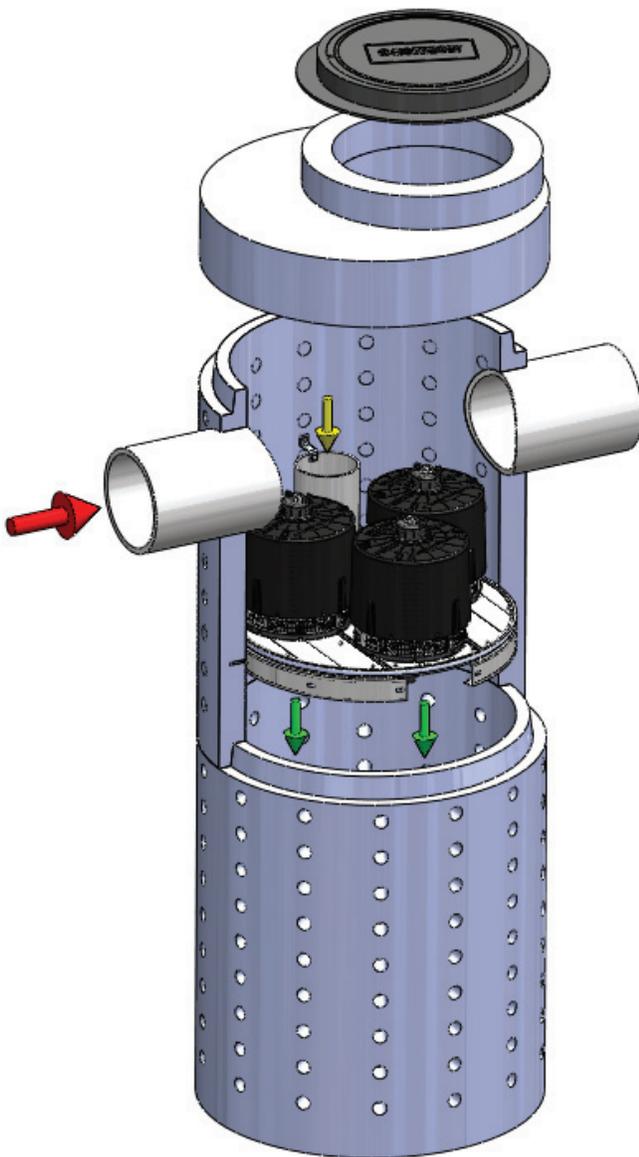


# Infiltration StormFilter

## 48" & 42" Retrofit Kits

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### Installation Guide For Contractors



## Overview

These instructions provide installation guidelines for positioning and securing the StormFilter Infiltration internal components in an existing 48" or 42" inside diameter drywell manhole.

## Confined Space Entry

Secure all equipment and training to meet applicable local and OSHA regulations regarding confined space entry.

## Personal Safety Gear

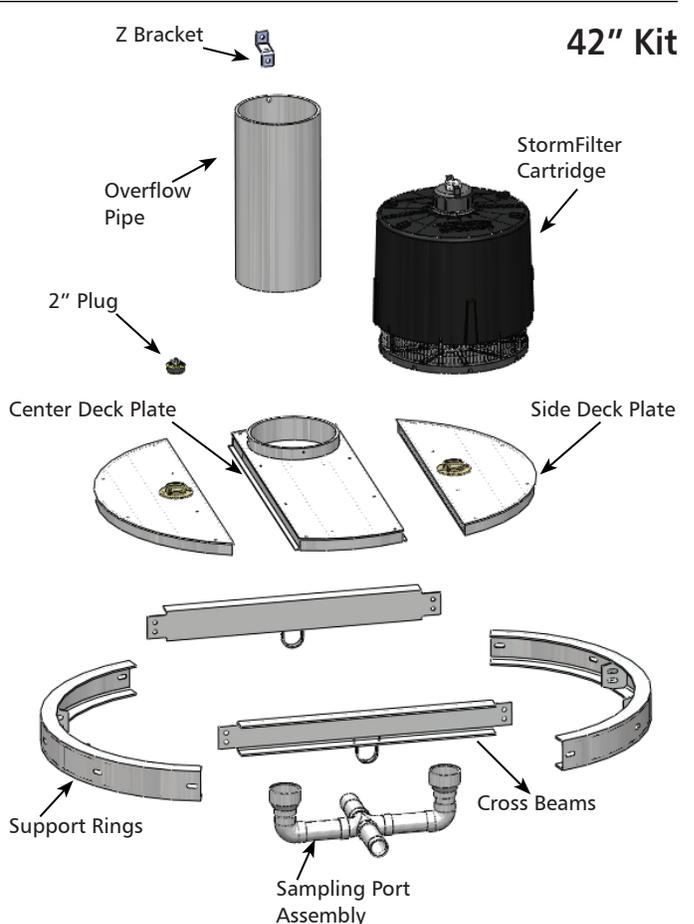
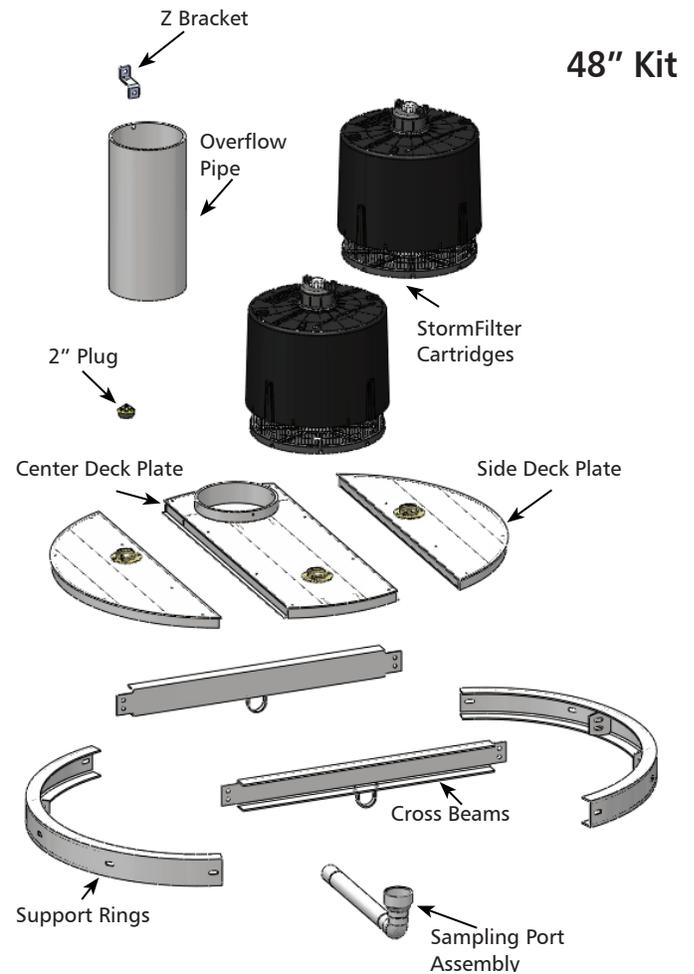
- Fall protection equipment
- Appropriate personal protective equipment
- Air quality monitoring equipment
- Ventilation equipment

## Contractor Supplied Tools and Materials

- Ladder (Long enough to reach bottom of drywell manhole)
- 48" level cut to 47 3/4" for 48" drywell
- 48" level cut to 41 3/4" for 42" drywell
- 24" level
- Rotary hammer drill
- 7/16" Hammer drill bit
- Hand drill
- 3/8" & 5/16" Nut driver bits
- Socket wrench
- 3/4" Socket
- 3/4" Open end wrench
- Phillips head screw driver
- Rubber mallet
- Caulking gun
- Putty Knife
- Tape measure
- Non-shrink grout

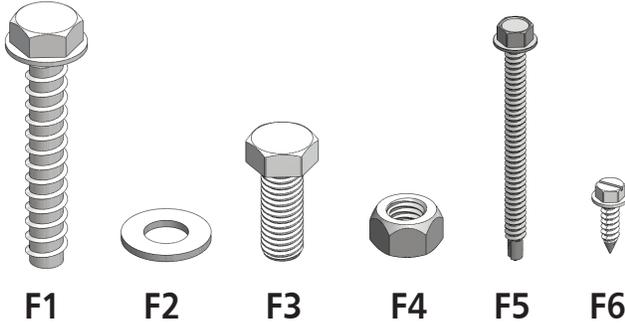
## Components Supplied By Contech

Component	Qty
Support Ring	2
Cross Beam	2
Center Deck Plate	1
Side Deck Plate	2
Overflow Standpipe	1
Sampling Port Assembly	1
Z Bracket	1
Foam Back Rod 7/8" Diameter	20 ft.
SIKAFLEX 1A-Polyurethane sealant 12 oz. tube	12
StormFilter Cartridge	1-3
2" plug	0-2



## Fasteners Supplied By Contech

Fastener		Qty
F1	1/2" x 3" Ramset/Redhead	11
F2	1/2" Plain Washer	29
F3	1/2"-13 UNC Hex Bolt x 1-1/4"	9
F4	1/2"-13 UNC Hex Steel Locknut	9
F5	1/4" x 3" Hex Washer Head Self-drilling Screw	20
F6	3/4", #12 Flange Hex Head, Sheet Metal Screw	3



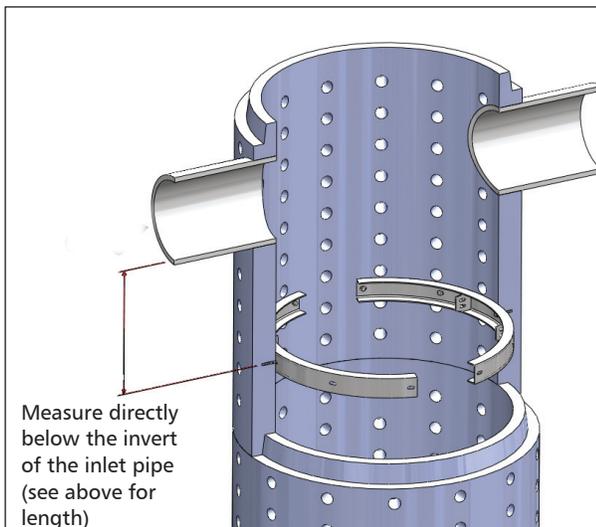
## Follow these steps to install the Support Rings.

1. Locate and mark the center hole for Support Ring 1:

Measure directly below the invert of inlet pipe.

- 18" cartridge, measure 24 3/4"
- 27" cartridge, measure 33 3/4"
- Low-drop cartridge, measure 18 3/4"

If there are perforations in the manhole at this elevation, move the location of the center hole DOWN until it is centered between the rows of perforations. Mark this location as the center hole for Support Ring 1.



2. Locate and mark the center hole for Support Ring 2:

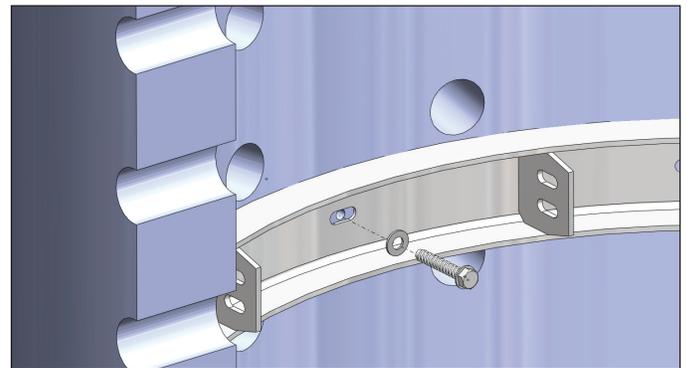
Using a trimmed 48" level, locate and mark the point directly opposite the center hole for Support Ring 1, ensure that this point is level to and directly opposite from the center hole mark for Support Ring 1. Mark this location as the center hole for Support Ring 2.

3. Drill center holes for Support Ring 1 and Support Ring 2:

Use a 7/16" drill bit and Rotary Hammer drill to drill 3 1/2" deep pilot holes for Support Ring 1 and Support Ring 2.

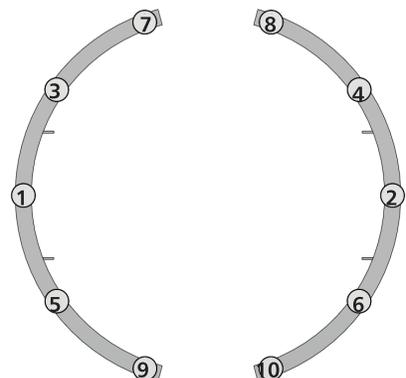
4. Fasten and level Support Ring 1 and Support Ring 2:

Use fastener F1 and washer F2 to secure Support Ring 1 and Support Ring 2. Before fully tightening level each support ring with the 24" level. Fully tighten Support Ring 1 and Support Ring 2.



5. Complete Installation of Support Rings:

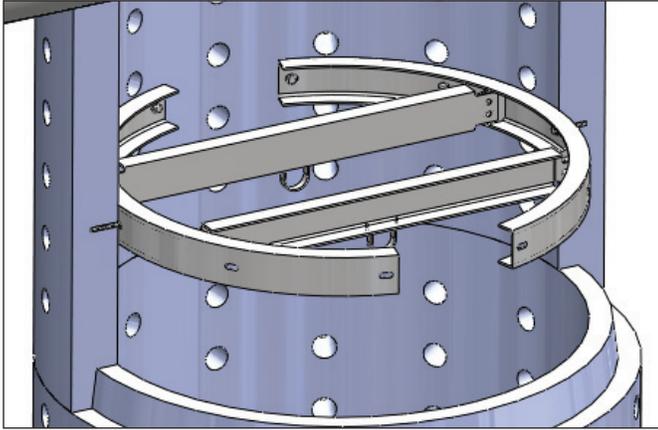
Use the Rotary Hammer Drill and 7/16" hammer drill bit to drill eight (8) 3 1/2" deep pilot holes in the remaining fastening locations, four (4) per Support Ring. Use the slotted holes in the Support Rings as a guide; drill the pilot holes in the center of each slot. Use fastener F1 and washer F2 to secure each ring, working from the center to the outside. After fastening each bolt, check the level of the Support Rings and check the level across the openings between Support Ring 1 and 2. Use the rubber mallet to level as necessary. Continue until both rings are completely fastened and fully tightened.



## Follow these steps to install the Cross Beams.

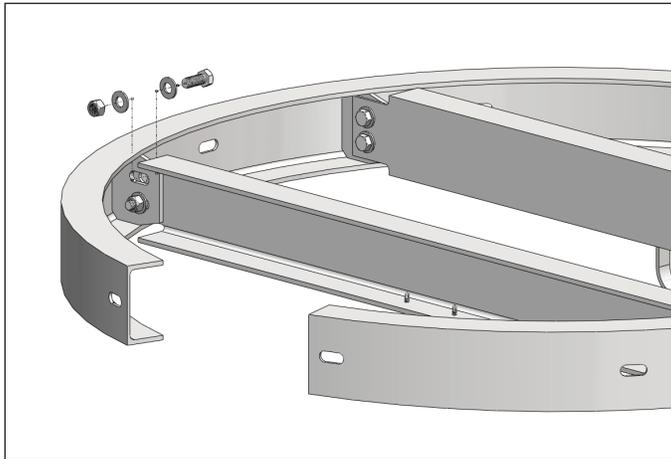
1. Place the Cross Beams from Support Ring 1 to Support Ring 2:

Set the cross beams such that the toes of each beam point to the outside of the manhole and the tongue is on the inside of the support ring.



2. Fasten the Cross Beams to the Support Rings:

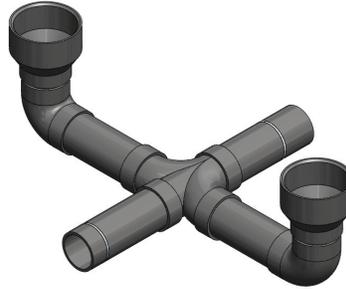
Use fastener F3, two F2 washers, and nut F4 to secure the Cross Braces to Support Ring 1 and Support Ring 2. Use four (4) fasteners per Cross Brace.



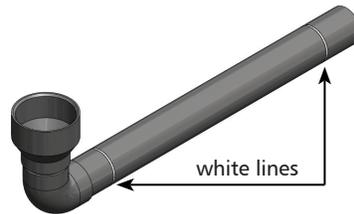
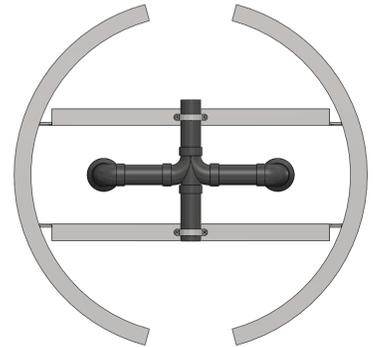
## Follow these steps to install the Sampling Port Assembly:

1. Secure Sampling Port Assembly with 2" PVC Pipe Clamps:

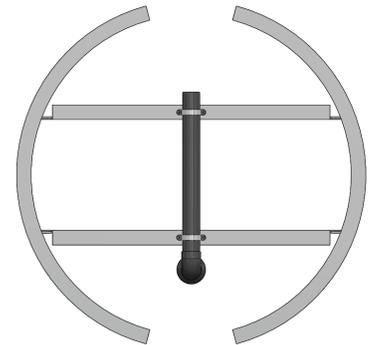
Slip Sampling Port Assembly through 2" PVC Pipe Clamps so that the white lines on the Sample Port Pipes are centered under the Pipe Clamps. Use Phillips head screw driver to tighten the 2" PVC Pipe Clamps.



42" drywell



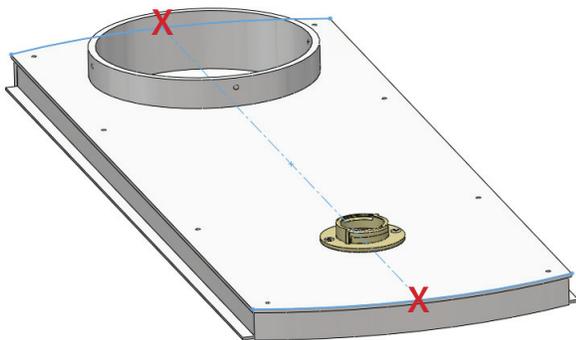
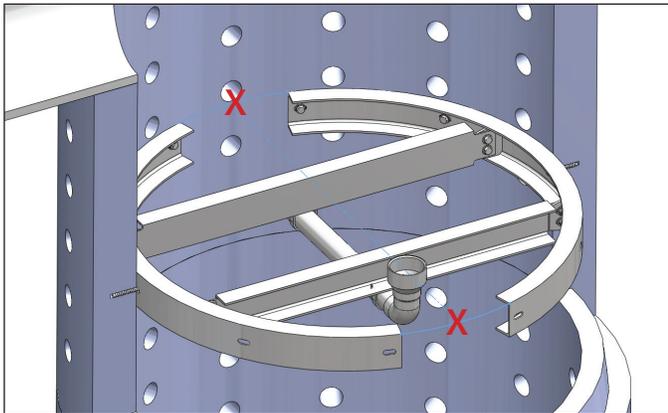
48" drywell



## Follow these steps to install the Center and Side Deck Plates:

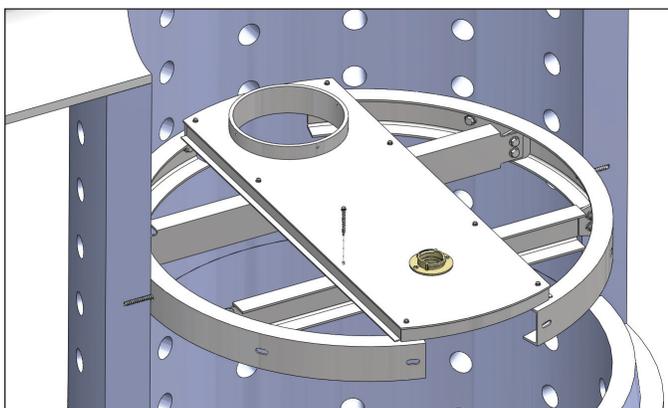
### 2. Place the Center Deck Plate:

Locate and mark the exact center of the gap between Support Ring 1 and Support Ring 2 on both sides of the manhole. Locate the exact middle on each end of the Center Deck Plate. Align the Center Deck Plate across the Support Rings and Cross beams so the middle of the Center Deck Plate aligns with the middle of the gaps between the Support Rings. Provide a uniform gap between both ends of the Center Deck Plate and the Manhole walls.



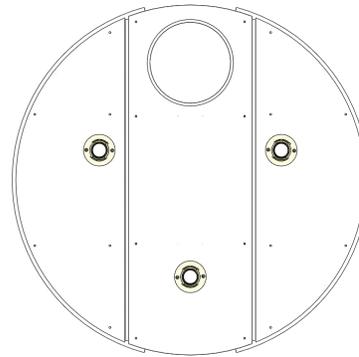
### 3. Fasten the Center Deck Plate:

Use Fastener F5 to secure the Center Deck Plate to the Support Rings and Cross Beams in eight (8) locations.

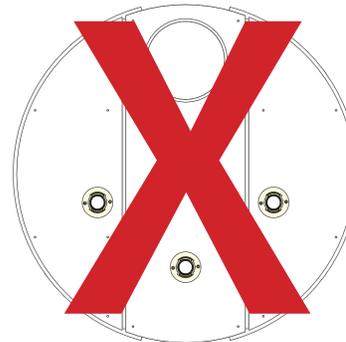


### 4. Place the Side Decks:

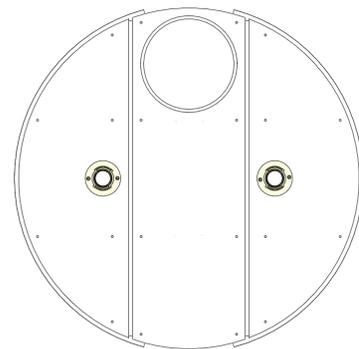
Lay the side decks on the cross braces and support ring with a uniform gap all around the side decks and along the edge common to the center deck.



Correct 48" layout



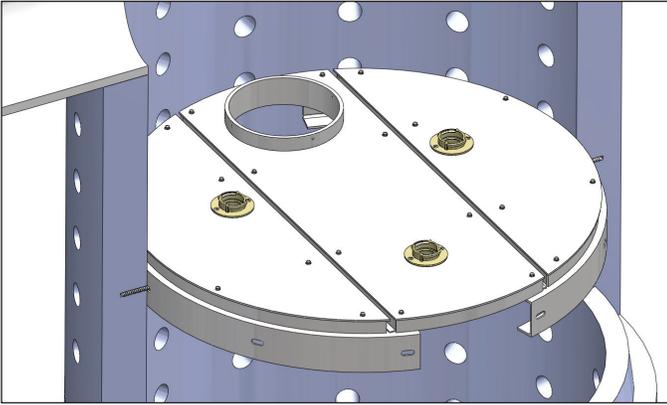
Incorrect 48" layout



Correct 42" layout

5. Fasten the Side Decks:

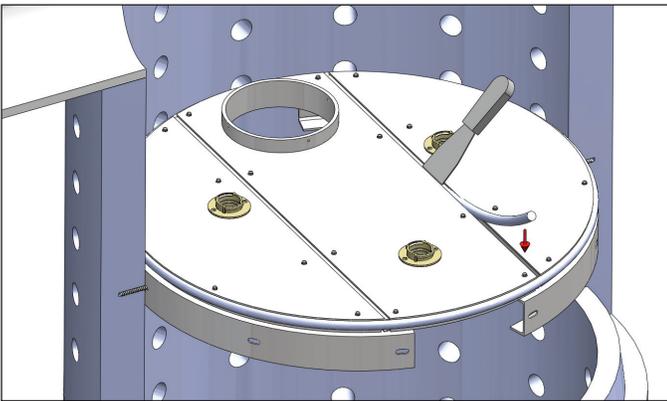
Use Fastener F5 to secure each Side deck to the Support Rings and Cross Beams in six (6) locations.



**Follow these steps to seal drywell above Deck Plates:**

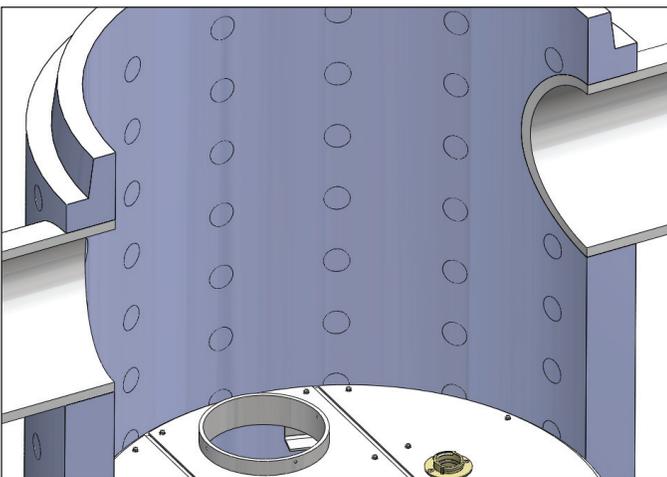
1. Install Backer Rod:

Use a putty knife to place the Foam Back Rod, in all gaps. Between the Center Deck and each Side Deck and the entire perimeter of the Manhole.



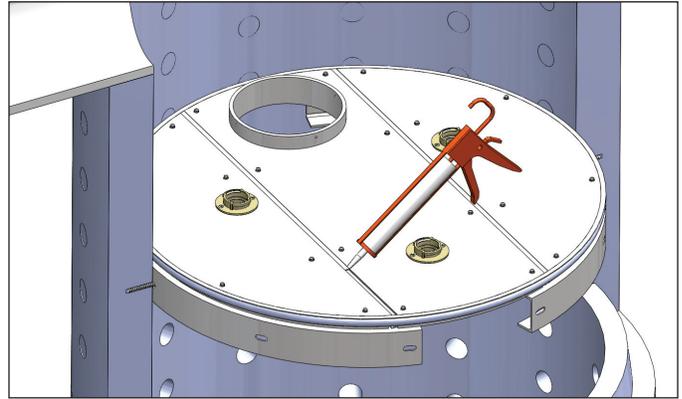
2. Grout Infiltration Holes:

Use non-shrink grout to fill any infiltration holes in the manhole above the deck perimeter.



3. Caulking:

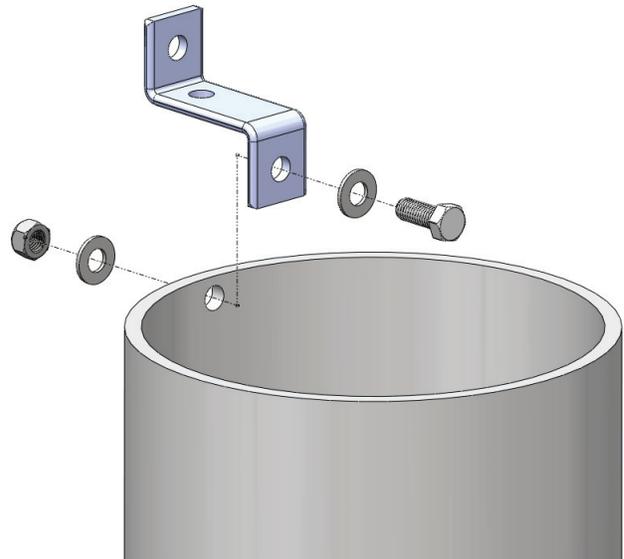
Place a 3/8" bead of SIKAFLEX sealant around the base of the overflow standpipe and all gaps between the Deck Plates and the entire perimeter between the Deck Plates and the Manhole Wall.



**Follow these steps to install the Overflow Standpipe:**

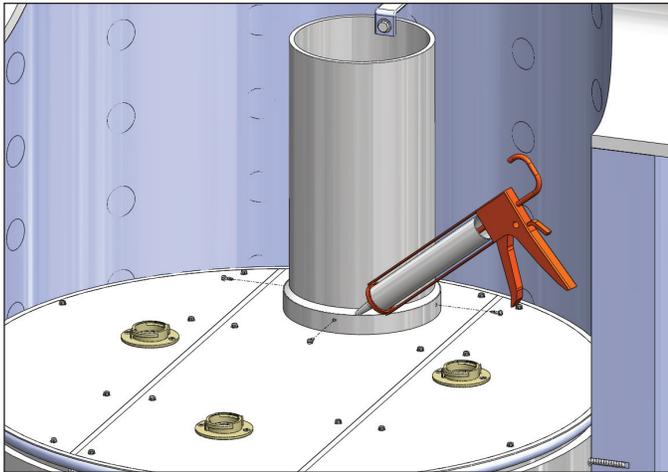
1. Prepare Standpipe:

While above grade, attach the Z Bracket to the Overflow Standpipe using Fastener F3, washer F2 and nut F4.



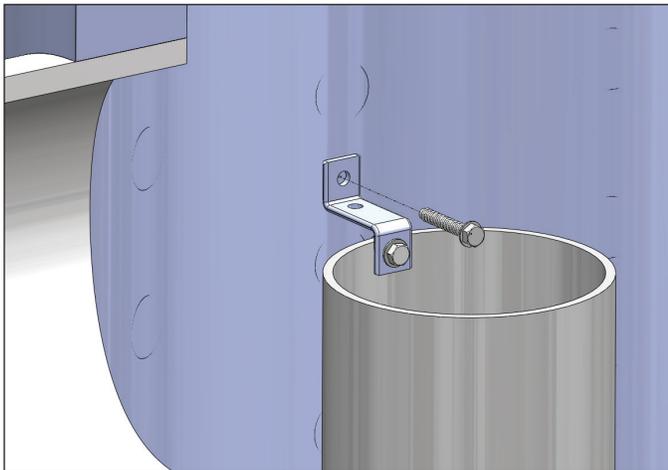
2. Secure Standpipe to Deck Collar:

Use fastener F7 to secure the Standpipe to the collar in three locations.



3. Attach Z Bracket to manhole wall:

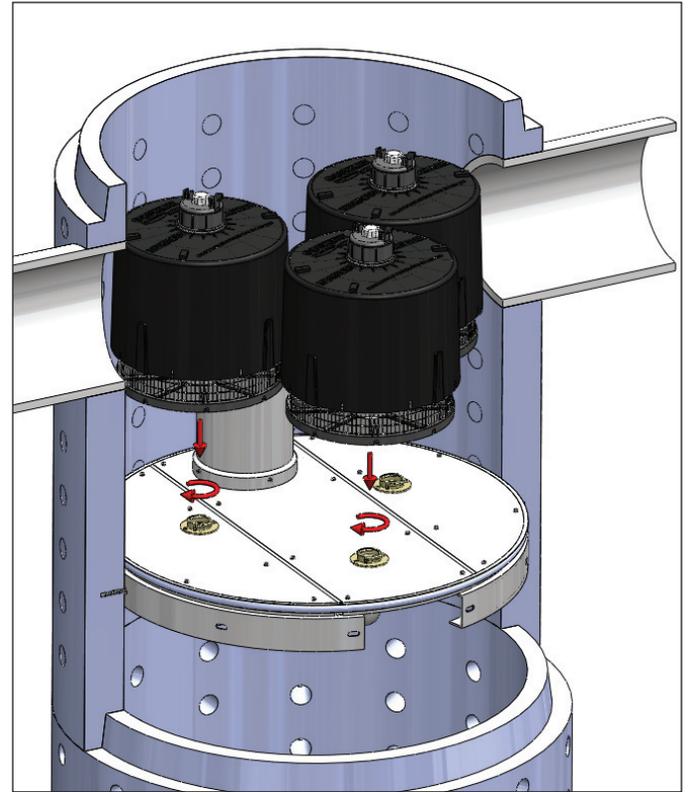
Using the Z Bracket to mark the location, drill pilot hole for the Z Bracket in the Manhole wall using the Rotary Hammer Drill and a 7/16" bit. Secure the Z Bracket to the manhole wall using fastener F1. If the location falls within an infiltration hole, set the fastener in the wet grout.



## Follow these steps to install StormFilter Cartridges:

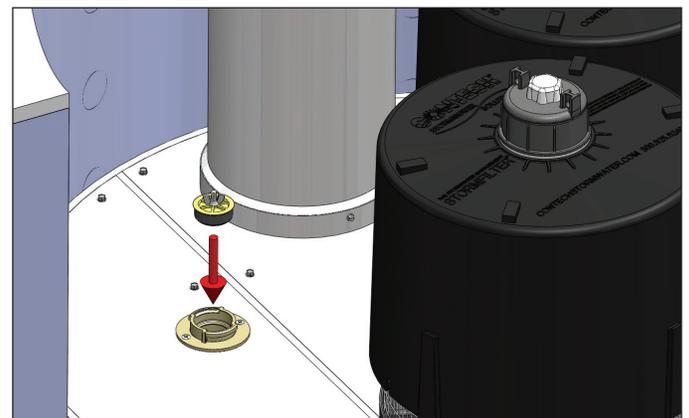
1. Lower StormFilter Cartridges into drywell manhole:

Center the StormFilter Cartridge over the 1/4 Turn Connector until the cartridge drops down onto the connector and then turn cartridge clockwise approximately 1/4 turn until cartridge is securely in place.



2. Plug all unused 1/4 Turn Connectors:

If installing fewer StormFilter Cartridges than system maximum, be sure Cartridge is placed on the Connector over the Sampling Port inlet cone. Then insert one 2" Plug at each unused 1/4 Turn Connector.



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800.338-1122

ContechES.com

## Support

- Drawings and specifications are available at [contech-cpi.com](http://contech-cpi.com).
- Site-specific design support is available from Contech Stormwater Design Engineers.

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