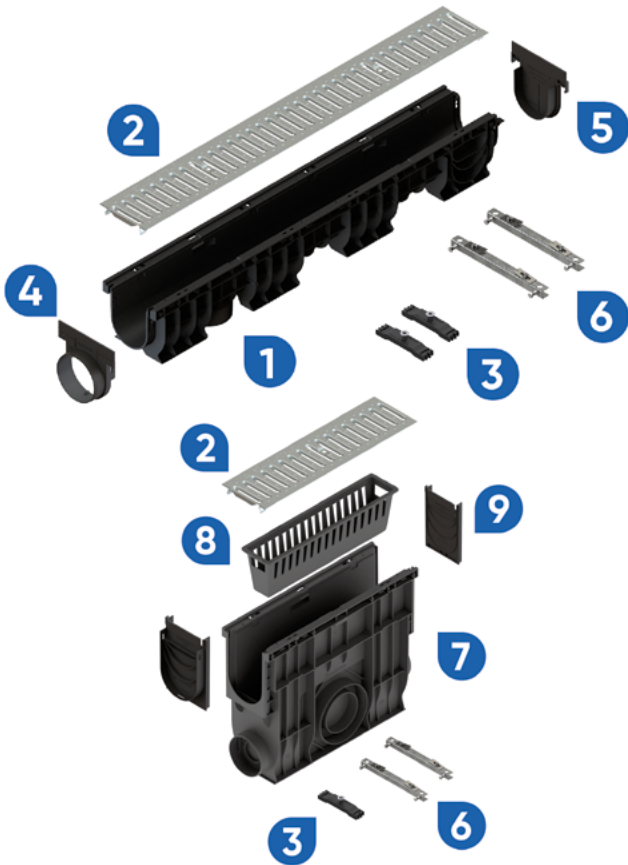


# Trench Drain Installation Guide



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## Component Identification:

Item	Description
1	Trench Drain Channel
2	Grate
3	Fasteners & Screws
4	Open End Cap
5	Closed End Cap
6	Mounting Bracket
7	Inline Sand Trap (optional)
8	Debris Basket
9	Sand Trap End Caps

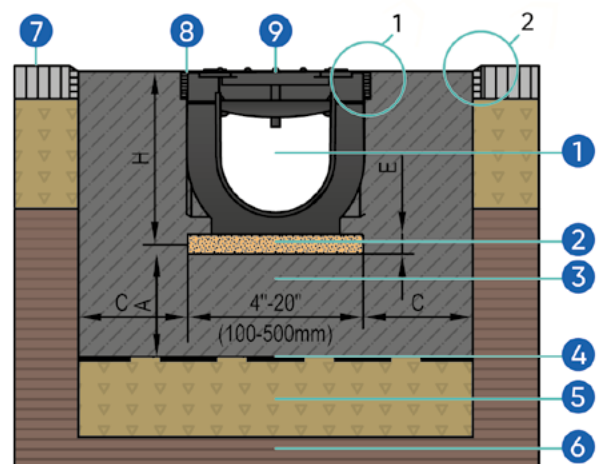
## Channel preparation

Vodaland Canada's plastic channels are designed with universal purpose in mind. All channels feature pipe connection options from the bottom of the channel or from the end cap. The outlet option on the bottom of each channel comes sealed and must be cut out for use. The end cap outlets are already open and only need to be clicked on to your channel for use.

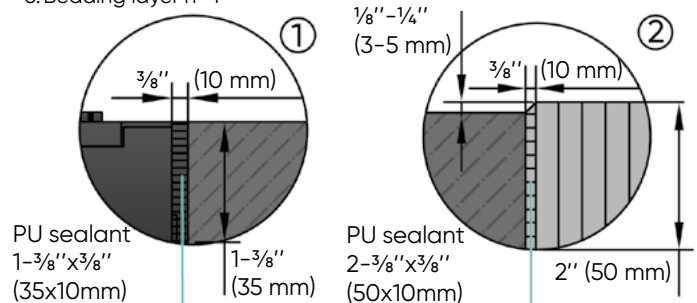
All of our channels have a 90-degree option on the side to connect to the end of another channel. This removes the need for any additional pieces when creating a turn in your run. You can identify these 90-degree connection locations by the distinctive U-shape on the side of each channel. Make sure to cut out the appropriate size and side on your channel for the turn, and cap off the end of the channel at the turn to complete your 90-degree connection.

Vodaland Canada now offers customers the choice between pre-sloped and non-sloped channels for their system. When you receive your channels, it is important to be able to identify which channel is which simply and that was a focus in our design process.

- **Neutral channels** will have the same sizing on each end and can be identified by the SKU printed on the side of the channel. Since all channels are the same, it doesn't matter which order they are arranged in.
- **Sloped channels** have different depths on each end, and you can identify the order of your channels by the number printed on the side of channel within the U-shape. Example: channel #1 connects to #2, and channel #2 then connects to #3.



1. Trench drain
2. Base Course  $h = \frac{3}{4}'' - 1\frac{1}{4}''$
3. Concrete encasement
4. Vapour seal foil
5. Bedding layer  $h = 4''$
6. Soil
7. Tile cover
8. Expansion/crack control joint
9. Grating



## End Caps

All Vodaland Canada channels come with end caps to close off or connect piping to the end of your run. The installation of our end caps is quite simple but changes depending on the side you are connecting the end cap to.

- For the male side, all that must be done is to apply silicone sealant and then “click” the end cap in place.
- For the female side, you will need to click the end cap in just before the female connection piece starts on the channel. This connection piece can then be left on or cut-off prior to encasement based on your preference.
- As we move towards more of a universal style of products, some end caps have been designed to be used with multiple channels. Most will require that you cut following a template line to match the end cap with the height of your channel. Speak to a Vodaland representative if you need assistance identifying which end cap type you have.
- Certain channels have end cap outlet options. It is important that outlet end caps connect to the male connection side for the most ideal seal.



## Installation preparation

There are several steps you must take prior to installation and pouring the concrete.

Vodaland trench drain channels are installed to be level with the floor and are recommended to be fully encased in concrete. This means that an appropriately sized trench must be dug for the location that the system will be installed. The trench should be dug in accordance to the size of channel plus the additional dimensions for the concrete encasement. The width and depth of concrete encasement changes depending on the load class that the trench drain must meet. Use the following table to identify appropriate encasement size:

Load class	Class A	Class B	Class C
Concrete Encasement Depth (Inches)	3.2	4	6
Concrete Encasement Width (Each Side*) (Inches)	3.2	4	6

Vodaland trench drains can be installed with tile or concrete on the surface. Tile installation is the exact same as full concrete installation, but you must account for the tile height when measuring for the height of the concrete encasement.

When installing the channel in concrete, it is recommended that the grates are secured in the channel prior to installation to prevent the channel from being warped from the weight of the concrete. At the same



time, you want to prevent the concrete from making contact with the grate and seeping into the channel. That’s why it is recommended to cover the grates prior to installation. It is recommended that you cover the grates with plastic, tape, or plywood for the best protection.

It is essential that you understand how to set up your system and account for any connections to your system prior to pouring your concrete. The “Mounting Bracket” installation method will allow you to fully set up your system before the concrete is poured, while the “Pad and Pour” method requires your system be set up on an existing base of concrete. For this reason, it is important that you consider which outlets or connections need to be set up before pouring the base.

## Channel installation

### Types of Installation

There are two types of installation that can be used for our trench drain channels.

- **Concrete Pad and Pour Installation** (Traditional)
- **Mounting Bracket Installation** (Recommended) (Required for Cascade Depth System)

### Pad and Pour Installation

If you are doing a concrete installation without the use of mounting brackets, these are your step-by-step instructions:

- 1 Inspect to make sure your trench meets the desired dimensions for the entire system.
- 2 When pouring concrete, make sure the base (3-6 inches) is leveled out according to your site plan. If piping is to be connected by bottom outlet, have this piping positioned prior to pouring base. Wait for the concrete to cure for at least 2 days before moving on.
- 3 Set your channels on the concrete pad, attach together and connect your pipe outlets according to your design. Our pipe connection adapters are designed for PVC and Drainage tile – if you wish to utilize another form of piping, please use a rubber coupling with clamps. This makes for a snug fit. Seal all channels with Vodaland silicone or an equivalent and make sure they are water tight and dry before your final concrete pour.
- 4 Vodaland recommends leaving your gratings in the channel when you are doing your final pour – this will alleviate any instances of your channels being altered while the concrete sets. This is important so your gratings fit nice and snug after the concrete settles. (It is incredibly important that if you purchased an inline sand trap for your system, that you follow this rule and have the grating with connecting brackets placed in the sand trap when pouring concrete) Your left in grating should already be covered, if not then do so now to prevent concrete from making its way in the channel while pouring.
- 5 Pour around sides of the channel and wait for the concrete to set



## Mounting Bracket Installation

With our installation using mounting brackets, you're able to connect and level your system in the trench before concrete is poured. It also allows the concrete to be poured all at once, making installation quicker and more efficient.

- 1 Make sure you dig and prep your site exactly to your specifications. Make sure all outlet pipe locations are aligned. And that you have enough width and depth in your trench to comfortably place your installation mounting brackets inside. (Systems like cascade mean that there may be varying depths throughout the trench)
- 2 Loosen the mounting bracket and leveling bolts. Place the "V" clip of your mounting bracket into the channel legs and tighten to secure.
- 3 Make sure your channel connections are water tight (we recommend a silicone in between the channel joints) and that end caps are tight and sealed off as well.
- 4 Place your entire system into the trench. Make sure the rebar holding bolts are loose and will allow rebar to enter. We recommend #3 or 10M (3/8") rebar for this purpose.
- 5 Insert rebar through the mounting bracket and into your ground – lift up on the channels and tighten the mounting brackets – level your entire system with a bubble level.
- 6 Double check your channel connections – and secure your pipe outlet connections – make sure system is level – we recommend leaving gratings in during pour.
- 7 Double check all rebar leveling bolts – they are tight and snug.
- 8 Pour your concrete and wait to settle



## FAQ's

### How to connect channels?

Most of our trench drains have a click-in snap and lock connection, while some slide into one another using the male and female connections on each channel. All that is required is to seal between the connections. We recommend our silicone sealant for the most water tight seal.

### How to connect the outlet pipe?

All pipes are not rated the same, just as they are not sized the same. However, the basis of design will work for all sizes. If you find that your PVC or corrugated piping is a little too large, or a little too small – just use a rubber coupling with hose clamps. They create a nice snug fit and provide water proofing during your installation.

### How to properly install an inline sand trap (clean-out system)?

It is incredibly important to have the grate remain in the sand trap during installation due to the possibility of the weight of the concrete warping the sand trap channel. It is also important to use a brace to support the internal middle of the trap as the depth makes the middle especially vulnerable to warping. We recommend pinning a piece of wood in the middle of the trap prior to installation to solve this issue. Not following these steps may result in a sand trap that doesn't meet the load class requirements and also difficulties in removing the debris basket.

Vodaland fully stands behind each and every one of our products. We always urge our customers to email or call us with any questions. If you ever have any issues or concerns, we would like to hear them, please send us an email at [info@vodaland.ca](mailto:info@vodaland.ca)

## Thank you again for your business!

Please note: All the specifications, drawings, and installation schemes can be found and downloaded on our website. Go to the product page and you'll find tabs for all these options at the bottom of the page. Installation videos can also be found on **YouTube** at: **Vodaland Canada**.

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