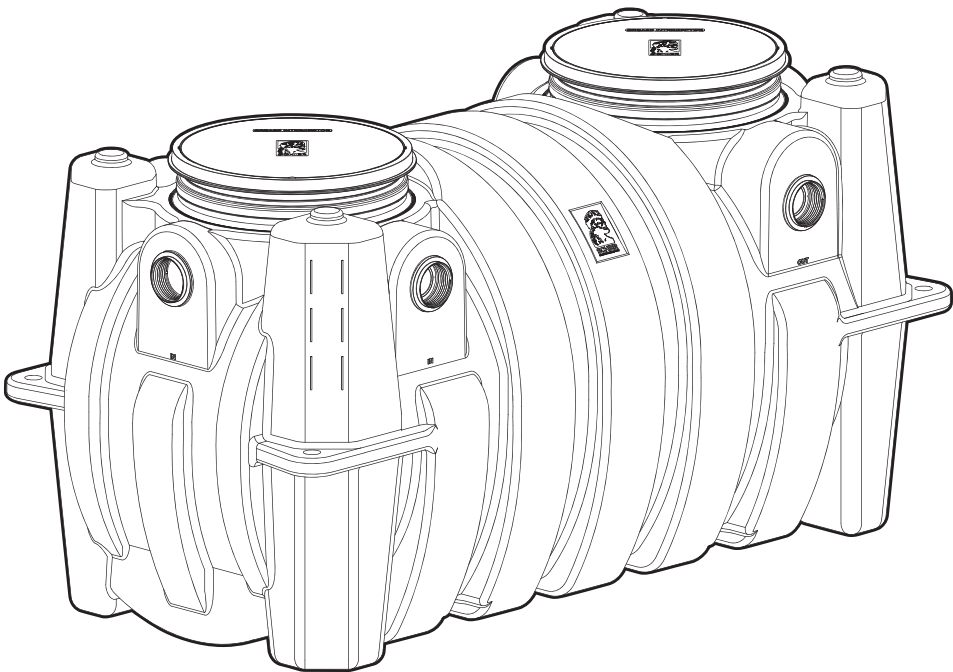


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# INSTALLATION GUIDE

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## SI-500 510 Gallon Solids Interceptor for Indoor / Outdoor Use



### Contents

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Special Precautions .....	2
Getting to Know the SI-500 .....	3
Buried Installation .....	4-7
On the Floor Installation .....	8-10
Installation Options .....	11
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# SCHIER

**LIFETIME GUARANTEED  
SOLIDS INTERCEPTORS**



# SPECIAL PRECAUTIONS

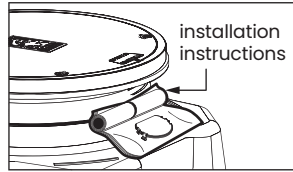
For Schier Solids Interceptor Installations – Failure to follow this guidance voids your warranty

**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

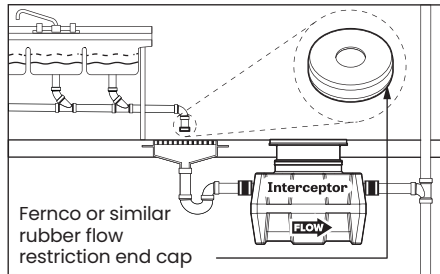
Installation instructions and additional components are included with the interceptor. Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.



## When Installing Interceptor Inside

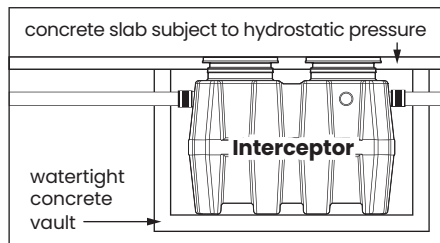
If your dishwashing sink(s) discharges into a floor drain/sink (drain), you must regulate the flow into the drain to avoid an overflow of water onto the kitchen floor. This can be done by installing a valve or flow restriction cap on the sink piping that discharges into the drain. See drawing for guidance.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

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



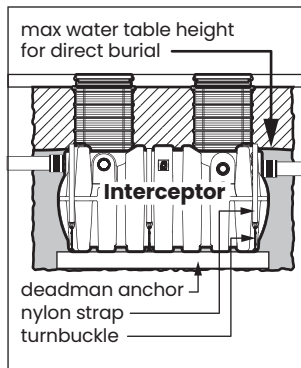
## Hydrostatic Slabs (or Pressure Slabs)

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.



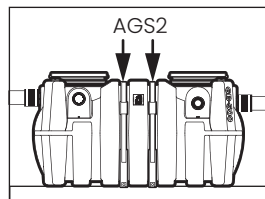
## High Water Table Installations

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. Billy Goat™ models that are direct buried in high water table scenarios must be installed with an anchor kit. Models SI-50, SI-75, and SI-250 use model AK1 anchor kit. Model SI-500 uses model AK2 anchor kit for use with deadmen anchors.



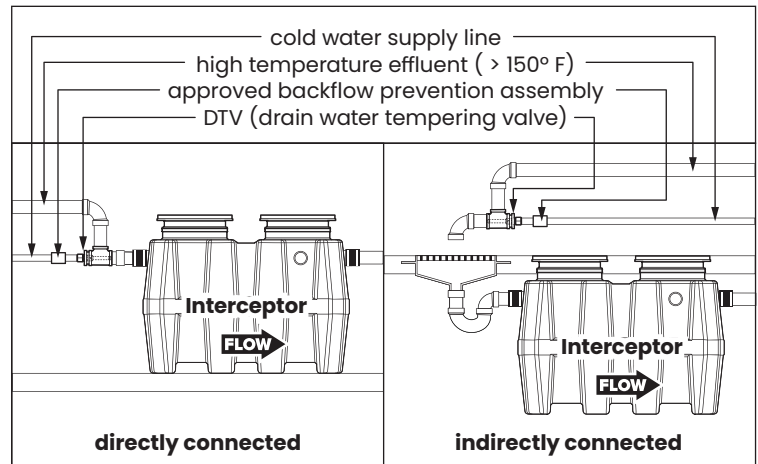
## Above Grade Installation Support (for Model SI-500 Only)

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



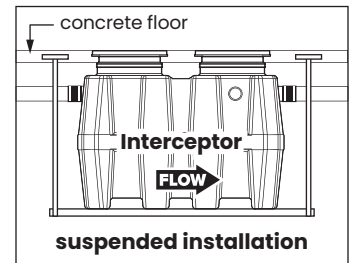
## High Temperature Kitchen Water

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).



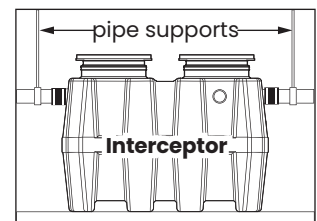
## Fully Support Base of Unit

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

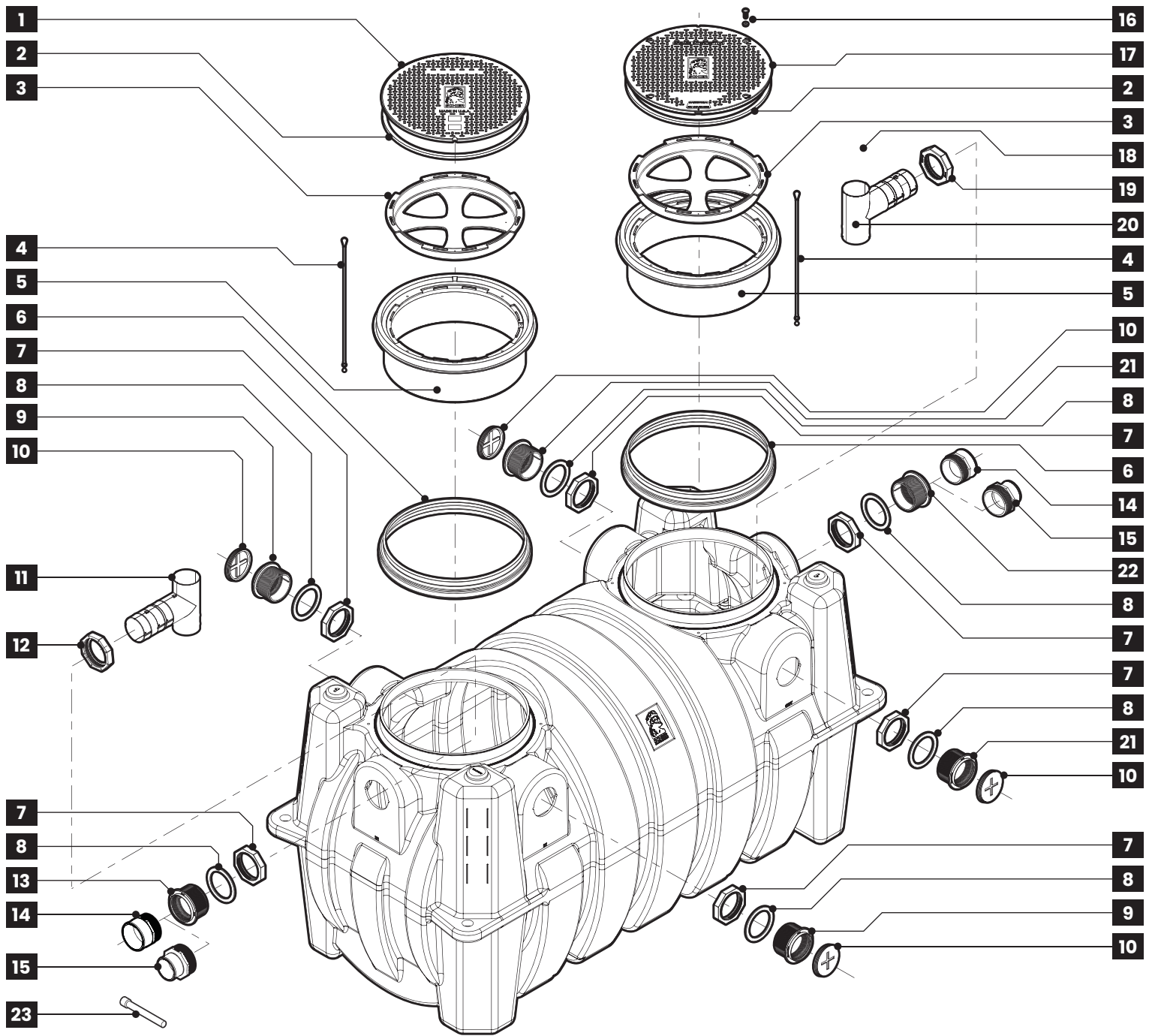
For above grade installations ensure heavy inlet and outlet piping (such as cast iron or long runs) is properly supported or suspended during the entire installation process to prevent connection failure or damage to bulkhead fittings.



**DO NOT  
COMPACT  
BACKFILL**



# GETTING TO KNOW THE SI-500



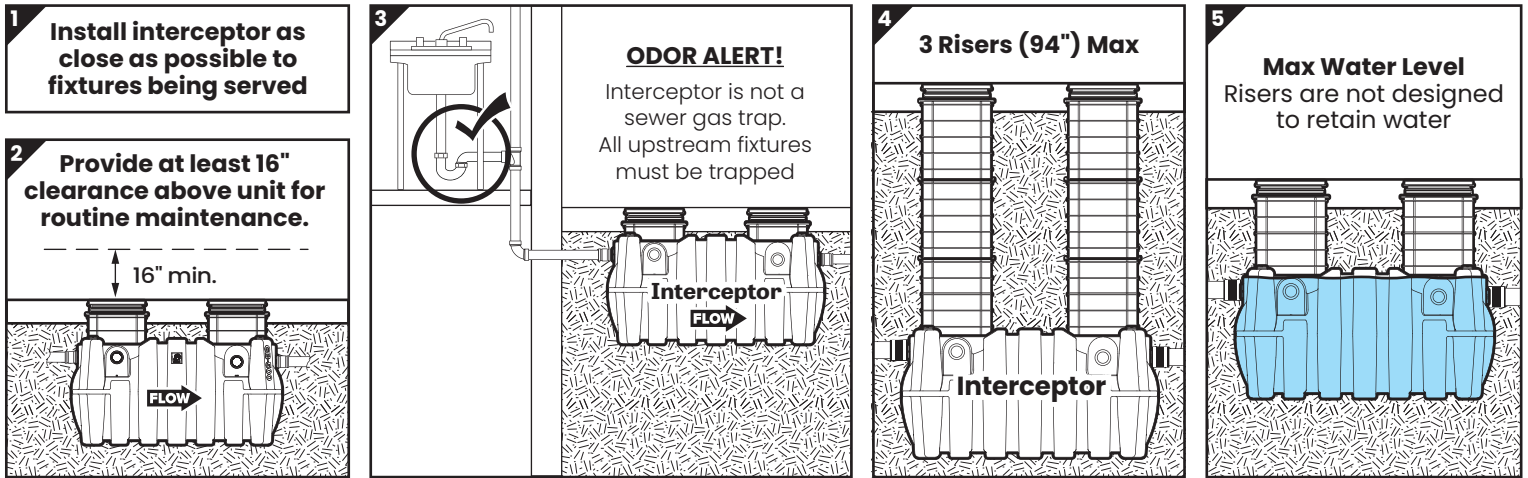
1. Pickable Cast Iron Cover (standard)
2. Cover Gasket
3. Safety Star (x2)
4. Safety Star Tether (x2)
5. Cover Adapter (x2)
6. Cover Adapter Gasket Assembly (x2) with Upper and Lower Stainless Steel Band Clamps
7. Bulkhead Connection Retaining Nut
8. Bulkhead Connection Gasket
9. Inlet Bulkhead Connection (optional) 4" FPT (x2)

10. 4" Cleanout Plug (x4)
11. Inlet Diffuser
12. Inlet Diffuser Retaining Nut
13. Inlet Bulkhead Connection (standard) 4" FPT
14. 4" Plain End Fitting (x2)
15. 3" Plain End Fitting (x2) (optional)
16. Composite Cover Bolts and Washers (x8)
17. Bolted Composite Cover (optional)
18. Air Relief/Visual Access

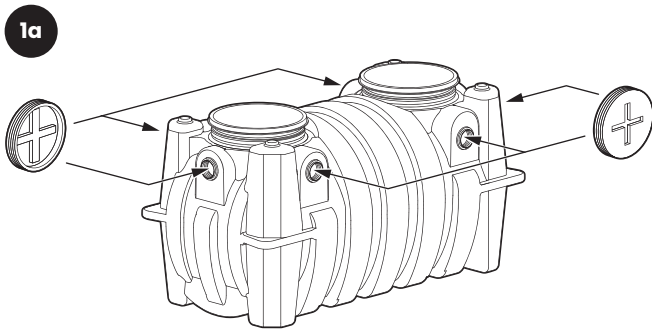
19. Outlet Diffuser Retaining Nut
20. Outlet Diffuser
21. Outlet Bulkhead Connection (optional) 4" FPT (x2)
22. Outlet Bulkhead Connection (standard) 4" FPT
23. 7/16" Nut Driver Bit

# BURIED INSTALLATION

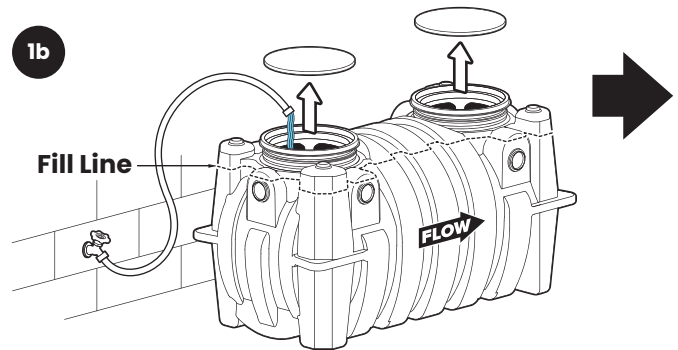
## Special Precautions



## 1 Test tank for water tightness

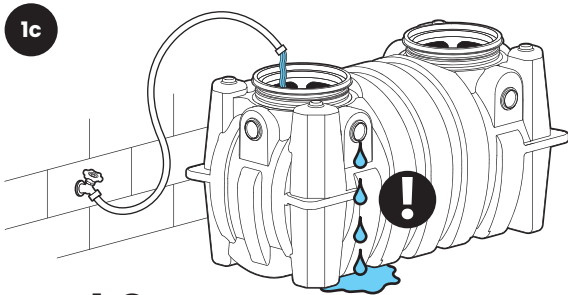


Cap all connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.



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?

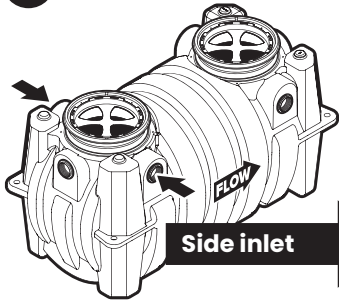
Call customer care at 913-951-3300  
8a – 5p M – F CST



# BURIED INSTALLATION

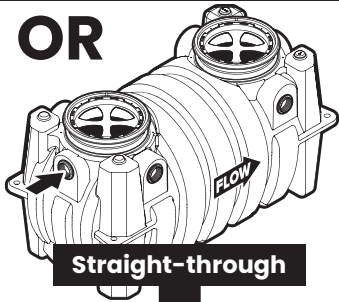
## 2 Set Up Inlet Diffuser

**2a Choose inlet location.**



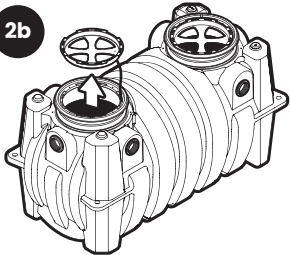
**Side inlet**

**OR**



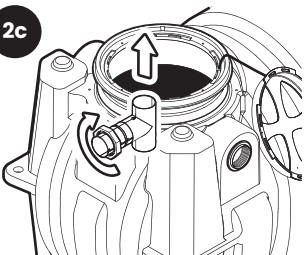
**Straight-through**

**2b**



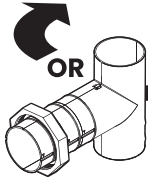
Remove safety star insert, leave tethered to unit.

**2c**



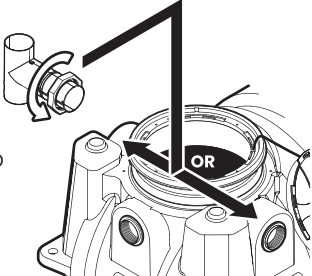
Unscrew diffuser retaining nut and remove inlet diffuser.

**2d**



Rotate diffuser top toward chosen inlet

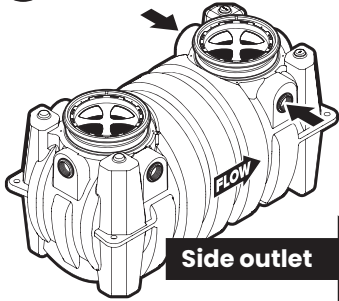
**2e**



Insert diffuser into chosen inlet and hand tighten retaining nut.

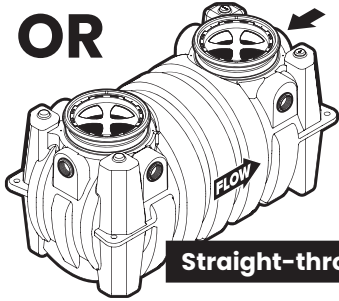
## 3 Set Up Outlet Diffuser and Install Cleanout Plugs

**3a Choose outlet location.**



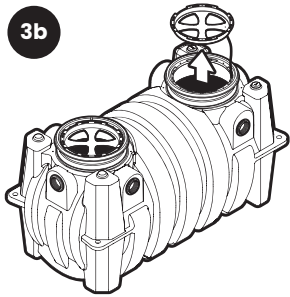
**Side outlet**

**OR**



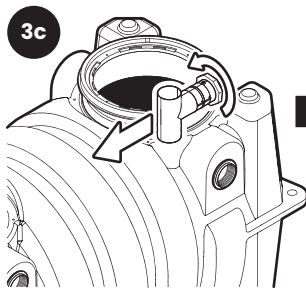
**Straight-through**

**3b**



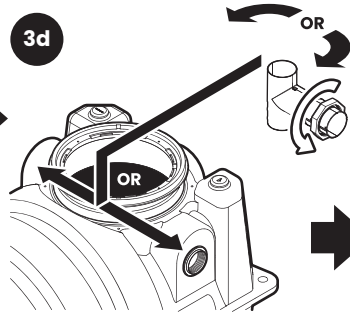
Remove safety star insert, leave tethered to unit.

**3c**



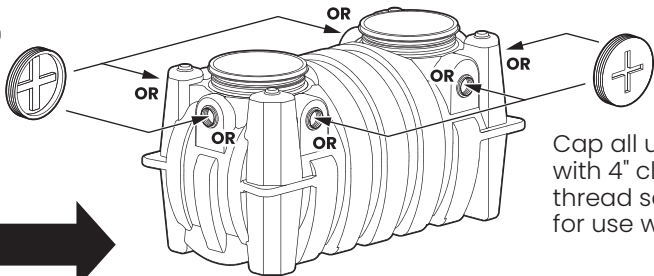
Unscrew diffuser retaining nut and remove outlet diffuser.

**3d**



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

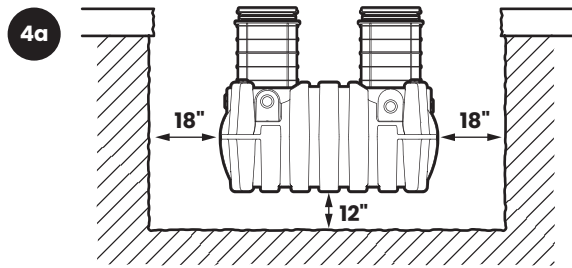
**3e**



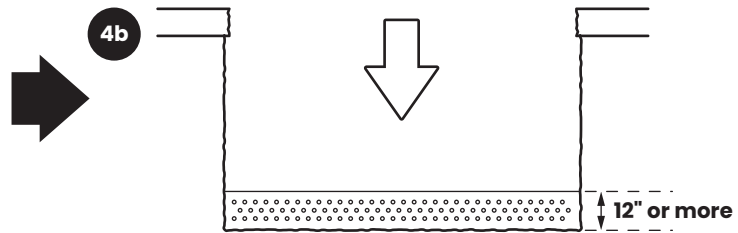
Cap all unused connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.

# BURIED INSTALLATION

## 4 Excavate Burial Pit

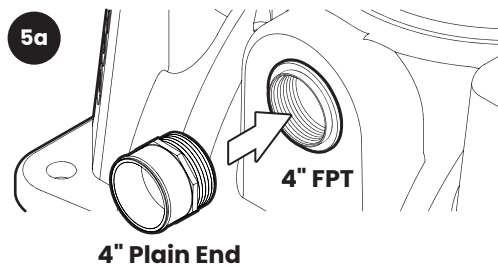


Excavate hole at least 18" larger than interceptor on all sides and 12" deeper than tank bottom.

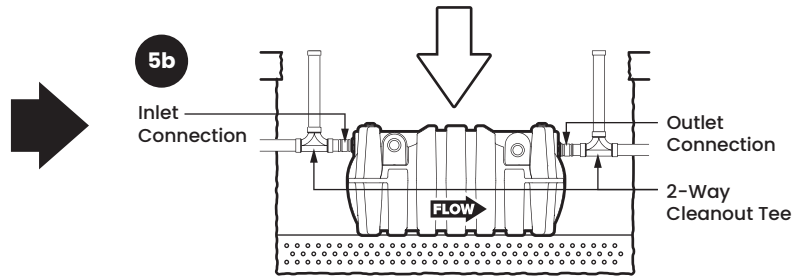


Lay a level bed of well-packed, crushed aggregate (approximately 3/4" size rock or sand, with no fines) in the base of hole.

## 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.

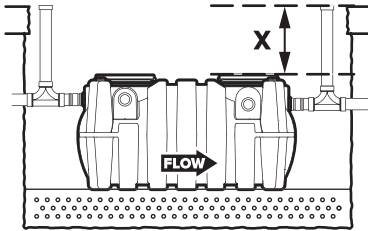
**Leak?** Call customer care at 913-951-3300  
8a – 5p M – F CST

# BURIED INSTALLATION

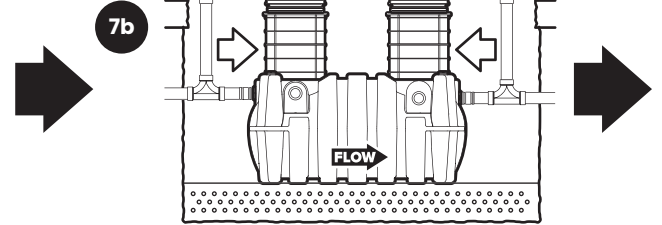
## 7 Bring Covers Flush-to-Grade

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.

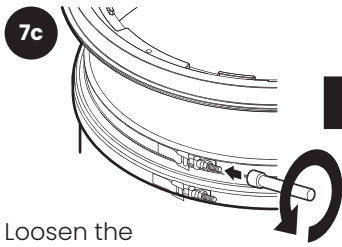
**7a** Measure dimension X to determine riser height needed.



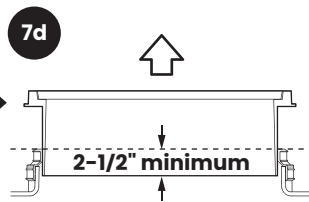
Riser Height Needed	Risers Required
0" - 4"	None (use adapter)
>4" - 34"	FCR2 (x2)
>34" - 64"	FCR2 (x4)
>64" - 94"	FCR2 (x6)



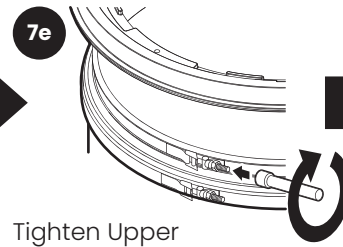
Install risers if required  
(see instructions included with FCR2).



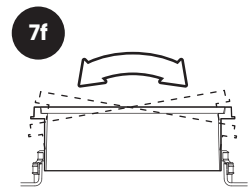
Loosen the  
Cover Adapter Upper  
Band Clamp using 7/16"  
Nut Driver Bit.



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

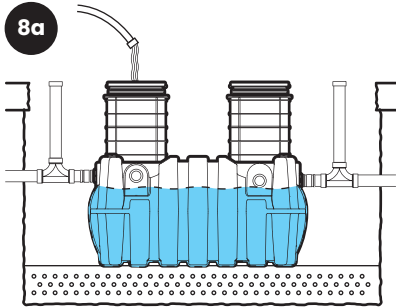


Tighten Upper  
Band Clamp to 5 -8 ft.  
lbs. of torque using 7/16"  
Nut Driver Bit.

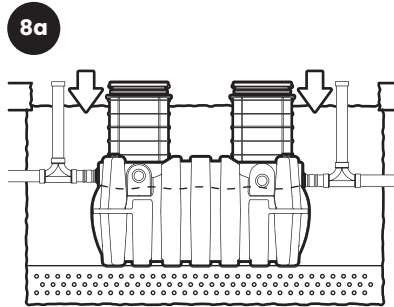


If required, Cover Adapters  
may now be tilted up to  
10° in any direction using  
gasket flexibility.

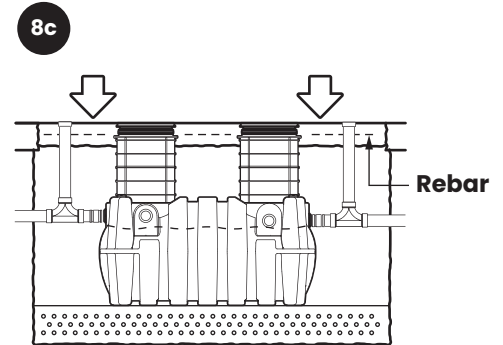
## 8 Backfill and Finished Grade



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.

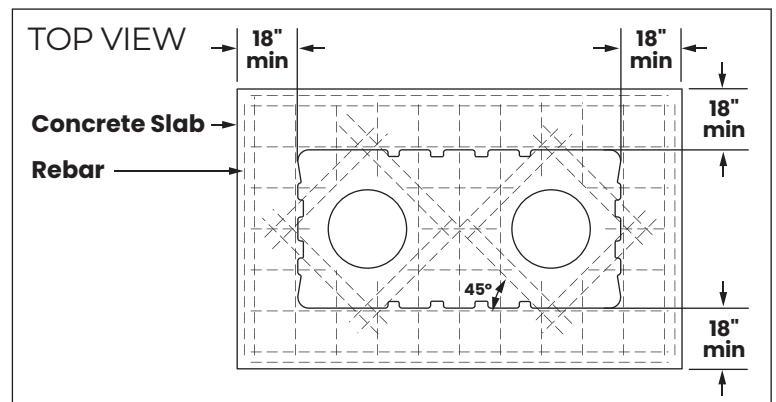
**8c1**

### 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.

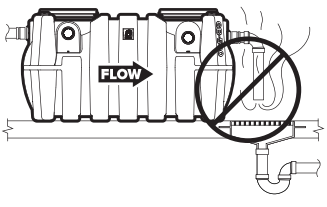
### Pedestrian Traffic or Greenspace Areas:

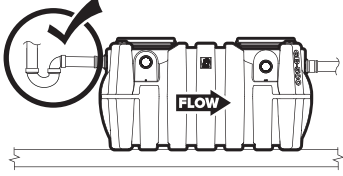
Minimum 4" thick concrete slab with rebar required.



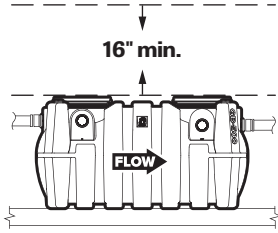
# ON THE FLOOR INSTALLATION

## Special Precautions

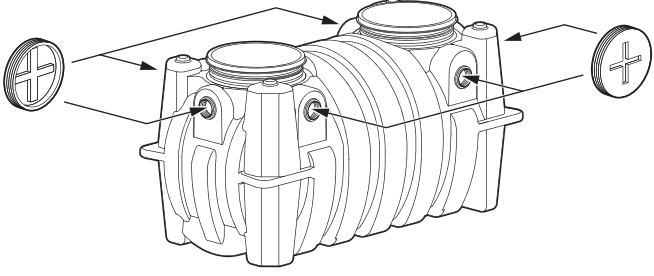
**1**  
**ODOR ALERT!**  
Do not install air gap on outlet side of interceptor.  


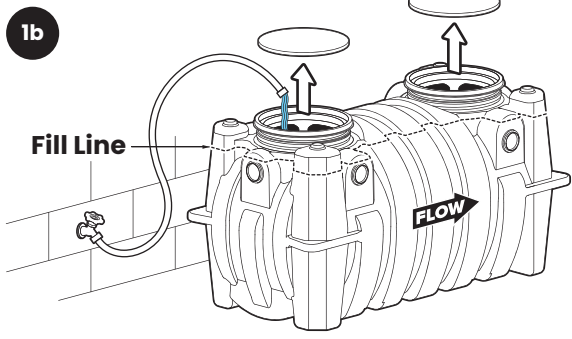
**2**  
**ODOR ALERT!**  
Interceptor is not a sewer gas trap. All upstream fixtures must be trapped.  


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

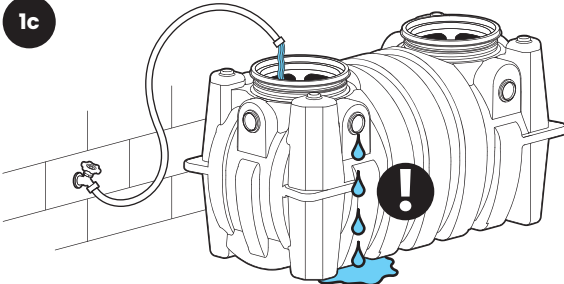
**4**  
Provide at least 16" clearance above unit for routine maintenance.  


## 1 Test tank for water tightness

**1a**  


**1b**  


Fill Line

**1c**  


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.

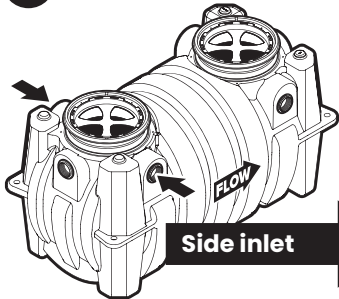
### Leak?

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

# ON THE FLOOR INSTALLATION

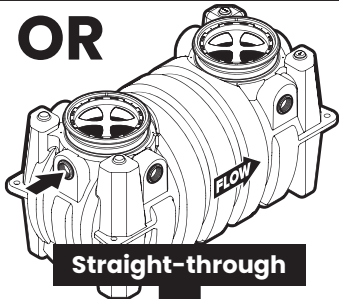
## 2 Set Up Inlet Diffuser

**2a Choose inlet location.**



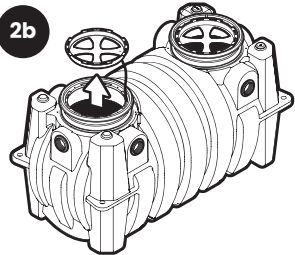
**Side inlet**

**OR**



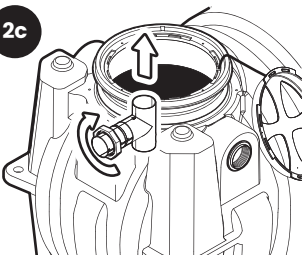
**Straight-through**

**2b**



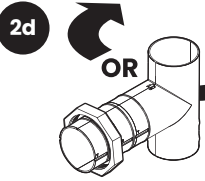
Remove safety star insert, leave tethered to unit.

**2c**



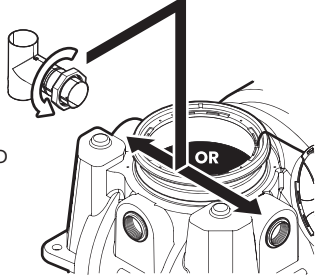
Unscrew diffuser retaining nut and remove inlet diffuser.

**2d**



Rotate diffuser top toward chosen inlet

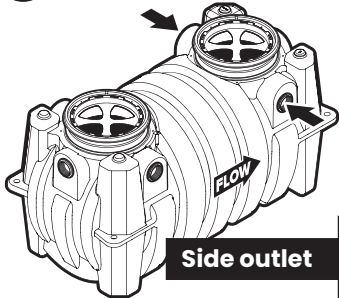
**2e**



Insert diffuser into chosen inlet and hand tighten retaining nut.

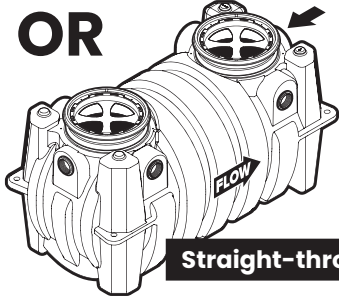
## 3 Set Up Outlet Diffuser and Install Cleanout Plugs

**3a Choose outlet location.**



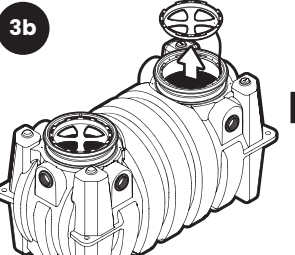
**Side outlet**

**OR**



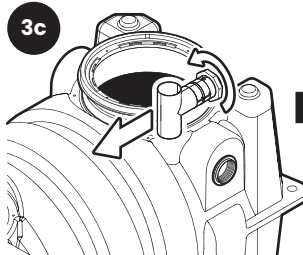
**Straight-through**

**3b**



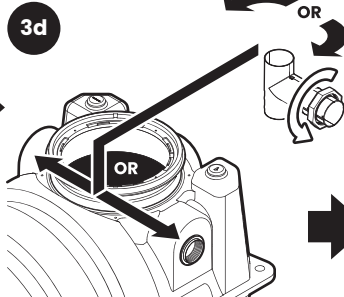
Remove safety star insert, leave tethered to unit.

**3c**



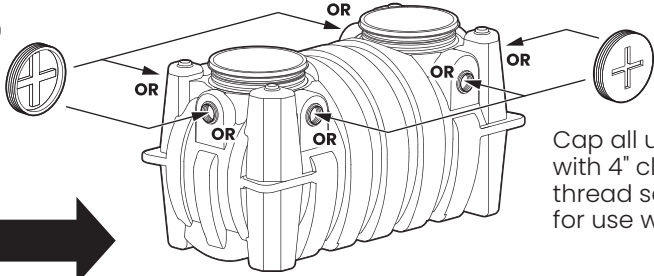
Unscrew diffuser retaining nut and remove outlet diffuser.

**3d**



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

**3e**

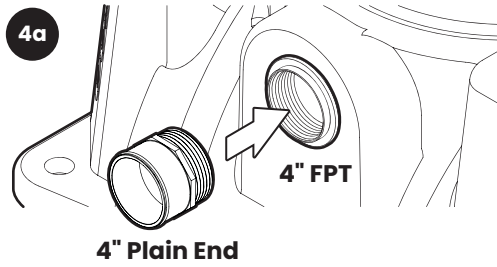


Cap all unused connection points with 4" cleanout plugs using pipe thread sealant or tape approved for use with plastics.

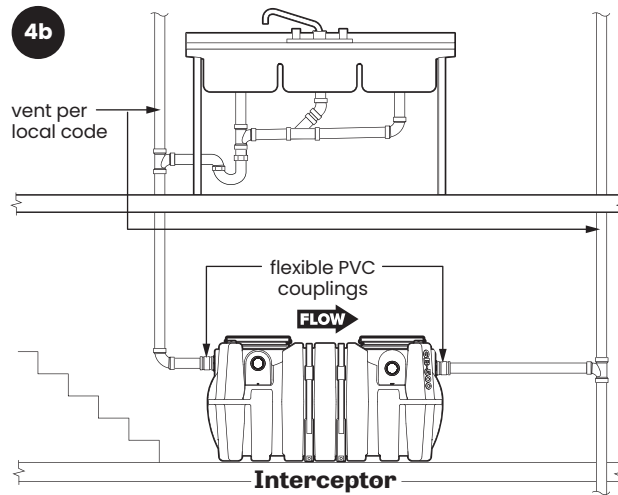


# ON THE FLOOR INSTALLATION

## 4 Connect Piping



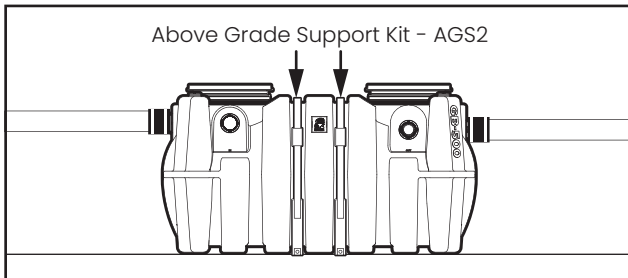
Screw plain end fittings (included) into bulkhead fittings using pipe thread sealant or tape approved for use with plastics. 6" connection types come pre-installed from the factory.



**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



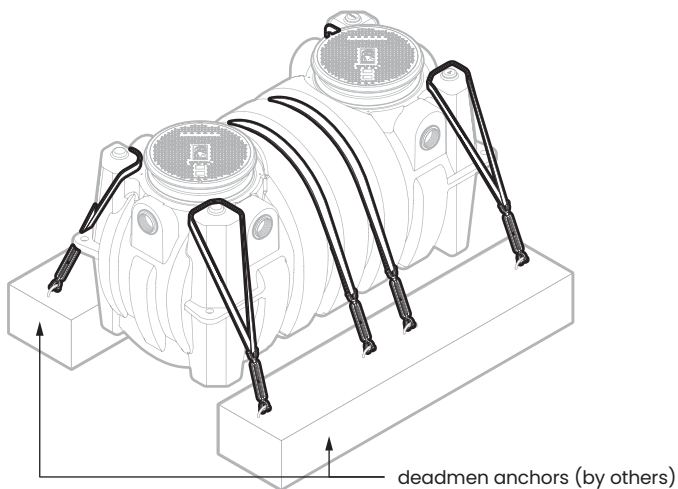
**Leak?** Call customer care at  
913-951-3300  
8a – 5p M – F CST

# INSTALLATION OPTIONS

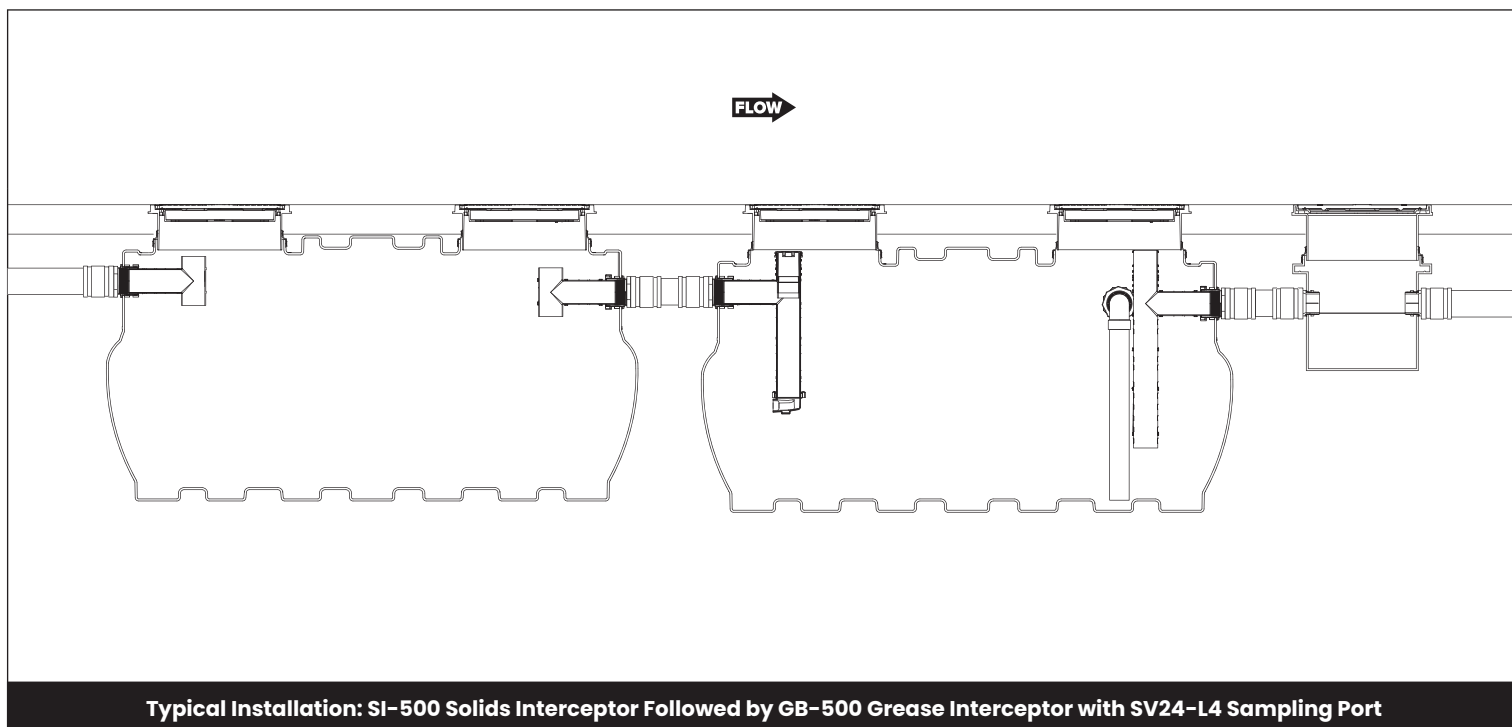
## 1 High Water Table Installations, See Anchor Kit Model AK2

### Deadmen Anchoring:

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



## APPLICATION SPECIFIC DETAILS



Typical Installation: SI-500 Solids Interceptor Followed by GB-500 Grease Interceptor with SV24-L4 Sampling Port