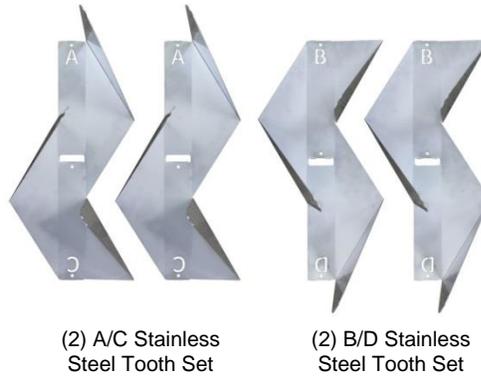
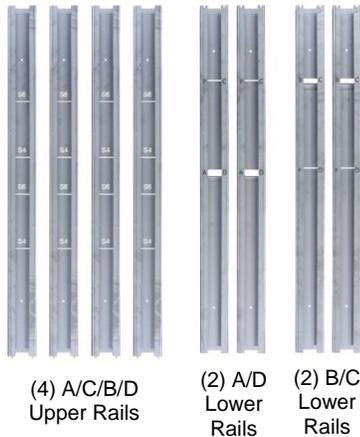


Installation Guide

BaySaver Barracuda® S4, S6, S8 Concrete Installation Guide

May 2019

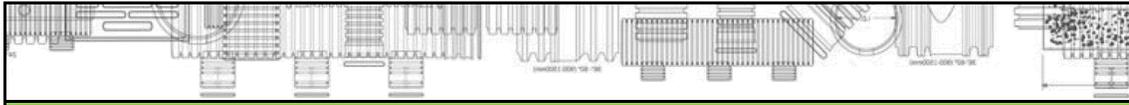
This installation guide is reference for installing the Barracuda S4, S6, S8 Water Quality Unit into a precast concrete structure. The components of the Barracuda Concrete Package are as follows:



S4	 <p>(4) Stainless Steel Funnel Mounting Flanges</p>	 <p>(1) Roll of Conseal</p>	 <p>(20) Tapcon 1/4 x 1 3/4" Ig Screws</p>
S6	 <p>(4) Stainless Steel Funnel Mounting Flanges</p>	 <p>(3) Roll of Conseal</p>	 <p>(20) Tapcon 1/4 x 1 3/4" Ig Screws</p>
S8	 <p>(8) Stainless Steel Funnel Mounting Flanges</p>	 <p>(4) Roll of Conseal</p>	 <p>(24) Tapcon 1/4 x 1 3/4" Ig Screws</p>

Please check that all components are on site. Below is a list of tools that may be required for installation.

- 3/8" and 1/4" Diameter High Speed Steel Jobber drill bit
- 3/16" Diameter Carbide Tipped Concrete Bit
- Standard Electrical or Battery Operated Drill
- Adjustable Wrench
- Hammer Drill for Concrete (Fits the 3/16" Diameter Concrete Drill Bit)
- 5/16" Nut Driver or Impact for installation of provided 1/4" Tapcons.
- Hammer
- Level
- 25' Tape Measure
- Ladder that will extend to bottom of the structure
- Safety Glasses
- Hard Hat
- Protective Gloves
- Site Drawings



Installation Instructions

1. First determine the location of the inlet and outlet according to the layout drawing provided by BaySaver. After reviewing the site drawings and the layout drawings, determine where the outlet hole will be on the plastic funnel (Figure 1). The centerline for the first rail will be at this location. Mark the structure with a vertical line and using a level make sure that the line is plumb to the C/L location. Add another vertical line at 90° from the first vertical line. Continue to mark the structure for a total of (4) locations 90° apart. On the S8, there will need to be lines at 45° for additional funnel mounting flanges for a total of 8 contact points to support the S8 bowl. BaySaver recommends not installing the inletting and outletting pipes into the unit prior to this internal installation, especially if the pipes are reinforced concrete pipe (RCP). Any inletting pipes should not protrude into the structure and should be “tapered or mitered” to be flush with the internal wall of the manhole structure.
2. On the drawing, it will indicate which tooth location is labeled “A/C” and which location is labeled “B/D”. Mark the location in the structure with a marker to make sure that the assembler puts the correct tooth in the correct location. To start, the A/D rail will always be below the outlet on the plastic funnel and in a “low” position as detailed in #1 above, as well as directly across from this first rail.
3. Next, start with the “A/D” location, set the “A/D Lower Rail” vertical in the structure so that the bottom of the rail rests on the bottom of the structure. Notice that the “A/D” Tab is bent 90° to the rail (Figure 2). This limits the height to determine the correct vertical location of the tooth.
4. With a level determine that the rail is plumb and vertical, mark the hole locations with a marker and drill with the Tapcon 3/16” drill bit taking care to make sure that the depth of the drill is deep enough for the install of the Tapcon (typically around 1.5 to 2 inches is adequate and “work” the pilot hole a little with concrete drill bit to ensure the Tapcon will seat properly). Install the lower rail with the provided Tapcons making sure not to overtighten the rail and distort the profile (again, working and removing concrete dust from the pilot hole will help the Tapcon seat properly). If you twist the head of the Tapcon off or break a drill bit, simply drill another hole in the rail slightly below the sheared off Tapcon point and install another Tapcon. Use a 3/8” metal bit to create this new hole. There are-(2) Tapcons for the Lower Rails and (2) for the upper rails (extra Tapcons and a 3/16” concrete drill bit have been included in the kit).
5. Continue to install the rest of the lower rails as you have done in the previous steps.
6. After all the lower rails are installed, take the first upper rail and line it up with the bottom rail (this will have a grooved locking configuration to merge both rails together). With the rail in the correct orientation, mark the holes taking care that the rail is plumb vertical (Figure 3). If the structure is not flush along the seam of the structure, you may have to install the rail so that there is a slight angle in or out. This is not a problem, simply install and snug so that you do not distort the upper rail.



Figure 1



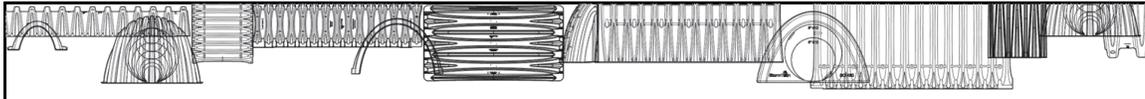
Figure 2



Figure 3



Figure 4



7. Drill the marked locations with the provided 3/16" Concrete drill bit. Again, make sure you drill the pilot hole in around 1.5 to 2 inches and work the pilot hole a little to ease the install of the 1/4" tapcon. Holding the upper rail in the proper location and orientation, install the Tapcons into the holes taking care not to overtighten the Tapcons, distorting the profile of the rail. If possible, always finish the final revolution of the Tapcon by hand versus using a power drill.
8. After all (4) rails are attached, double check that there are no interferences at the top of the rail.

The following steps may be completed from the top of the structure if the structure height allows.

9. Next, slide the correct tooth set into the rail by inserting the "T" on the back of the tooth set, making sure that the A or D and B or C is in the up position and in the correct quadrant (Figure 5). The letter in the up position should correspond with the letter identified on the approved drawings. The tooth set will slide, making sure not to bend the rail or tooth set. Each tooth has 3 "T"s to send down the runner channel, make sure to apply care in bringing it down the channel. If the tooth set stops sliding, you may have to check for interferences and/or apply slight force to make the tooth set slide into location and go past one of the locking tabs on the runner. The stop on the lower rail will stop the tooth in its dedicated height (Figure 4).
10. If you install the tooth sets into the wrong location, you can use a screw driver to force the locking tab back while you slide the tooth set back up the rail.
11. After the tooth sets are installed and double checked to make sure they are in the correct location, you can now install the funnel mounting flanges (Figure 7). The funnel mounting flange will slide into the rail and set so that the horizontal bend is stopped at the top of the rail. This will allow a "shelf" for the Barracuda plastic funnel to rest on. For the S8, you will measure from the bottom of the structure to the funnel mounting flange in the rails. This determines the height of the extra funnel mounting flanges (4) provided in the S8 Kit. Holding the funnel mounting flange in the location determined from Step 1, (The 45° mark from the first vertical line) mark the hole location and drill with the provided 3/16" concrete drill bit and install the funnel mounting flange with the provided Tapcons.
12. Locate the funnel plug, this device is to be used whenever ANYBODY ENTERS THE STRUCTURE. Place the funnel plug into place in the bottom of the structure. When the installation is complete, this funnel plug will be removed; it is provided for worker safety.
13. After all of the flanges are installed in the rails, carefully lift the Barracuda plastic funnel (S6 and S8 have metal inserts or "eyebolts" on the top of the Barracuda plastic funnel that can be used to lift the Barracuda plastic funnel) (S6 inserts are to be used with 3/8-16 eyebolts. S8 inserts are 1/2-13 thread for the corresponding eyebolts) into place taking care of the location or orientation of the weir in relation to the inlet and outlet, so that it matches the custom drawing provided by ADS (Figure 6). If there are difficulties with Barracuda plastic funnel fitting into the structure (i.e., I.D. of manhole is 0.25 to 0.5 inches smaller than 48", 60" or 96" diameters), the gasket can be removed and Conseal can be used to seal the Barracuda plastic funnel to the structure. After the Barracuda plastic funnel is resting in place, unroll the Conseal and wedge the Conseal between the



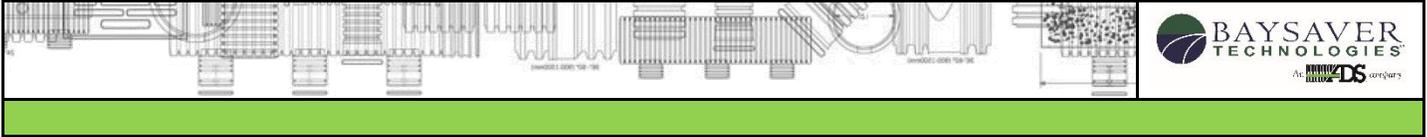
Figure 5



Figure 6



Figure 7



Barracuda plastic funnel and the concrete structure creating a “seal” between the structure and the Barracuda plastic funnel. The Conseal should also be used to seal between the vertical edges of the weir and the structure. Also, the S6 and S8 bowls can expand with elevated temperatures so installing the bowl during the “cooler” part of the day may help reduce any bowl expansion issues caused by excessive heat.

14. After the Conseal is installed, the installation of the components is complete, remove the funnel plug (if applicable). The top slab can now be set and the installation of the Barracuda is complete. In the event an open grate is being used to allow surface water to enter into the Barracuda unit directly, care should be taken to ensure the slab is oriented so that the grated open will be located over the inlet side (bowl side) of the Barracuda plastic funnel.

For information on the maintenance please refer to our Barracuda Maintenance Manual. For information on adding either the trash rack component or oil boom, please refer to additional installation instructions that will be provided.