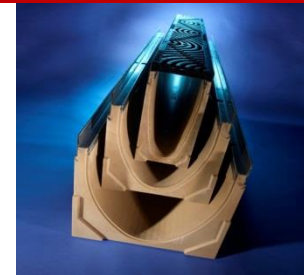




# ACO Drain

## Installation Device Instruction Guide





## Tools required

- 2 x String lines & pegs.
- Hammer.
- Spirit level.
- 16mm diameter reinforcing bars.  
Lengths to be determined by installer.  
Bar lengths will vary depending on soil type and height of channel above the trench depth. Number of reinforcing bars required – 2 per channel + 2 additional for the end channel.
- 12mm ring spanner.
- 1.1m length of timber to assist with levelling.
- Installations device. – 1 per channel + 1 additional for the end channel.
- **Read all steps below before starting installation.**

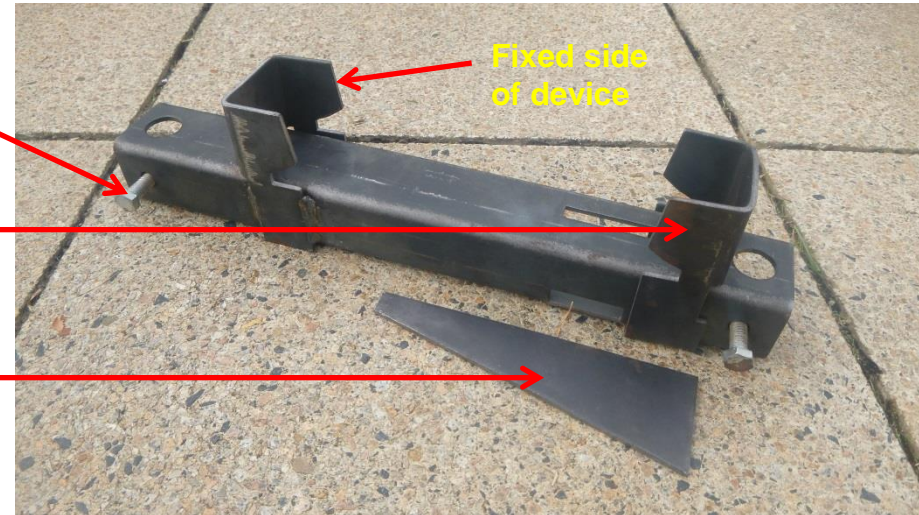


2 people minimum are required for the installation of the channels.



## Installation device use

- Loosen both screws to allow the device to be positioned over the reinforcing bars.
- Push the adjustable clamp to the outside to allow the channels to be installed.
- Wedge is fitted during final stage of installation.



## Step 1

- Create the required width template using timber sheet or similarly suitable rigid material. Diagrams can be printed from the ACO website.

<http://www.acodrain.com.au/resources/site-installation.htm>







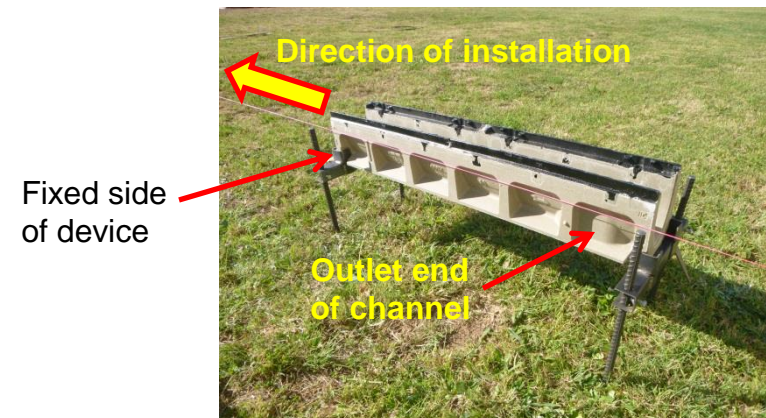
## Step 2

- Set out the top string line for the top edge of the channel run and lay the required channels in sequence along the string line. Also lay out 2 reinforcing bars and 1 installation device at the location of each channel joint.



## Step 3

- Set the first channel without using the template to allow for flexibility. Note: The first channel to be set out must be at the outlet/deep end of the run. The fixed side of the installation device must be on the same side of the channel as the string line. Ensure the reinforcing bars are adequately pushed into the ground so they do not fall over once the channel is removed and do not sit higher than the top of the channel.

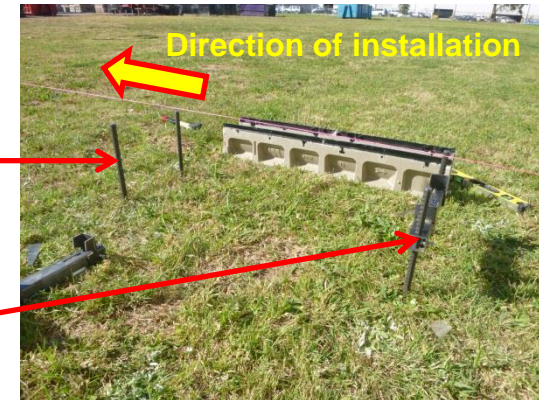


## Step 4

- Once the first channel is set, levelled and straightness is achieved, remove the channel and leave the first installation device in place. Remove the second device, but leave the reinforcing bars in place.

Remove the second installation device from the second row of reinforcing bars

First installation device on first row of reinforcing bars



## Step 5

- Position the template over the second row of reinforcing bars.

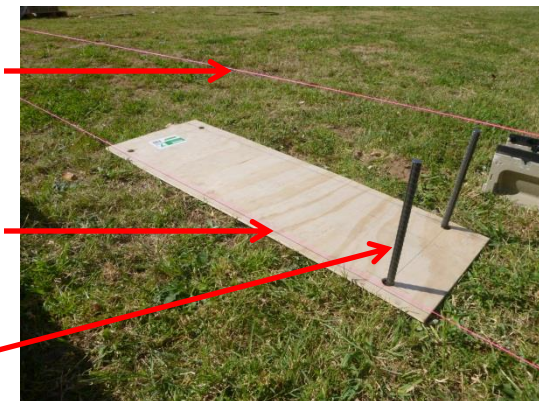
## Step 6

- Set up the second string line up against the template edge ensuring that both string lines are parallel. The second string line should be just above the ground level to keep the template straight when moving from one channel to the next. The string line should also be on the same side of the channel as the top string line.

First stringline for top of channel

Second stringline for template edge

Second row of reinforcing bars





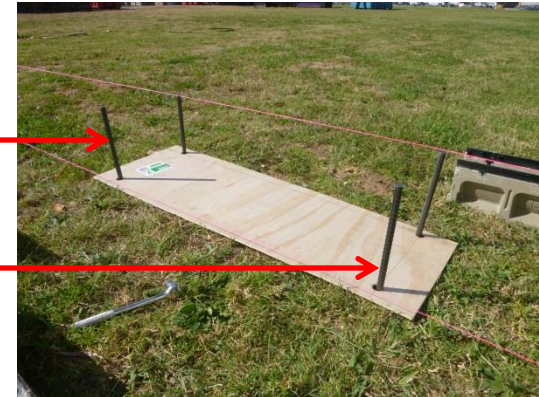


## Step 7

- Hammer in the next/third row of reo-bars through the empty template holes. Drive the reinforcing bars into a sufficient depth - not too low to stop the use of the Installation Device.

Third row of reinforcing bars

Second row of reinforcing bars

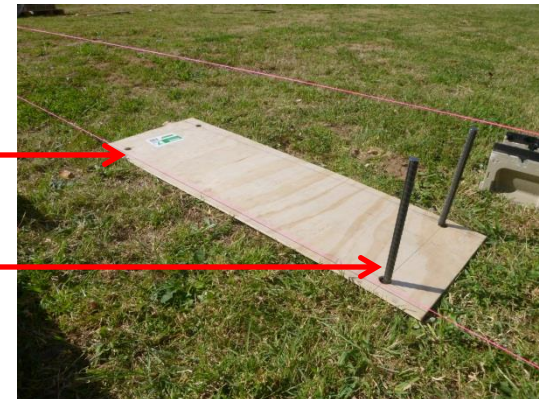


## Step 8

- Remove the template and reposition the template again on the last two reinforcing bars that were just installed.

Location for fourth row of reinforcing bars

Third row of reinforcing bars

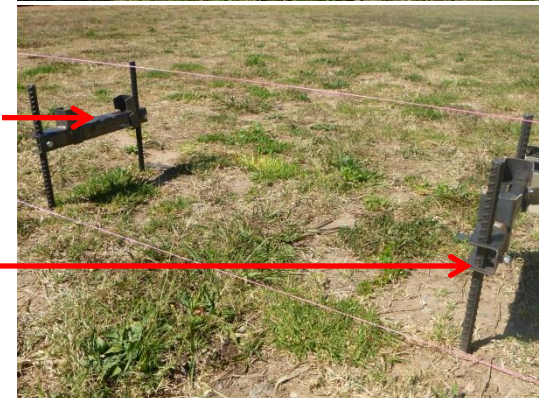


## Step 9

- Re-attach the second installation device to the second row of reinforcing bars.

Re attach second installation device

First installation device





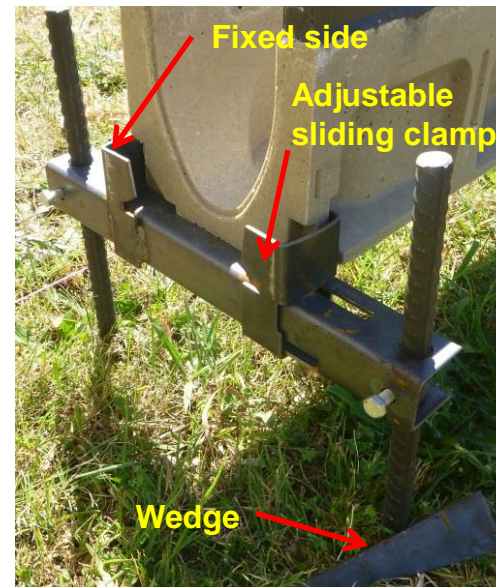
## Step 10

- Replace the first channel and ensure the channel is level with the top string line and is level across the width of the channel. If it's too high, tap down the reinforcing bars. If it's too low, undo the screws and lift the installation device up.



## Step 11

- Once the first channel has been replaced, DO NOT lock the adjustable side of the clamp with the wedge yet. This allows some movement of the channel when placing the next channel in line. Do not place the channel all the way to the fixed side of the clamp where it will sit in the locked position. This allows for easier installation of channels.
- Note: Always allow two sets of reinforcing bars to be installed before placing channels. This allows the template to be removed and placed into the next position for setting the reinforcing bars.



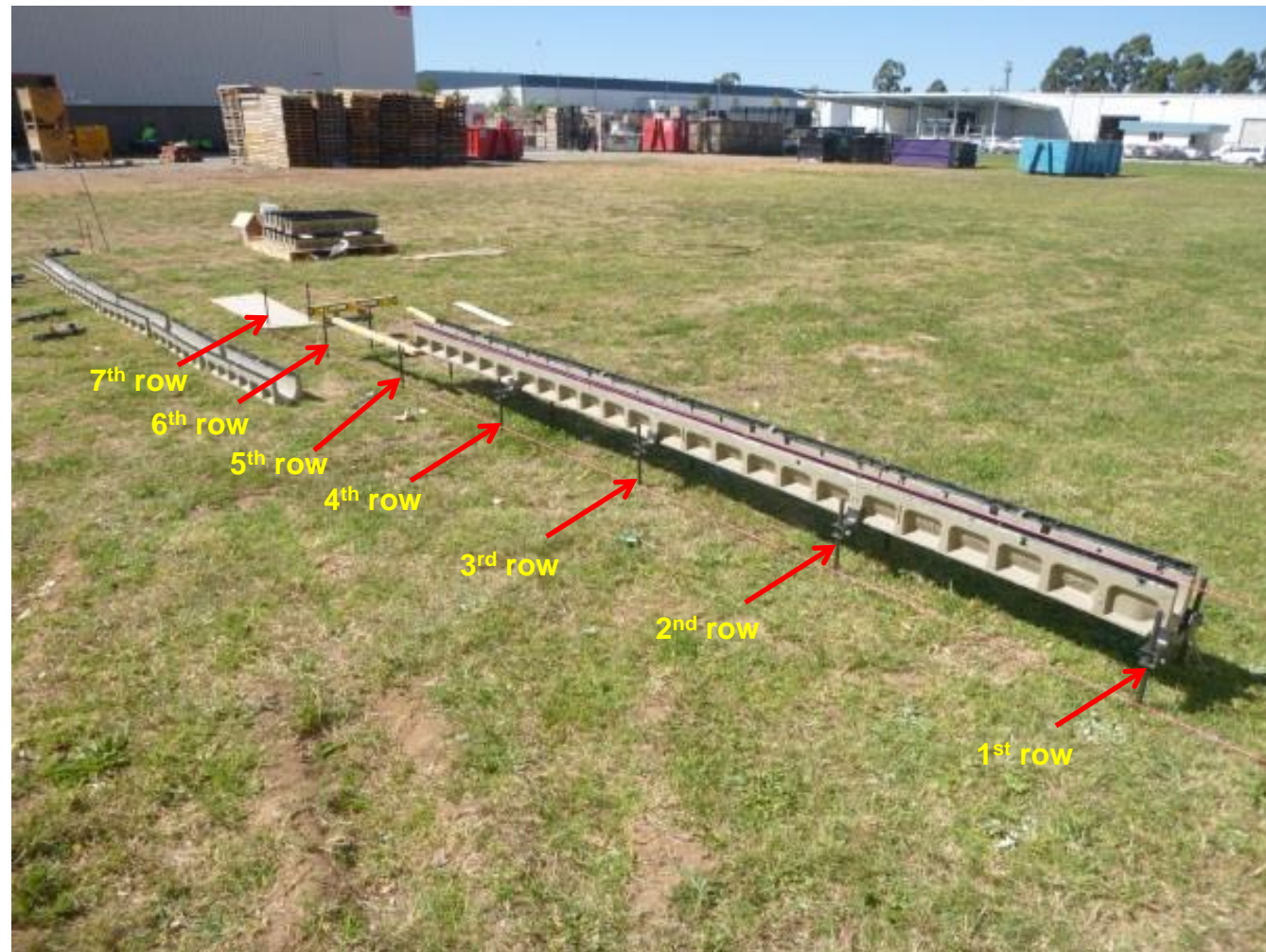
## Step 12

- Continue to install devices and repeat process of setting the channels.



## Step 13

- After next/fourth channel is set, the first channel can be locked into position using the wedges for the install device. Note, ensure the reinforcing bars are installed at least 2 rows ahead prior to installing channels.







## Step 14

- Continue to follow steps 7 to 13 until the trench run is complete and ensure all the wedges are in place. Channels are now set up for a single concrete pour operation. The installation device clamps the channels together to brace the channels in place and prevent movement during the concrete pour.

