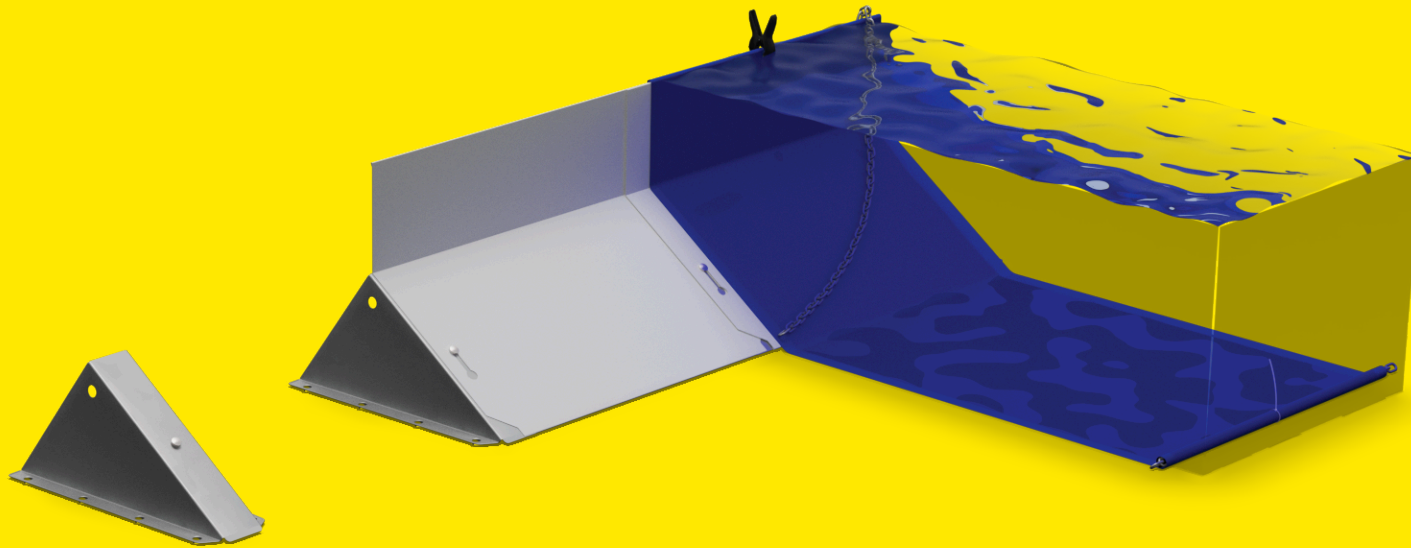


Elemental Flood Barrier

Product brochure





Quick and easy setup

The Elemental Flood Barrier by Geodesign has been designed and engineered to enable a fast installation without the need for tools, heavy equipment or a large workforce. This innovative steel barrier has become a favourite for homeowners, businesses and local authorities looking to protect themselves from small to medium level floods.

1



DEPLOY METAL SUPPORTS

Place the supports 91 cm apart to form the intended barrier line.

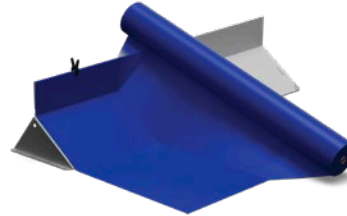
2



MOUNT STEEL PANELS

Hang the panels between the frames by sliding the keyhole cut over the protruding mount button on the supports, push downwards and let it overlap the adjacent panels.

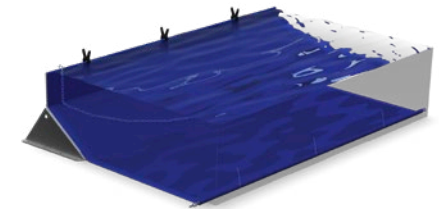
3



LINE WITH MEMBRANE

Roll out the plastic membrane along the barrier and secure it with spring clamps. Add chains as ballast to manage windy conditions.

4



ANCHORED WITH WATER

Allow the flood water to rise onto the barrier which will provide pressure to self-anchor the system.



Design Features

The Elemental Series consist of two modular steel flood supports based on sections of reclining panels that stop floods up to 61 cm. The E-barrier is a quickly and easily deployed flood barrier with excellent logistic characteristics and a long lifespan. Developed to meet the high demands of large-scale rapid flood protection yet fit the storage space of most home-owners' garages or back garden sheds. This steel flood barrier goes up fast, is self-anchoring, and withstands high flowing water and over-topping.

FRICTION COLLARS WITH POINTS

Protruding steel collars underneath the bottom beam to establish a grip and increase friction between the self-anchored barrier and the ground surface.

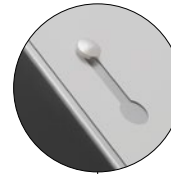


STACKABLE SUPPORTS

The triangular barrier supports are stackable to create a minimised storage footprint. The reclined front features a mount-button for quick and secure assembly and its bottom anchor wings have protruding sharp collars to establish high friction against the ground surface.

MOUNT BUTTON PANEL LOCK

Smart and innovative solution to speed up assembly and increase flexibility.



LIGHTWEIGHT STEEL PANEL

At merely 7 kg per E61-panel, the 1 mm hot-dipped galvanised steel sheet is easy to handle and store. The Dual Phase Steel from Swedish SSAB has excellent tensile properties and corrosion resistance.

INDUSTRIAL SPRING CLAMPS

Industrial spring clamps with a high pinch force secure the plastic membrane.



PLASTIC MEMBRANE

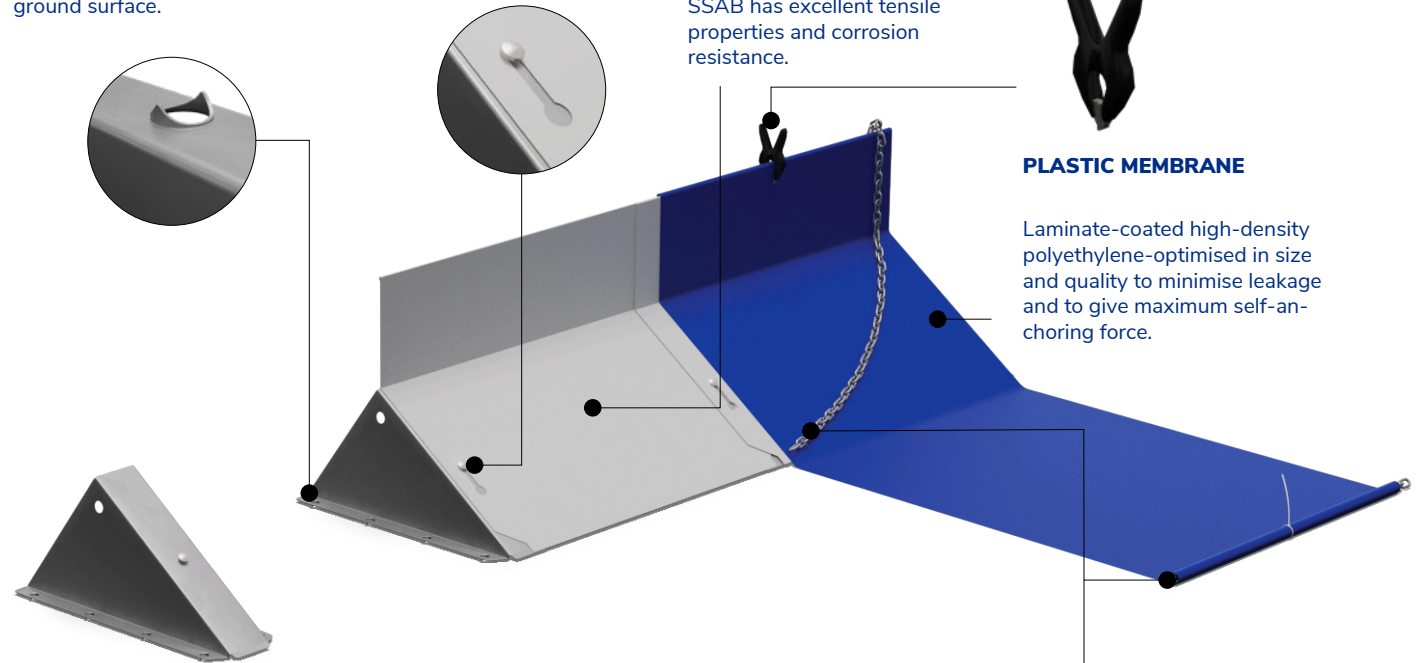
Laminate-coated high-density polyethylene-optimised in size and quality to minimise leakage and to give maximum self-anchoring force.

ULTRA HIGH STRENGTH STEEL

All load-bearing components of the Elemental Barrier are manufactured in high strength and ultra-high strength steel with micro-alloy elements. Both steels are hot-dip galvanized with a zinc coating to provide optimal corrosion protection

CHAINS - 5MM X 5M

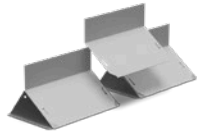
5 mm x 5 m galvanised steel chain with carabiners to weigh down the membrane before water comes onto the barrier.





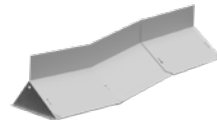
Permanent obstacles. Adaptable elements.

The Elemental Flood Barrier can be deployed across, around and up against obstacles that are in the way of the intended barrier line. This is achieved thanks to specially designed corners panels, wall connection kits and by making use of the overall flexibility in the system itself. The Elemental Flood Barrier is compatible with the Industrial and Heavy Duty systems and can be combined to meet the needs of specific conditions on site.



ADJUSTABLE LENGTH

Assemble from two directions and meet in the middle or adjust the length of the barrier to end up at a specific spot by simply overlapping two panels. Mount one fixture and let the bottom of the panel rest in the slot located by the toe of the frame.



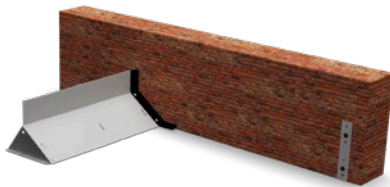
UNEVEN GROUND

Shifts in level, such as kerbs, steps or uneven ground is easily handled thanks to the flexibility of the modular structure and the thin steel panels.



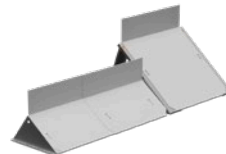
SHARP CORNERS

Specially designed corner panels allow for sharp 45-degree inner and outer turns.



CONNECTION TO WALL

Adjust the length of the barrier to finish flush against the wall. Use our wall connection kit to safely attach to a vertical foundation or structure while minimising seepage.



COMPATIBILITY

The Elemental Flood Barrier is not only compatible with other models within the same product family but also with the higher Industrial series.



LARGE BENDS

Using only straight sections, the Elemental Flood Barrier allows for larger bends with a 90-degree turn radius of 10 m thanks to the flexibility of the modular structure and the thin steel panels.

Similar features. Different heights.

The Elemental Flood Barrier consists of two different models. Same fundamental design and overall features but different in dam height. The Elemental Barrier, also known as the E-series, is distinguished by a solid barrier foot and the patented panel mount button on the front beam.

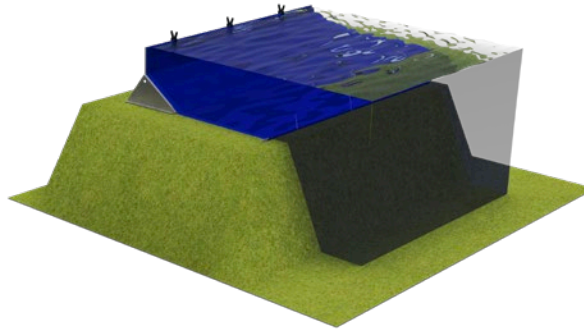


E61
Max. water column: 61 cm
Section width: 91.4 cm (ctc)
Setup time: 30 min (100 m / 5 people)
Footprint: 200 cm (Barrier and membrane)
Footprint: 70 cm (Barrier only)
Weight / section: 14 kg
Storage volume: 1.35 m³ (One set, 55 sections)

E41
Max. water column: 41 cm
Section width: 100 cm (ctc)
Setup time: 30 min (100 m / 5 people)
Footprint: 100 cm (With poly liner)
Footprint: 42 cm (Barrier only)
Weight / section: 10 kg
Storage volume: 0.8 m³ (One set, 55 sections)

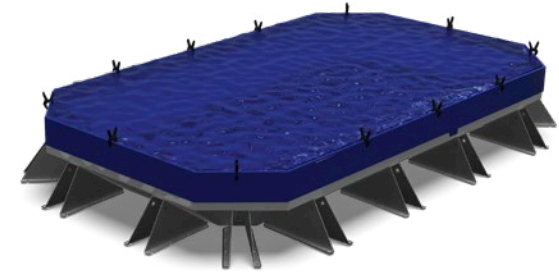
More than flood prevention.

The simplicity and flexibility of the Elemental Flood Barrier makes it ideal for extended use beyond flood control but also gives it characteristics valuable to flood protection at lower water levels. By assembling the barrier in different formations, it becomes the perfect tool to quickly stop, contain, or divert water.



EXTENSIONS TO RESERVOIRS AND BUNDS

Add protection to existing reservoirs, earth bunds and embankments by deploying the Elemental Flood Barrier on top. The narrow footprint and flexible deployment possibilities allows for the barrier to be installed on top of walls and bunds. The possibility of quickly extending the current flood walls adds an extra layer of protection against unforeseen events.



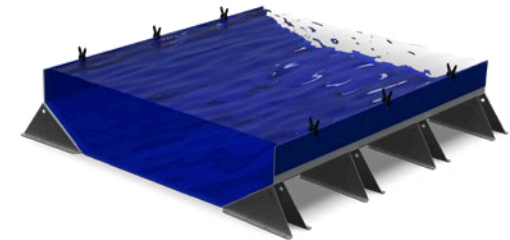
TEMPORARY CONTAINMENT

Create temporary containment tanks of any shape by assembling the Elemental Flood Barrier with inverted corners and connecting the ends. 41 cm to 61 cm high containment basins can be assembled into a customized pool of virtually any size, in any environment, on any surface and for any substance, such as water, oil spillage, contaminated liquids and agricultural feed etc.



HOME FLOOD PROTECTION

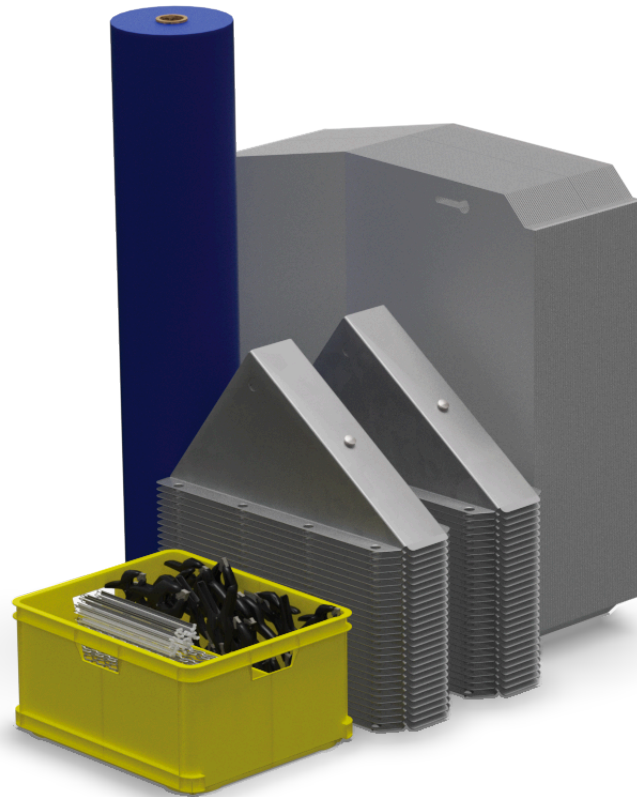
Quickly enclose your house with a sturdy and safe flood barrier without using any tools, fill materials or even extra carrying help. The lightweight and compact Elemental Flood Barrier is manufactured in ultra-high strength steel and is assembled and disassembled in minutes. Conveniently stored in a corner of your garage or garden shed.



WATER DIVERSION

Redirect flowing water with the Elemental Flood Barrier as a temporary diverter. The barrier installs quickly in water and can be lined with plastic membrane for a better seal. Bypass-canals can easily be assembled with barriers on opposite sides.





Compact storage.

The Elemental Flood Barrier is stackable and stored compactly, enabling efficient storage and fast transportation in the event of a flood. 50 m (55 sections) of Elemental Flood Barrier can be stored on 1.3 m².



GEODESIGN BARRIERS

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