

# Trash Guard® Installation Instructions

Trash Guard® can be installed in a variety of catch basin configurations (or field conditions). In general the Trash Guard® is mounted on the catch basin wall, centered over the outlet pipe.

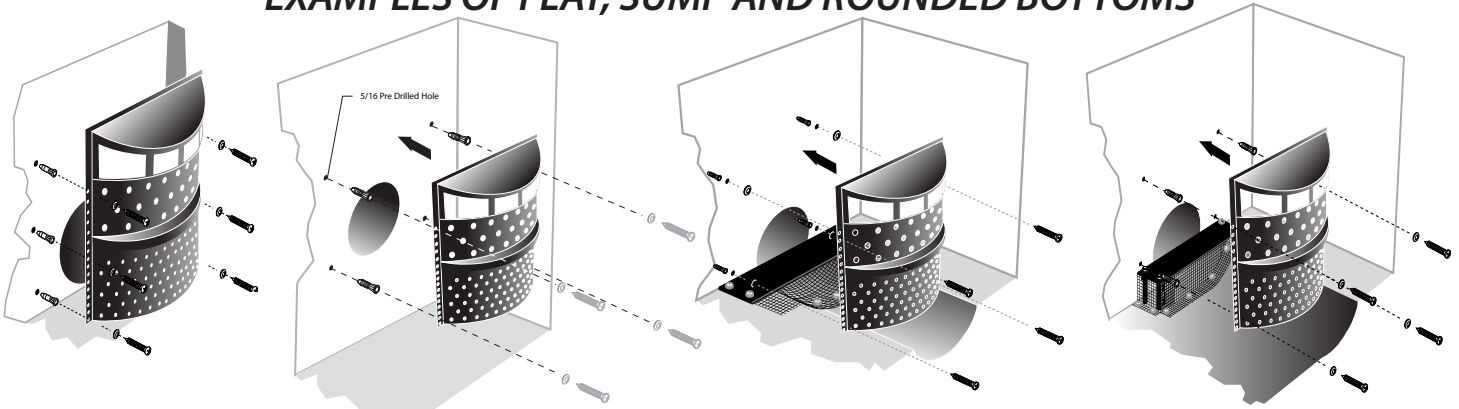
Before installing Trash Guard®, A hydraulic calculation should be performed to determine maximum flow rate based on depth of the catch basin and size of Trash Guard® used. This calculated model will determine maximum flow rate with no obstructions or varying amounts of trash build up, and determine drainage area required to support the calculated flow rate. Allowable trash build up and drainage area required for trash build up will determine maintenance frequency.

The hydraulic calculator can be found on the Trash Guard, Inc. website [www.trash-guard.com](http://www.trash-guard.com). Our hydraulic calculator can determine total flow from no debris buildup to 35" of debris buildup. We can also determine the drainage area any amount of debris buildup will support with our runoff calculator. Please contact Trash Guard, Inc., for a better explanation of how to maximize the capabilities of the Hydraulic Calculator and the runoff calculator.

The following instructions are organized in sections described as follows:

- Section 1 – Trash Guard® installed on a flat perpendicular wall with a flat bottom or a sump bottom
- Section 2 – Bottom Plate installed on a rounded bottom
- Section 3 – Trash Guard® installed on a flat perpendicular wall with a rounded bottom
- Section 4 – Trash Guard® installed on tiered brick wall escalating width from top to bottom with a rounded or flat bottom.
- Section 5 – Trash Guard® installed on concaved wall reasonable flat at top and bottom with a rounded or flat bottom.
- Section 6 – Trash Guard® installed extended from wall for relief from extended outlet pipe or other obstructions.
- Section 7 – Trash Guard® installed to wall with clevis pins removable by removing cotter pins.

## EXAMPLES OF FLAT, SUMP AND ROUNDED BOTTOMS



**CAUTION:** When installing a unit in a leafy vegetated area and the stormwater enters the catch basin on a down slope causing turbulence when it enters the catch basin, remove some of the ribs from the top orifices with a jig saw converting the Trash Guard Plus to a Regular Trash Guard. This will prevent leaves from blocking the top orifices causing street flooding. All catch basins with Trash Guards installed should be inspected on a regular basis, especially after major storm, and if vegetative buildup has occurred, it should be removed to prevent future flooding.

**WARNING:** Improper installation of the Trash Guard® or failure to keep the area around the Trash Guard® free from sediment, debris and litter after installation may result in clogging of the storm water drainage system and increase the risk of flooding during times of heavy rainfall. It is important to clear sediment, debris and litter from around the Trash Guard® at least four (4) times a year and more frequently in areas with large amounts of vegetation or litter. Please contact your local Trash Guard® distributor with any questions regarding the installation or regular maintenance requirements of the Trash Guard®.

# Section 1A - Flat Bottom

## Items Included:

- Trash Guard® (Chosen Size)
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws

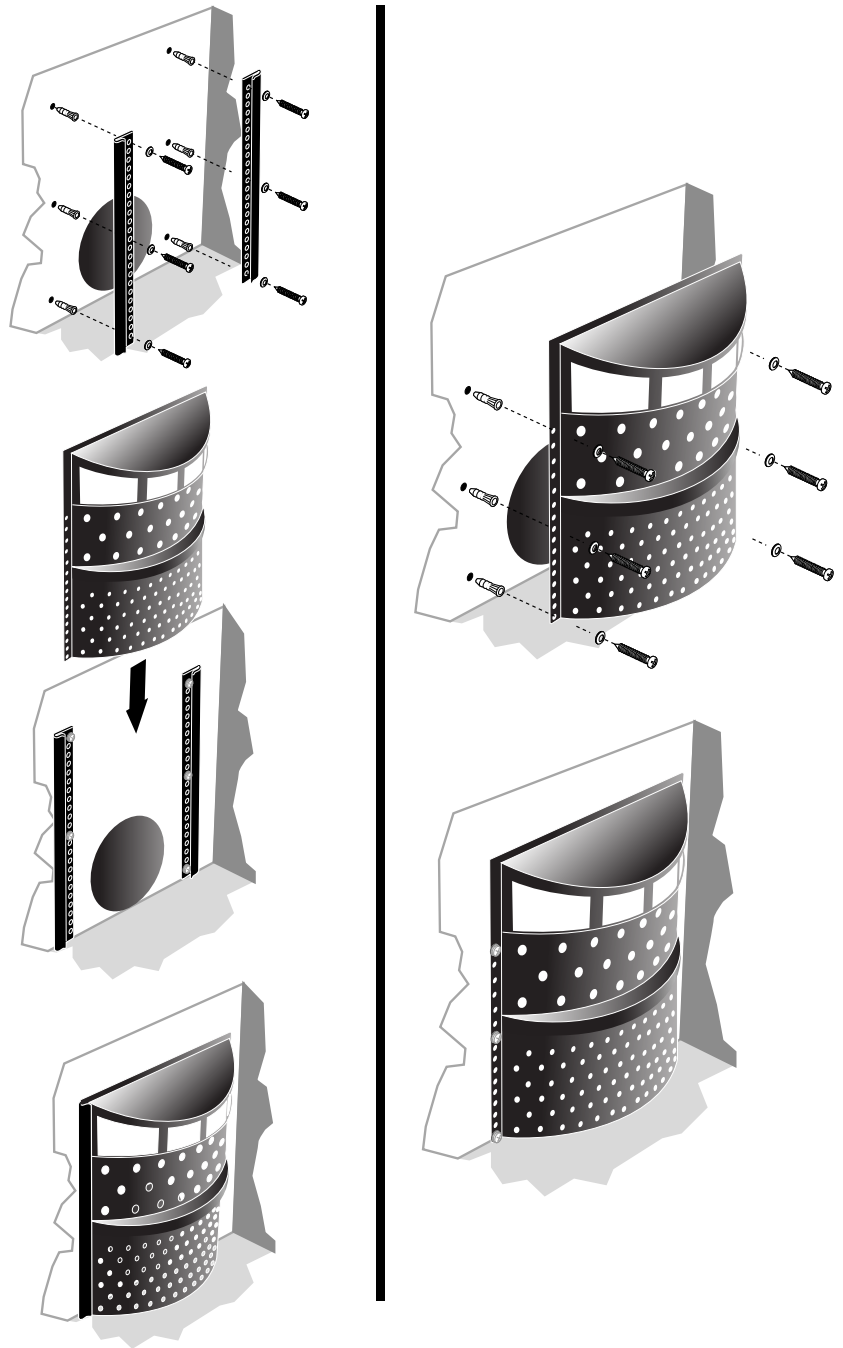
## Tools Needed:

- Cordless Hammer Drill
- 5/16" Masonry Drill Bit
- Phillips Screwdriver

## Installation Instructions

Can be attached with or without retaining rails.

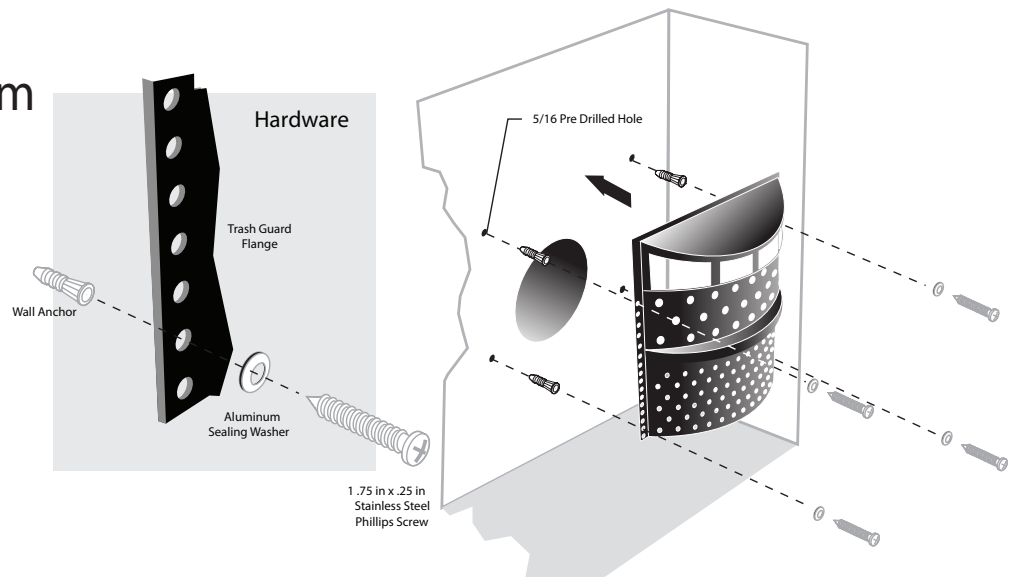
1. Place Trash Guard over outlet pipe.
2. Drill 5/16" hole top and bottom each side.
3. Insert plastic anchor and attach washer and phillips screws as shown in diagram.



# Section 1B - Sump Bottom

Sump Bottom

Same instructions as Section 1A



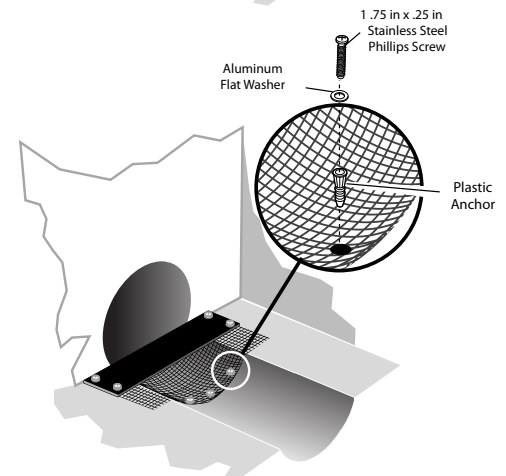
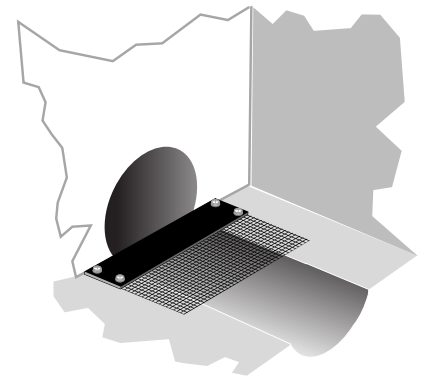
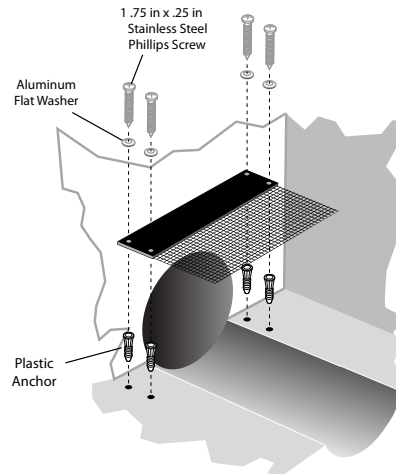
## Section 2A - Round Bottom

### Items Included for A:

- Bottom Plate with plastic netting attached
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws

### Tools Needed:

- Cordless Hammer Drill
- 5/16" Masonry Drill Bit
- Phillips Screwdriver



## Installation Instructions Round Bottom

1. Place bottom plate over rounded bottom with level sides. (Front and Back)
2. Drill 5/16" holes as shown in diagram.
3. Insert plastic wall anchors as shown in diagram.
4. Attach with washer and screw as shown.

## Section 2B

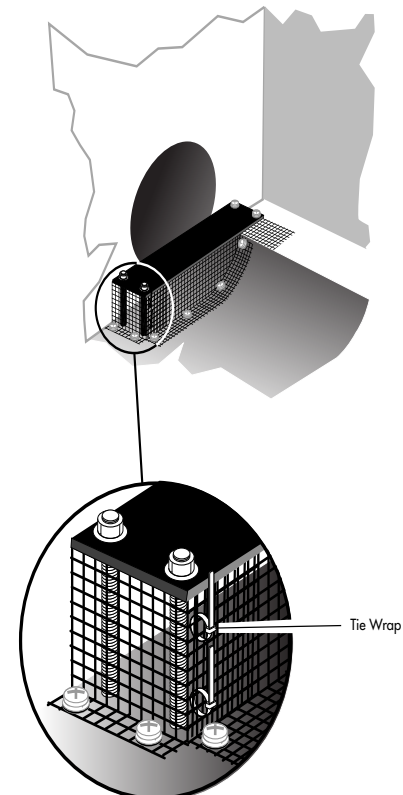
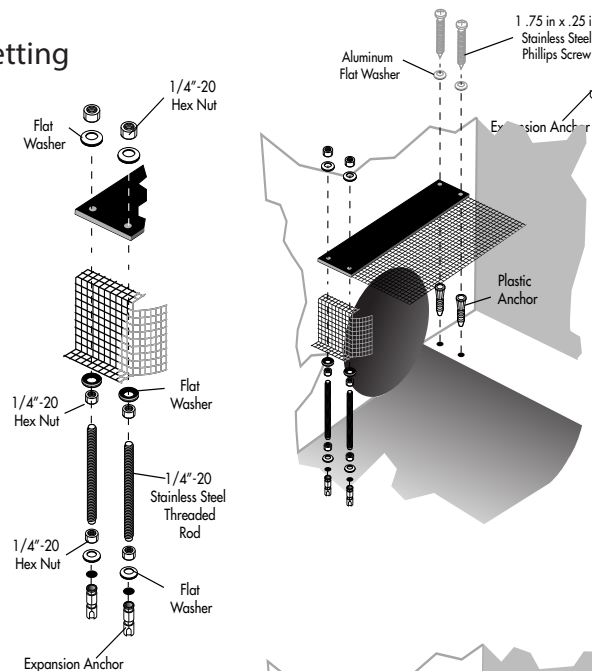
### Uneven Round Bottom

### Items Included B:

- Bottom Plate with plastic netting attached
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws
- Two Stainless Steel All Thread Rod
- Six Hex Nuts & Flat Washers
- Two Expansion Anchors

### Tools Needed:

- Cordless Hammer Drill
- 5/16" Masonry Drill Bit for Plastic Anchors
- 1/2" Masonry Drill Bit for Expansion Anchors
- Phillips Screwdriver



## Installation Instructions For Uneven Bottom

1. Follow instructions A if one side is level.
2. Drill 1/2" holes to accommodate expansion anchors.
3. Cut stainless steel rod to desired length. (Allow 1" inside expansion anchor and 1" through bottom plate)
4. Attach washers and hex nuts as shown in diagram.
5. Attach netting as shown in diagram.

# Section 3 - Flat Wall with Rounded Bottom

## Items Included:

- Same as Section 2 A or B
- Trash Guard® (Chosen Size)
- Seven Plastic Anchors
- Seven Flat Washers
- Seven 1.75" x .25" Stainless Steel Phillips Screws

## Tools Needed:

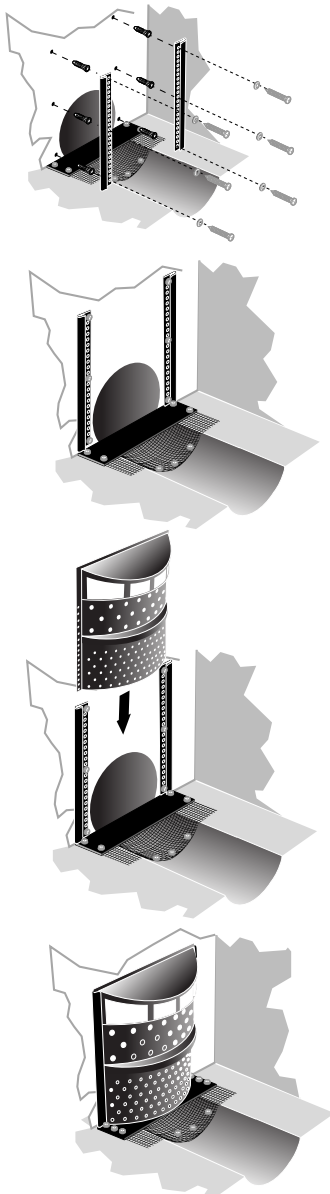
- Same as Section 2 A or B

## Installation Instructions

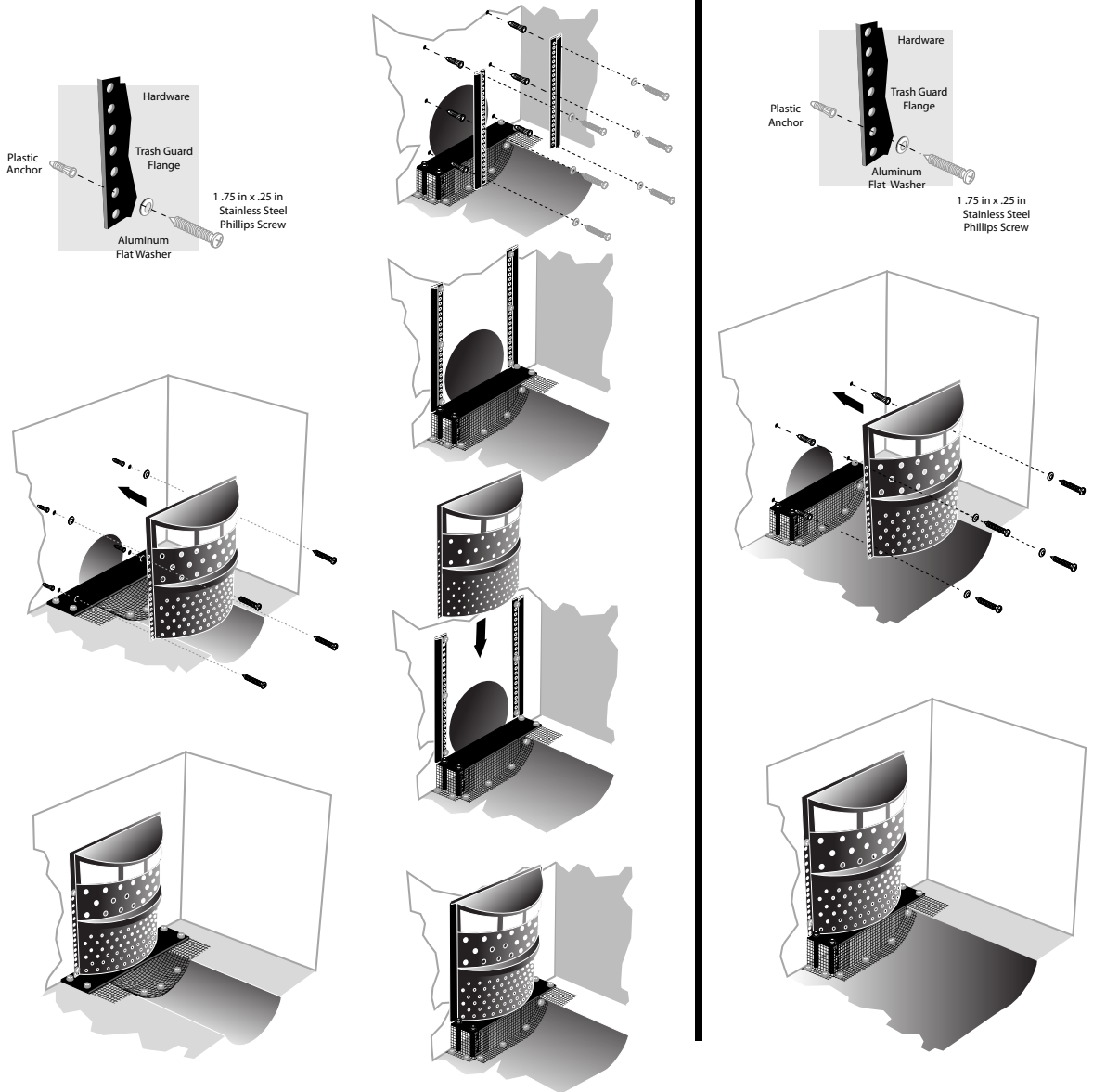
Can be attached with or without retaining rails.

1. Follow instruction for Section 2 A or B.
2. Follow instruction for Section 1

### EVEN BOTTOM



### UNEVEN BOTTOM



# Section 4 - Z Flange Under Tiered Wall

## Items Included:

- Same as Section 2 A or B (if rounded bottom)
- Trash Guard® (Chosen Size)
- Two Plastic Flanges Z shaped cut height needed
- Seven Plastic Anchors
- Seven Flat SS Washers
- Seven 1.75" x .25" SS Phillips Screws
- Seven 1/4" x 3/4" SS Phillips Pan M/S & Six 1/4" - 20 SS Hex Nuts

## Tools Needed:

- Cordless Hammer Drill
- 5/16" Masonry Drill Bit
- Phillips Screwdriver

## Additional

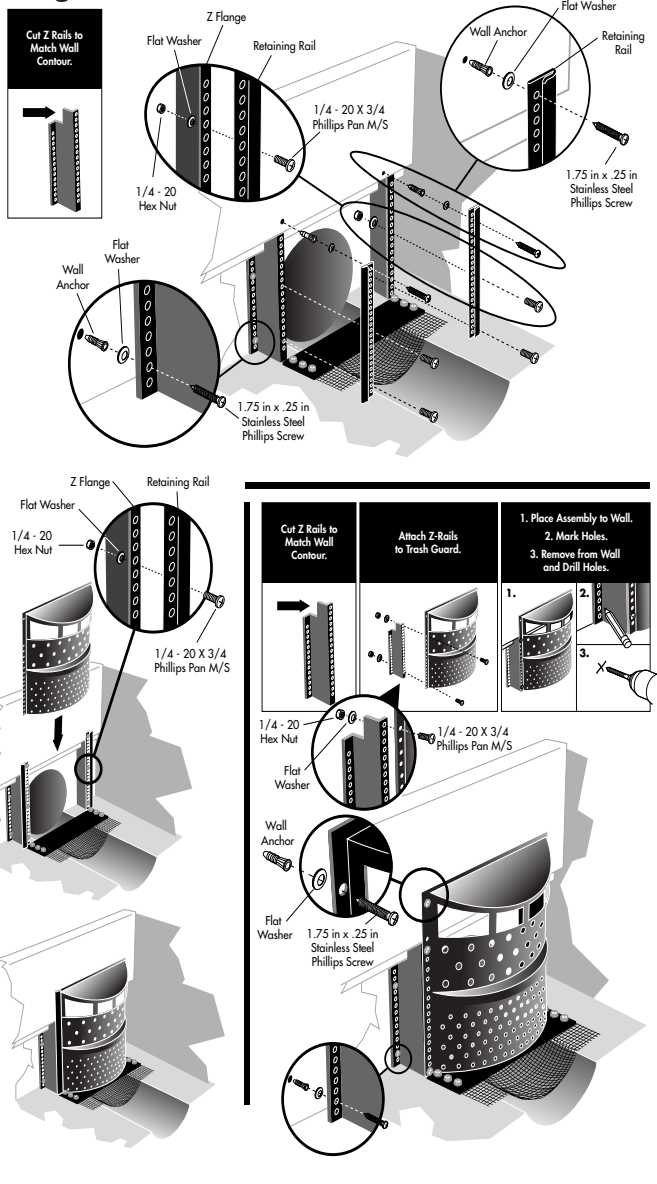
- Power Saw & 12" Ruler

## Installation Instructions

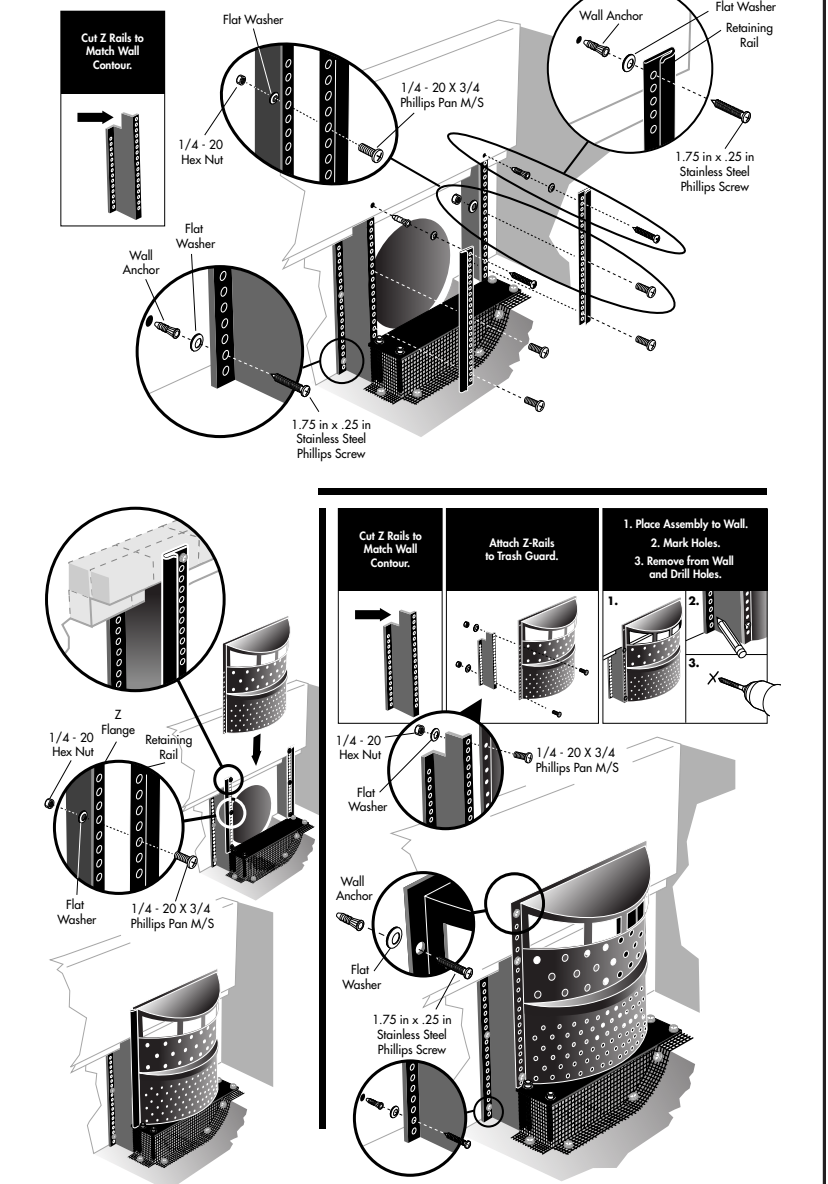
Can be attached with or without retaining rails.

1. Attach bottom plate to floor directly under area where Trash Guard® will sit.  
(Use either A or B bottom instructions)
2. cut plastic Flanges height needed to fit under tiered wall & saw sections so Flange will fit against wall and round tiered brick (if necessary)
3. Attach Z shaped Plastic Flanges to Trash Guard.
4. Drill 5/16" holes on the top and the top and bottom of Plastic Flanges.
5. Insert Plastic Anchors and attach washers and Phillips screws as shown in diagram.

### Diagram A - Even Bottom



### Diagram B - Uneven Bottom



# Section 5 - Concaved Wall

## Items Included:

- Same As Section 1
- Same As Section 2 A or B if rounded bottom

## Additional

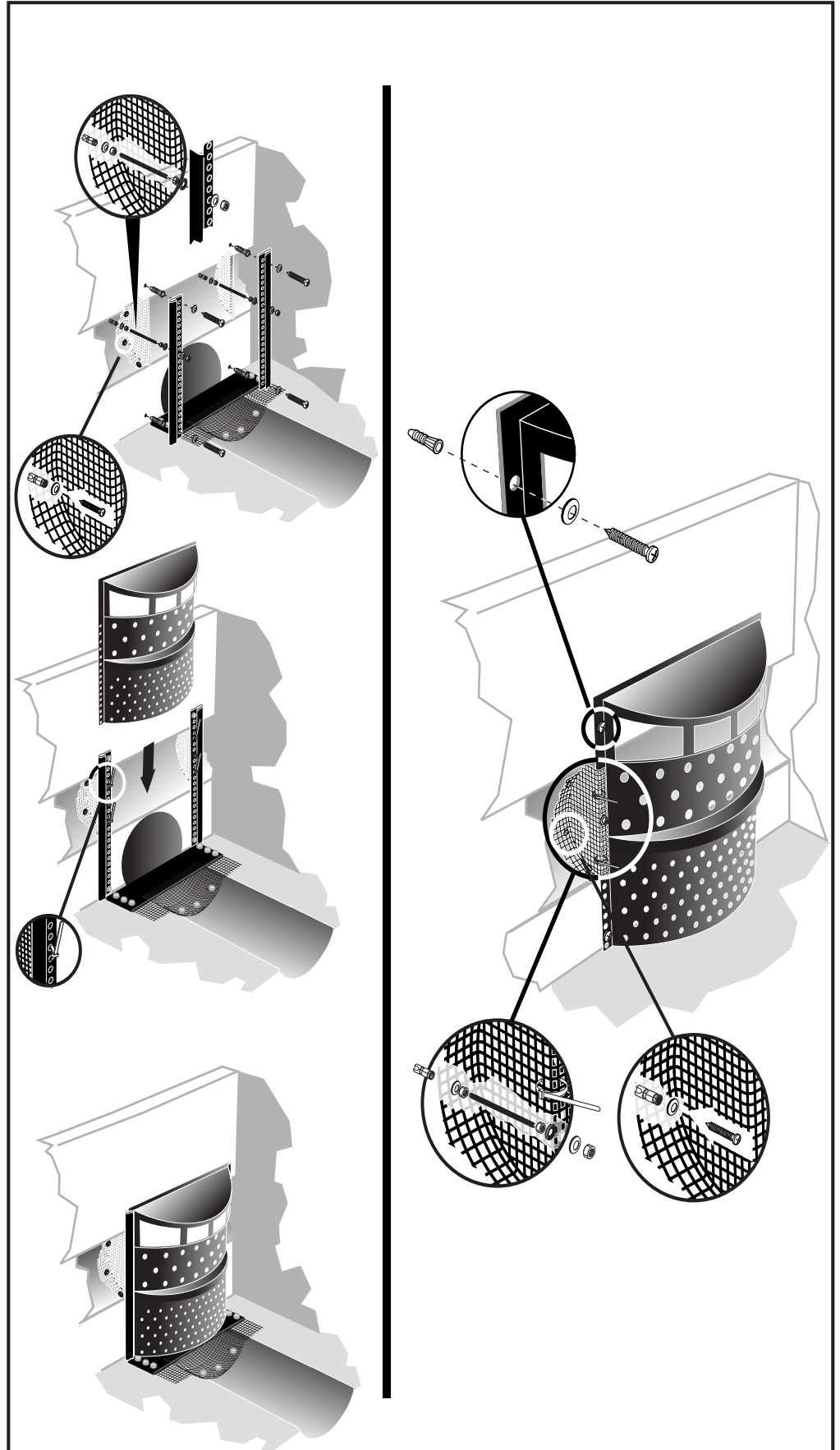
- Plastic Netting for concave wall
- Seven Stainless Steel Screws, Flat Washers and Plastic Anchors

## Tools Needed:

- Same As Section 2 A or B

## Installation Instructions

1. Follow Instructions In Section 1 and Section 2 A or B if necessary
2. Attach Plastic Netting To Trash Guard® Flange or retaining rails with Tie Wraps As Shown In Insert
3. Bend & Form Netting To Concaved Wall As Shown In Insert
4. Drill 5/16" Holes To Secure Netting To Wall
5. Secure Plastic Netting To Wall With Phillips Head Screws, Plastic Anchors & Washers As Shown In Insert.



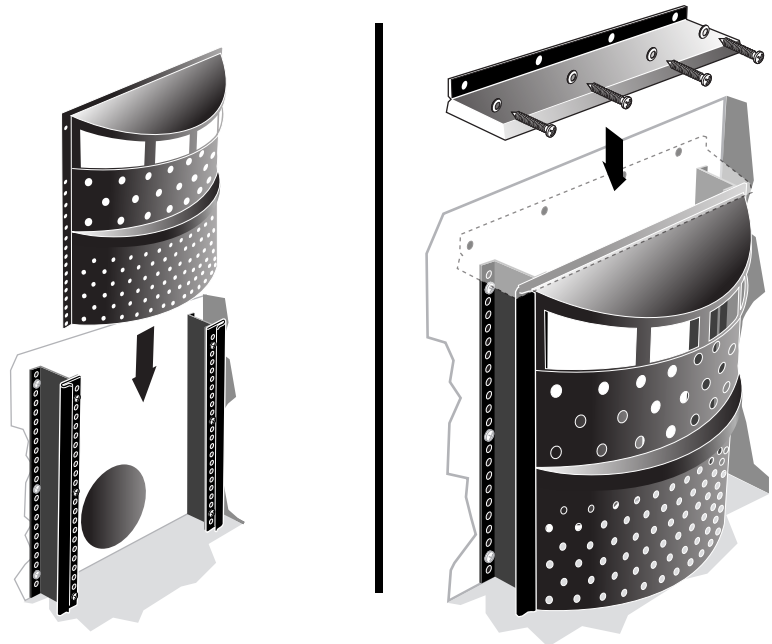
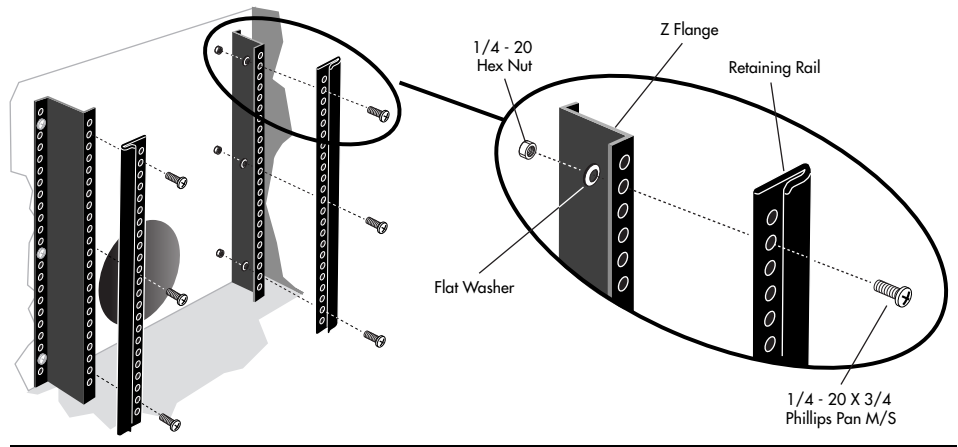
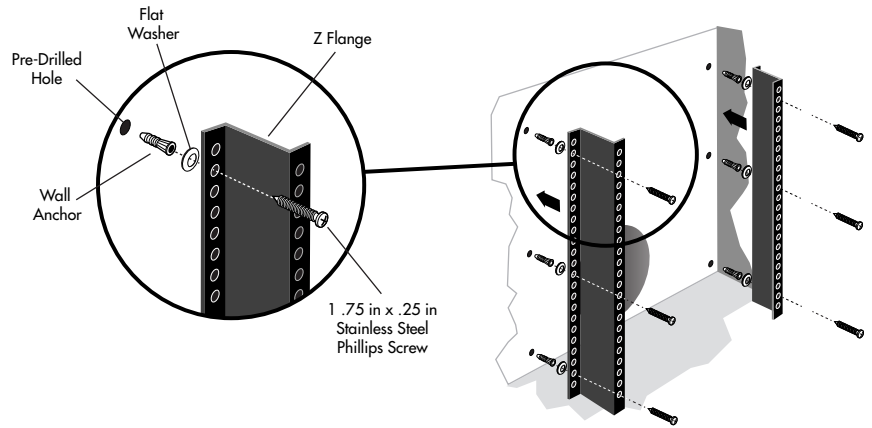
# Section 6 - Z Flange Wall Extension

## Items Included:

- Same As Section 4

## Additional

- Top Expansion Strip
- Seven Phillip Head Screws
- Flat Washers, Plastic Anchors and Hex Nuts

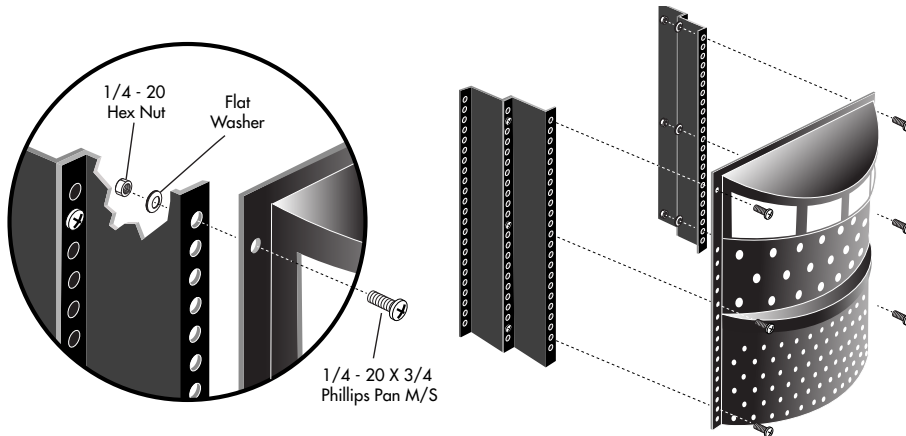
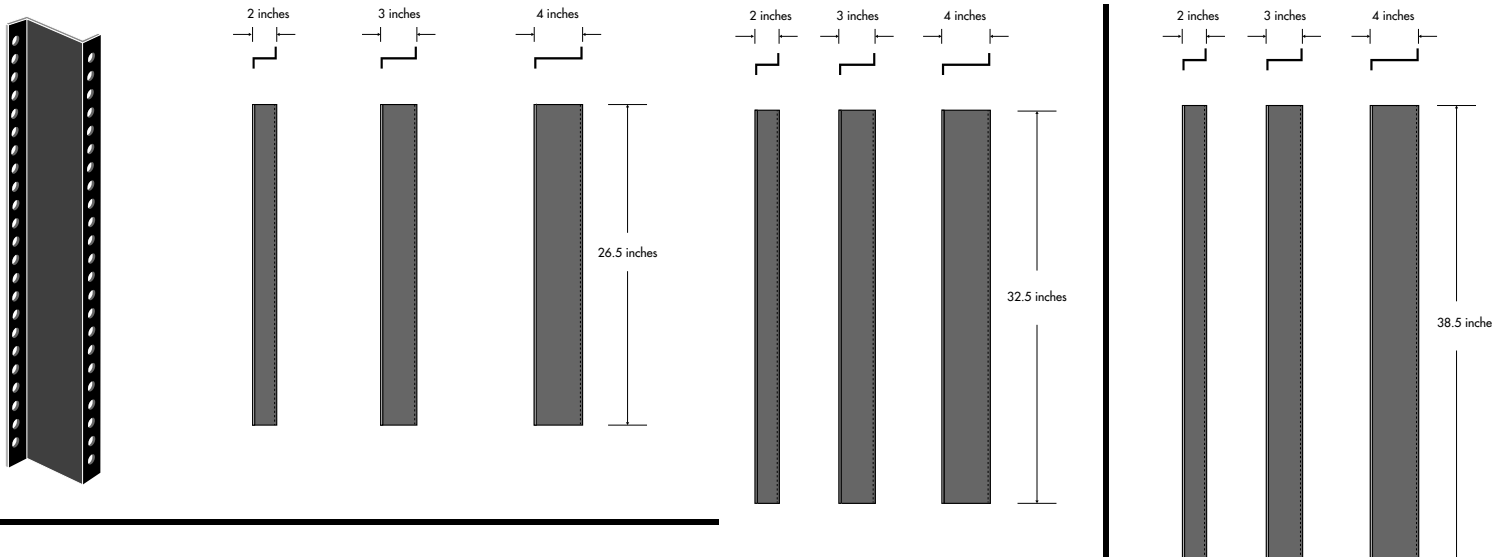


## Installation Instructions

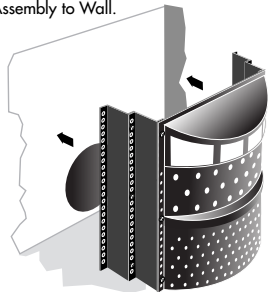
- Can be installed with or without retaining rails.
- Attach Z shaped Plastic Flanges to Trash Guard or retaining rails with six hex bolts and hex nuts.
- Place attached Trash Guard and Z Flanges against wall and mark for 5/16" holes.
- Drill two or three 5/16" holes on each side of Z Flanges.
- Insert Plastic Anchors and attach washers and Phillips Screws as shown in Diagram.
- Attach Top Expansion Strip to wall with Phillip Head Screws, Plastic Anchors & washers as shown. Allow Extension Strip to lay on top of Trash Guard as shown.

# Section 6B - Additional Extensions

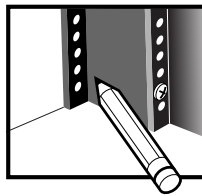
ADDITIONAL EXTENSION: Trash Guards can be extended from the wall any distance required as long as it doesn't interfere with water flow and basin maintenance. Trash Guard and Extensions should be sitting on the bottom. By attaching a combination of 2", 3" and 4" Z flanges shown in Diagram. Use six 1/4"x 3/4" Phillips Pan M/S and Hex nuts to attach each Z flange as shown in Diagram. A top extension strip must be special ordered when extension distance is determined and distance exceeds four inches.



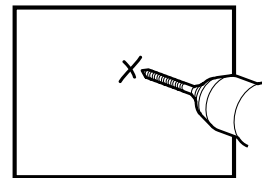
**1. Place Assembly to Wall.**



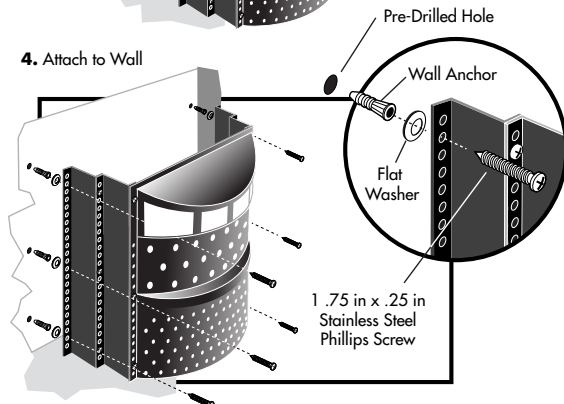
**2. Mark 3 Holes per Side (Top Middle and Bottom)**



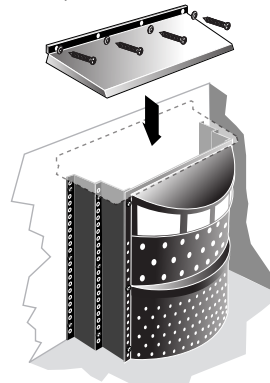
**3. Remove from Wall and Drill Holes at Marks**



**4. Attach to Wall**



**5. Place Cover over assembly and attach to wall with Phillips Screws, Washers and Wall Anchors**





# Section 7

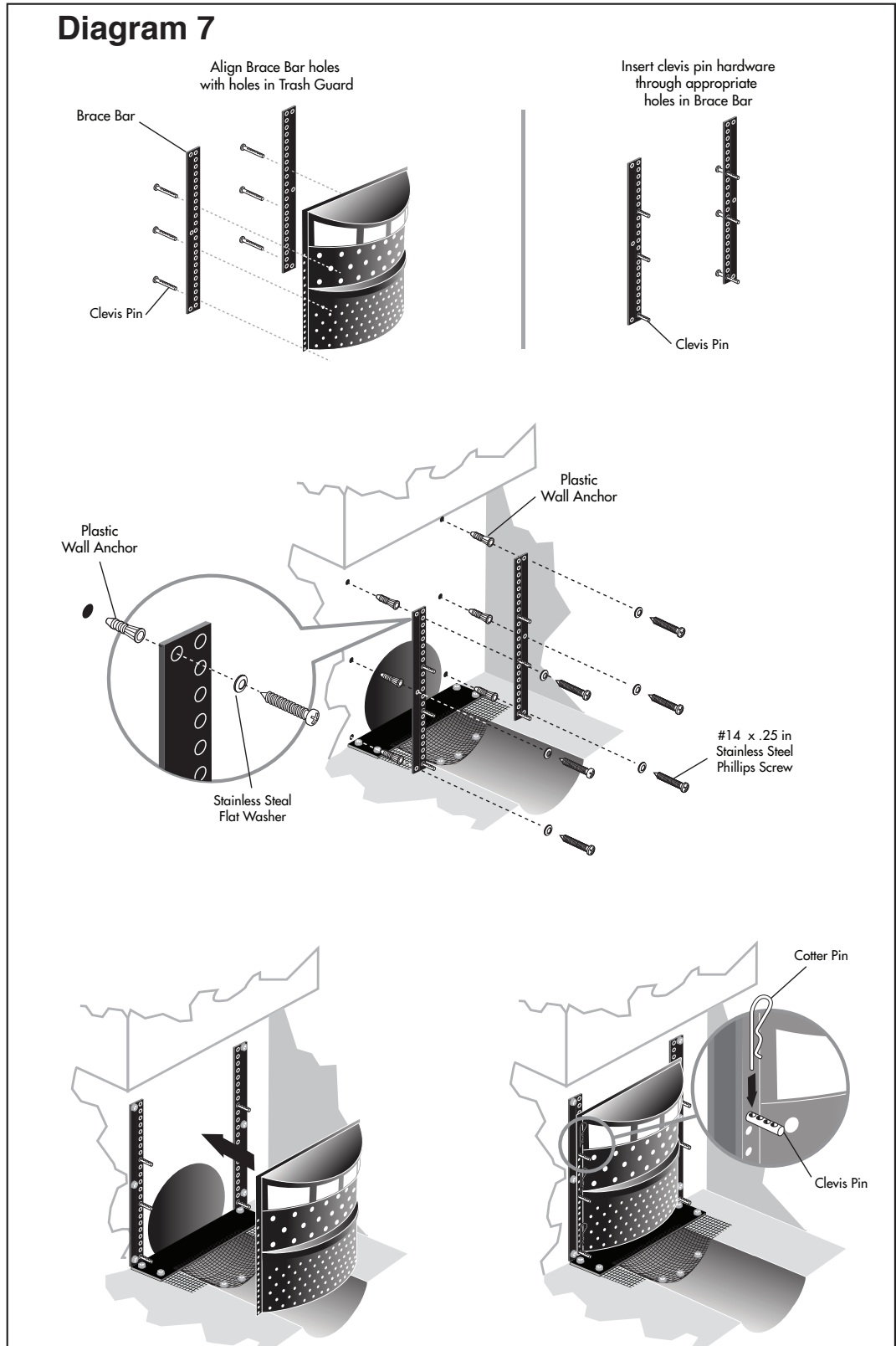
## Brace Bar Connection

### Items Included

- Trash Guards (Chosen Size)
- Seven Plastic Anchors, Seven SS Flat Washers, Seven SS 1.75" x .25" Phillips screws
- Two Brace Bars
- Six Clevis Pins
- Six Cotter Pins

### Installation Instructions

- Temporarily attach Trash Guard to Brace Bars and place on the wall and mark for holes drilling
- Drill three 5/16" holes on each side and insert Plastic Anchors
- Insert Clevis Pins into Brace Bars as shown
- Attach Brace Bars to wall
- Place Trash Guard over Clevis Pins and insert Cotter Pins to secure Trash Guard to the wall.

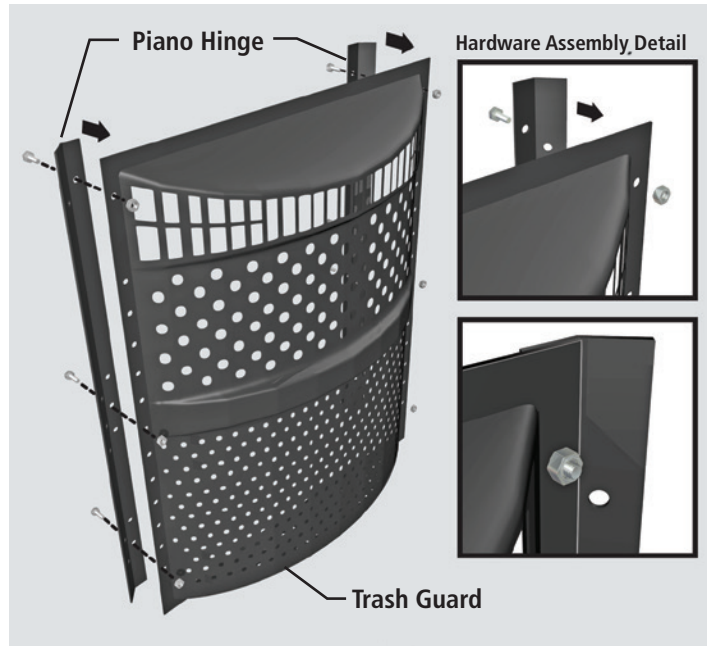


# ATTACHING TRASH GUARD TO ROUND BASIN WALL



## 1. Attach Piano Hinge to TRASH GUARD

Secure piano hinges to rear of TRASH GUARD with 3 bolts and 3 nuts as shown.

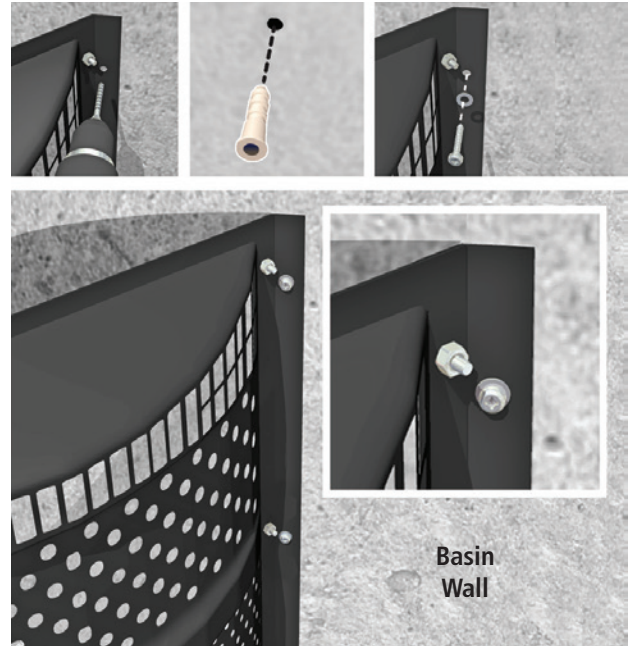


## 2. Attach TRASH GUARD to Round Basin Wall

Drill 5/16 diameter holes 2 inches deep into Basin Wall.

Insert plastic anchors in pre-drilled holes.

Secure to wall with 6 tapping screws and 6 washers. (3 each side)



## 3. Attach Cap Round Cover to TRASH GUARD

Place two spacers on top of TRASH GUARD top. Place Cap Round Cover over TRASH GUARD as shown below. Adjust spacers to align with slots in Cap Round Cover as needed. With washers attached to screws, slide screws through slots in Cap Round Cover and through holes in spacer. Torque screws to penetrate surface of TRASH GUARD top.



Adjust Cap Round Cover as needed to fit flush with curved Basin Wall.

When Cap Round Cover is flush against wall, tighten screws to hold in place.

Cap Round Cover should be parallel to top of TRASH GUARD and flush against Basin Wall as shown in Figure A below.

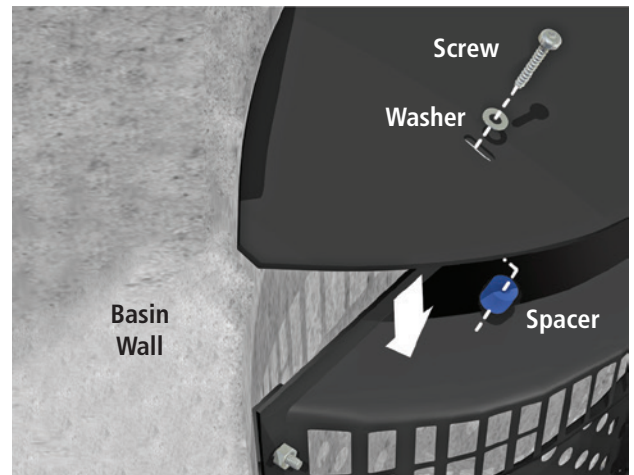
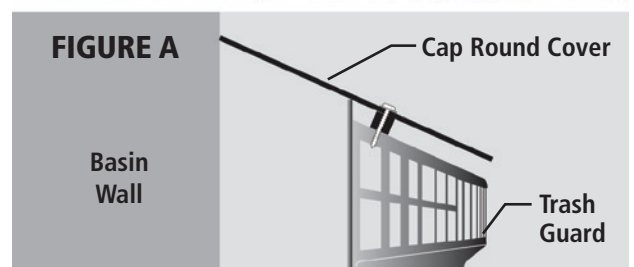


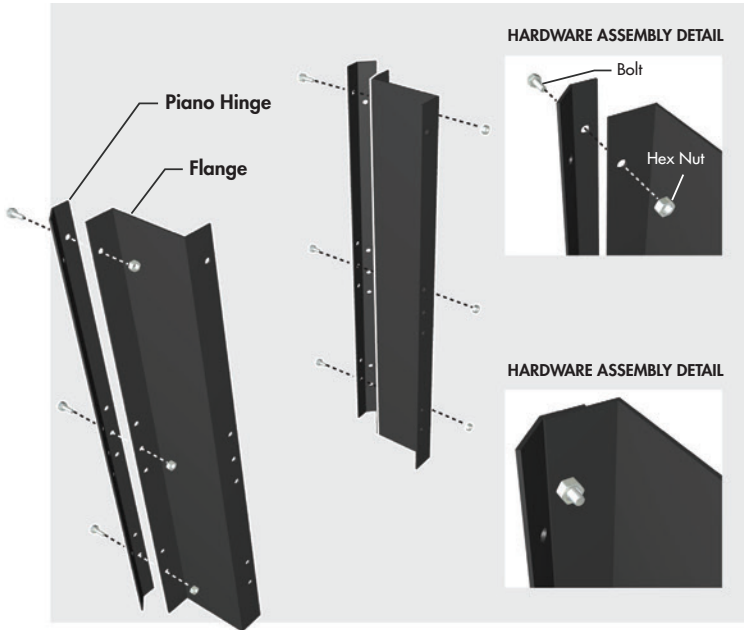
FIGURE A



# ATTACHING TRASH GUARD with SIDE FLANGES to ROUND BASIN WALL

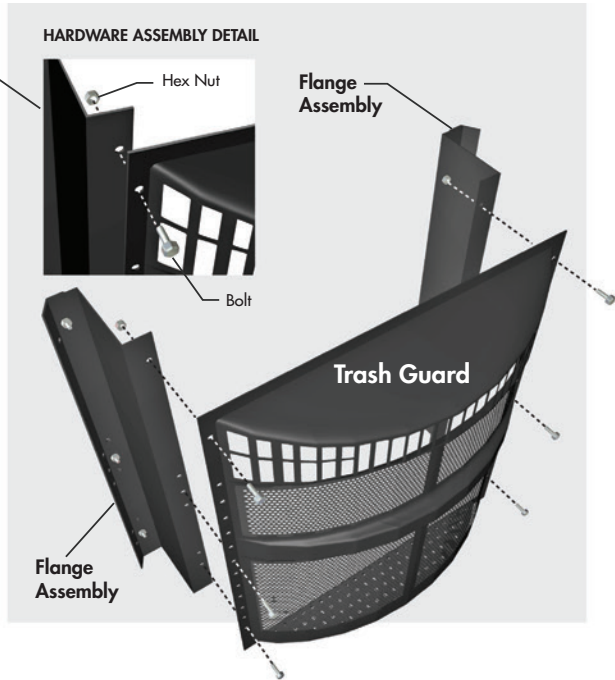
## 1. Attach Piano Hinges to Flanges

Secure **piano hinges** to **flanges** with (3) 1/4 x 1/2 hex bolts and (3) 1/4-20 hex nuts per assembly as shown below.



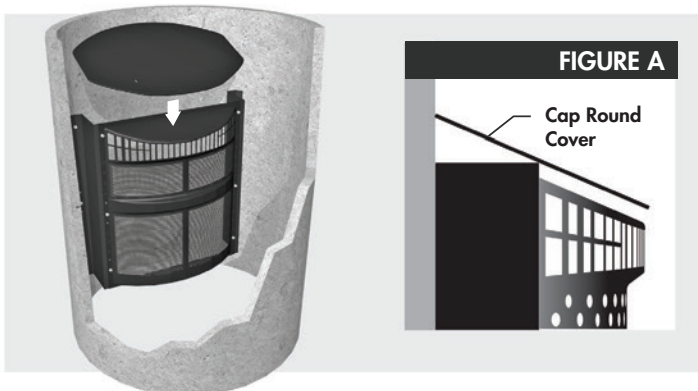
## 2. Attach Trash Guard to Flange Assemblies

Attach **TRASH GUARD** to **flange assemblies** with (3) 1/4 x 1/2 hex bolts and (3) 1/4-20 hex nuts per side as shown below.



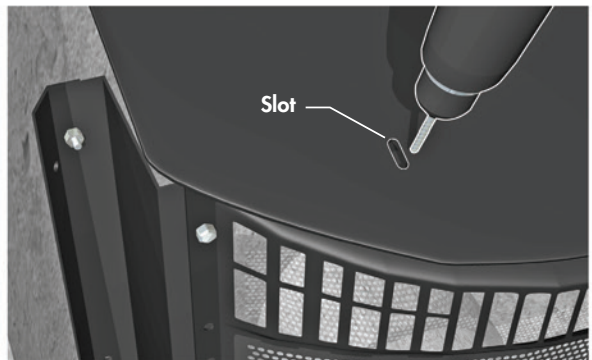
## 3. Position Cap Round Cover and Trash Guard to Wall

Place assembled **TRASH GUARD** where needed against wall. Position **cap round cover** against wall and in place over **TRASH GUARD**. **Cap round cover** should be snug against wall and parallel to **TRASH GUARD** top as shown in **Figure A** below.



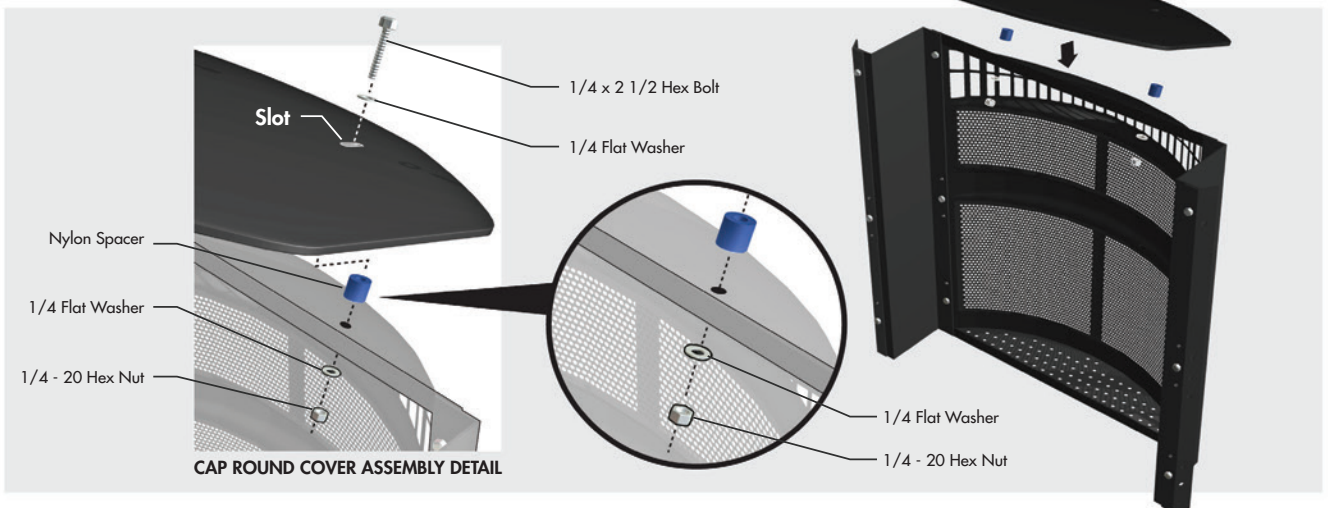
## 4. Drill Holes in Top of TRASH GUARD

With **cap round cover** in place, drill two 5/16 diameter holes in top of **TRASH GUARD** through slots in **cap round cover** as shown below. After drilling holes remove **TRASH GUARD** and **cap round cover** from wall for assembly.



## 5. Assemble Cap Round Cover and Trash Guard

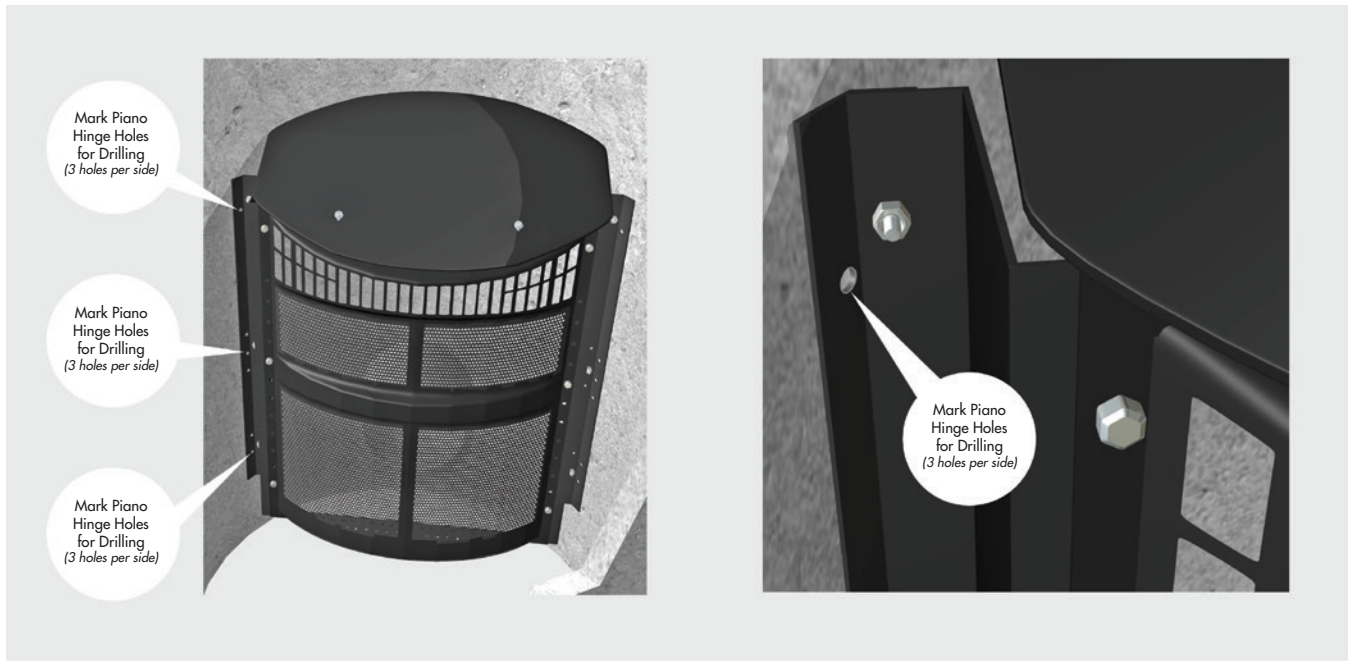
Attach **cap round cover** to **TRASH GUARD** with (1) 1/4 x 2 1/2 hex bolt, 1/4 flat washer, nylon spacer, 1/4 flat washer and 1/4 - 20 hex nut per slot.



Continued on Back

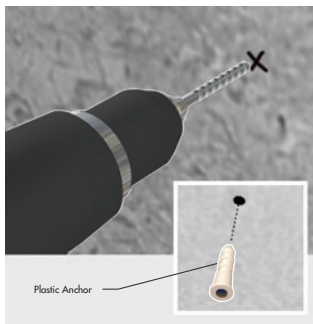
## 6. Place Trash Guard in Position on Wall and Mark Holes for Drilling on Piano Hinge

Place Trash Guard in position on wall and mark holes for drilling on Piano Hinge. Mark 3 holes per side.



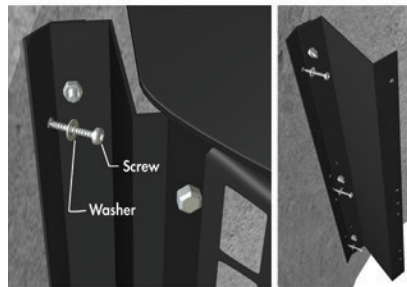
## 7. Drill 3 Holes per Markings on Each Side and Insert Plastic Anchors into Pre-Drilled Holes

*(Drill six 5/16 diameter holes 2 inches deep)*

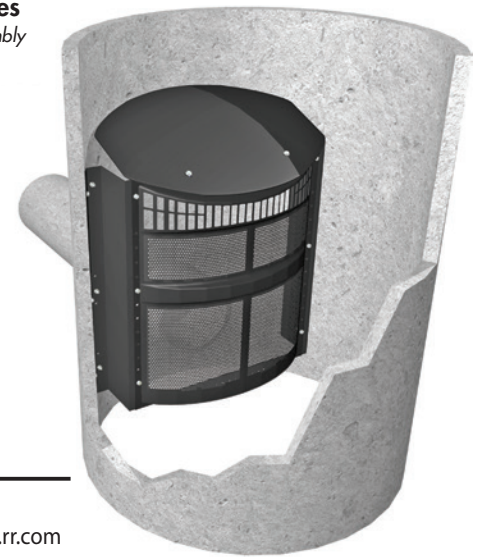


## 8. Attach Trash Guard Assembly to Wall with 6 Screws and 6 Washers via Drilled Holes

*(Trash Guard may need to be removed from flange assembly to access screws)*



## FINAL ASSEMBLY



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After we designed, patented and started marketing our products, we discovered that round catch basins are more popular in some areas of the country than rectangular catch basins. We believe as time passes and more outlet and inlet pipes are entering and exiting rectangular catch basins at an angle, round catch basins will become more popular nationwide. Holes can be made in round catch basins so outlet and inlet pipes exit or enter the catch basin in a centered position, rather than an angled position in a rectangular basin.

We realize we should make adjustments so our Trash Guard products would function in round catch basins. We designed our Cap Kit addition to cover the open space between the back of the Trash Guard and the rounded wall. We also discovered a plastic Piano Hinge that can attach to the Trash Guard and can be bent so holes can be drilled straight into the round basin wall to make attaching Trash Guards to the wall more convenient. Our Cap Kit includes a plastic cap, two piano hinges and a hardware kit to attach the piano hinges to the Trash Guard and bolts and spacers to attach the cap to the Trash Guard.

We also have a Cap Kit for Trash Guards that attach to a round catch basin with a sump bottom. These kits are basically the same except they have two caps and additional hardware and spacers to attach the bottom cap. We also have Z Flanges that can be attached to the Trash Guard and piano hinges and extend the Trash Guard further from the wall if the outlet pipe extends into the catch basin, or there are other structural problems. We suggest that Z Flanges not be used unless the Trash Guard is sitting on the floor. We believe that the uneven distribution of weight could cause the wall anchor screws to pull away from the wall in the sump bottom installation. Trash Guards can be extended from the wall any distance required as long as the extension doesn't interfere with water flow and basin maintenance. A top expansion strip must be special ordered when extension distances are determined.

We inventory the piano hinges, hardware kits and caps for 23", 28" & 34" Trash Guards for the 48" & 60" standard round catch basins. Should you need a cap for the round catch basin other than 48" or 60", or for an extended cap with a Z Flange installed, please call for a special order.