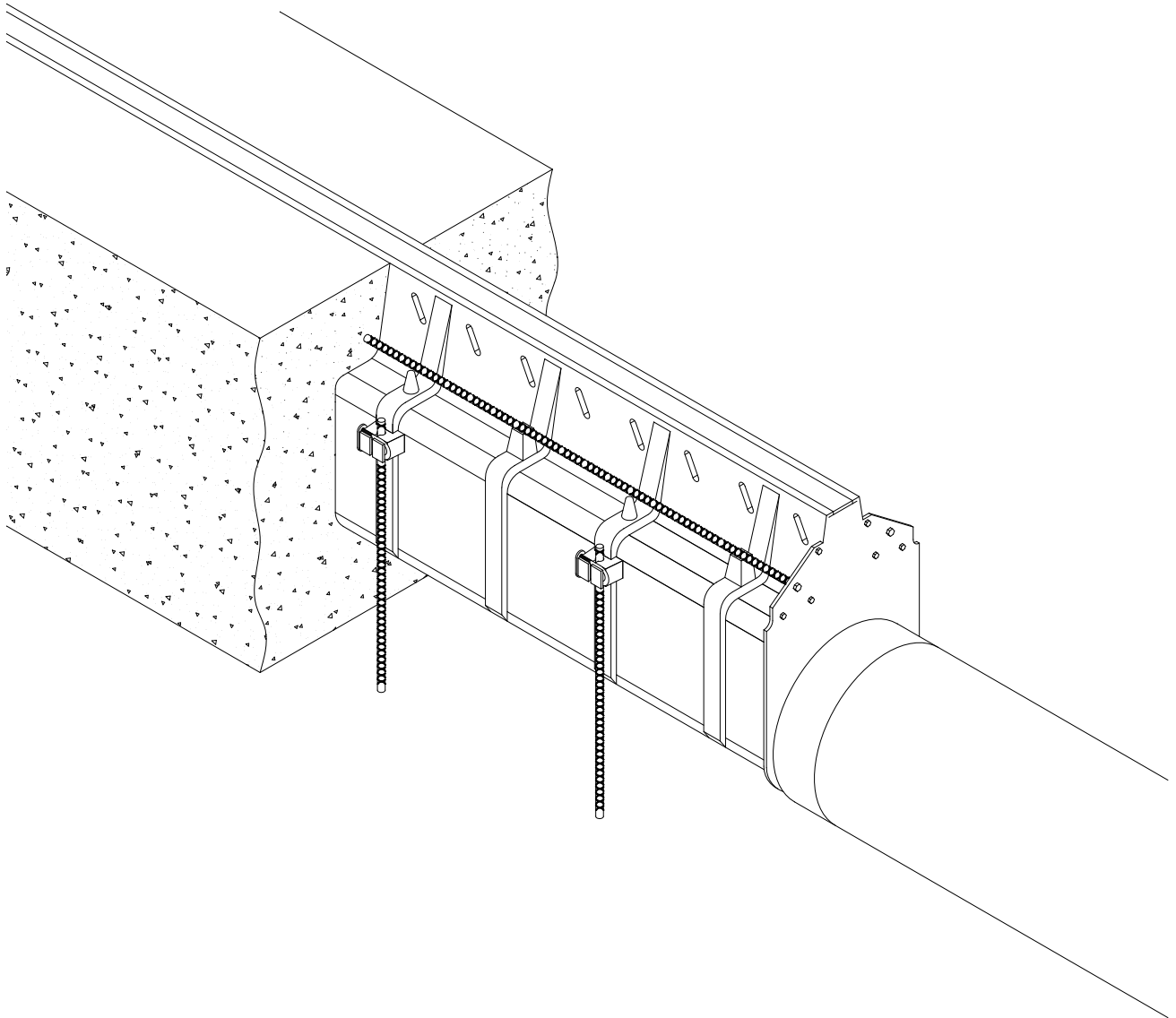




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HIGH CAPACITY SLOTTED DRAINAGE SYSTEM INSTALLATION INSTRUCTIONS

Dimensional data (inches and [mm]) are subject to manufacturing tolerances and change without notice.



⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

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Rev. E
Date: 7/25/2013
C.N. No. 129961
Form No. FT534



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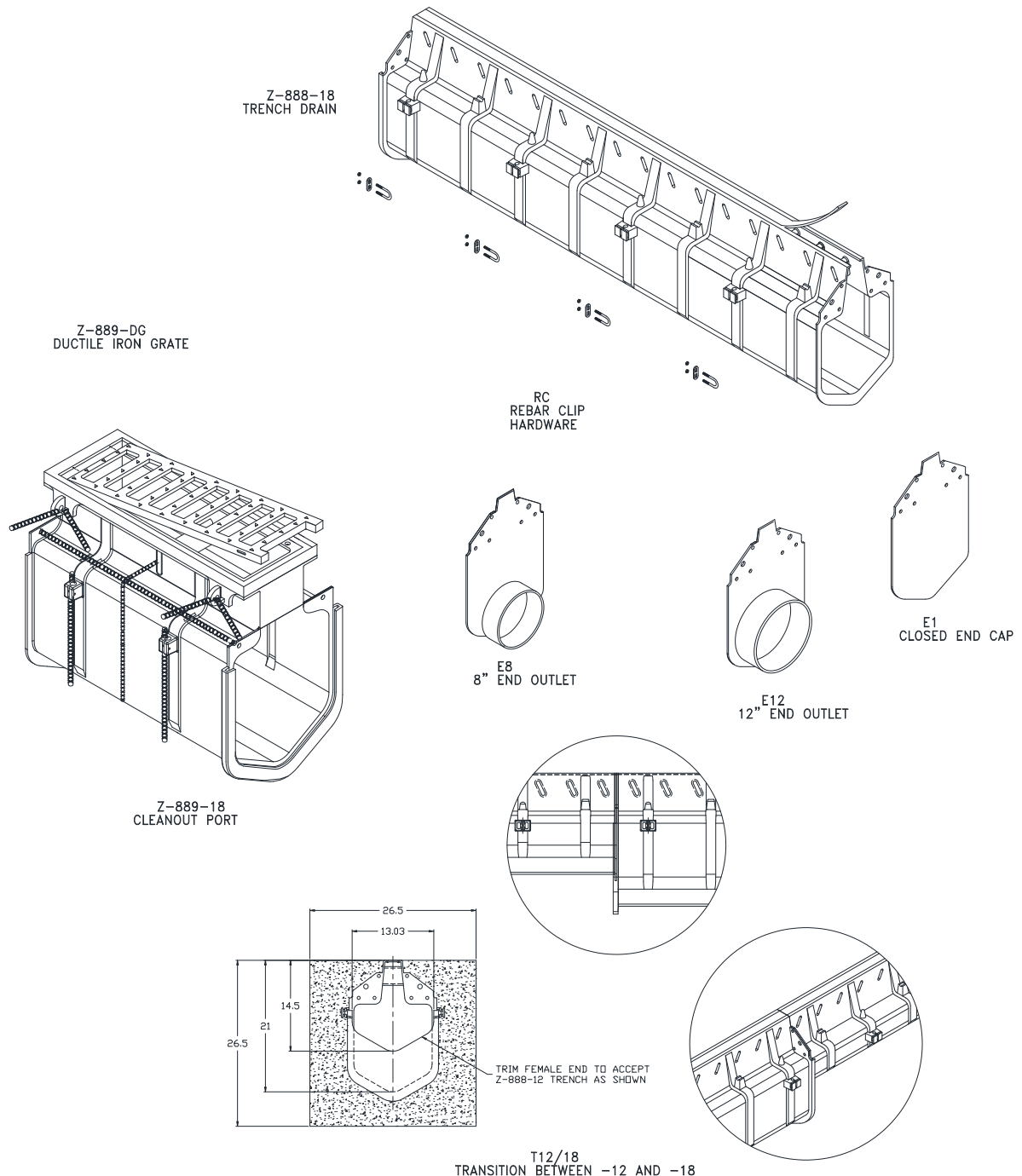
HIGH CAPACITY SLOTTED DRAINAGE SYSTEM INSTALLATION INSTRUCTIONS

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HI-CAP ACCESSORIES

Below are some of the trench drain components typical to an installation. Double check your order to ensure that you have all components particular to your job before beginning your installation.

Contact Zurn 'Flo-Thru' at 814/455-0921 or Zurn 'UK' at 01271-340350 should additional material be required.



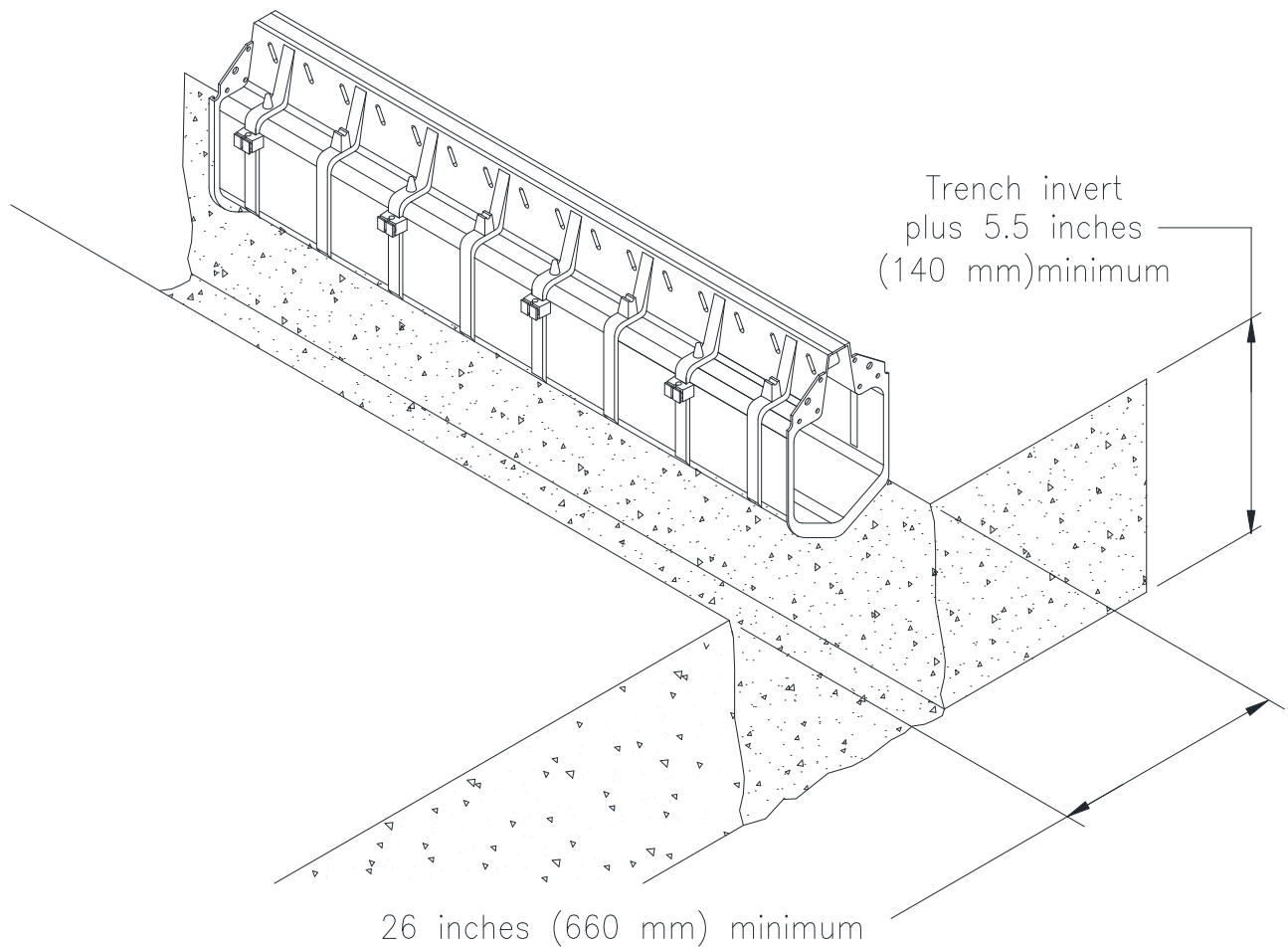


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EXCAVATION



EXCAVATION

Trench excavation should be no less than 26" [660mm] on all sides to allow for working area and a minimum 5.5" [140mm] of concrete on the bottom and a minimum 6.5" [165mm] on the sides. Soft and/or shifting soil substrates may cause cracking of the concrete and consequent movement of the trench. It is **CRITICAL** that the concrete be poured on an adequate foundation.

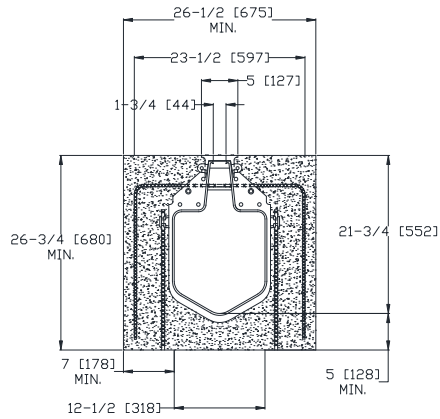


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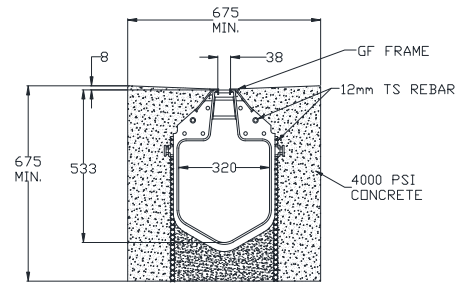
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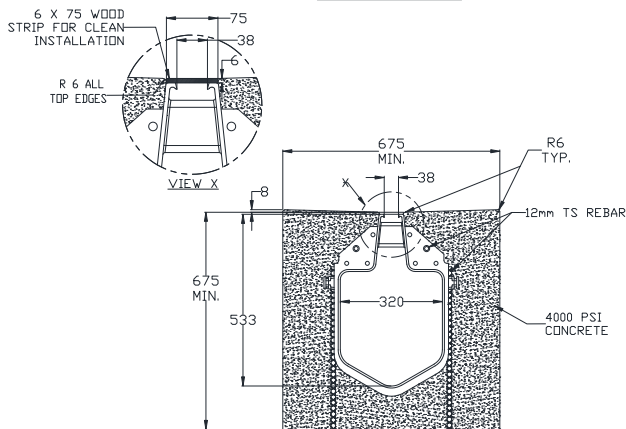
Z888-18 CROSS SECTIONS



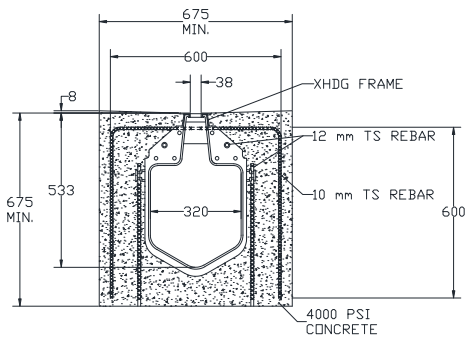
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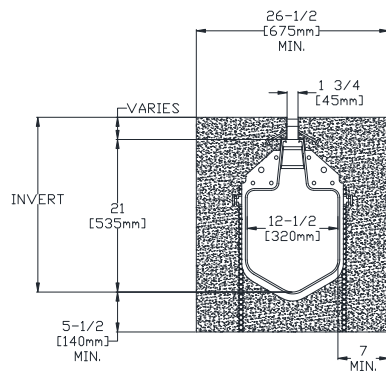
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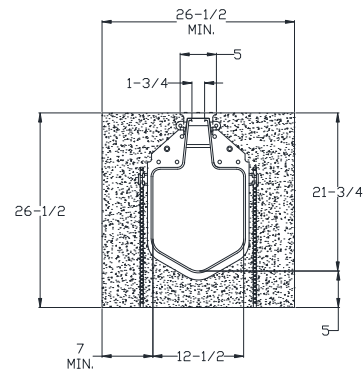
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Z888-18-F900



Z888-18-PSF



Z888-18-HPD

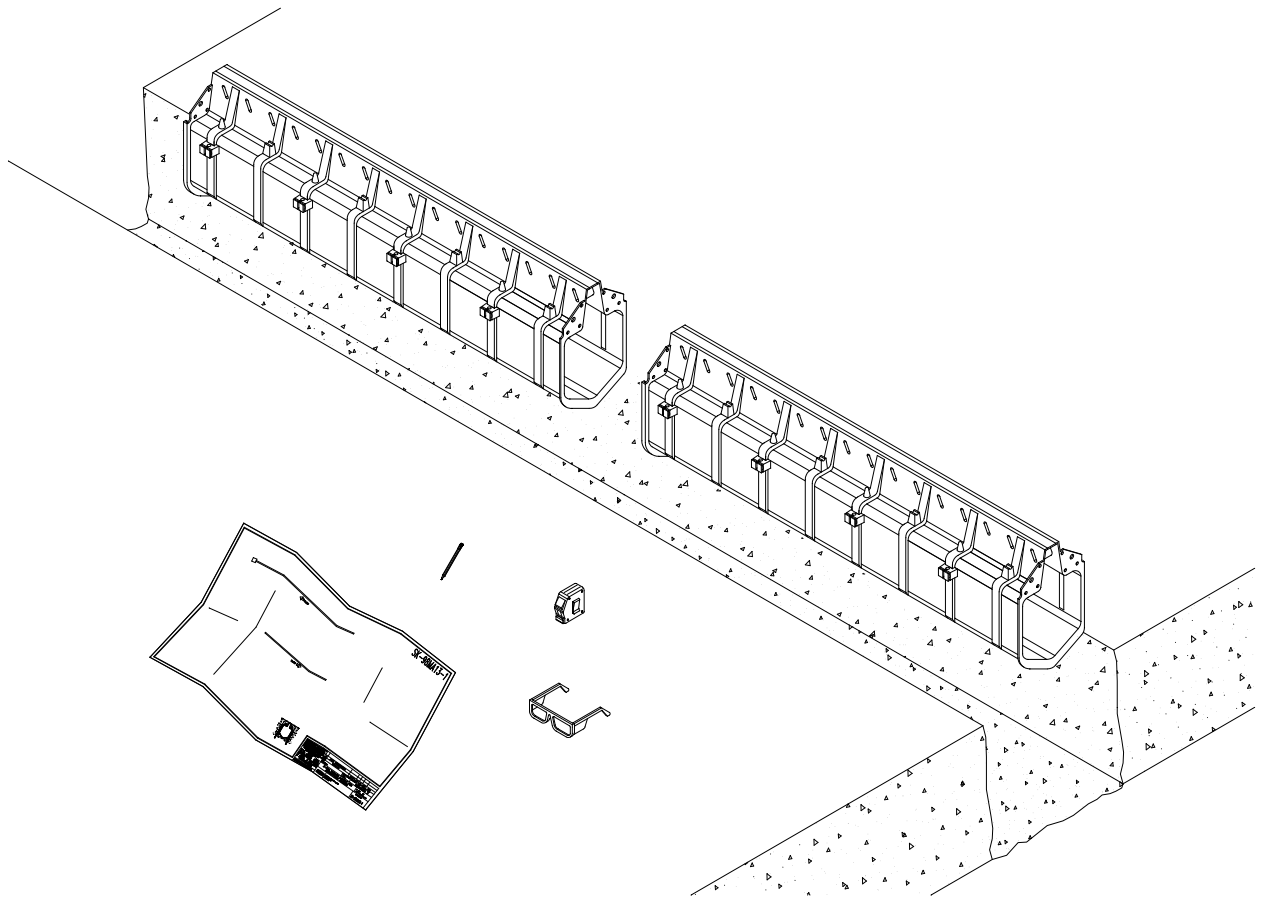


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HIGH CAPACITY SLOTTED DRAINAGE SYSTEM INSTALLATION INSTRUCTIONS

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OVERALL LAYOUT



LAYOUT

Upon completion of trench excavation, the channels should be placed alongside the excavation according to the job layout. Channels are neutral, and should be placed with the male and female ends facing each other.

TRENCH PREPARATION

End outlets and end caps should be attached to their appropriate trench section using a construction adhesive such as Liquid Nails or a standard silicone caulking and the provided hardware.



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HIGH CAPACITY SLOTTED DRAINAGE SYSTEM INSTALLATION INSTRUCTIONS

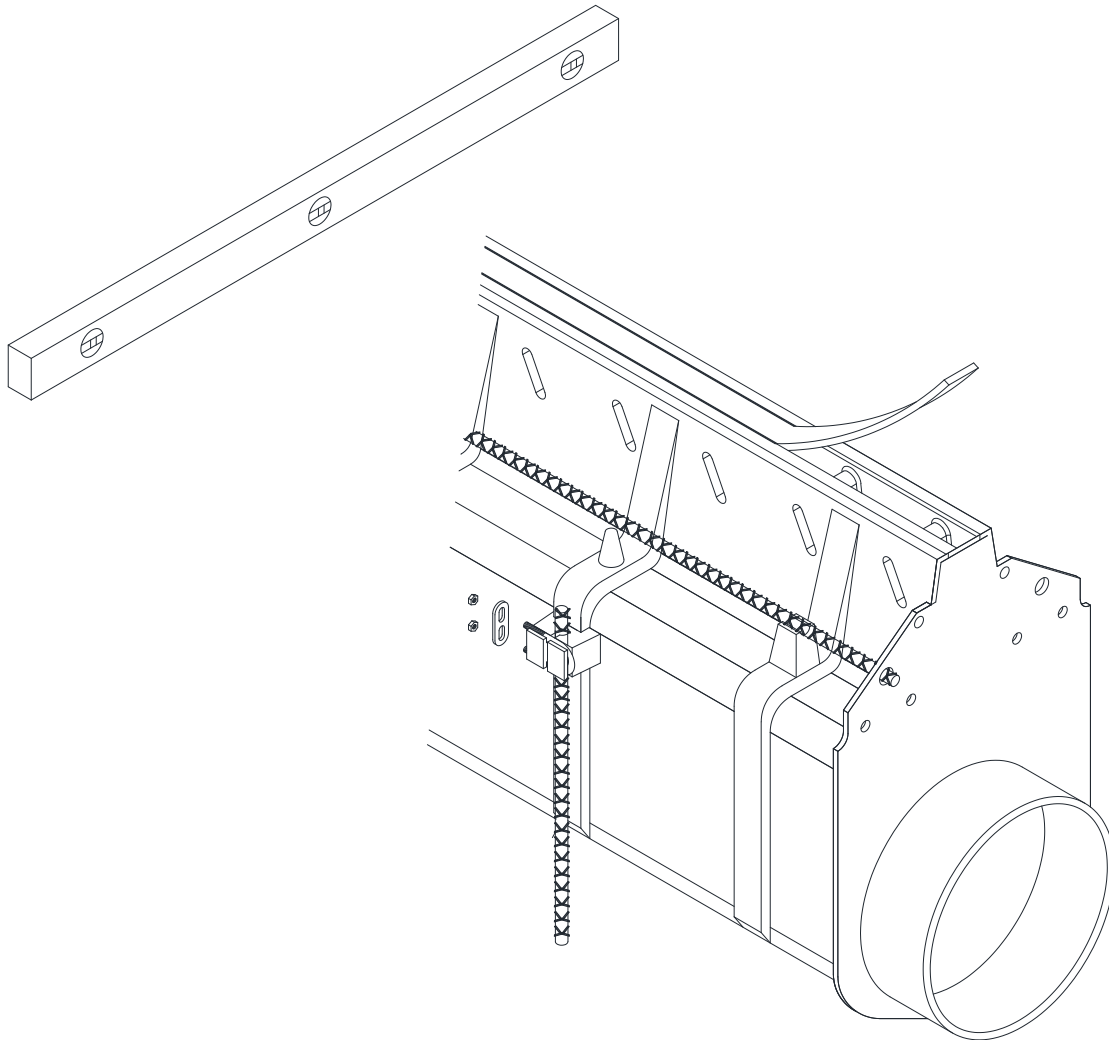
Dimensional data (inches and [mm]) are subject to manufacturing tolerances and change without notice.

SETTING THE CHANNEL

SETTING THE CHANNEL

1. Set a line and level for the top of the channels, using spacers or string line as appropriate.
2. Set the first channel:
 - a.) Drive reinforcing stakes through the re-bar clips on the side of the channel so that approximately 100mm extends above the clips.
 - b.) Position the channel with re-bars in the trench to the correct line and ensure that the re-bar stakes are vertical and straight.
 - c.) Hammer the re-bar stakes into the ground gradually ensuring that the channel is lowered to the correct line and level.

Note: At this point it is appropriate to leave the channel approximately 10mm above the final level as fine adjustment can be carried out later.

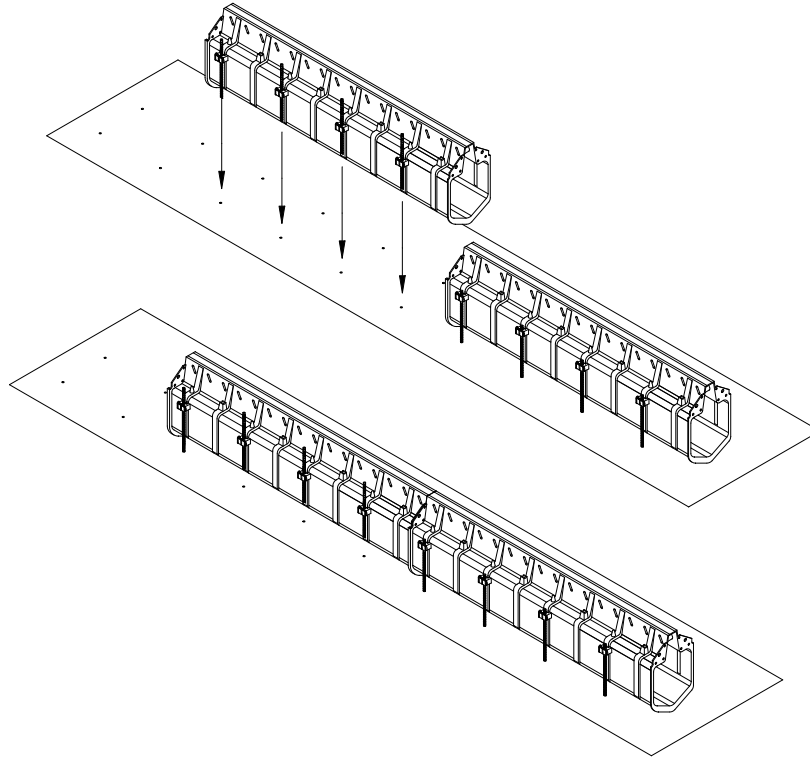




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HIGH CAPACITY SLOTTED DRAINAGE SYSTEM INSTALLATION INSTRUCTIONS

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SETTING THE CHANNEL cont.

3. Setting of Subsequent Channels:
 - a.) Drive re-bar stakes through the channel so that they are approximately 300mm below the clip.
 - b.) Lower the channel with the re-bar stakes into the trench, lowering the male end into the female socket on the previous channel. Using the nut and bolt provided secure the end flanges together.
 - c.) While holding the unsecured end (either manually or by use of a pre-set hook and beam arrangement), ILLUSTRATION REQUIRED hammer into place the two re-bar stakes closest to this end.
 - d.) Working back towards the previously set channel hammer the remaining stakes into the ground. Ensure that no more than 100mm of stake protrudes above the re-bar clip.
 - e.) Repeat this process on the next channel.
4. Fine Adjustments:
 - a.) After setting 3-4 channels the assembly can be tapped gently to final level.
 - b.) Using a power driver tighten the nuts on the re-bar clips so that channel and re-bar stakes are firmly secured.
5. Complete all channels in the run as required.
6. Thread the 12mm re-bar along each shoulder of the product ensuring that the ends of the re-bar lengths overlap. If heel-proof tops are required the zip-strip should be removed and the heel-proof top should be fixed using the fixing pack supplied. Ensure that the gaps between the tops are equal.



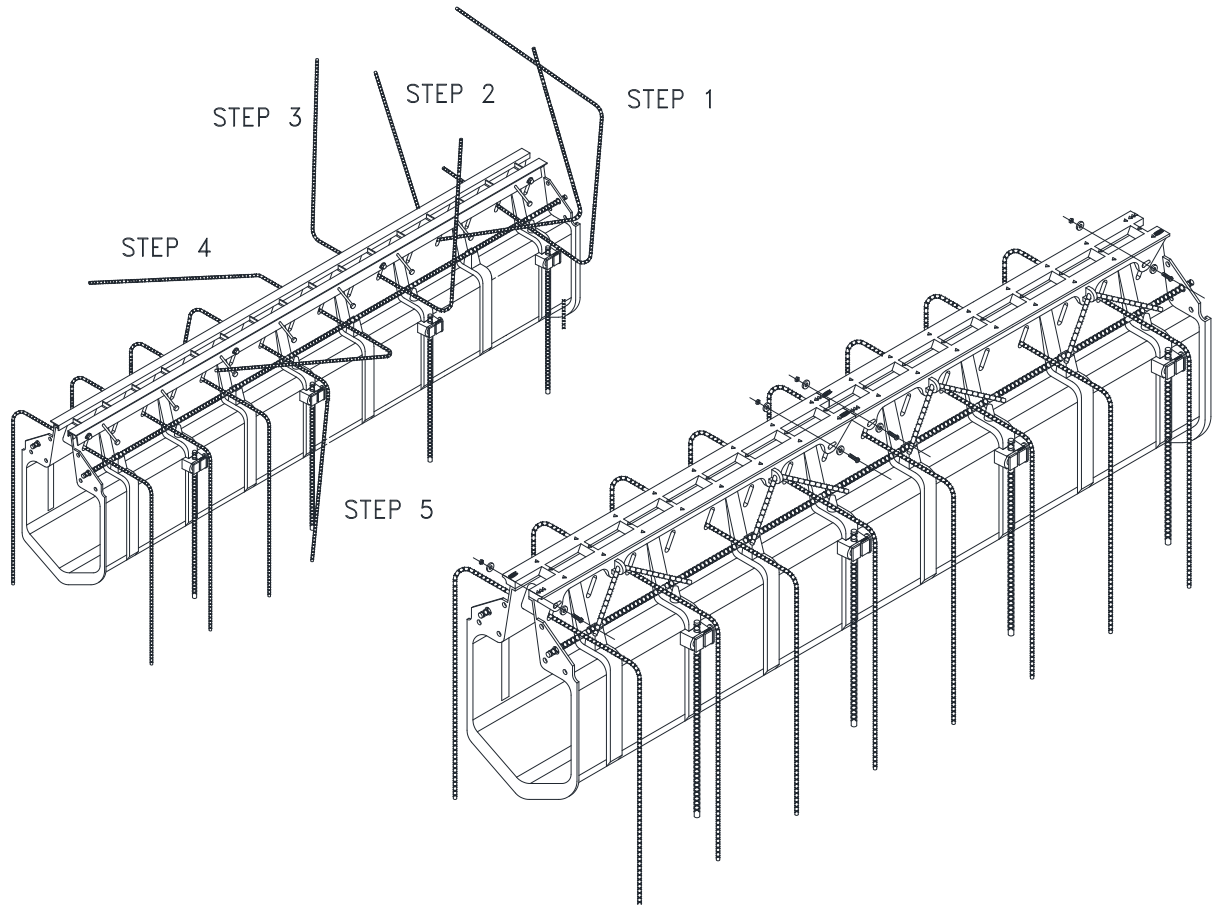
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REINFORCING THE CHANNEL

In cases where E600 is the maximum loading required you may now move on to concreting the trench.
In order to achieve F900 loading additional reinforcing is required.



Reinforcing the Channel

- Set the U-bars by threading them through the throat slots with the 'legs' facing upwards and rotating once the bar is through the slot. Every second slot should house a re-bar.
- Affix heavy duty frame into the top of the channel (the zip strip should have been removed prior to setting the channel), secure by bolting through the throat slots using the bolts supplied.
- Position the frame so that the gap between subsequent frames is no more than 6mm.
- Ensure that the side anchors for the frame are bent down at 45 degrees.
- Finally seal the top slot with a suitable adhesive tape or cover as appropriate to prevent concrete entering the channel during the pour.

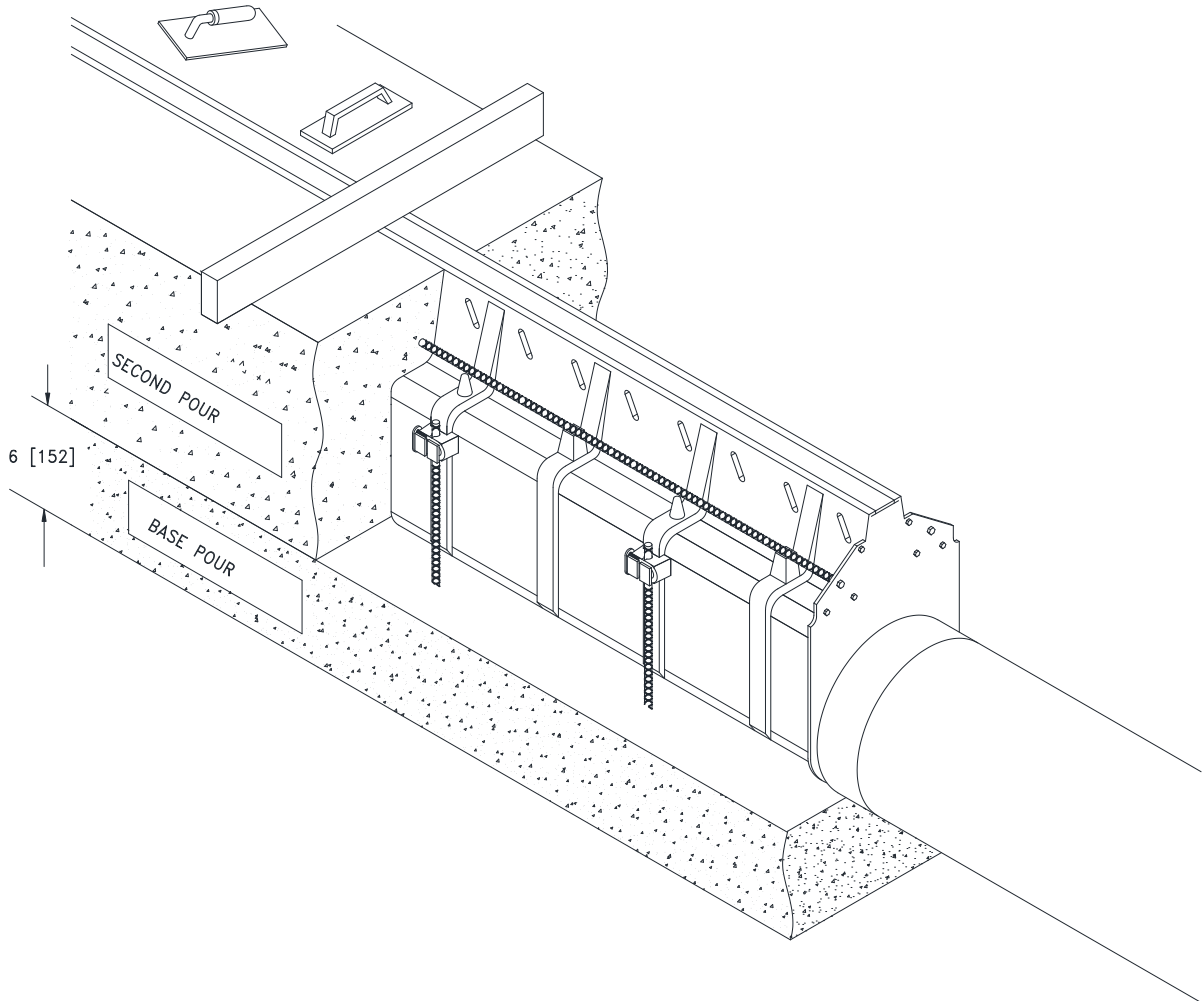


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POURING THE CONCRETE



1. Initially pour a base of concrete approximately 150mm deep (to the base of the channel) along the whole channel and using a poker/vibrator allow adequate vibration to eliminate any voids.
2. After this has set, a second pour can be completed to the top of the channel.

Note: During the pour of the concrete care must be taken to direct the flow of concrete away from the channel. Additionally, the concrete pour should not displace any reinforcing used. Re-bars could be wired if necessary.

3. After the vibrating of the second pour the top surface can be finished using trowels and/or brush finish. It is imperative that the concrete adjacent to the channel top edge is strengthened and properly trowel finished. If proprietary crack inducers are used they should be placed perpendicular to the channel joint.

If the channel zip-strip is to be removed later, the grooves on the top of the channel should be cleared of debris.



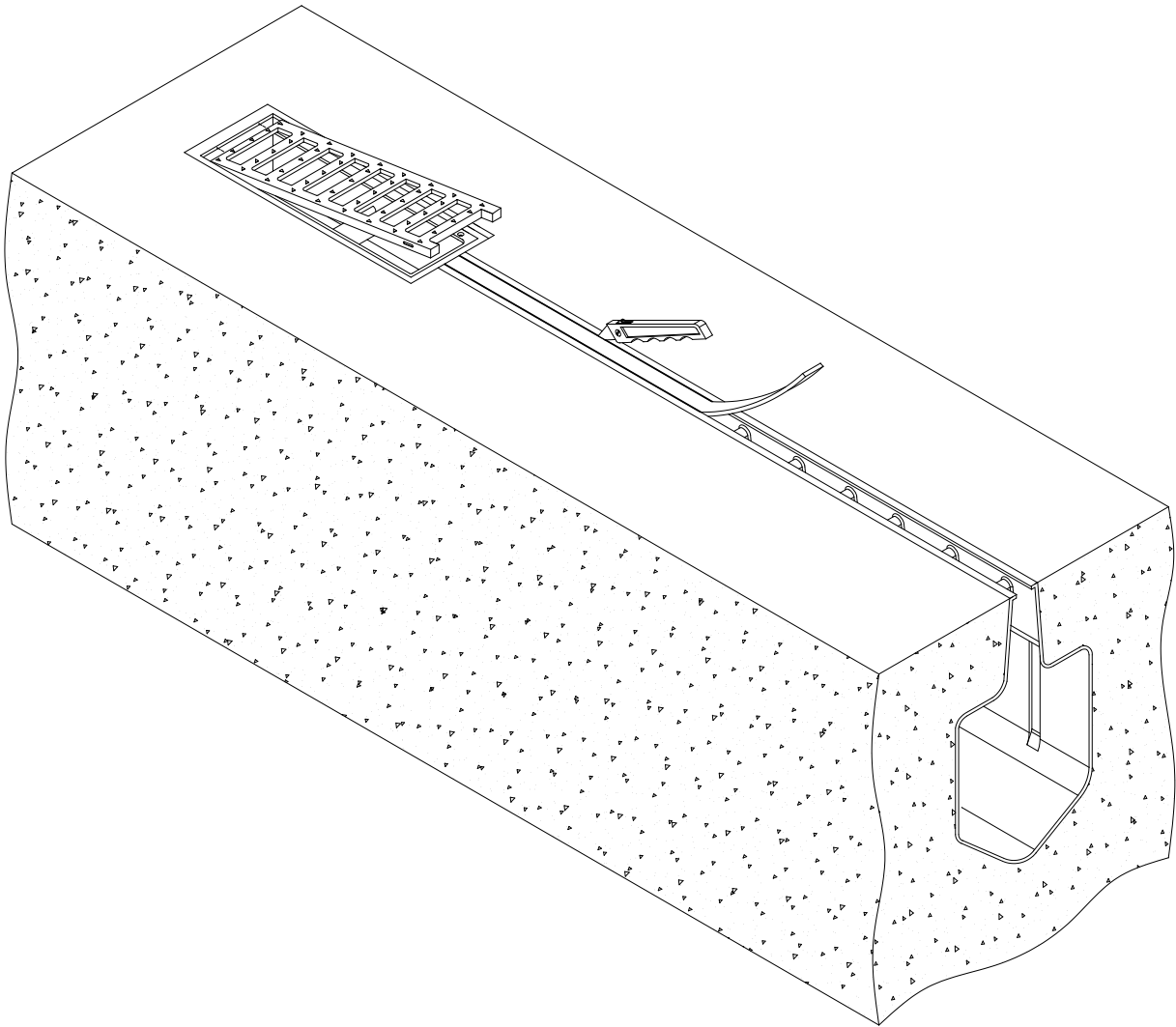
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AFTER THE POUR

(If a frame was used skip this step.)



Removing the Zip-Strip

Using a sharp knife with a new blade cut through the channel along the indentations either side of the zip-strip. You must ensure that the blade goes through the plastic. The zip-strip can then be pulled out.

Note: Do not use mechanical cutting equipment for this since the product can be damaged with excessively deep cuts.