

## FMIA Flood Prevention Barrier & Product List 2022

### Introduction to the Flood Mitigation Industry Association (FMIA)

The Flood Mitigation Industry Association (FMIA) is a non-profit organization that represents flood hazard mitigation product manufacturers, professionals, and contractors from around the world. The mission of the FMIA is to educate the public, insurers and government officials about the hazards associated with flooding and how to mitigate those hazards effectively. To this end, the FMIA provides general guidance documents (such as the Flood Prevention Barrier and Product List) as well as professional training programs on a variety of topics ranging from 1) an introduction to the complexity of design, deployment, and installation 2) best practices involved in developing a working flood prevention plan 3) product-specific deployment procedures. Please contact the FMIA for more information about specific training opportunities.

### Introduction to the FMIA Flood Prevention Barrier and Product List

The FMIA Flood Prevention Barrier and Product List 2021 provides information for property owners, government staff and contractors about the types of flood barriers that are available to address various risks and the products that are available in the marketplace to address those risks. The attached list of products, companies/contacts and ratings for numerous flood control and mitigation options, is meant to be a starting point for all who are seeking information about these types of products. It is intended to provide high level-guidance about product selection only. In all cases it is recommended that flood prevention barrier applications/plans should be reviewed by a professional (engineer, architect, consultant) prior to construction and/or implementation.

### Inclusion on the List Does Not Constitute an Endorsement

The list is provided as a courtesy for purchasers. There is no fee or membership in the FMIA required for a product to be included on the list. All companies requesting inclusion must confirm that they are not infringing on any worldwide patents or otherwise copying an existing barrier or system. Inclusion in the list does not constitute an endorsement by the FMIA or its members.

### Considerations When Selecting a Flood Prevention Barrier

Selecting a flood prevention barrier requires an in-depth knowledge of site characteristics, flood risks and product specifications. Consulting with an engineer, architect or other professional is highly recommended to develop and/or review the flood prevention plan.

A wide variety of factors should be considered when reviewing flood prevention options and selecting the preferred option, including:

- Budget
- Warning time anticipated before flooding
- Availability of a deployment and tear down crew (if applicable)
- Storage space for barriers (if applicable)
- Type of property (home/ business)
- Type of flood prevention being considered- windows and doors (structurally attached) , perimeter (portable) or both
- Type of bearing soil (if applicable) that surface barriers will be deployed on
- Potential for soil erosion affecting the barrier placement
- Characteristics of the floodwaters expected
  - Potential for wave action
  - Potential for wind
  - Potential for movement of debris

## How to Use this List

Products on the list are sorted by the categories and sub-categories of barriers they represent and by the barrier type that they represent. Please see below for the definitions of terms used. Each listing features the name of the product, the website and phone number of the supplier and a brief product description. The description includes the degree to which the product has been designed to resist the force of waves and debris, the product height, its applicability for use in commercial or residential settings, various installation requirements and the number of deployments that the barrier may be used for (where specified). Relative pricing information (low, medium, high) indicates the relative cost of the barrier in comparison to other barrier options.

## Flood Barrier Category Definitions

There are a wide range of flood barriers on the market. To make it easier for the list reader to navigate the many barriers, they have been divided into the following categories as stated below.

### Portable Barriers

Portable barriers are easily moved from one location to another and are not permanently attached to a structure or landscape (e.g. water filled tubes or poly barriers).

### Fixed Demountable Barriers

Fixed demountable barriers use fastening devices that are permanently attached to a building. The barrier system is put in place just prior to flooding and is removed (demounted) after an event (e.g. panel or log systems).

### Self-Activating Barriers

Typically, self-activating barriers are installed at openings, roadways, or doorways. They include poly tarp systems that open with oncoming water, major structural components that are built into the ground and systems that are attached to a structure and in most cases do not rely on any means of municipal power.

### Integrated Building Component

Integrated building components (e.g. glass panels, steel doors, decorative panels) are permanent features on a building that are designed and tested to repel flood waters and/or hurricane force winds. These are particularly useful for storefronts and other glass panel building systems in locations that are subjected to fast rising water situations.

### Specialty Items

There are several specialty items that provide needed flood protection for a variety of applications. These include vent covers, snorkel vents, and furnace covers to name a few. These are usually installed in structural applications where a location requires complete panel attachment to the perimeter. This is a large category with too many items to mention here.

## Sub-Category Organization

To make it easier to search for flood barriers within each category, the products have been sorted into sub-categories based on their physical characteristics. The sub-categories are presented in the list in the following order:

### Portable Barriers

- Water Filled
- Self-Filling
- Rigid and Flexible Panel

### Fixed Demountable Barriers

- Panel Style
- Log System

### Self-Activating Barriers

- Vertical Rise
- Snap Down Door/Gate

### Integrated Building Component

- Windows

### Specialty Items

- Sandless Sand Bags
- Furnace Protection
- Structural Venting

## Examples of Temporary Flood Barrier Types Included on the List

The flood barrier types on the list are constantly evolving based on the organizations that are participating in the list at any given time. Some examples of temporary flood barrier types are provided below in alphabetical order. Additional detailed information about each product can be found on the supplier website.

### Flat Panel Walls

Flat panel walls are made of steel or aluminum panels. They can surround a home or create a barrier from an adjacent water source. These units are designed as a unit and attach to the ground via anchors, usually utilizing diagonal bracing to provide stability. These products typically require custom design and installation and are not available for over the counter purchase.

## Molded Plastic Barriers

Molded plastic barriers are made of formed plastic blocks that can fit together to form a wall. The blocks or panels are filled with water when deployed. This type of product is designed for use multiple times. These products typically require custom design and installation and are not available over the counter. Applications and attachment to structures are required for these rigid barriers. An allowance for weight or downward pressure must be considered before using this product type. As these barriers are rigid, gaps are common between the barrier and the ground. An exterior attached poly sheet covering is commonly used to fill gaps and create a water-proof barrier.

## Sandless Sand Bags

Sandless sand bags are fabric type bags that are filled with materials that expand with water. They are stackable and can be used in smaller areas like doorways and around window wells. They can also be used as fillers for larger installation/deployments. They are designed for one time use.

## Specialty Barriers

There are several types and sizes of specialty barriers that are used for unique applications. These include expanding door barriers that mount within existing openings, small canvas units stretched over openings and ratcheting aluminum and steel units. They are typically designed to be used as temporary barriers that may be reused multiple times.

## Stop Log Systems

Stop log systems are typically aluminum or steel log-like structures that stack to attain the height of protection required. Logs vary in height from 6" to 16" and can be stacked to a height of up to 4m (13') and higher. Systems can be engineered to fit many different spans from small door openings to applications that are many kilometers long.

## Surface Mount Panels

Plastic/Fibreglass/Polycarbonate surface mount panels are custom sized and manufactured to cover specific openings. They typically mount via bolts to a wall surface and concrete floor. They are used to provide a flood barrier for smaller openings such as windows and doors. They are designed for use on multiple occasions. These products typically require custom design and installation and are not typically available for over the counter purchase.



## Water Filled Plastic Tubing

Water filled plastic tubing are plastic tubes that fill with water that are available in many different lengths and heights. The tubes can be laid out to surround a site or to create a barrier from an adjacent water source. This type of product is designed to be used multiple times. The area where the barriers are deployed must be able to support their filled weight.

## Help us improve the Resource List

The FMIA welcomes your feedback and questions. If you have a questions/ suggestions about the list or if there is a business that you would like to see added, please contact Dave Swan (FMIA board Member) { [HYPERLINK "mailto:dave.swan@adagconsolutions.com"](mailto:dave.swan@adagconsolutions.com) } on behalf of the FMIA.