



Franklin Fueling Systems

TS-4542 and TS-4736 Tank Sumps

Installation Instructions



Warning Follow all federal, state and local laws governing the installation of this product and its associated systems. When no other regulations apply, follow NFPA codes 30, 30A and 70 from the National Fire Protection Association. Failure to follow these codes could result in severe injury, death, serious property damage and/or environmental contamination.



Caution The part described in this document is one element of a system. All components of this system should be installed according to the manufacturer's specifications so that the system's integrity is not compromised. Test the complete system after installation according to all pertinent local, state and federal laws to ensure its proper operation. Failure to properly verify operation could lead to environmental contamination and/or system degradation.

Note: Keep sump lids and sump bases together, do not mix parts; number the lids and bases to avoid confusion. Do not store lids separate from sump bases for long periods of time. Install lids when sumps are not being worked on.

Note: See the *Installation Guide Overview* for a list of proper backfill materials.

Procedure

1. If your sumps are IP (Inspection Port) versions, then the IPs may come inside-out for shipping purposes. If they are, unscrew the IP and install it with the rubber boot towards the outside of the lid so that the seal is watertight.
2. Determine the burial depth. Measure the distance from the tank bung to grade level and subtract 6": this is the tank sump burial depth.
3. Sump risers can be trimmed down in 3" increments. If the height of the sump riser needs to be lowered:
 - a. Using a black marker, trace the valley of the appropriate rib all of the way around the sump (see Figure 1 & 2), indicating a level cutting plane.
 - b. Using an adjustable circular saw, cut the riser at a 15° angle following the cut line made in Step 3a. It is important to cut the riser evenly around the sump to avoid peaks and valleys.
 - c. Sand the trimmed surface to create a level sealing surface for the lid gasket.
 - d. Securely seat the snap-on lid onto the base.
 - e. Keep matching sump lids and sump bases together, do not mix parts. Number lids and bases to avoid confusion. Do not store a lid separate from its sump base for long periods of time. Lids must be installed on bases when sumps are not being worked on.

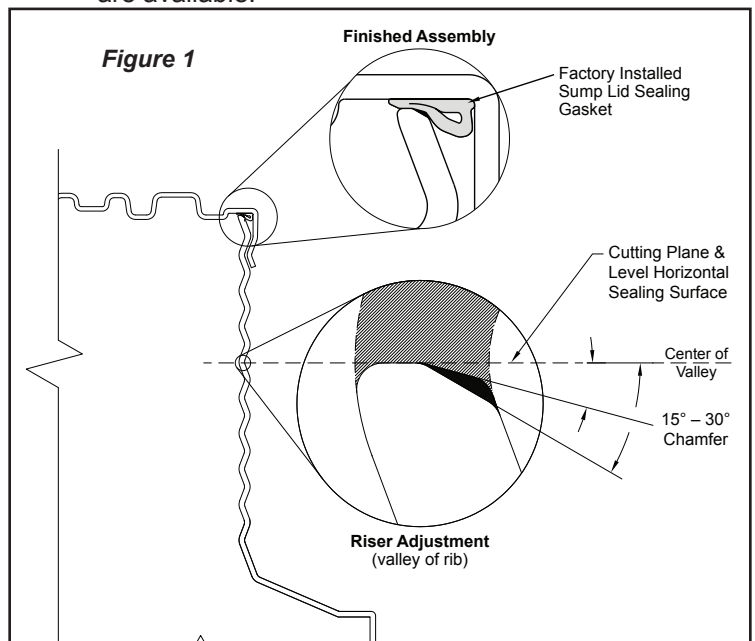
Important: Sump risers must be cut accurately so that the lid fits. A level, flat surface is required for proper lid fit.

Note: If a lid does not fit on a riser, warm the lid with a heat gun so that it's more flexible during installation.

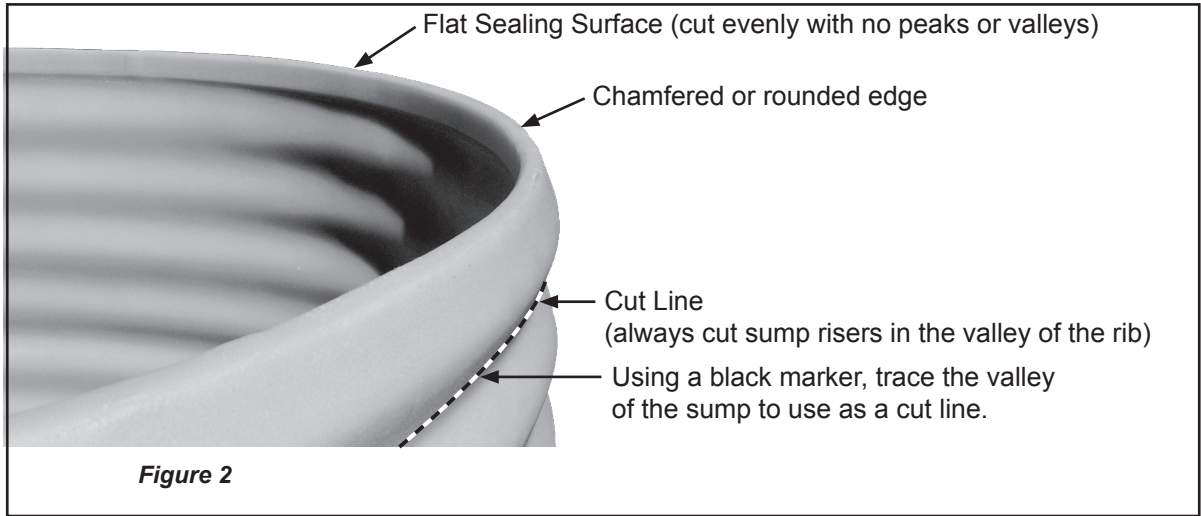
| Model Number | Min Height | Max Height |
|--------------|------------|------------|
| TSS-4736 | 19" | 33" |
| TSM-4736 | 24" | 40" |
| TSD-4736 | 24" | 64" |
| TSS-4542 | 21" | 33" |
| TSM-4542 | 24" | 40" |
| TSD-4542 | 24" | 64" |

4. Determine the location of the tank fitting adapter(s) (or manway adapter) and mount the tank sump to the adapter. See the *Tank Fitting Adapter Installation Instructions* and *Manway Installation Instructions* for further information. The tank fitting adapter must be at least 5" (127 mm) from the sump wall. See Figure 4.

Note: To reduce stress on tank sumps (specifically in installations with high water tables), FFS recommends installing two Tank Fitting Adapters (TFAs) if two bungs are available.



5. Be sure to properly support the tank sump with approved backfill material below and around the tank sump.



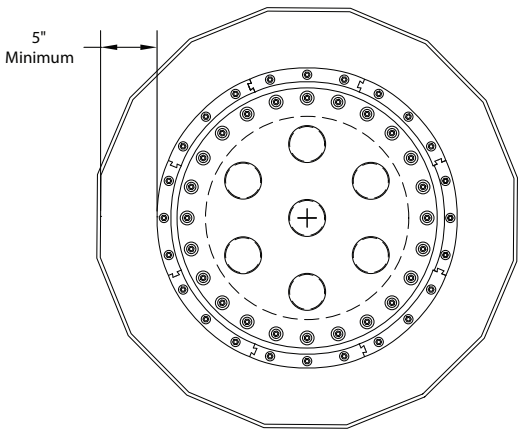
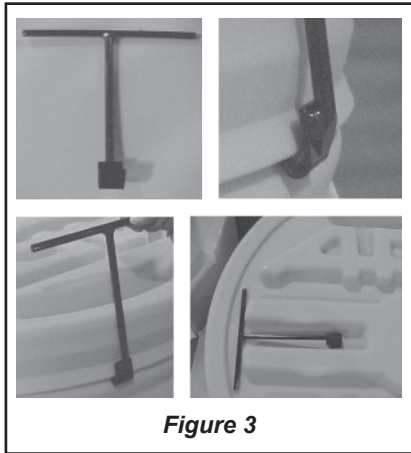
6. Install the lid on the tank sump during backfill operations to prevent the sump from distorting. Backfill the area below the tank sump (with approved backfill) to support the base of the sump.

Note: The next step takes place after:

- Entry boots or bulkhead boots have been installed.
 - The submersible pump has been installed, valves and fittings have been plumbed, and the piping has been installed.
 - Pipe primary and secondary/ducting have been air tested.
7. Place the snap-on lid on the sump base so it's securely seated.
8. Backfill evenly around the sump with approved backfill material while the sump lid is installed. Do not over-compact the backfill, or you may distort the sump.
9. Remove the lid from the sump using the SLP-100, check the sump for any deformation, then place the lid back on the sump so it is securely seated. Leave the SLP-100 on the lid in its recommended location (see Figure 3).
10. Center the manhole skirt around the sump riser and lid - there should be a 1" minimum clearance between the bottom of the manhole lid and the top of the sump lid. In addition, there should be a minimum 1" clearance around the sides of the sump.

Note: The skirt's depth should exceed the height of the riser to ensure proper operation of the sump lid.

11. Pour a minimum of four inches of concrete around the manhole skirt.



Manway Adapter Installation Detail

Figure 4



Franklin Fueling Systems

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| Manual | Rev | Date | Changes from previous |
|------------|-----|---------------|-------------------------|
| 771-119-00 | 8 | Sept. 8, 2010 | Added 5" clearance note |