



# Flood Defender Wall

## Installation Guide



At M3 we are continually searching the Globe for new technologies and working processes that we can harness to enable us to deliver Innovative solutions that benefit the Environment and provide enhanced value to our Clients

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■ Introduction

## Flood Defender Wall

**The Flood Defender Wall is a demountable flood barrier system. The system is easily deployed and lightweight, but robust. Specially designed extrusions provide optimal sealing for reliable flood mitigation.**

Using a series of demountable posts, the Flood Defender Wall can span any width and can be manufactured up to a maximum height of 1200mm.

Pre-installed side rails and grounds sockets for the demountable posts allow the Barriers to be installed quickly and easily in the event of a flood.

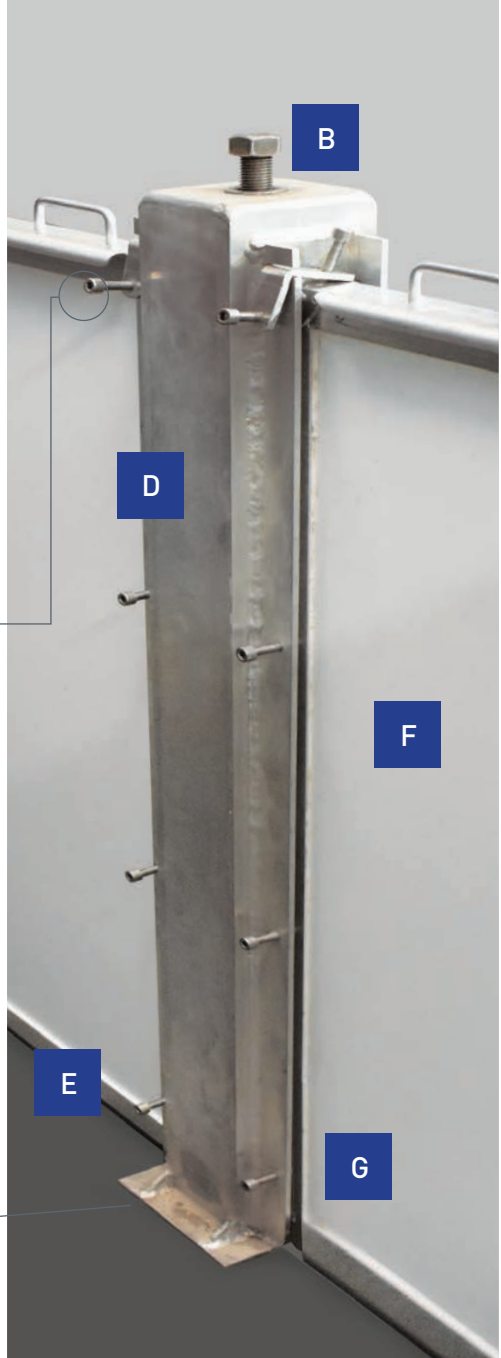
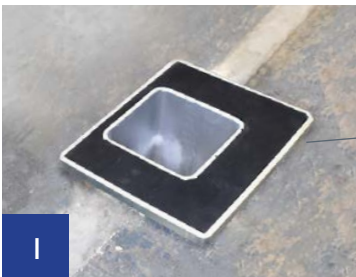


## ■ Components



Example of Defender Wall with one post

- A** Vertical Wall Rail
- B** Threaded Bar & Washer
- C** L-Shape Compression Bracket
- D** Demountable Post
- E** Ground Channel
- F** Barrier
- G** 30mm Screws
- H** Socket Screws
- I** Ground Socket



■ Tools



■ Allen Key



■ Spanner



## ■ Preparation for Installation

Where the reveal / face of the building is extremely uneven e.g. rough stone, and cannot be flush pointed a hardwood packer is used to create a surface against which the Defender Barrier can seal.

The packer can be rebated into the stone enabling the profile to be hidden as far as possible and therefore less obtrusive. The packer should be sealed with mastic to the stonework. Uneven steps or cills can have an aluminium channel fitted to enable the barrier to seal.

The installation of the Defender Barrier / Wall will require the site to be clear of all buried services (e.g. electrics and piping) before installation commences, as this may affect the location and construction of the bases. In all cases the areas where the seals are to make contact with the building, these are to be clean and free of debris.



Reveal Fix



Face Fix

## ■ Preparation for Deployment

1. Ensure all components are readily available including the panels, demountable posts, brackets and fixings.
2. Check the area where the barrier is to be positioned is free from obstructions.
3. Check that the back seals and bottom seal on each of the Flood Defender Wall panels are clean and free from obstructions, dirt and sand.
4. Ensure that the ground socket is brushed free from dust, sand, dirt and debris before opening, as this will prevent the dirt from entering.

## ■ Installation



**1.** Mark the wall where the first wall rail will be installed. Plumb level and square



**2.** Measure barrier (F) to get the positioning for ground channel (E) and ground socket (I)



**3.** Mark the positioning of the ground channel (E) and ground socket (I)



**4.** Make 2 saw cuts either side of the ground channel (E), full length of the channel and break out the concrete



**5.** Core drill existing concrete floor to the depth of **163mm** ensuring the flap lid to the ground socket is flush with ground level



**6.** Insert ground socket (I) adding concrete



**7.** Insert the demountable post (D) into ground socket (I)



**8.** Insert ground channel (E) in concrete from first rail to first ground socket ensuring it is level with ground level

Repeat steps 4 to 9 until all ground sockets are in place



**9.** Fit wall rail - plumb level and square, **ensuring screw holes for the barrier are on the wet side.** Fix through the rails into your wall using screws/plugs



**10.** Apply silicone sealant to the rear of second rail (A) from top to bottom and fit side rail as per step 2



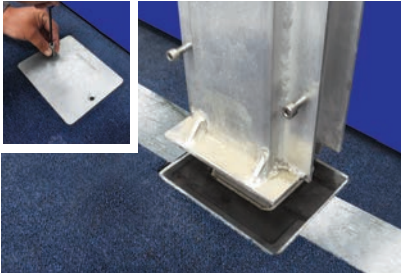
**11.** Once the ground is set (approx 24 hours) remove the demountable post to install the cover plates



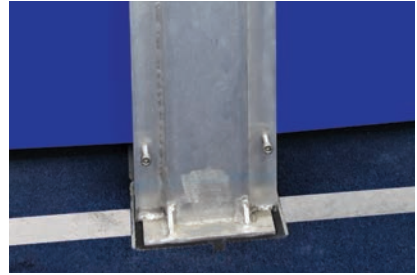
**12.** Line up the holes on the cover plate and use the allen key to insert the threaded bolt

**The Flood Defender Wall is now installed and ready for use. See next section for Deployment.**

## ■ Deployment



**1.** Unscrew ground socket lid (I) and insert the demountable post(s) (D). Ensure posts are pushed down firmly into the ground socket(s).



**2.** The post(s) should be orientated with the channels having the holes facing the flood prone side.

**Note:** Do NOT tighten the demountable post threaded bar and washer (s) (B) at this stage.



**3.** Insert the Flood Defender Wall panels (D) into the slots on the posts and push down. Ensure each panel is inserted with the thick horizontal seal running along the bottom edge, and the vertical seals facing the posts.



**4.** Insert all panels in the same manner allowing panels to drop down on to their seals and double check the post(s) is pushed down fully into its socket(s).



**5.** Insert the L-Shape compression bracket (C) into the corresponding slot in the guide rail, ensuring it is pressed in tightly. Align the two holes on the compression bracket (top & side) with those in the guide rail and insert the bolts; tightening by hand.



**6.** Now tighten the threaded bar and washer (s), ensuring that you do not over tighten.



**7.** Using the bolt(s) located in the compression bracket(s), apply gentle downward pressure to the top of the barrier.



**8.** Using allen key supplied, tighten the face bolts sufficiently so that no gap is visible between vertical seal and barrier frame face in the following sequence, being consistent with the number of turns on each (to avoid uneven tightening).

- a. Bottom left corner
- b. Bottom right corner
- c. Top right corner
- d. Top left corner



**9.** Apply further downward pressure by continuing to tighten the post locking pin(s) and the compression bolt(s) on the reveal channels.



**There should be no gap visible between the wall or frame and barrier seals, ensure that bolts are not over-tightened.**

## ■ Cleaning

- Clean using household detergent and warm soapy water
- Allow to dry thoroughly

## ■ Maintenance

The following steps should be undertaken regularly on all barriers:



**1.** Check all the rubber seals for signs of decay and make sure all the rubber seals are on the barrier, and none have come loose, or been removed.

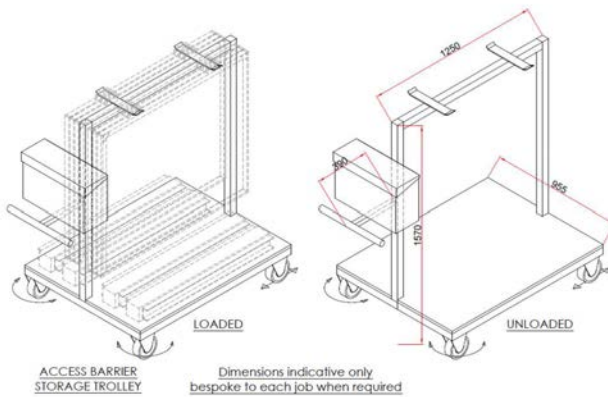


**2.** Apply lubricating release spray to all barrier seals to ensure ease of installation and dismantling, and to prevent seals from adhering to the aluminium during prolonged deployment.

Ensure all tools, screws and components are present (See 'common components' illustration). If anything is missing, replacement parts can be ordered through your supplier.

## ■ Storage

1. Store the flood boards flat, so the board is not resting on the rubber seals either on the floor or against a side wall/surface.
2. Ensure the flood barrier equipment is stored in such a way that it is not a hazard to any persons either by falling on them or as a trip hazard.
3. Alternative trolley storage is available as an additional option detailed below.





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