

### SAFETY ALERT

Prior to commencing installation of Water-Wall Barrier a site safety inspection must be undertaken and suitable controls implemented to reduce or eliminate the risk of injury.

1. Identify hazards to yourself & others and implement the controls required to reduce the risk so far as reasonably.	5. Verify the controls are in place before commencing and make changes if required.
2. Assess the likelihood of injury including to the public and implement appropriate controls.	6. Ensure all PPE is worn by all team members
3. Consult with others who may be affected by the installation of the Water-Wall Barrier installation.	7. All relevant site safety rules & legislative requirements must be adhered to at all times
4. Complete necessary permits, inductions, assessments & SWMS	8. Panels and posts must be handled using safe lifting practices

### DO'S & DON'TS

DO	DON'T
<b>DO</b> ensure transport vehicle is on solid, even ground before unloading.	<b>DON'T</b> work under the influence of alcohol, other drugs or fatigue
<b>DO</b> maintain distance from suspended loads & mobile plant.	<b>DON'T</b> impede walkways, roadways or otherwise deviate from permits, plans or instructions
<b>DO</b> , where possible, work away from the public & mobile or slewing plant.	<b>DON'T</b> use faulty equipment or tools
<b>DO</b> ensure debris is removed & ground is solid, dry & even to avoid slips or trips.	
<b>DO</b> maintain the Water-Wall barriers are firmly & evenly strapped before transporting.	

### COMPONENTS AND SPECS

WATER-WALL CRASH BARRIER	
<ul style="list-style-type: none"> <li>■ Size: 1800 mmx 450mm x 810 mm</li> <li>■ Colour: Red</li> <li>■ Weight: 41kg - Empty, 500kg - Full</li> <li>■ Material: Linear Low Density Polyethylene</li> <li>■ UV Stabilised: Yes</li> <li>■ MASH Tested: TL-1</li> </ul>	

**1800 809 809**      **0800 865 292**  
[fortressfencing.com.au](http://fortressfencing.com.au)    [fortressfencing.co.nz](http://fortressfencing.co.nz)

## FOUNDATION REQUIREMENTS

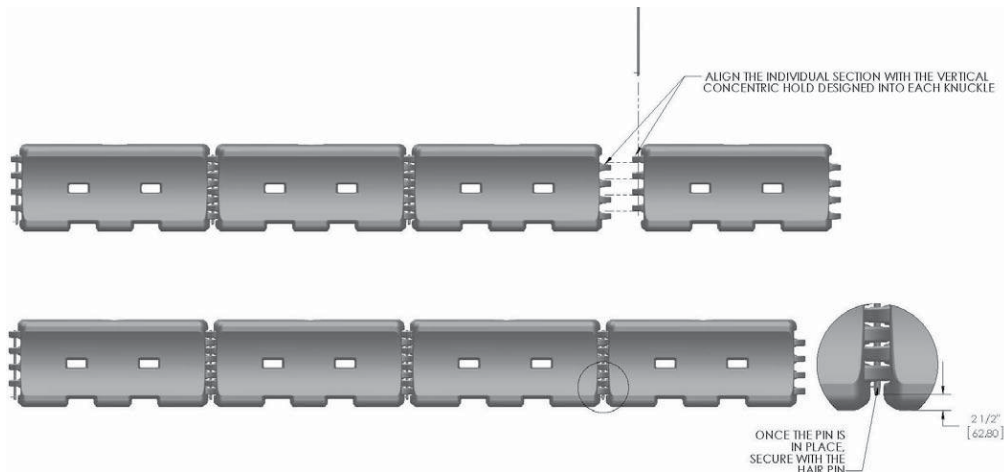
The Water-Wall is free standing and only requires that the foundation support the weight of the fully loaded sections. The foundations include concrete, asphalt, dirt and gravel.

## INSTALLATION INSTRUCTIONS

The Water-Wall will be delivered in two pieces. The first piece will be the water wall barrier section with the twist lock fill cap and the buttress threaded drain plug installed.

The second piece will be the galvanized steel T-pin with the keeper pin installed. Proper site planning will have identified the required quantity and placement of the WaterWall. The sections should be removed from the transport vehicle using safe lifting and movement procedures and emplaced as planned.

At the end of each Water-Wall are vertical interlocking knuckles. Within the knuckles are a series of vertical concentric holes. When linking individual Water-Walls together, the knuckle holes are vertically aligned with the adjacent Water-Wall. This creates a series of eight vertical knuckles interlinked together with a vertical connecting T-pin which is dropped through the concentric aligned holes. Located at the bottom of each T-pin is a safety keeper pin which is inserted into the alignment hole at the bottom of each T-pin as seen in Figure 2. The keeper pin must be inserted to finalize the installation on each wall section. **The lower end of the T-pin is approximately 2-1/2" above the grade surface as seen in Figure 2 to insure that the pin is fully inserted.**



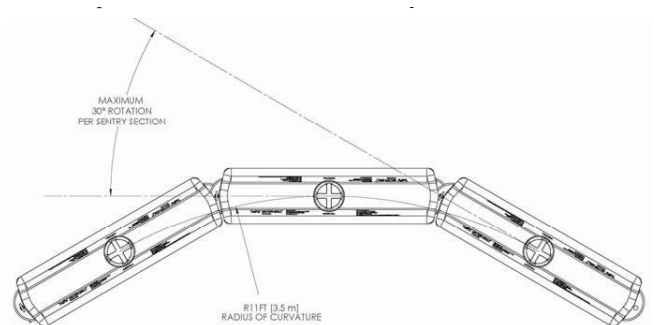
**Figure 2: Installation Assembly Guide Diagram**

When the Water-Wall has been placed in accordance with the site plan and the sections fastened together, the twist lock fill cap for each section should be removed and the section filled with water. The fill cap is then replaced insuring that all tabs are engaged. If the optional water level indicator is installed, insure that the level indicator becomes fully raised. Since the water level indicator is built into the fill cap, care should be taken to insure that the water level indicator is not damaged during the removal and re-installation process.

When all sections have been linked together, the T-pin and keeper pins installed, and the sections filled with water including installation of the fill cap, the Water-Wall is ready for use.

### Angle of Rotation

The Water-Wall is designed to have maximum angle of rotation of 30° when linked together as seen in Figure 3. When fully rotated at the maximum angle of rotation, the linked Traffix Water-Wall section can be set-up with a minimum inside radius of 11 ft. [3.5 m] as seen in Figure 3.



**Figure 3: Angle of Rotation Water-Walls Linked**

## RECOMMENDATIONS FOR STACKING

The Water-Walls must only be stacked when empty and are not designed to be stacked on each other when filled. It is recommended to stack the empty Water-Walls no more than three high as seen in Figure 4. For additional support, a long T-pin can be inserted into the knuckles to secure the Sentry as seen in Figure 4.

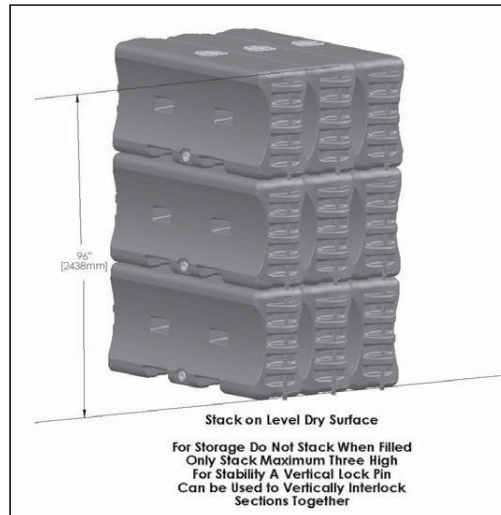


Figure 4: Water-Walls Stacking Diagram for Long Term Storage Requirements

## DEFLECTION CLEAR ZONE

When installing the Water-Wall, a clear zone must be made kept on the work zone side of the barrier to allow for lateral deflection into the work zone. When impacted at the design speed of 31 mph [50 kph] at an impact angle of 25° with a 4500 lbs. [2000 kg] impact vehicle the deflection is 15.5 ft. [4.7 m]. This is the minimum clear zone required in the work zone. This clear zone is at the test impacted design speed and condition. Additional deflection values can be seen in Figure 5.

Impact Vehicle 4400 lb ( 2000 kg)	Deflection ft.				
	25°	20°	15°	10°	5°
Design Speed	25°	20°	15°	10°	5°
31 mph (50 kph)	15.5 ft.	12 ft.	9 ft.	5 ft.	2 ft.
25 mph	9 ft.	6 ft.	4 ft.	2 ft.	1.5 ft.
20 mph	5 ft.	3 ft.	2 ft.	1.5 ft.	<1 ft.
15 mph	3 ft.	2 ft.	1.5 ft.	<1 ft.	<1 ft.

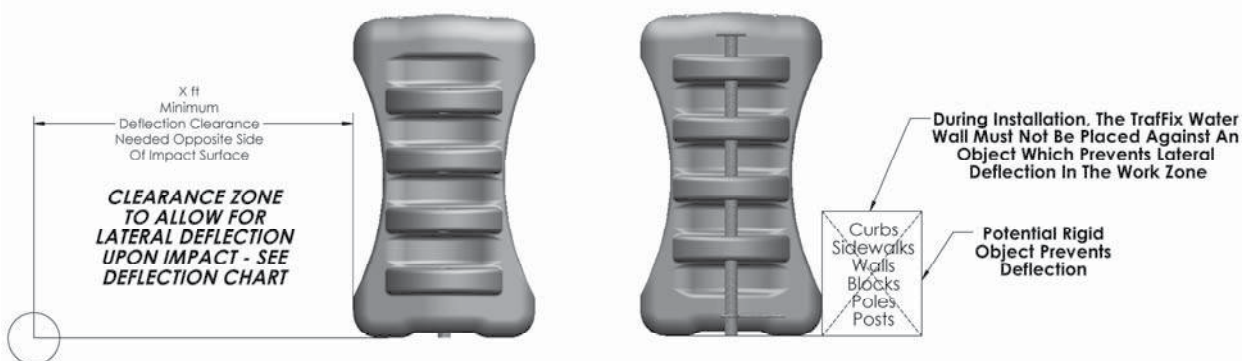


Figure 5: Clear Zone Diagram and Chart Recommendation