

FREQUENTLY ASKED QUESTIONS

What is the life of the product?

FloodBreak products are designed to last as long as the structure they are protecting. Materials are specified for long-term exposure to harsh outdoor, industrial conditions. The units are low maintenance, highly durable, not prone to corrosion, and easy to clean and inspect.

FloodBreak gates can be installed in marine applications. All of the components used in the fabrication of our gates are specified so that rust or corrosion are not a factor even in harsh environments such as road salt and salt water.

What is the warranty of the product?

The FloodBreak products have a 5 year warranty. Extended warranty options are available.

What materials are used?

Several grades of aluminum are used for the extrusions, angles and plate. Fittings are 304 Stainless Steel (316 stainless can be substituted) and gaskets are made from EPDM which provides excellent resistance to weathering, chemicals, salts, ozone and UV exposure. It is rated for 10-year service life and can be easily replaced when required.

- Extrusions for Roadway & Vehicle Gates: Chambered Aluminum 6005-T5
 - Roadway Gates: 1219 x 152 x 3.2 mm
 - Vehicle Gates: 127 x 63 x 3.2 mm
 - Slimline Vehicle Gate: 2184 x 928 x 3.2 mm
- Pedestrian Gate is 4.7mm smooth plate Aluminum 5052 with sandwiched closed cell foam.

What size barriers can FloodBreak provide?

FloodBreak floodgates are designed with tension members rather than stanchions or vertical stops and are modular in nature. There are no practical limits in height or length, and we can provide custom-engineered solutions for any flood problem. We currently have multiple gates 3.6m high and many barriers over 22.8m in length with a few over 30.4m.

What is the maximum flow of water that a FloodBreak barrier can withstand?

Fast moving water is no problem. Our engineering accounts for velocities of 7 m/s, which is in excess of CAT 5 Hurricane storm surge speeds (we add an additional margin of safety when calculating allowable stresses). In extreme cases the gate could withstand velocities of up to 11 m/s without failing. If the customer would like ratings higher than this, we can certainly provide it with a heavier-duty design. However, in sheet flow and storm surge these velocities will never be reached. Velocities in this range happen when a large amount of water builds up in a channel or runs on a significant downhill slope without spreading out.

What loads can FloodBreak barriers support?

FloodBreak barriers can be designed to support the loading requirements for most projects. We are currently custom designing barriers for wave induced loading and a large barrier for 48-kip (213 kN) impact loads. The design footprint allows for barriers 4.8m and taller.

Let's discuss your load requirements.

- Standard FloodBreak Vehicle and Roadway Gates support HS-25 vehicular loads defined by AASHTO as 18,144 kg per axle or 4,536 kg per tyre.
- Pedestrian Gates support live loads of 488 kg/m².
- All gates support hydrostatic pressure to the design height.
- Barriers can be designed to support specific requirements. For example, NYC gates are designed for Coastal A storm surge.

What are the maintenance requirements?

FloodBreak Automatic Floodgates require minimal maintenance. They are designed to be self-clearing but a power washer can also be used to clean away any debris. We recommend periodic inspection to check the gate panel, pan, and sidewalls for visible damage or misuse. The gate lid should be lifted to the raised position to ensure unrestricted movement and the gasket in continuous contact with the wiper wall. With the gate in the raised position, the gasket, gasket flange bolts and hinges should be checked.

If we need a replacement gasket, what do you need from us to order and how long will it take?

Replacement of the gasket is an easy procedure and can be done locally or by a FloodBreak authorized representative. Each gasket is custom cut which takes 2-3 weeks. Please provide the Serial number.

Can the FloodBreak barriers have different flood coverings?

The standard finish is a textured non-slip paint. As an alternative, the FloodBreak barriers can be manufactured to enable floor coverings such as carpet, tiles or pavers. The maximum depth for a covering is up to 60mm for the pedestrian barrier and 35mm for the vehicle barrier.

Are FloodBreak barriers delivered assembled or in sections?

Depending on the size and method of transportation, the barriers are shipped fully assembled or in sections and field assembled. Wiper walls sometimes are sent unattached and are field assembled. Large gates are typically sent in sections to avoid permit loads and facilitate easier installation.



Has the system been tested & approved by organizations such as FM Global or US Army Corp of Engineers?

The FloodBreak system has been tested numerous times both in controlled test environments and real world flood events. There has never been flood damage behind a properly installed FloodBreak floodgate.

There is no single flood standard for permanently installed, passive automatic flood barriers so most customers have developed their own requirements often using FM Approvals, FM 2510 as the starting point. (FM Approvals is attempting to establish a standard like their Fire Safety standard but currently only has 2 flood barrier classifications – closures (i.e. flood doors); temporary perimeter barriers (i.e. Tiger Dam) and no effective means to test permanently installed barriers nor tall barriers. USACE is looking to design our system into numerous projects.

Customer testing - notable customers include:

- NYU Langone tested their 15.3m x 3.25m Roadway Gate at full deployment over a 23 hour period to ensure it could withstand the loads and meet maximum leakage rate. Three more 9.1m x 3.6m tall barriers are now in fabrication
- UTMB-Galveston tested the all 13 vehicle & pedestrian barriers measuring leakage during a one hour deployment and then one hour at full deployment.
- Tacoma WA - Central Treatment Plant tested their 3 – 9.1 m entrance barriers.

Real world flood events – dozens of verified deployments, many multiple times. Notable:

- Lourdes Hospital – Binghamton NY. 10 FloodBreak gates protected the hospital from a 500-year event. It's a FEMA Mitigation Best Practices story & was featured in the FM Global 2011 Annual Report.
- Kensington Gate – NY. 1x Vehicle Gate has prevented garage flooding at least 8 times and resulted in reduced insurance.
- 3000 Post Oak – Houston TX. Flooded in 2015, they installed a Vehicle Gate after learning that other Houston buildings with the gates were protected. Within weeks of installation, the gate deployed during another flash flood.

How do I know if the barrier has been deployed?

The FloodBreak barrier comes with mounting lugs so that a proximity switch can be installed. This switch would be installed locally, which will send an electronic signal as installed by the local electrician that the barrier has been deployed, eg activate a flashing light or connect to a BMS.

What is the water inlet grate?

The grate used in the FloodBreak barriers in Australia complies with AS1428 Design for access and mobility, ie 8mm opening between grate slots.