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## 1. Overview of the Diluvium™ Flood Barrier

The Diluvium™ Flood Barrier is an ultra-light, ultra-strong patented solution manufactured from technical textiles. It is fully portable, reusable and recyclable. Diluvium™ is very easy to use in any environment and creates a safe solution in minutes. Diluvium™ has a very small footprint (almost 1:1.2 horizontal to vertical) and its modular design allows for 360° or wall to wall protection.

Height		Footprint		Weight	
metric	imperial	metric	imperial	kg/ m	lbs/ ft
90	3	120	4	8	5
120	4	150	5	10	7
150	5	180	6	12	8
180	6	210	7	14	9

## 2. Tools and documentation

There are no specific tools required to set up the Diluvium™ Flood Barrier. It is highly recommended to use safety gloves and to have silicone spray available if extra lubrication is needed on the zips. For mounting on hard surfaces, a suitable drill, drill bit (max Ø 11mm/ 7/16") and anchor bolts are required. Bolt type and size should be as recommended for the wall/ ground surface the barrier be connected to. Use a saw suitable for cutting the fibre glass anchor/ anchor bars as required.

Before each deployment, ensure the installer has a copy of this manual and the barrier design plan for the location. The design plan will have the overview of the different types of sections needed for each specific area, and the position of sections along the flooding perimeter.

## 3. Preparation of the ground

The area for the deployment shall be clean and free of debris that could damage or interfere with the functionality of the barrier. On hard surfaces, seal cracks/ grooves with a suitable waterproof sealant to reduce seepage under the barrier.

## 4. Identification of sections

All sections have a barrier id tag with a unique order number. Main sections of the barrier are also marked with the barrier height and length. Wall terminations are marked with WR or WL (wall right/ left). Corner sections are marked with the barrier height and the angle for the corner.

## 5. Deploying the barrier

Place the barrier sections along the perimeter close to where they will be installed, as per the barrier design plan and barrier id tags. Unfold the sections with the dry side (with the logo) of the barrier facing upwards and the fold in the fabric facing towards the dry side.

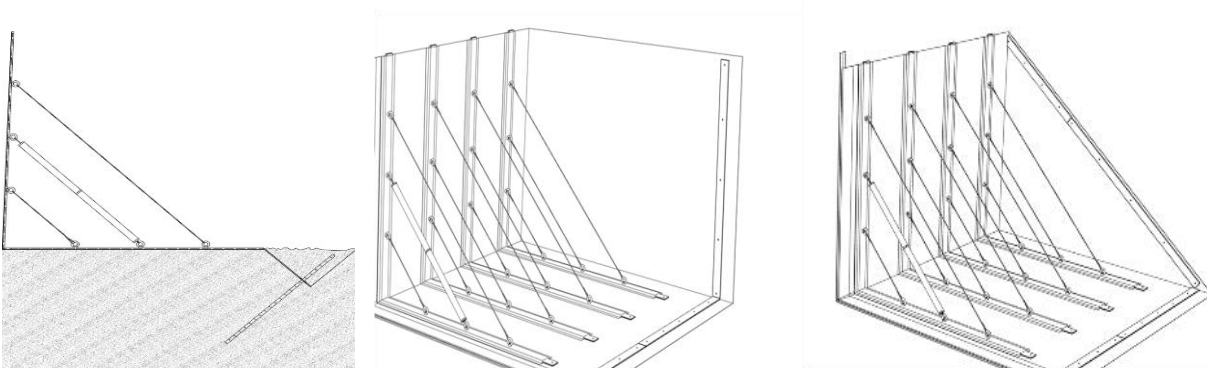
It is recommended to set up a corner or wall section first, making sure that is in the correct position according to the design plans. To erect the barrier sections, simply lift each section and simultaneously lock the support mechanism on the steel wires to lock the wall in the upright position. See 1<sup>st</sup> picture below.



Then connect the sections with the zippers. Make sure no teeth are missing and that the zip length is free from debris. It is advisable to have silicone spray to ease the zipping action. First connect the zipper closest to the ground (load bearing zipper, operating force <1 kg/ 2.2lbs). Then connect the sealing zipper (operating force <2.5 kg/ 5.5lbs). Hand force is enough. **DO NOT USE EXCESSIVE FORCE.** Excessive force can lead to broken teeth and malfunctioning of the barrier. Repeat for all the sections.

### 6. Anchoring the barrier

On soft surfaces (grass, gravel etc) wooden/ metal stakes can be used both front and back to increase stability. It is recommended to secure the front lip of the water facing section under the ground. To do this dig a small trench (no more than 30cm/ 12") and fold it in. Secure with a stake and refill. See first picture below.



To secure the front of the barrier and wall terminations (square or angled) on hard surfaces, place the anchor bars on top of the water facing edge, see 2<sup>nd</sup> and 3<sup>rd</sup> pictures above. Drill holes with a diameter of max  $\varnothing$  11mm/ 7/16" and secure with anchor bolts suitable for the surface the barrier is connected to. See recommended drilling points below.



## 7. Inspection and protection of the sections

### The Installation Checklist:

1. The side with steel wire support are facing towards the wet side.
2. All support mechanisms are in locked position
3. All wall terminations are done with correct bolts and all bolts tightened
4. No damage to the fabric, zippers and zipper seams
5. All zippers are completed closed
6. No damage to the steel wires or copper connection to the eye nuts.

The sections should be checked daily for any damage to the barrier. Remove, if safe to do so, any build-up of debris on the water side.

## 8. Demounting and cleaning

After use and prior to demounting, it is mandatory to inspect the barrier sections for any damages. The main areas to inspect are numbers 4 and 6 in the installation checklist.

Demounting of the sections can be done by reversing the steps in sections 5 & 6. Ensure the sections are clean and dry before storing.

Cleaning of the barrier can be done with a pressure washer with a maximum water pressure of 80 bar/1150 psi. The nozzle on the pressure washer must not be closer than 10 cm/ 4 inches from any part of the sections during spray washing. It is recommended that cleaning takes place immediately after a flood as this will ease the cleaning process. The product should not be cleaned with, or otherwise exposed to, corrosive liquid, coarse polish, sharp objects or other strong agents that can damage the barrier. If simple cleaning is ineffective then use a soft bristle broom and mild cleansers.

After use, the barrier must be dried. To dry the barrier, it is recommended to turn it upside. This will increase the lifetime of the sections.

Once dried, the barrier can be folded up and put back into the storage bags and store away. Do not stack more 1m/ 3ft high.

**In case you are not using the barrier yourself please make sure that whoever is using it is aware of the contents of this installation manual. In any case, we do not accept any responsibility or liability, nor will be held responsible for any misuse or damage with, by or at the end user due to negligent use.**