Slot Drain Systems

Installation Guide

SLOTDRAIN® SYSTEMS

Slot Drain Systems
(A Global Drain Technologies Company)

GLOBAL DRAIN TECHNOLOGIES

ABOUT SLOT DRAIN®

Slot Drain® is specifically built to suit numerous market applications. Our drains are designed to suit everything from appealing landscaping applications to tough jobs that rely on strength and durability.

Slot Drain® Systems solved the issue of expensive installations, future workers health and maintenance wear and tear. Slot Drain® Systems was the world's first slotted trench drain solution that excluded traditional grates allowing for the same drainage performance to be upheld without the hassles of a grated trench.

Looking back over the past 3 decades Slot Drain® has been specified by architects and engineers throughout North America, and can be found equally in farms, warehouses, FDA regulated manufacturing facilities, residences, pool sides, slaughter houses, zoos, aquariums, car washes, and automotive facilities.

Nowadays drainage is one of the most important aspects, For any construction it cannot be neglected. Our drains are built to look good and stand strong. Slot Drain's team of professionals is proud to assist you with any project where you need to move surface drainage quickly, aesthetically and economically from your environment.

Slot Drain® is available in stainless steel and galvanized steel. Slot Drain® is customizable with elbows and transition pits.

MATERIALS AND CONFIGURATIONS

Slot Drain® is fully customized to meet your project requirements:

MATERIALS

SS

Stainless Steel
304/316 grade
14 gauge / 16 gauge

GV

Galvanized Steel
16 gauge

CONFIGURATIONS

- Slot Drain® slot width is available in:
  - 1/2”
  - 1”
  - 1 1/4”
- Slot Drain® sections can be 9’8” or 4’10” in length.
- Slot Drain® can be configured for any layout using any combinations of the following:
  - ‘T’ Sections
  - 90° Elbows
  - 45° Elbows
  - ‘+’ Elbows

FLOW RATE

Slot Drain® Flow rates are based on the slot opening per foot of drain and the flow rates for the different slot opening are as follow:

1. 1/2” Slot opening - 11 GPM
2. 1” Slot opening - 18 GPM
3. 1 1/4” Slot opening - 27 GPM

DURABLE

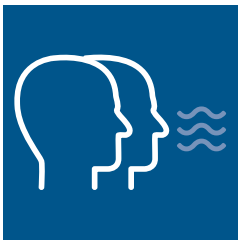
SANITARY

AESTHETICALLY APPEALING

EASY TO CLEAN

LOAD CLASS RESISTANT

CONTROLS ODOUR

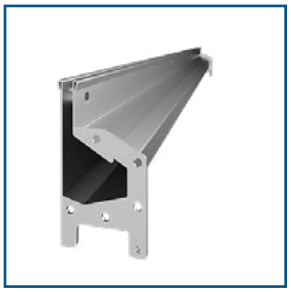


CORROSION RESISTANT

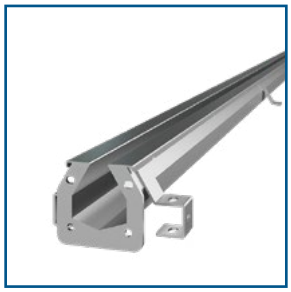
ADA APPROVED

TYPES OF DRAIN

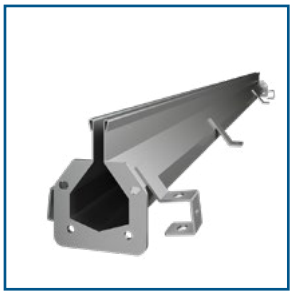
Slot Drain® is available in different sizes:



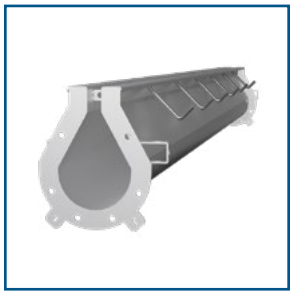
4000 SERIES



6000 SERIES



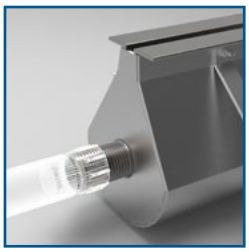
7000 SERIES



10000 SERIES

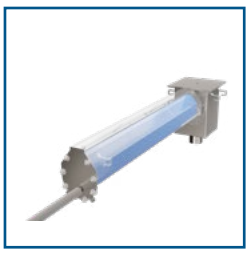
ACCESSORIES

Strainer Basket
Made from durable stainless steel, our strainer basket is easy-to-access and will safely collect lost items until they can be retrieved.



Flush Flo
Easily connect your drain to a water line for fast and easy cleaning. This feature can be used manually or on a timer.

Catch Basin
Our load-bearing easy-to-access catch basin makes retrieving lost items simple and easy.



Clean In Place
Close the drain, add sanitizers and wait! Cleaning your floor drains has never been this easy.

Cleaning
The cleaning paddle is the simplest way to remove items from the drain. You just insert the paddle, twist 90 degrees and move it along the drain to clear the debris.

Brush Paddle
A Brush Paddle can scrub the inside of the channel easily and thoroughly. Trappings are then removed from the catch basin.

REQUIRED TOOLS

DUCT TAPE

SILICON SEALANT

STRING-LINE AND LASER LEVEL

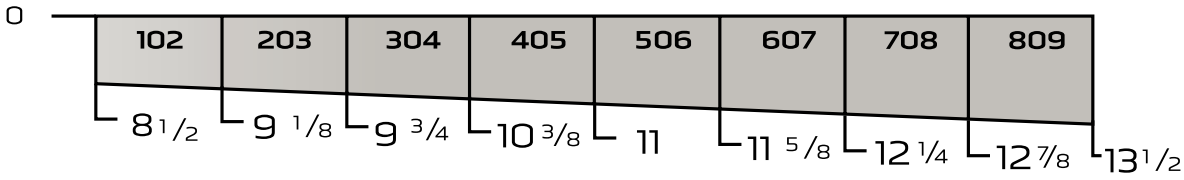
MEASURING TAPE

RUBBER HAMMER

ADJUSTABLE WRENCH

GENERAL GUIDANCE

TYPICAL MODULAR LAYOUT OF A 10, 000 SERIES SLOT DRAIN® SYSTEM
(Sections fit together as illustrated below)



Slot Drain® is a one-piece, built-in, sloped drainage system with a linear slot in the floor surface at a constant elevation. The drain itself is mounted in the floor assembly and integrated with the floor during the concrete pour. Forming, framing, welding and edging are all eliminated and screeding is reduced to two slopes instead of four.

Drain sections arrive fully assembled and ready to install – no grating to screw on, no anchors or drains to weld, simply bolt the drain ends together, then pour concrete and finish your floor. It takes two people approximately 20 to 30 minutes to install one 15 foot section.

INSTALLATION GUIDANCE FOR NEW CONSTRUCTION

1. SITE PREPARATION:

CONCRETE POUR INSIDE THE CATCH BASIN PIT

REBAR INSTALLATION BEFORE CONCRETE POUR

There are some important steps to be followed during the installation of drain channels and Site preparation is one among those steps.

Identify the installation location of drain channels and excavate a trench allowing for room underneath and on both sides of Slot Drain®. There should be a minimum of 6” of concrete surrounding the drain.

The drain channels are installed in continuous trenches, bedded on a concrete foundation. So it is recommended to pre-pour a concrete pad underneath the slot drain pit, so it can be properly secured. If no concrete pad is poured, peg the sump pit down (using the flat bar mounting brackets bolted to the sides of the sump and wooden stakes) before Slot Drain® is connected. All foundations must be designed to withstand the service loads without differential settlement.

2. PIPE CONNECTION:

Install all Slot Drain® pits and piping, making sure that the Slot Drain® pit walls are reinforced to prevent sidewall bowing.

PIPE CONNECTION TO THE CATCH BASIN OUTLET

3. DRAIN CONNECTION:

DEEPEST SECTION OF DRAIN AND CATCH BASIN CONNECTED TOGETHER

- After installing the Slot Drain® pit in the excavated trench, the flange of the deepest section of Slot Drain® channel and the Slot Drain® pit to be assembled together by applying the continuous bead of Silicone sealant and bolt those flanges in the respective holes provided.
- If the Slot Drain® pit is not being used, start at the deepest section.
- Bolt all remaining drain sections of Slot Drain® together using the numbered flanges as a guide. For example, if you have the drain sections 102, 203, 304 and a Slot Drain® pit. First, bolt flange 4 of section 304, which is the deepest section to the Slot Drain® pit side marked 4. Next, bolt flange 3 of section 304 to flange 3 of section 203. Finally, bolt flange 2 of section 203 to flange 2 of section 102. Use continuous bead of Silicone sealant between all bolted sections.

SILICON SEALANT APPLIED IN THE FLANGES BETWEEN DRAIN CONNECTIONS

BOLTING BETWEEN ONE DRAIN FLANGE AND ANOTHER DRAIN FLANGE

- There is an additional option with Flush Flo for easy maintenance in the future. Connect the water tap point to the shallow depth drain before pouring concrete.

INSTALLATION GUIDANCE FOR NEW CONSTRUCTION

WATER PIPE CONNECTION TO THE 1" THREADED PIPE NIPPLE

» Use threaded rod to set the desired elevation of drain sections. Secure drain sections to the stakes with the mounting holes provided on the leveling brackets.

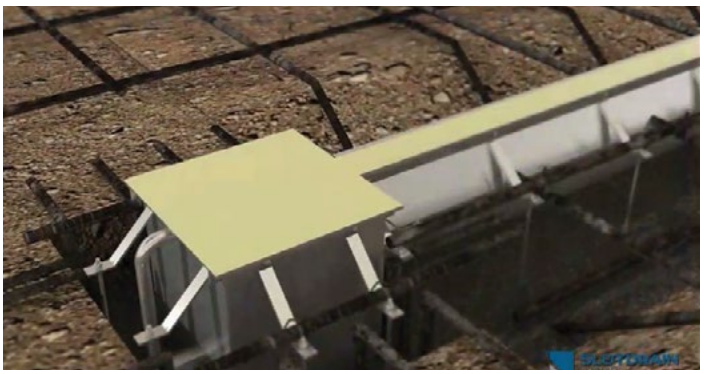
THREADED ROD CONNECTION BETWEEN LEVELING BRACKET AND THE CONCRETE BASE

» Once Slot Drain® is secured and the appropriate elevation is achieved, for structural support, tie the rebar from the floor grid into the rebar/leveling bars on the drain assembly.

REBAR INSTALLATION BETWEEN THE FLOOR GRID AND THE LEVELING BAR

4. FINAL PREPARATION:

» And importantly, Cover the slot opening with duct tape, or insert Styrofoam if needed. This will help to avoid concrete spillage inside the drain through the slot during the concrete pour around the drain.



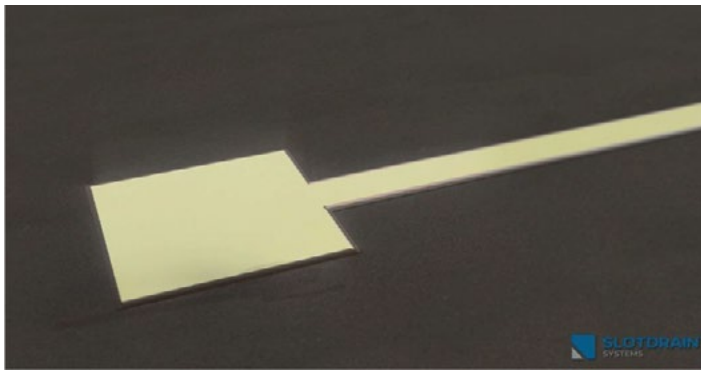
COVER THE SLOT OPENING WITH DUCT TAPE

5. CONCRETE POUR:

» Cover the slot opening with duct tape, or insert Styrofoam if needed. This will help to avoid concrete spillage inside the drain through the slot during the concrete pour around the drain.

» Once adequate time for the first concrete pour to set has elapsed, the floor slab can be completed. The use of a pencil vibrator is strongly recommended to make sure that the concrete has completely surrounded Slot Drain®, leaving no bubbles or voids.

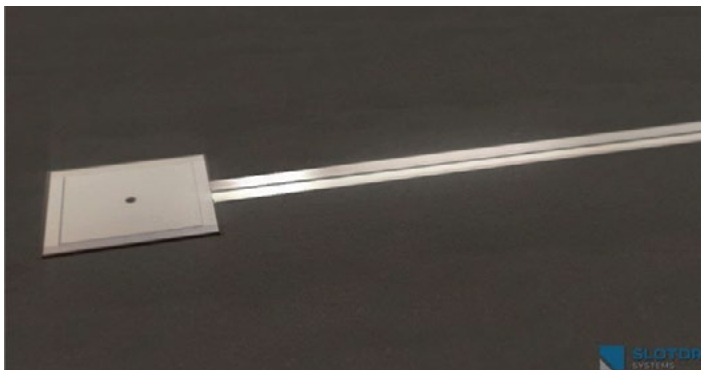
POUR SLURRY BELOW TO SECURE THE DRAIN



CONCRETE POUR SURROUNDED DRAIN AND CATCH BASIN

6. FINAL STEP:

» Once the concrete slab is firm, remove the tape or Styrofoam from the slot and then break out all metal tabs to ensure a continuous open slot.



REMOVE DUCT TAPE

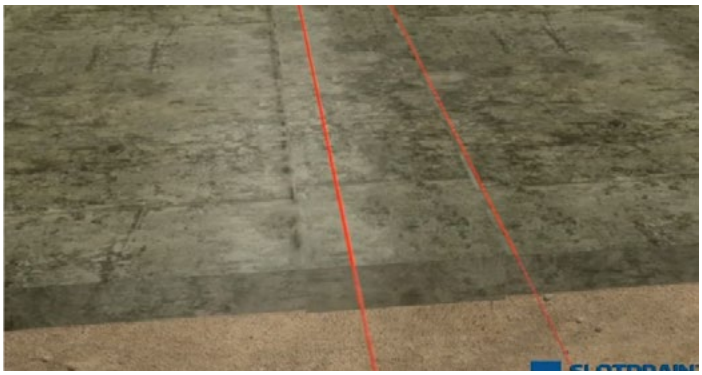
REMOVAL OF METAL TABS

Tabs can be safely removed after Installation on the 6000 Plus-R, 8000, 9000, and 10,000 Series. All other products metal tabs **MUST** not be removed.

Important: You **MUST** wait 30 days or more to allow the concrete to fully cure before removal.

INSTALLATION GUIDANCE FOR RETROFIT INSTALLATION

1. SITE PREPARATION:



MARK THE TRENCH OPENING IN THE SLAB

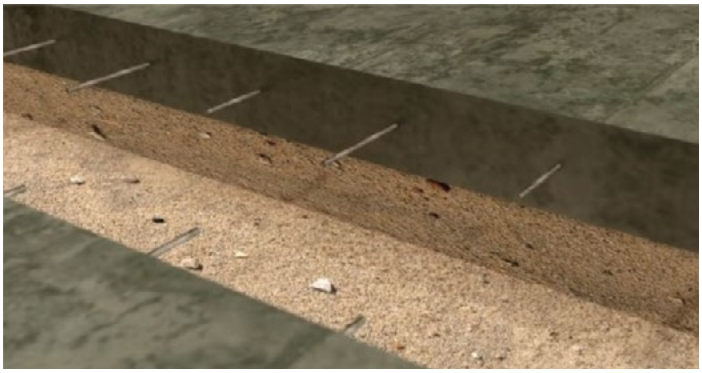
EXCAVATE THE TRENCH IN THE CUT SLAB LOCATION

CUT THE TRENCH IN THE SLAB

DRILL THE SIDES OF THE SLAB

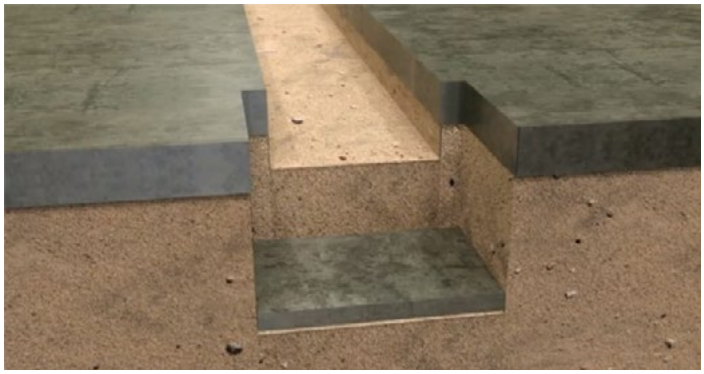
- Identify the installation location of drain channels and mark the drain location on the existing slab.
- Cut 24” wide trench in existing slab

- Excavate the trench allowing for room underneath and on both sides of Slot Drain®. There should be a minimum of 6” of concrete surrounding the drain.
- Drill and dowel into the sides of the existing cut slab. Approximately 16” – 24” on both sides.



CONNECT THE REBARS IN THE DRILLED LOCATIONS

» It is recommended to pre-pour a concrete pad underneath the Slot Drain® pit, so it can be properly secured. If no pad is poured, peg the sump pit down



CONCRETE POUR INSIDE THE CATCH BASIN PIT

(using the flat bar mounting bracket bolted to the sides of the sump and wooden stakes) before Slot Drain® is connected.

2. PIPE CONNECTION

» Install all Slot Drain® pits and piping, making sure that the Slot Drain® pit walls are reinforced to prevent sidewall bowing.

3. DRAIN CONNECTION:

» After installing the Slot Drain® pit in the trench, the flange of the deepest section of Slot Drain® channel and the Slot Drain® pit to be assembled together by applying the continuous bead of Silicone sealant and bolt those flanges in the respective holes provided.

» If the Slot Drain® pit is not being used, start at the deepest section.

» Bolt all remaining drain sections of Slot Drain® together using the numbered flanges as a guide. For example, if you have the drain sections 102, 203, 304 and a Slot Drain® pit.

INSTALLATION GUIDANCE FOR RETROFIT INSTALLATION

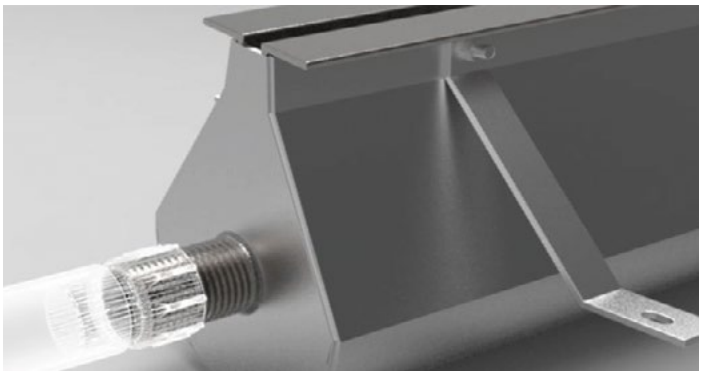
SILICON SEALANT APPLIED BETWEENDRAIN FLANGE AND CATCH BASIN FLANGE

DEEPEST SECTION OF DRAIN AND CATCH BASIN CONNECTED TOGETHER

» First, bolt flange 4 of section 304, which is the deepest section to the Slot Drain® pit side marked 4. Next, bolt flange 3 of section 304 to flange 3 of section 203. Finally, bolt flange 2 of section 203 to flange 2 of section 102. Use continuous bead of Silicone sealant between all bolted sections.

» There is an optional feature; Flush Flo. If equipped, connect the water tap point to the shallow depth drain before pouring concrete.

SILICON SEALANT APPLIED AND BOLTED BETWEEN ONE DRAIN FLANGES

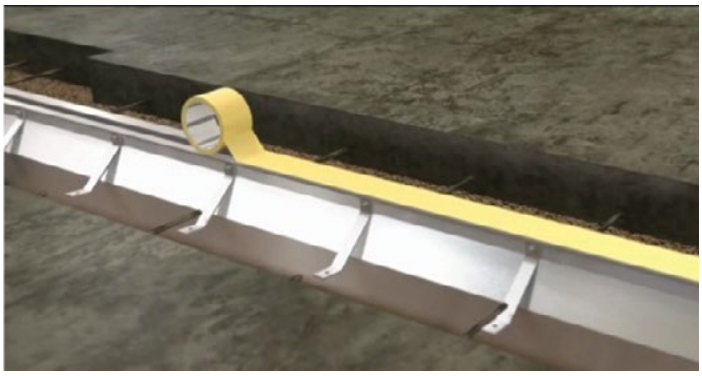


WATER PIPE CONNECTION TO THE 1" THREADED PIPE NIPPLE

4. FINAL PREPARATION:

- Important: Cover the slot opening with the duct tape. This will help to avoid concrete spillage inside the drain through the slot during the concrete pour around the drain.
- Use a wooden piece on the top of slot opening as shown in the image below and tighten the threaded rod to set the desired elevation of drain sections. Secure drain sections to the stakes with the mounting holes provided on the leveling brackets.
- Once Slot Drain® is secured and the appropriate elevation is achieved, for structural support, tie the rebar from the dowels and the floor grid into the rebar/leveling bars on the drain assembly.

THREADED BAR CONNECTION BETWEEN WOODEN PIECE AND LEVELING BRACKET



CONNECT THE REBARS IN THE DRILLED LOCATIONS

WOODEN PIECE PLACED ON THE DRAIN

REBAR INSTALLATION BETWEEN THE DOWELS AND THE LEVELING BAR

INSTALLATION GUIDANCE FOR RETROFIT INSTALLATION

WOODEN PIECE REMOVED FROM THE DRAIN

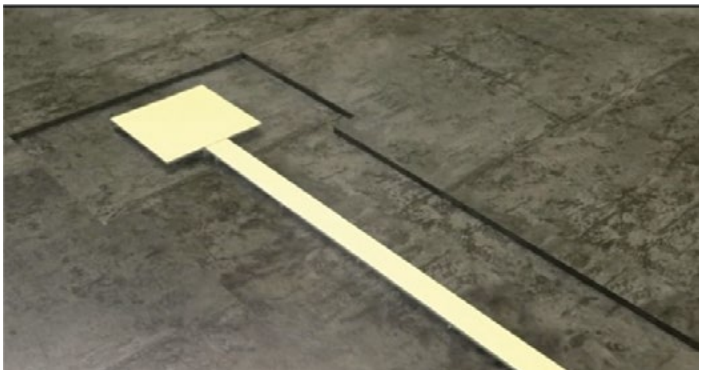
POUR SLURRY BELOW TO SECURE THE DRAIN

» Then remove the wooden stakes placed on the Slot Drain®.

5. CONCRETE POUR:

» To make sure the proper alignment of drain, it is recommended that the concrete be poured in two stages. The First as slurry to secure the drain bodies.

» Once adequate time for the first concrete pour to set has elapsed, the floor slab can be completed. The use of pencil vibrator is strongly recommended to make sure that the concrete has completely surrounded Slot Drain®, leaving no bubbles or voids.



CONCRETE POUR SURROUNDED DRAIN AND CATCH BASIN

6. FINAL STEP:

» At last, once the concrete slab is firm, remove the tape or Styrofoam from the slot.

REMOVE THE DUCT TAPE FROM THE SLOT OPENING

REMOVAL OF METAL TABS

Tabs can be safely removed after Installation on the 6000 Plus-R, 8000, 9000, and 10,000 Series. All other products metal tabs **MUST** not be removed.

Important: You **MUST** wait 30 days or more to allow the concrete to fully cure before removal.

MAINTENANCE/CLEANING PROCESS

EASY TO CLEAN

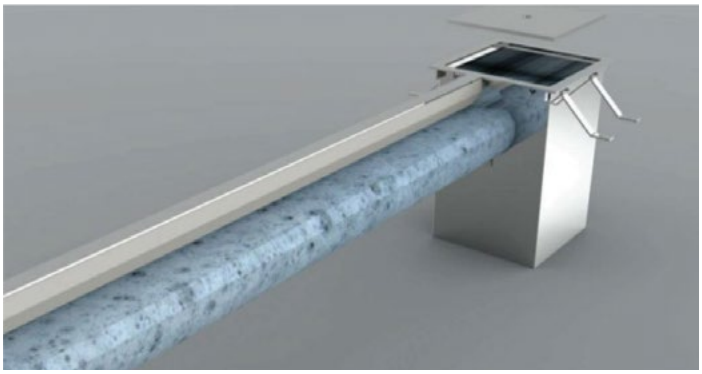
» Each Slot Drain® System includes a specially designed cleaning kit specific to its application. To clean the drain channel, cleaning kit options include an easy cleaning paddle, Flush FloTM System for frequent cleaning facilities.

FLUSH FLO™

1. CLEAN IN PLACE (CIP)

» CIP is a method of cleaning that is commonly used in hygiene critical industries, such as food and beverage processing, dairy, brewing, cosmetics and pharmaceutical.

» Slot Drain® does not have gratings of any kind, which makes CIP much easier. It is ideal for facility that requires frequent cleaning and sanitation.



DEEPEST SECTION OF DRAIN AND CATCH BASIN CONNECTED TOGETHER

2. FREQUENT CLEANING

» This system is connected to a water line and can be operated with a timer or flushed manually. You can open a valve to let water flush and clean the drain or set a timer to clean the drain automatically.

» Flush Flo is especially suitable for facilities that require frequent cleaning, such as food processing plants, car washes, seafood markets, etc...

3. REGULAR CLEANING

- The cleaning paddle is the simplest way for regular drainage cleaning. You just insert the paddle, twist 90 degrees and move it along the drain to clear the debris.
- A brush paddle can scrub the inside of the channel easily and thoroughly. Trappings are then removed from the catch basin.

CLEANING PADDLE & BRUSH

4. STRAINER BASKET

- The strainer basket's 1⁄2" perforated holes trap stones, keys, rings other items that are smaller than the slot opening, that you want to intercept. Made of stainless steel, it is designed to last for the life of your system.

STRAINER BASKET

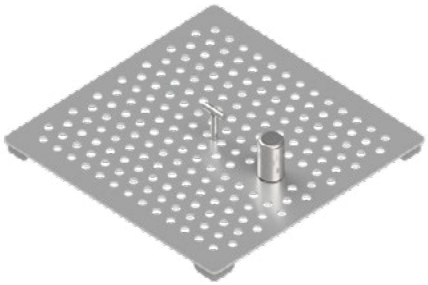
5. CATCH BASIN

- Catch basins are designed to be receptacles for retrieving any items that may inadvertently go into the slot. A 1⁄4 T304 stainless steel lid sits on the top of the base.
- Basins come in 8"x8", 12"x12" or 24"x24" wide and are typically 20" deep. The basins come with a reinforced cover made of T304 stainless steel with rebar tie-ins and can withstand heavy traffic loads.

CATCH BASIN

6. TAMPER-PROOF MAGNETIC LOCKING STRAINER

- This device is manufactured to help ensure that only authorized personnel have access to the strainer basket and catch basin. Preventing unwanted items passing through the drain.
- **IMPORTANT:** The magnetic lock should undergo regular cycling during cleaning intervals to maintain functionality. It is advisable to apply a silicone spray to the interior of the lock as part of cleaning routine.



TAMPER-PROOF MAGNETIC LOCKING STRAINER

INSTALLATION REFERENCES

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