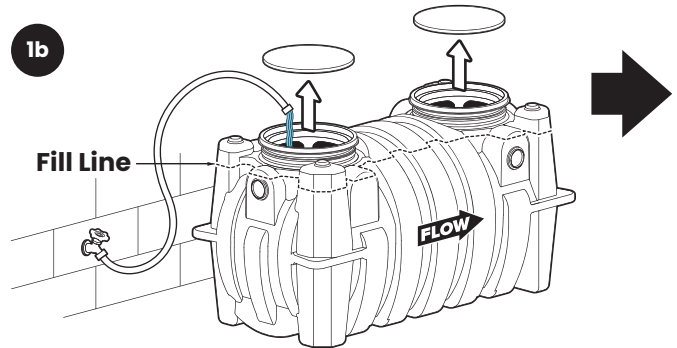
2 Provide at least 16" clearance above unit for routine maintenance.



1 Test tank for water tightness

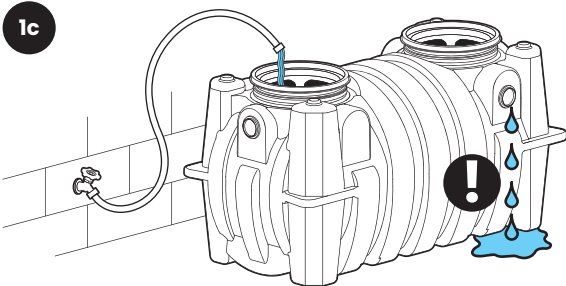


Cap all connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.



Remove covers. For base unit testing fill with water to just above the highest connection.

Inspect unit, connections and gaskets for leaks. Check water level at specific time intervals per local code.



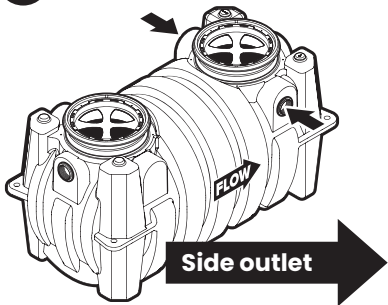
Leak?

Call customer care at 913-951-3300
8a – 5p M – F CST

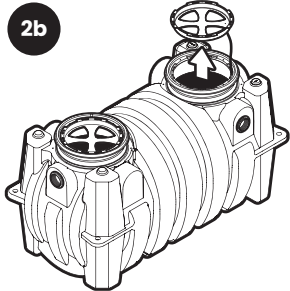
BURIED INSTALLATION

2 Set Up Outlet Diffuser and Install Cleanout Plugs

2a Choose outlet location.

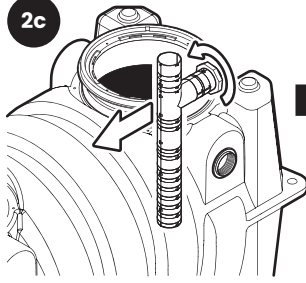


2b



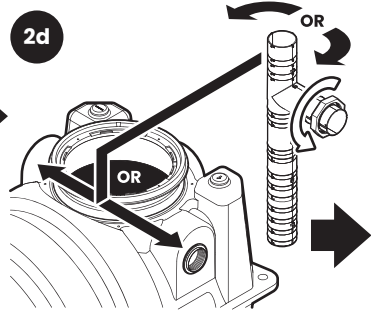
Remove safety star insert, leave tethered to unit.

2c



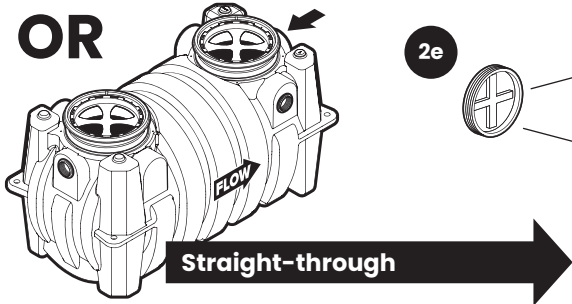
Unscrew diffuser retaining nut and remove outlet diffuser.

2d

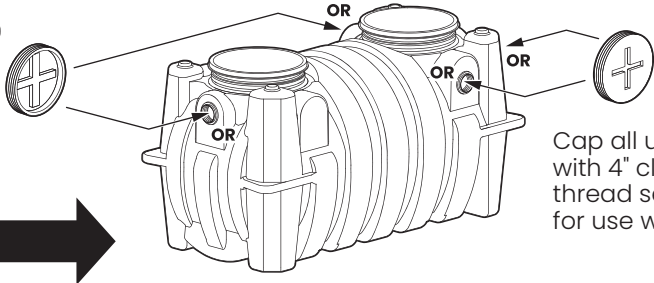


Rotate diffuser toward chosen outlet, insert and hand tighten retaining nut.

OR



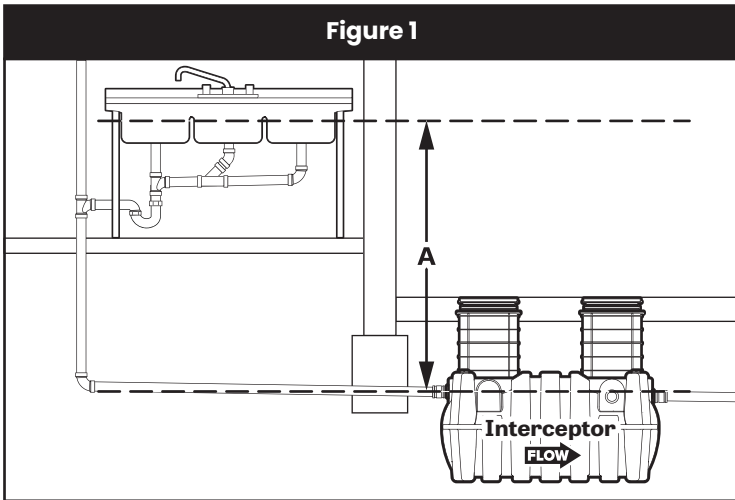
2e



Cap all unused connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.

BURIED INSTALLATION

3 Install Flow Control



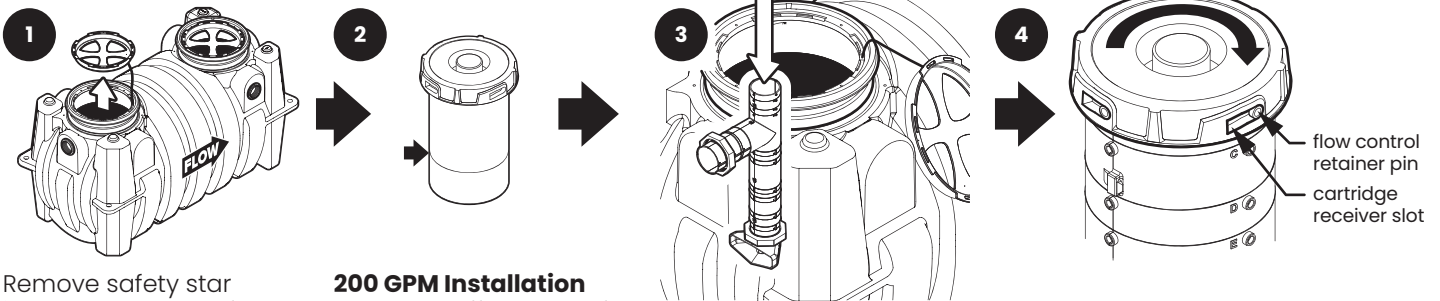
Note to Plumbing Inspector

This interceptor includes certified internal flow control and does not require a dedicated "Flow Control Vent" (air intake).

Flow control is not pre-installed on this unit.

- If dimension "A" is 13 feet or less no flow control is needed, **go to Step 5, Excavate Burial Pit**
- If dimension "A" in Figure 1 is more than 13 feet, or a high flow/increased head pressure condition exists, **follow Steps below.**

3a UNITS WITH 4" DIFFUSERS



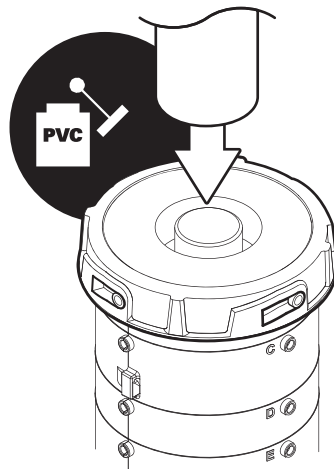
Remove safety star insert and remove flow control cartridge from the parts bag

200 GPM Installation Only: Cut off bottom of flow control cartridge at marked line.

Slide flow control cartridge into top of inlet diffuser and rotate clockwise until cartridge drops onto flow control retainers. Continue rotating clockwise until pins are fully seated.

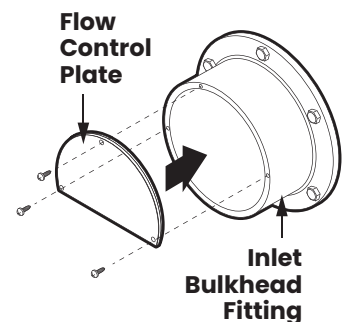
5

OPTIONAL: For easy flow control removal in deep burial installations, 1-1/2" PVC SCH. 40 pipe may be used as an extension handle. Before risers have been installed, cut pipe to length and attach to top of flow control cartridge using PVC primer/cement.



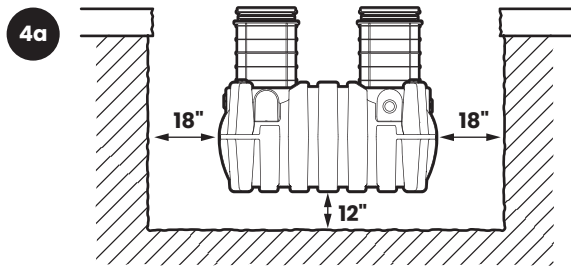
OR 3b UNITS WITH 6" DIFFUSERS

Install flow control plate on the inlet bulkhead fitting prior to connecting piping and burial. Fasten plate to 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.

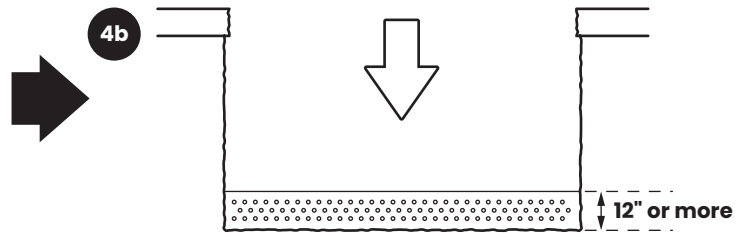


BURIED INSTALLATION

4 Excavate Burial Pit

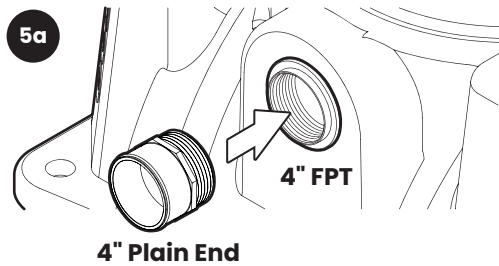


Excavate hole at least 18" larger than interceptor on all sides and 12" deeper than tank bottom.

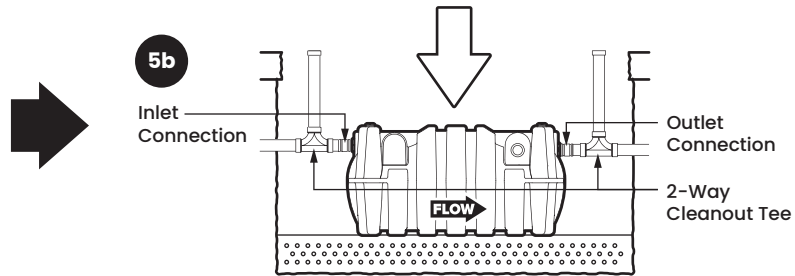


Lay a level bed of well-packed, crushed aggregate (approximately 3/4" size rock or sand, with no fines) in the base of hole.

5 Connect Piping



Screw plain end fittings (included) into bulkhead fittings using pipe thread sealant or tape approved for use with plastics. 6" connection types come pre-installed from the factory.



Lower unit into pit and set level. Mechanically couple inlet and outlet drainage lines to unit. **Do not solvent weld.** Ensure all upstream fixtures are trapped. Vent per local code. Installation of 2-way cleanout tees to grade (by others) is recommended.

6 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.

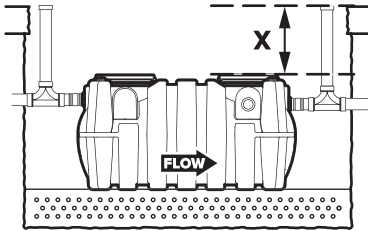
Leak? Call customer care at
913-951-3300
8a - 5p M - F CST

BURIED INSTALLATION

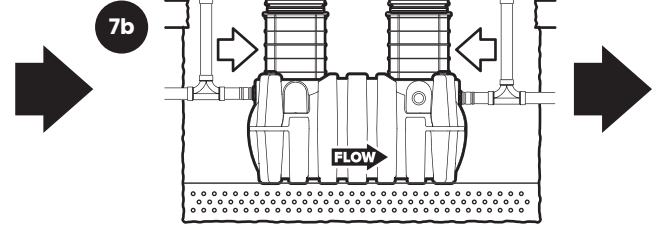
7 Bring Covers Flush-to-Grade

The GB-500 is ready for burial depth of 49-1/2" from finished grade to bottom of tank (or 10-1/2" to centerline of inlet). Deeper burials will require extending the Cover Adapters and possibly adding risers.

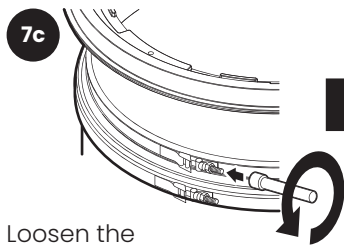
7a Measure dimension X to determine riser height needed.



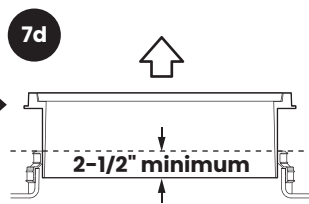
| Riser Height Needed | Risers Required |
|---------------------|--------------------|
| 0" - 4" | None (use adapter) |
| >4" - 34" | FCR2 (x2) |
| >34" - 64" | FCR2 (x4) |
| >64" - 94" | FCR2 (x6) |



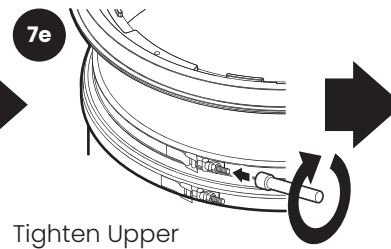
Install risers if required (see instructions included with FCR2).



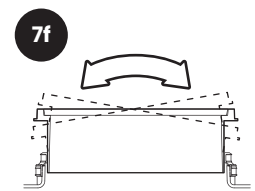
Loosen the Cover Adapter Upper Band Clamp using 7/16" Nut Driver Bit.



Adjust Cover Adapter heights as needed. **Maintain a minimum 2-1/2" insertion depth.**

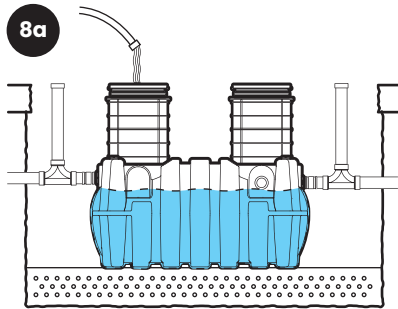


Tighten Upper Band Clamp to 5 -8 ft. lbs. of torque using 7/16" Nut Driver Bit.

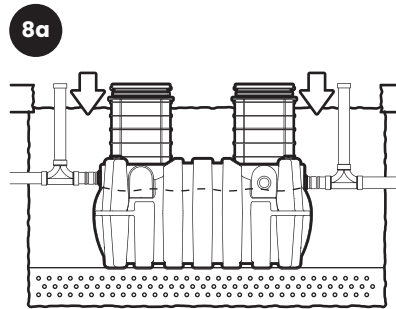


If required, Cover Adapters may now be tilted up to 10° in any direction using gasket flexibility.

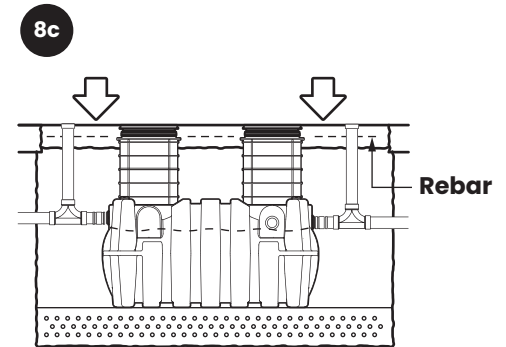
8 Backfill and Finished Grade



Fill unit with water for stabilization and float-out prevention.



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.**



Pour concrete slab to finished grade.

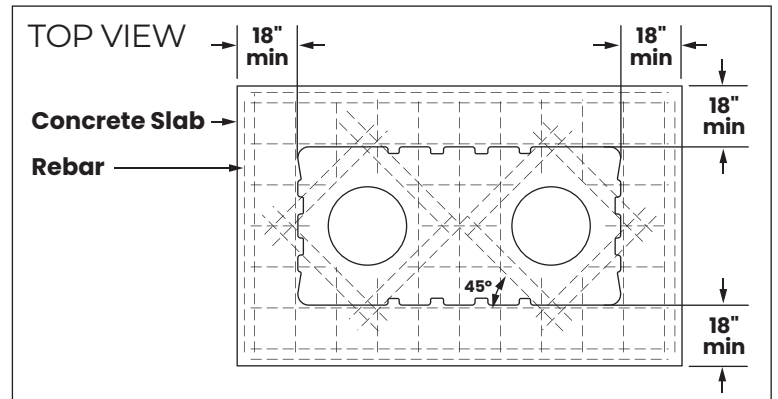
8c1

Vehicular Traffic Areas:

Minimum 8" thick concrete slab with rebar required. Thickness of concrete around covers 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.

Pedestrian Traffic or Greenspace Areas:

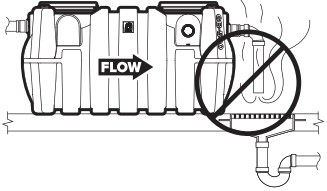
Minimum 4" thick concrete slab with rebar required.



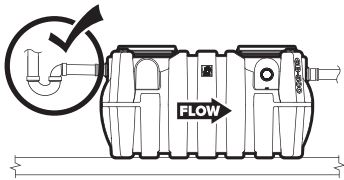
ON THE FLOOR INSTALLATION

Special Precautions

1 **ODOR ALERT!**
Do not install air gap on outlet side of interceptor.

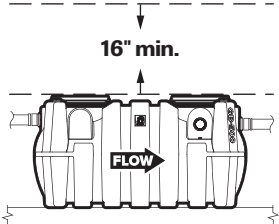


2 **ODOR ALERT!**
Interceptor is not a sewer gas trap. All upstream fixtures must be trapped.

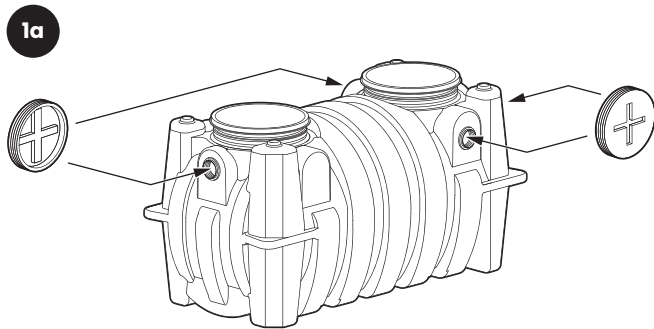


3 **Install interceptor as close as possible to fixtures being served**

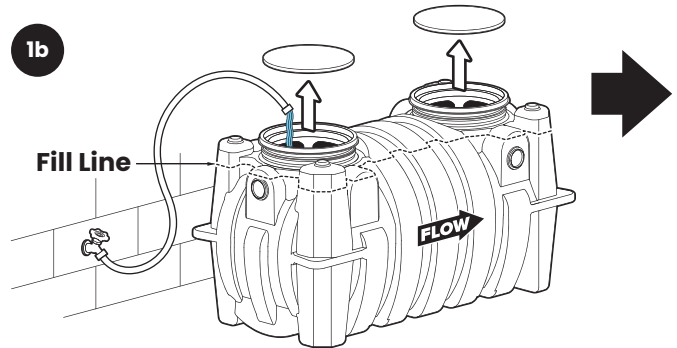
4 **Provide at least 16" clearance above unit for routine maintenance.**



1 Test tank for water tightness

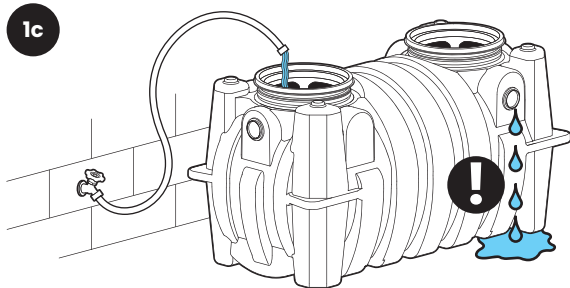


Cap all connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.



Remove covers. For base unit testing fill with water to just above the highest connection.

Inspect unit, connections and gaskets for leaks. Check water level at specific time intervals per local code.



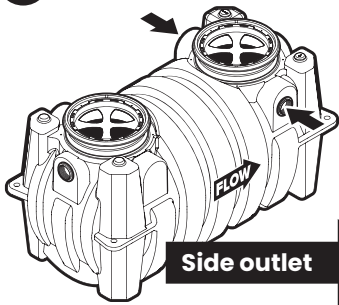
Leak?

Call customer care at 913-951-3300
8a – 5p M – F CST

ON THE FLOOR INSTALLATION

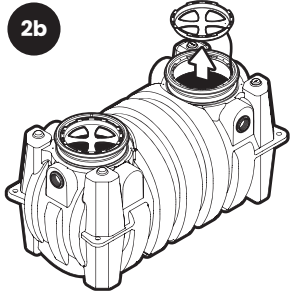
2 Set Up Outlet Diffuser and Install Cleanout Plugs

2a Choose outlet location.



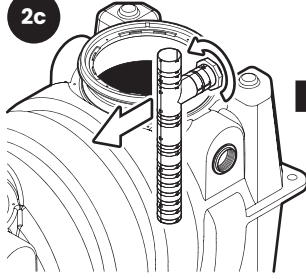
Side outlet

2b



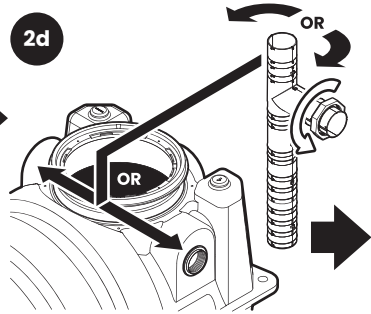
Remove safety star insert, leave tethered to unit.

2c



Unscrew diffuser retaining nut and remove outlet diffuser.

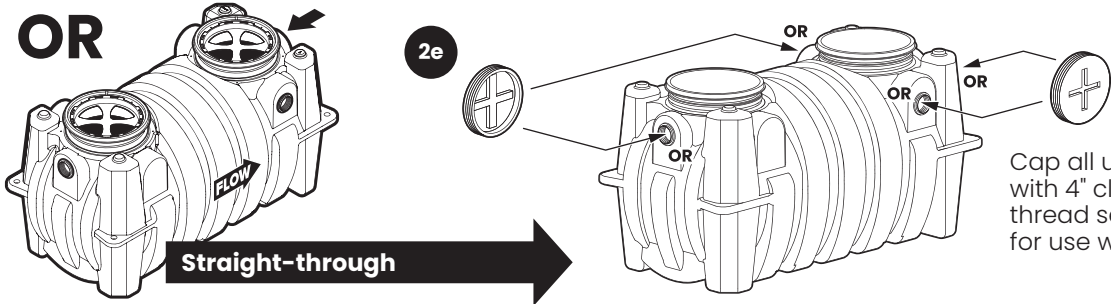
2d



Rotate diffuser toward chosen outlet, insert and hand tighten retaining nut.

OR

2e

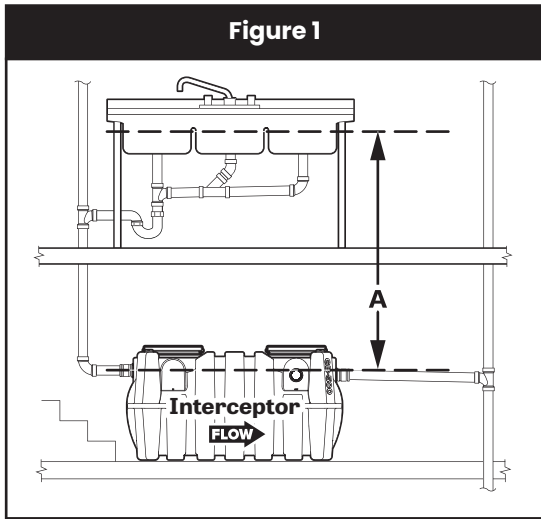


Straight-through

Cap all unused connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.

ON THE FLOOR INSTALLATION

3 Install Flow Control



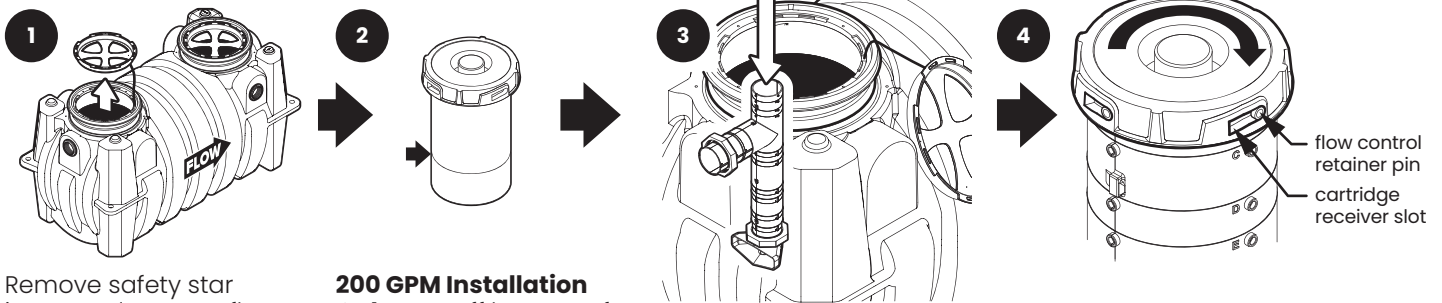
Note to Plumbing Inspector

This interceptor includes certified internal flow control and does not require a dedicated "Flow Control Vent" (air intake).

Flow control is not pre-installed on this unit.

- If dimension "A" is 13 feet or less no flow control is needed, **go to Step 5, Connect Piping**
- If dimension "A" in Figure 1 is greater than 13 feet, or a high flow/increased head pressure condition exists, **follow Steps below.**

3a UNITS WITH 4" DIFFUSERS



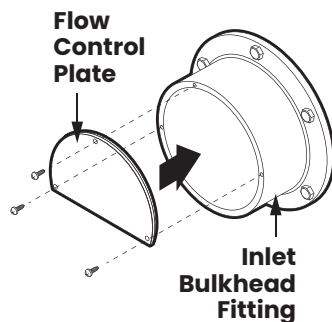
1 Remove safety star insert and remove flow control cartridge from the parts bag

2 **200 GPM Installation Only:** Cut off bottom of flow control cartridge at marked line.

3 Slide flow control cartridge into top of inlet diffuser and rotate clockwise until cartridge drops onto flow control retainer pins. Continue rotating clockwise until pins are fully seated.

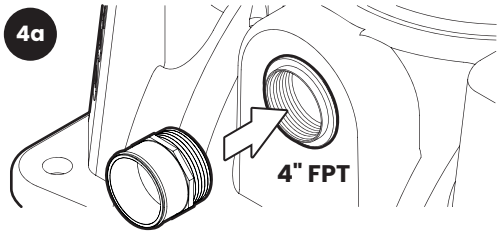
OR 3b UNITS WITH 6" DIFFUSERS

Install flow control plate on the inlet bulkhead fitting prior to connecting piping and burial. Fasten plate to 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.



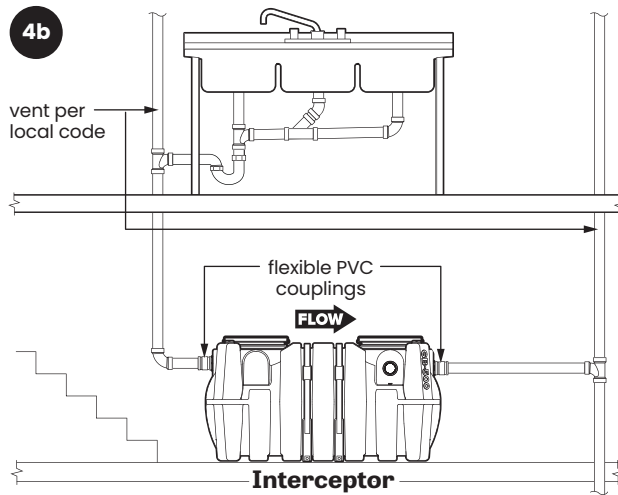
ON THE FLOOR INSTALLATION

4 Connect Piping



4" Plain End

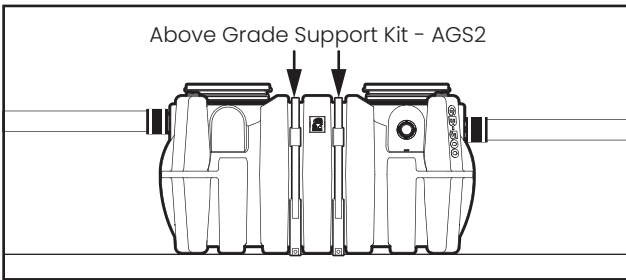
Screw plain end fittings (included) into bulkhead fittings using pipe thread sealant or tape approved for use with plastics. 6" connection types come pre-installed from the factory.



Floor Below Installation Detail

Mechanically couple inlet and outlet drainage lines to unit. **Do not solvent weld.** Ensure all upstream fixtures are trapped. Vent per local code.

5 Install AGS2 Above Grade Support Kit (sold separately)



The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation when installed above grade. Model GB-500 installed above grade must be installed with Above Grade Support Kit model AGS2 to maintain structural integrity. Refer to installation instructions included with AGS2.

6 Wet or Air Test Piping Per Local Code



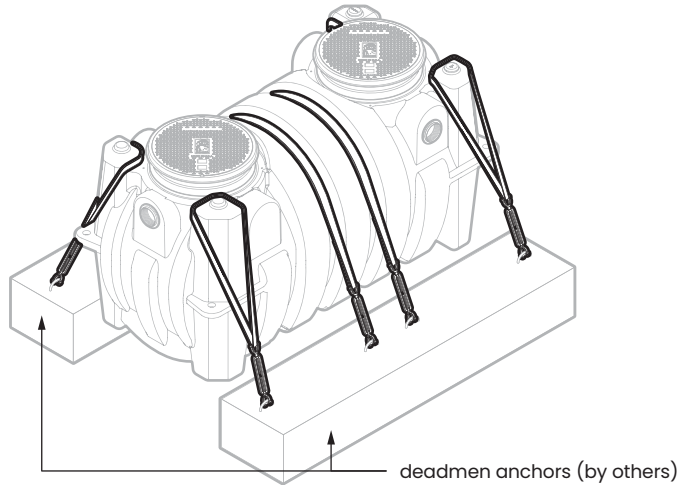
Leak? Call customer care at 913-951-3300
8a - 5p M - F CST

INSTALLATION OPTIONS

1 High Water Table Installations, See Anchor Kit Model AK2

Deadmen Anchoring:

If the installation location is in a high water table area or at risk area (including but not limited to tidal surge areas, floodplains and areas that receive storm water) the GB-500 must be secured to concrete deadmen anchors (by others) using Schier model AK2 anchor kit.

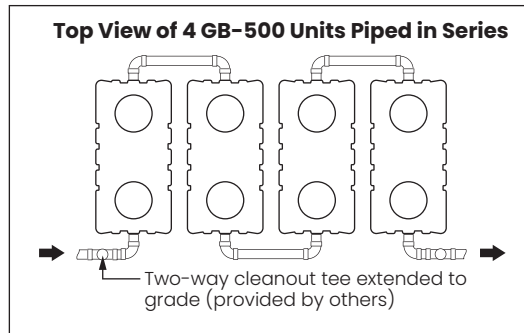


2 Series Installations

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

Below grade installations: All units must be level in the excavation pit. Note that downstream units must be buried 2" deeper than the adjacent, upstream fixture. Two-way cleanout tees extended to finished grade should be installed before the first unit inlet, after the last unit outlet and in between units (if there is a long run of pipe between units) for line cleaning purposes.

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



Rated Grease Capacities for Units Piped in Series

| No. of Units in Series | Removal Efficiency |
|------------------------|--------------------|
| | 100 GPM 95.3% |
| 2 | 6,096 lbs. |
| 3 | 9,144 lbs. |
| 4 | 12,192 lbs. |

