INSTALLATION GUIDE

SI-250 277 Gallon Billy Goat™ Indoor/Outdoor Kitchen Solids Interceptor

Contents

Special Precautions ............................................. 2–3
Getting to Know the SI-250 ................................. 4
Installation ......................................................... 5–10

Part #: 5055–001–01
Find these instructions online at: schierproducts.com/si-250
**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.

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

Provide at least 16” clearance above unit for routine maintenance.

**High Temperature Kitchen Water**

- cold water supply line
- high temperature effluent (> 150º F)
- approved backflow prevention assembly
- DTV (drain water tempering valve)

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

**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.

**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. The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation in suspended installations. In these situations, Above Grade Support Kit model AGS1 is required to be installed to maintain GB-250 structural integrity.

**DO NOT USE CAST IRON COVERS IN ABOVE GRADE OR INDOOR INSTALLATIONS**

Use composite cover C24H2 for above grade installations.
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 ATDI.

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 SI-250 uses model AK1 anchor kit.

Hydrostatic/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.

Installations with Risers
Riser adapter model CA2 must be used when installing interceptors using 24” diameter corrugated pipe as a riser. This will adequately embed the cover adapter in the concrete slab, preventing cover/cover adaptature failure under traffic rated loads.
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. Inlet diffuser
8. Inlet diffuser retaining nut
9. Bulkhead connection retaining nut
10. Bulkhead connection gasket
11. Inlet bulkhead connection 4” FPT
12. 4” plain end fitting (x2)
13. Composite cover bolts and washers (x8)
14. Bolted composite cover (optional)
15. Air relief/visual access
16. Outlet diffuser retaining nut
17. Outlet diffuser
18. 4” cleanout plug (x4)
19. Outlet bulkhead connection (optional) 4” FPT (x2)
20. Outlet bulkhead connection (standard) 4” FPT
21. 7/16” nut driver bit
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.

Have a Leak?
Call customer care at 913-951-3300
Hours 8am–5pm CST, M–F

2 Excavate Burial Pit ONLY

Excavate hole at least 12” larger than interceptor on all sides and 6” 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.
3 Set Up Outlet Diffuser and Install Cleanout Plugs

3a Choose outlet location.

**Side Outlet:**
Go to Step 3b.

**OR**

**Straight Through:**
Go to Step 3c.

3b Reposition outlet diffuser (side outlets only)

Remove Safety Star® insert, leave tethered to unit. Unscrew diffuser retaining nut and remove outlet diffuser. Rotate diffuser toward chosen outlet, insert and hand tighten retaining nut.

3c Cap unused connections (all configurations)

Screw in provided 4” cleanout plugs using pipe thread sealant or tape approved for use with plastics. **Do not cap the inlet or outlet connections attached to the diffusers.**
4 Connect Piping

4a Install plain end fittings

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.

4b Connect interceptor to drain lines

Place unit into final position 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 for buried installations.
5 Install Above Grade Accessories

5b Install AGS1 Above Grade Support Kit

The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation in suspended installations. In these situations Above Grade Support Kit model AGS1 (sold separately) is required to be installed to maintain SI-250 structural integrity.

5b Secure Cover Adapters

Cover adapters must be secured to base units in above grade installations with increased head pressure conditions. Model SI-250 uses (2) cover adapter tie-down kits model ATD1 (sold separately).

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.

Have a Leak? Call customer care at 913-951-3300
Hours 8am-5pm CST, M-F
The SI-250 is ready for burial depth of 44" from finished grade to bottom of tank (or 13-1/2" 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.

<table>
<thead>
<tr>
<th>Riser Height Needed</th>
<th>Risers Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>0&quot; - 4&quot;</td>
<td>None (use adapter)</td>
</tr>
<tr>
<td>&gt;4&quot; - 34&quot;</td>
<td>FCR2 (x2)</td>
</tr>
<tr>
<td>&gt;34&quot; - 64&quot;</td>
<td>FCR2 (x4)</td>
</tr>
<tr>
<td>&gt;64&quot; - 94&quot;</td>
<td>FCR2 (x6)</td>
</tr>
</tbody>
</table>

**7b** Install risers if required

See instructions included with FCR2.

**7c** Make final cover adapter adjustments

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.

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**COVER ADAPTER ADJUSTMENT DETAIL**

- Cover
- Safety Star® access restrictor
- Cover adapter
- Gasket
- Upper band clamp
- Lower band clamp
- Interceptor accessway

- 2-1/2" minimum
**8 Install Anti-Flotation Anchor Kit**

If the installation location is in a high water table or at risk area (including but not limited to tidal surge areas, floodplains and areas that receive storm water) the SI-250 must be installed with Schier model AK1 anchor kit.

**9 Backfill and Finished Grade**

*9a Backfill*

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.**

*9b Pour concrete slab to finished grade*

**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.