



**ANTI FLOOD S.A**



**AntiFlood S.A.** is a Greek company, and member of the Urban Group. Our company designs and manufactures next-generation flood protection systems used by municipalities, civil protection agencies, industries, and critical infrastructure operators. Climate change is now a major challenge for all countries.

AntiFlood S.A designs and manufactures modern, rapid-deployment systems that can:

- Protect critical assets
- Shield municipalities and regional units
- Replace outdated, ineffective solutions like sandbags, soil levees, and riverbanks.
- Reduce intervention time and manpower costs

In addition to the products it manufactures, our company is also cooperating with well known manufacturers from all over the world, in order to offer a complete series of anti-flood products for all kinds of situations. Thus Antiflood can offer economic customized solutions that fits exactly to the customer needs.

## Certifications



GROUP  
URBAN



Group Urban is a diversified Greek industrial group specializing in advanced manufacturing, critical-infrastructure protection, and innovative engineering solutions. Headquartered in Karditsa, the Group operates multiple business units covering:

- **Metal & Wood Manufacturing**
- **Urban Equipment & Smart City Solutions**
- **Defence & Security Systems (Nova Tactics)**
- **Flood Protection & Resilience Engineering (AntiFlood S.A.)**
- **Construction & Technical Services (TEGEK technical)**
- **Recycle of wind blade turbins (Urban blades)**

With vertically integrated production facilities, state-of-the-art machinery, and a highly skilled engineering team, the Group supports public authorities, ministries, municipalities, and private organizations across Greece and the wider region. Our philosophy focuses on innovation, reliability, and rapid deployment, delivering solutions that enhance safety, strengthen critical infrastructure, and support national resilience.



**ANTI FLOOD S.A**

**TEAM**



**Tsintzas Konstantinos**  
CEO



**Papaioannou Ioanna**  
Vice President



**Anagnostou Panagiotis**  
General Manager



**Siatira Chrysoula**  
Industrial Designers



**Zisis Giorgos**  
Industrial Designers



**Ntontos Christos**  
IoT Engineer



**Florou Evi**  
Graphic Designer



**Saxoni Eirini**  
Front Office Manager



**Lappa Konstantina**  
Account Manager



**Gakis Christos**  
Production Manager



**Siakaras Fotis**  
Fabrication  
Expert



**Magopoulos Alexandros**  
Sales Manager



**Anastasiou Dimitrios**  
Sales Manager

**Special Partners**



**Dr. Tegos Aristotelis**  
Civil Engineer  
Scientific Editor  
of Hydrology MDPI journal



**Xylomenos Konstantinos**  
Msc in Earthquake  
Engineering & Seismic  
Design of Structures  
Phd candidate in Antiflood Work



**Papachristos Christos**  
Software Developer  
NORTHBRIDGE Team



## **Antiflood Door**

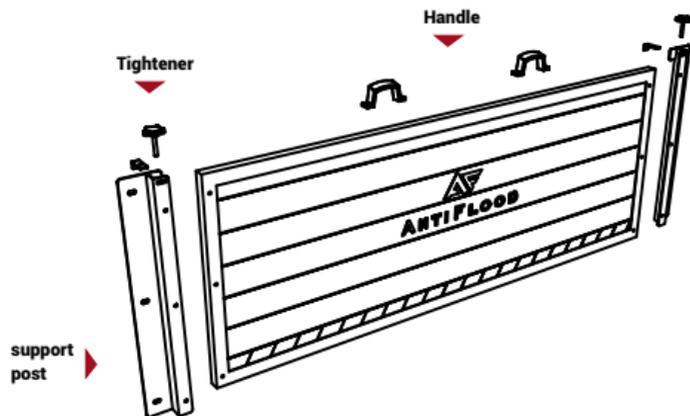
Protects and resists  
flood water

### AntiFlood Door – Industrial & Municipal Flood Barrier

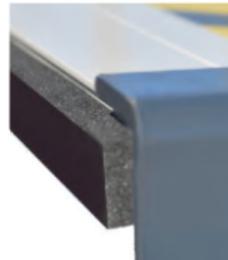
The AntiFlood Door is a rapid - deployment flood barrier engineered for buildings, municipal facilities, and critical infrastructure. It seals entrances, gates, and openings within seconds, offering high-pressure resistance and preventing water infiltration even under extreme conditions.

#### Key Advantages:

- High structural integrity using welded, reinforced aluminum and steel
- Fast installation with minimal manpower
- Custom dimensions for municipalities, hospitals, warehouses, and energy facilities
- Durable sealing system ensuring zero leakage  
Can remain installed permanently or be activated only during emergencies



Special EPDM rubber  
which offers absolute  
insulation.



The door tightens in 8 points.



Security lock  
(optionally)





**02**

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## **Antiflood Box**

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Flood Protection

### AntiFlood Box – Rapid Barrier Deployment Unit

The AntiFlood Box is a modular mobile unit that allows municipalities and emergency teams to deploy protective flood barriers in minutes.

The box provides different functions for various situations.

#### How it works:

Each box can be prefilled with concrete, water, sand, gravel etc.

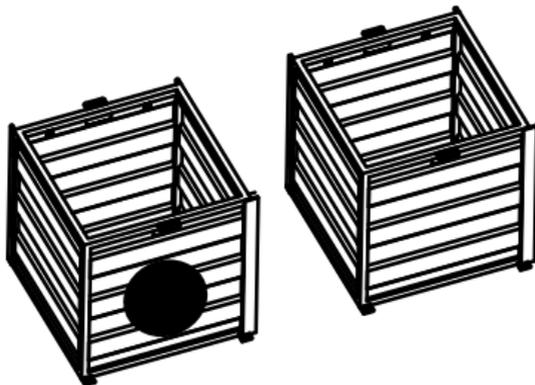
They can be assembled on straight line, or can take turns with corner parts in order to create a continuous protective wall.

They can be stacked creating a pyramid wall.

Also a key feature is flood control box, that uses to discharge water on pointed spots or height.

#### Flow control box.

For water decompression we use the flood control box. This enables us to control the flow of water at certain points of the dam.



#### Key Advantages:

- Immediate flood response
  - Ideal for highways, roads, and generally when redirecting large volumes of water is essential.
  - Requires minimal storage space due to stacking ability
  - Enables protective lines of up to several hundred meters
  - Compatible with existing municipal emergency plans
- 
- The boxes can be filled with concrete from **500 kg to 2.2 tons**. Alternatively sand can be used for easy use.
  - The boxes can be tied together length wise or vertically if protection higher than one metre is required.
  - The boxes are made of **3mm thick sheet metal** to resist the pressure.

## Case Study: Dairy Products | RIZAKOS Phthiotis Region

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### Anti Flood - Protection Boxes Installation

At the main entrance of the factory, we installed 30 Antiflood protection boxes.

These boxes are pre-filled with concrete, providing a barrier one meter in height with a total coverage of 16 meters.

In addition, the box array was reinforced with two triangular boxes to further optimize the diversion of water and debris, ensuring enhanced flood-resilience at this critical access point.



# 03

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## Antiflood Quick dam

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Flood Protection

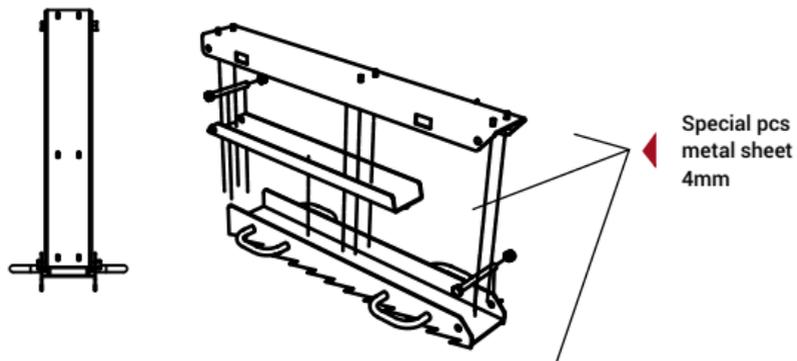
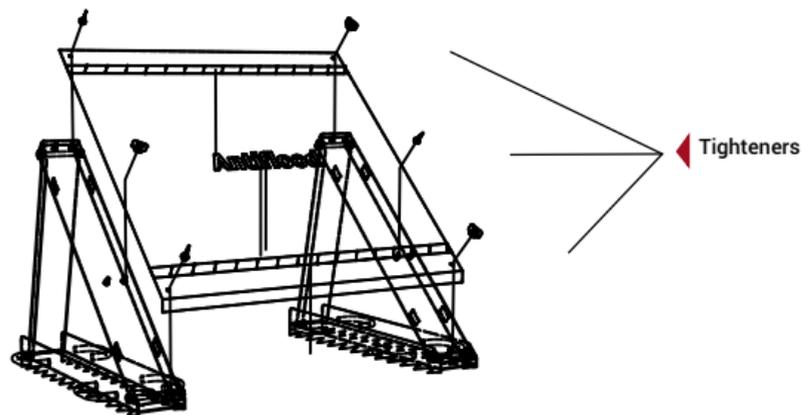


### Quick Dam – Flexible Water Absorption System

The QuickDam system provides fast, lightweight, and cost- effective flood protection for small - scale or urban scenarios.

#### Key Advantages:

- Creates instant barriers without tools
- Minimum manpower needed (2 persons)
- Flat pack storage
- Suitable for flash-flood situations





## **Antiflood V**

**Control System**

**AntiFlood V – Mobile V -Shaped  
Defense System**

The AntiFlood V is a self-anchoring, V - shaped barrier that redirects and channels water flow, protecting roads, bridges, and vulnerable municipal zones.

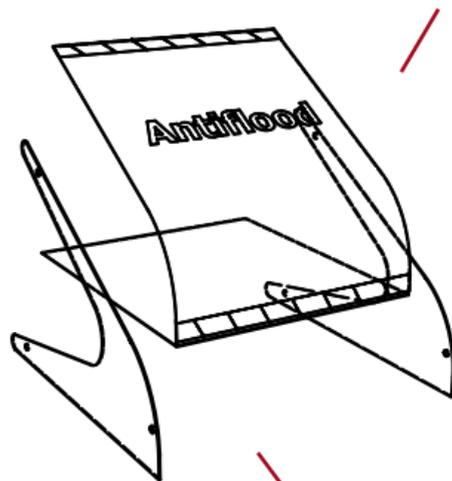
**Key Advantages:**

- Requires no foundation
- Designed for flash-flood and high - velocity water conditions
- Lightweight, stackable, and transport-friendly
- Minimum manpower (one person)

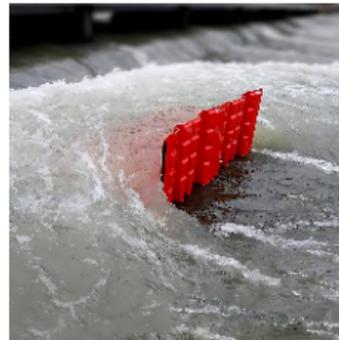


The system v can be used either to divert water or to enclose a specific area.

There are also available special corner pieces to create the arrangement you need. The pieces have high-strength rubber at the bottom and on the connection surface between them to provide better insulation.



It consists of separate pieces which can be tied together in three points.



**05**

**Floodwall**

**Flood Protection**

**FloodWall – medium – light duty Modular Wall System**

The FloodWall is a reusable modular wall system designed for high-risk flood zones and locations requiring a permanent or semi-permanent solution.

**Key Advantages:**

- Structural plastic frame with reinforced panels
- High protection level against deep-water pressure
- Fast deployment
- Minimum manpower (1 person)
- Suitable for municipalities, civil protection, fire brigade etc.
- Zero maintenance, quick reinstallation minimum storage space



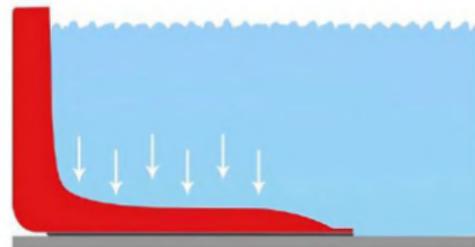
Available in various designs and dimensions



Their design allows them to create any arrangement.



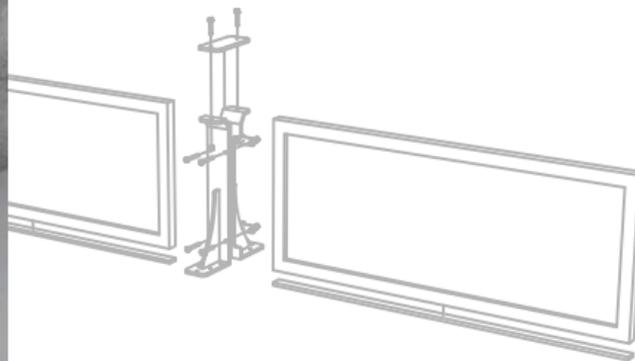
It works using the gravity of the water, pushing and holding the system on the ground.





## **Glass Barrier**

**Flood Protection**



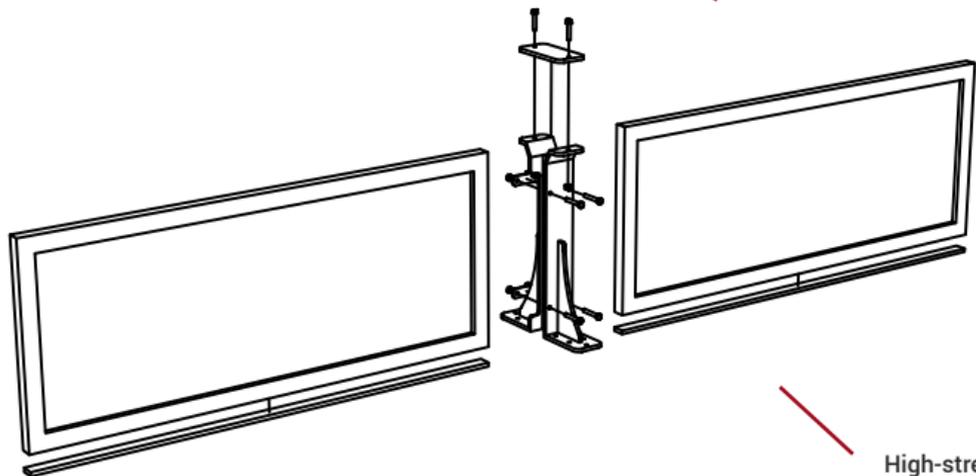
## Glass Barrier – Architectural Flood Protection System

The Glass Flood Barrier combines functionality with aesthetics, providing transparent flood defence for coastal areas, riverside walkways, public squares, and critical buildings.

### Key Advantages:

- Laminated structural glass certified for high water pressure
- Steel framing for maximum stability
- Allows protection without obstructing visibility
- Matches urban landscape planning requirements
- Used in municipal waterfronts and public infrastructure

Barrier with aluminium frame and special material for water pressure resistance.



Base for supporting and connecting barrier

High-strength EPDM rubber all around the barrier to provide better insulation.



**07**

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## **Antiflood Bridge**

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**Safe passage  
of heavy vehicles**

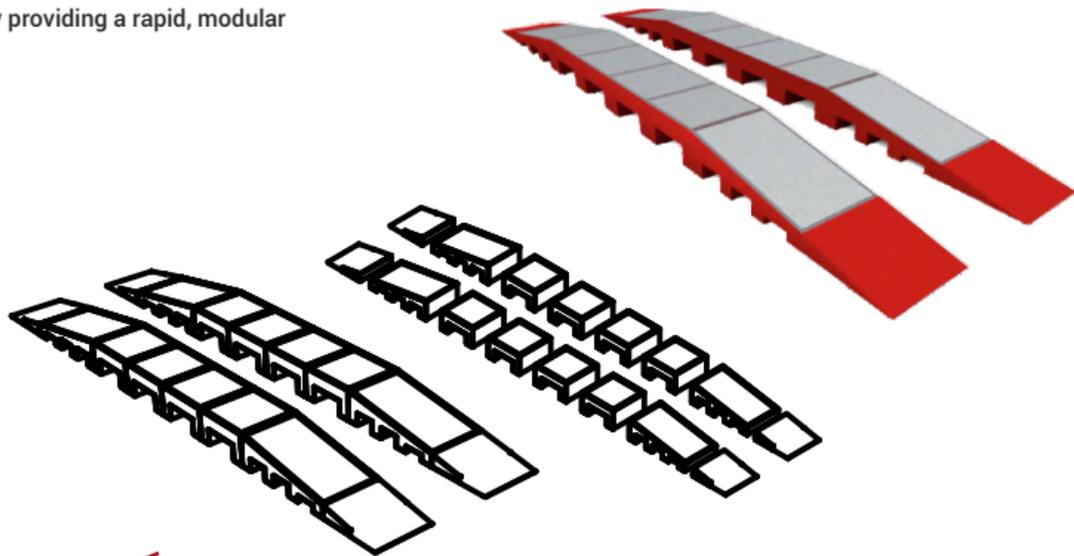
### **Steel Bridge – Emergency Access & Critical Infrastructure Protection**

The Steel Emergency Bridge supports preparedness to every unit that can act rapidly. It has the ability in restoring access during flood events by providing a rapid, modular steel structure that replaces damaged roads or crossings.

#### **Key Advantages:**

- Heavy-duty modular design
- Fast installation with common machinery. (one 2 tons crane is needed)
- Supports vehicles, rescue teams, and emergency supplies
- Corrosion-resistant steel
- Ideal for river crossings, isolated communities, and emergency bypass routes

The bridge is made of steel.  
The entire structure consists of boxes that are connected to each other with metal connectors.  
The boxes are filled with concrete for stability and resistance to heavy vehicles.



Easy Disassembly and transport.  
Transport can be done by crane or clark.

# 08

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## Antiflood AGloT-0080 Level sensor

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Flood Prevention



## IoT Sensors – Smart Flood Monitoring System

The AntiFlood IoT Sensor Network provides real-time monitoring of water levels, river flow, rainfall intensity, and environmental conditions.

### Key Advantages:

- Early warning system for municipalities
- Wireless, solar-powered units
- Real-time dashboard and alerts to Civil Protection authorities
- Integrates with existing municipal emergency platforms
- Enables data-driven flood - risk management



### Central Data Recording Unit

- Small size
- IP67 protection
- Connection to 2G/4G/GPRS/EDGE/NB-IoT mobile networks with free lifetime data with the integrated SIM card
- Plug & play
- Energy autonomous
- GPS for position tracing
- Anti-theft system (tracking and remote disabling)
- Integrated rechargeable battery
- Charging capability with power bank



### Level sensor

- Protection Ip67 (dustproof and waterproof)
- Operating temperature: -40°C - +65°C
- Measured distances: from 30cm to 5m
- Measuring step: 1mm
- Standard accuracy 1%



**Photovoltaic Panel**  
Providing energy for off-grid operation



### Management Platform

- Monitoring of measurements
- Setting alerts
- Application for web & mobile devices



## Case Studies



## Case Study: Bakery Store Karditsa, Region

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### Anti Flood - Protection Door Installation

Like many private properties across the country, the store is located in a high-risk flood zone. To enhance its protection, we equipped the bakery with a flood-protection door in a custom, color-matched finish, designed to integrate seamlessly with the shop's existing aesthetic while providing reliable defense against potential water ingress.



## Case Study: Shipping Company Offices, DELTA TANKERS and MARMARAS NAVIGATION in Palaio Faliro

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**DELTA TANKERS Ltd**, located in Palaio Faliro, Athens, sought a robust solution to protect their headquarters against flood risk.

### **Solution Implemented:**

We successfully installed 48 modular AntiFlood doors, reinforcing the most critical access points.

The system uses vertically and horizontally segmented barriers, forming a flexible and fully operational flood protection setup tailored to the specific operational requirements of the offices.

### **Outcome:**

The installation enhanced the building's resilience to extreme weather events while supporting business continuity and operational safety.

**DELTA TANKERS** now benefits from a strategic, flexible, and reliable flood defense system.





## Case Study: Dairy Products | TYRAS Industry, Trikala Thessaly

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### Installation of 25 Anti Flood - Protection Gates

The intervention focused on enhancing the protection, operational continuity, and overall safety of the facility, which had sustained significant damage during the Daniel flood (Sept. 2023).

The installation of 25 Anti flood - protection gates aims to fortify critical infrastructure, reduce the risk of recurring damage, and ensure safe and as uninterrupted as possible operations during future extreme weather conditions.







## Case Study: Dairy Products | RIZAKOS Industry, Phthiotis Region

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### Anti Flood - Protection Gates Installation

We reinforced the internal entrances of the factory using our Antiflood Door protection system, installing 11 flood-protection doors, each 5 meters in length. This intervention effectively sealed the facility's internal access points, preventing potential water ingress and enhancing the overall flood resilience of the site.



# HESCO PRODUCTS





## **FLOODLINE**

**RAPID FLOOD & STORM  
PROTECTION**

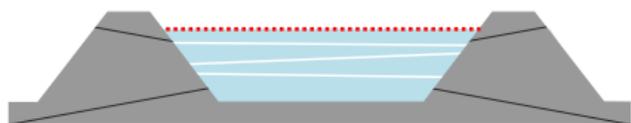
**HESCO FLOODLINE** has been installed to defend homes and businesses from seasonal flooding, hurricanes and annual storms throughout United States and Europe. **HESCO Flood Barriers** ensure critical infrastructure remains functioning so emergency service routes can stay open and business stay operating. **HESCO FLOODLINE** is for emergency flood response, offering significant advantages over traditional sandbags, in terms of cost, time and labor requirement for installation.

**Provides protection for: industries, civil protection, military units, rescue teams, regions, municipalities, fields**



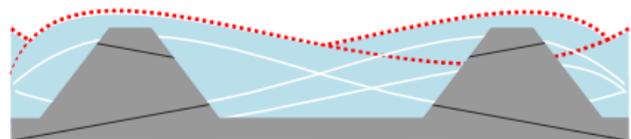
# HESCO® FLOODLINE & Levees

## 1. Water Level & Levee

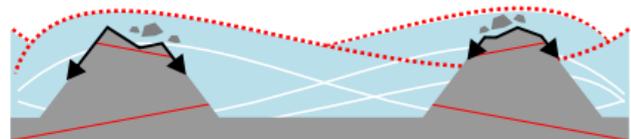


Infiltration Capacity (IC) of Embankment

## 2. Start of Overflow

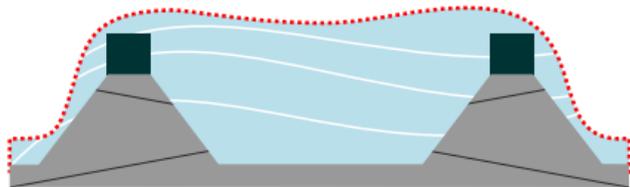


## 3. Levee Breach



Reduced due to erosion / breach

## 4. Hesco Floodline



The Floodline structure stabilizes levee slopes, mitigates erosion, and reduces overtopping flow."

## Typical Applications of Levees and Floodlines

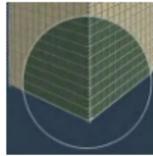
- Along rivers and streams to contain water within the channel and prevent overflow.
- Around lakes or reservoirs to control water levels and protect adjacent areas.
- In coastal zones to defend against tides, waves, and coastal flooding.
- Around critical infrastructure to isolate and protect from flood events.



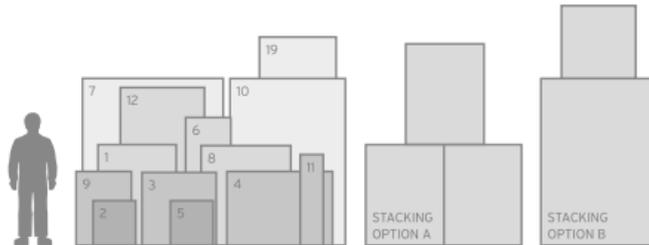
WELDED MESH FRAME  
NON-WOVEN GEOTEXTILE



SPIRAL HINGED CORNERS



- non-woven polypropylene geotextile
- UV stabilized
- zinc-aluminum coated steel
- available in different sizes
- modular design for variable configuration
- delivered flat packed for logistical efficiency





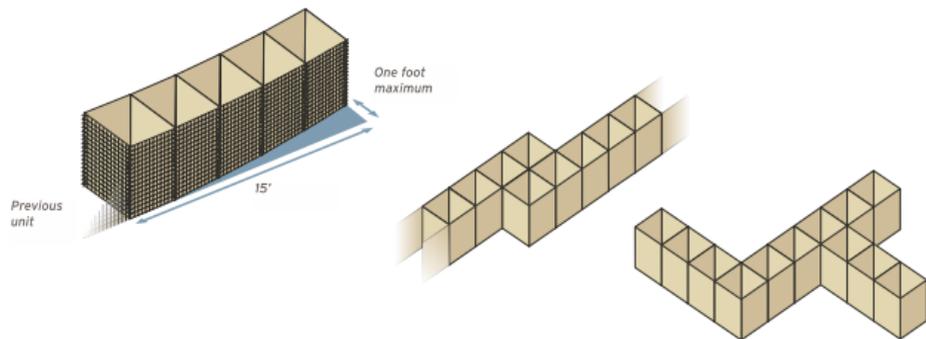
**Hesco** system comes as a flat packed unit and can be assembled faster with minimal manpower, handling equipment and fill material.

A 10m long wall will take two people and one front-loading machine only 20 minutes to construct. Using sandbags, the same wall will take eight people eight hours to build and needs three times as much fill material.



**Hesco units** unfold and are positioned, pinned together and filled with local materials like sand or earth.

Because the units are pinned together, they can create limitless defensive structures anywhere, anytime.



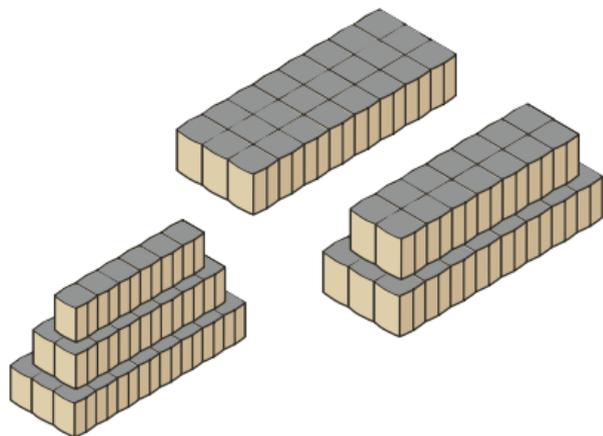
### **Curves, corners and tie - ins**

Walls with gradual curves can be created using FLOODLINE units.

The units flexibility allows each cell of the unit to be gradually turned away from the previous unit's tangent, as shown below.

This can be useful when following the line of a road or other geographical feature.

Simple, right-angled joins and junctures as shown.



### **Pyramid walls**

Where there is a requirement for very tall walls it may be necessary to form a pyramid structure.

## CASE STUDY : WESTONZOYLAND FLOODS, UK



### THE PROJECT

Flood units were deployed to protect a local community in Westonzoyland.

### TIMESCALE AND DEPLOYMENT

The Environment Agency and Kingcombe Aquacare installed the units with onsite support and training from the HESCO Technical Support Team.

### SPECIAL REQUIREMENTS

Due to uneven ground, installation took place in 0.9144m of water in some area one meter of.



*A mixture of MIL 3 and MIL 2 units to combat the uneven ground.*

### HESCO® PRODUCTS USED

MIL 3 and MIL 2 flood units were used, filled with builders sand using tracked excavators and side-tipping dumpers. All units had a visquene wrap applied during assembly.

### RESULT

The residents homes were protected from further flooding.

## CASE STUDY : ALLER DROVE, UK



### THE PROJECT

HESCO® flood units were deployed to protect Aller, a village in Somerset. Working alongside the Environment Agency approx 0.3048m of HESCO® flood barriers were installed along the main road.

### TIMESCALE AND DEPLOYMENT

The Royal Marines assisted in filling the baskets using tracked excavators and side-tipping dumpers.



*Side-tipping dumpers filling the HESCO® Flood Units.*

### SPECIAL REQUIREMENTS

During the installation an underground drainage system was identified by the HESCO Technical Support Team and they advised that a dive team close the inlet and outlet ports to reduce further flood.

### HESCO® PRODUCTS USED

MIL 3 and MIL 2 flood barriers were used.

**RESULT:** The installation successfully held back 1ft of flood water.



## HURRICANE ISAAC: MORGAN CITY EVACUATION ROUTE

### THE PROJECT

Tropical Storm Isaac was bearing down on the North Coast off the Gulf of Mexico. Governor Bobby Jindal of Louisiana declared a state of emergency. Up to 12 feet of storm surge was expected, according to meteorologists at National Oceanic and Atmospheric Administration.

Louisiana Highway 23, a vital transportation and evacuation route was at risk. Plaquemines Parish and the Louisiana Department of Transportation and Development chose to protect the vital communication link with HESCO units. HESCO units were also used to close gaps in levee systems, and in other vital areas requiring reinforcement ahead of Hurricane Isaac.

### TIMESCALE AND DEPLOYMENT

Hurricane Isaac required the use of over 4 miles of HESCO on Highway 23 and it was installed in less than a week.

### SPECIAL REQUIREMENTS

Hard Rock Construction was the contractor and assisted by the Department of Transportation.

### HESCO® PRODUCTS USED

Were \*SL4836 and \*SL3636. INSTALL METHODS AND EQUIPMENT USED  
HESCO Technical Representatives assisted the U.S. Army Corp of Engineers, the State of Louisiana and local flood fighting officials around the clock.

### RESULT

The wall allowed the roadway to remain open longer than usual but then it was finally overtopped by an 8' storm surge. Despite the fact that the water depth was twice that of the wall elevation, roughly 90% of the wall survived the storm event

*\*SL3636, SL4836 – Reinforced flood protection barriers*



## Case Study: Plastics PET | POLISAN HELLAS Industry Volos, Thessaly

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### Hesco Floodline

The HESCO flood barrier system forms protective lines against flooding, capable of with standing high water pressure.

Antiflood S.A. installed 2.700m of HESCO flood barriers, reinforcing Polisan Hellas facilities in Volos against serious flood risks.







## Case Study: Canned Food | DEL MONTE Industry Larissa, Thessaly

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### Hesco Floodline

The HESCO flood barrier system forms protective lines against flooding, capable of with standing high water pressure.

Antiflood S.A. installed 1.800m of HESCO flood barriers, reinforcing Del Monte Hellas' facilities in Larissa against serious flood risks.









HESCO  
The Original

HESCO



**ANTI FLOOD S.A**



MEMBER OF GROUP  
**URBAN**