# Infiltrator IM- and CM-Series Tank Riser Connection **Guidance Document for EZsnap Risers**



#### **Before You Begin**

This document provides recommended procedures for the connection of EZsnap Riser products to Infiltrator Water Technologies (Infiltrator's) IM- and CM-Series tanks.

The intent of this document is to provide procedures for making the connection between the riser and tank. Risers must be installed according to state and/or local regulations, which supersede the guidelines in this document. If unsure of the requirements for a particular site, contact the local health department or permitting authority.

Note: The method of PVC and HDPE riser construction shown in this document is not allowed under Florida regulations.

#### **Parts and Supplies**

The parts and supplies necessary for installation of a riser system on Infiltrator IM- and CM-Series tanks must be purchased separately from the tank. All parts and supplies are commercially available. Contact Infiltrator or the riser manufacturer for assistance obtaining any of the following parts and supplies.

IM- and CM-Series Riser Products	
Item	Item Number
EZsnap Tank Pipe Adapter Ring	SNAPPAR-2400
EZsnap 24" x 2" Riser (Green)	SNAPIS-2402
EZsnap 24" x 6" Riser (Green)	SNAPIS-2406
EZSnap 24" x 12" Riser (Green)	SNAPIS-2412
EZsnap 24" Safety Lid System	SNAPSAFT-2400
24" Riser Lid (Green)	IMLID-2400
Adheasive Sealant	ISI-1500 (or E6100 as equivalent)
Infiltrator Safety Star	SNAPSAFT-2400



Risers nest together for efficient shipping.

# **Materials and Equipment** Needed for EZsnap Riser Installation

- Rubber mallet
- Screw gun
- Ten #14 x 2" stainless steel tank-to-riser screws (supplied with EZsnap Riser)
- Ten #14 x 2" stainless steel lid screws with washers (supplied

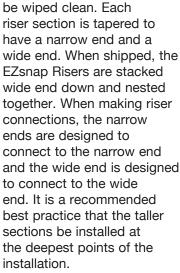
with IM and CM-Series tanks) • 7/16" hex nut driver screw gun bit

•#3 square head Robertson driver bit, 6" (150 mm) length

- •#2 Phillips driver bit, 6" (150 mm) length
- 3/8" hex nut driver screw gun bit
- Rags

Note: Install riser assembly prior to backfilling tank. Note: The EZsnap Riser segment includes factoryinstalled gaskets on both ends of the riser segment, so the application of a sealant or mastic on the connection surface is not required. Proper

care must be taken to ensure the gasket surface is clean and free of debris. It is recommended that all caskets and connection surfaces



# **Riser-to-Tank** Connection



Insert the EZsnap Riser narrow end down into the tank opening. Rotate the riser until the riser connection tabs align with the tank indexing tabs on the tank opening. Screw pilot holes will be in alignment on the riser and tank when in proper position. On one side of the tank, insert the riser connection tabs into the tank indexing tabs and engage into the proper position. Using a rubber mallet pound downward on the

top of the riser to engage the remaining tabs. It is helpful to move around the circumference of the tank opening while engaging tabs. A screwed connection is only required for the tank-to-riser interface, created using the ten #14 x 2" stainless steel tank-to-riser screws supplied with the EZsnap Riser. Tighten screws in a star pattern, alternately tightening



screws on opposite sides of the EZsnap Riser.

Contact Infiltrator Water Technologies' Technical Services Department for specification or installation questions at (800) 221-4436 or info@infiltratorwater.com.



Engage one set of tabs into proper position.

Use mallet to engage the rest of the tabs.



#### **Riser-to-Riser Connection**

The EZsnap Risers come in multiple heights to align with the desired finished grade. Each riser is tapered to have a large end and small end align with like-diameter ends of riser segments. Rotate until the tabs on the upper riser segment drop into alignment on the lower riser segment. With tabs in alignment, push directly down on the top rim of the upper riser segment until the connection tab engages into the lower riser segment. A rubber mallet may be necessary to engage the tabs by striking the top surface of the riser if manual pressure is not adequate.

### **Infiltrator Safety Star Installation**

The Infiltrator Safety Star is designed to be mounted to the screw pilot holes at a narrow-end riser connection. One arm on the Safety Star folds down 15 degrees, allowing it to collapse and fit through a 24" (600 mm) opening.



**1.** Install the Safety Star at the EZsnap narrow riser-toriser connection closest to the ground surface. A minimum of a 6" (150 mm) riser is required to accommodate the Safety Star and attach the lid properly.

**2.** Fasten the Safety Star in place using #14 x 2" stainless steel screws (supplied with the EZsnap Risers).



Infiltrator's five arm Safety Star system is equipped with a folding arm for easy installation.

#### **Lid-to-Riser Connection**

The EZsnap Lid will accommodate both the narrow and the wide end of the riser. To install, set the lid on top of the uppermost riser segment and rotate until the riser tabs recess into the receiving pockets on the lid. The lid will drop downward approximately 1/2" (13 mm) and stop rotating when seated properly. With the lid properly seated, the screw pilot holes are in alignment.



Set lid on uppermost riser segment and rotate to receiving pocket on riser.

Use the ten #14 x 2" stainless steel lid screws with washers provided with the tank to fasten the lid to the riser. There are nine hexagonal head stainless steel bolts and one #3 pan-head Robertson screw, which is used as a tamper-resistant fastener. Depending upon which end of a riser segment is being used for the lid connection, use the outer-diameter screw pilot holes on the lid for the larger-diameter end of the riser and the inner-diameter screw holes for the smaller-diameter end of the riser. Callouts on the lids clearly define the proper screw pilot holes to use for the different bolt patterns. Adjust the screw gun settings to prevent stripping-out the pilot holes. Do not



Prior to backfilling, fasten the lid to the riser with screws provided.

#### over-tighten screws. Materials and Equipment Needed for Riser Pipe Installation

- Screw gun
- · Caulk gun and ISI-1500 sealant or equivalent
- Marker or marking pencil
- Brush
- Rags
- Infiltrator Pipe Adapter Ring (SNAPPAR-2400)
- Adhesive-backed gasket (supplied with SNAPPAR-2400)
- Ten #14 x 2" stainless steel lid screws with washers (supplied with lid)
- Ten #14 x 2" stainless steel SNAPPAR-2400-to-tank screws (supplied with SNAPPAR-2400)
- Four #12 x 1/2" (for IPEX, Ultra-Rib<sup>™</sup> PVC pipe) or #12 x 1¼ (for HDPE pipe) stainless steel screws (not provided)
- 7/16" hex nut driver screw gun bit
- #3 square head Robertson driver bit, 6" (150 mm) length
- #2 Phillips driver bit, 6" (150 mm) length
- · 3/8" hex nut driver screw gun bit

#### 24" (600-mm) IPEX, Ultra-Rib™ PVC Pipe

Note: Method not allowed in Florida

**Note:** 24" (600-mm) IPEX pipe must be installed using the Infiltrator Pipe Adapter Ring.

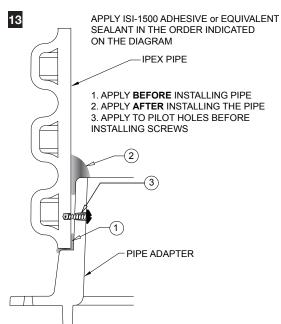
- 1. Install riser assembly prior to backfilling tank.
- **2.** Cut IPEX pipe along an inner corrugation to allow lid to fit properly, taking care that the cut is smooth and even.

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**3.** Apply two continuous 3/8" (10 mm) beads of adhesive sealant to the smaller of the two standing ribs closest to the screw pilot holes on the top surface of the tank opening. Add an extra dab of sealant in each screw hole. Sealant thickness must fill gap beneath Infiltrator Pipe Adapter Ring.

**4.** Align the Infiltrator Pipe Adapter Ring with the tank opening by lining up the arrows on the Infiltrator Pipe Adapter Ring with the arrow on the tank inlet or outlet. The ring will seat on the tank tightly when properly aligned. Center and press to create an even distribution of the sealant.

**5**. Fasten Infiltrator Pipe Adapter Ring to the tank opening using ten  $#14 \times 2$ " stainless steel SNAPPAR-2400-to-tank screws. Tighten in a star pattern. Repeat the star pattern at least twice, without overtightening screws.

**6.** Mark four evenly distributed locations on the inside of the Infiltrator Pipe Adapter Ring for pilot holes to accept screws. The pilot holes should be at a height half way up the interior flange of the Infiltrator Pipe Adapter Ring.

**7.** Drill four 1/8" (3.5-mm) pilot holes at marked locations on the Infiltrator Pipe Adapter Ring.

**8.** Apply one bead of adhesive sealant to the first taper on the Infiltrator Pipe Adapter Ring.

**9.** Place the IPEX pipe over the Infiltrator Pipe Adapter Ring until it is seated at the base of the flange.

**10.** Insert adhesive sealant into the four pre-drilled pilot holes.

**11.** Fasten IPEX pipe to Infiltrator Pipe Adapter Ring using four #12 x 1/2" stainless steel screws from the inside of pipe.

**12.** Tighten screws in a star pattern, tightening screws alternately on opposite sides of the Infiltrator Pipe Adapter Ring. Repeat the star pattern at least twice, without over-tightening screws.

**13.** Apply a generous bead of sealant into the groove at the top of the pipe adapter and then smear the sealant into the groove between the pipe and Infiltrator Pipe Adapter Ring.

14. Use the Infiltrator lid or equivalent product as a lid for the riser

pipe. The lid will require the installation of the factorysupplied, adhesive-backed gasket to the bottom side of the lid to ensure a snug fit. Set and center the lid onto the riser pipe. Predrill 1/8" (3.5-mm) pilot holes on the inner set of templated locations on the lid. Fasten using the ten factory-supplied #14 x 2" stainless steel lid screws with washers.

**Note:** When using the Infiltrator lid, apply the factory-supplied, adhesive-backed gasket to the



bottom side of the lid to ensure a snug fit. **15.** Backfill tank in accordance with Infiltrator's tank installation instructions.

**16.** Following tank backfilling, visually examine the riser-to-Infiltrator Pipe Adapter Ring connection for damage resulting from backfill placement. Repair or replace if damaged. Allow 24-hour sealant cure time before testing or putting into service.

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# 24" (600-mm) HDPE Pipe

Note: Method not allowed in Florida

**Note:** The 24" (600-mm) HDPE pipe must be installed using the Infiltrator Pipe Adapter Ring.

1. Install riser assembly prior to backfilling tank.

Cut IPEX pipe along an inner corrugation to allow lid to fit properly, taking care that the cut is smooth and even.
Apply two continuous 3/8" (10 mm) beads of adhesive sealant to the smaller of the two standing ribs closest to the screw pilot holes on the top surface of the tank opening. Add an extra dab of sealant in each screw hole. Sealant thickness must fill gap beneath Infiltrator Pipe Adapter Ring.

**4.** Align the Infiltrator Pipe Adapter Ring with the tank opening by lining up the arrows on the Infiltrator Pipe Adapter Ring with the arrow on the tank inlet or outlet. The ring will seat on the tank tightly when properly aligned. Center and press to create an even distribution of the sealant.

**5.** Fasten Infiltrator Pipe Adapter Ring to the tank opening using ten  $#14 \times 2$ " stainless steel SNAPPAR-2400-to-tank screws. Tighten in a star pattern. Repeat the star pattern at least twice, without over-tightening screws.

**6.** Mark four evenly distributed locations on inside of the the Infiltrator Pipe Adapter Ring for pilot holes to accept screws. The pilot holes should be at a height half way up the interior flange of the Infiltrator Pipe Adapter Ring.

**7.** Drill four 1/8" (3.5-mm) pilot holes at marked locations on the Infiltrator Pipe Adapter Ring.

**8.** Center the HDPE pipe over the Infiltrator Pipe Adapter Ring.

**9.** Fasten the HDPE pipe to the Infiltrator Pipe Adapter Ring using four  $#12 \times 1\frac{1}{4}$ " stainless steel screws from inside the pipe.

**10.** Tighten screws in a star pattern, tightening screws on opposite sides of the Infiltrator Pipe Adapter Ring. Repeat the star pattern at least twice, without over-tightening screws.

**11.** Apply adhesive sealant in the space between the pipe and Infiltrator Pipe Adapter Ring to seal the gap between the pipe and adapter ring.

**12.** Use the Infiltrator lid or equivalent product as a lid for the riser pipe. The lid will require the installation of the factory-supplied, adhesive-backed gasket to the bottom side of the lid to ensure a snug fit. Set and center the lid onto the riser pipe. Pre-drill 1/8" (3.5-mm) pilot holes on the inner set of templated locations on the lid. Fasten using the ten factory-supplied #14 x 2" stainless steel lid screws with washers.

**Note:** When using the Infiltrator lid, apply the factorysupplied, adhesive-backed gasket to the bottom side of the lid to ensure a snug fit.

**13.** Backfill tank in accordance with Infiltrator's tank installation instructions.

**14.** Following tank backfilling, visually examine the riserto-Infiltrator Pipe Adapter Ring connection for damage resulting from backfill placement. Repair or replace if damaged. Allow 24-hour sealant cure time before testing or putting into service.

## **Backfilling Tank and Risers**

Backfill tank and risers in lifts in accordance with Infiltrator IM- and CM-Series Septic Tank General Installation Instructions, supporting all sides of the risers as the backfill height increases.

**Note:** Always install and secure lids prior to backfill placement.

Disclaimer: These recommended procedures have been developed to identify best practices for achieving a watertight connection between the tank and riser under typical tank installation conditions. These procedures have been shown to result in a watertight connection between the riser assemblies identified in this document and the Infiltrator IM- and CM-Series tank. Infiltrator does not guarantee a watertight connection between tank and riser because achieving a watertight connection is dependent upon a combination of installer practices and procedures, and field conditions. Please contact Infiltrator's Technical Services Department at 800-221-4436 if difficulty is encountered during riser installation. Please contact the appropriate riser manufacturer for concerns associated with anything that does not involve the tank-to-riser connection.



water technologies

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Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436