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Innovating for your protection

MegaSecur Environmental Security Inc., known worldwide as the *Water-Gate* barrier brand manufacturer, has successfully manufactured and supplied superior quality barriers since 1998.

Our mission; to be the world's leading manufacturer of anti-flood / emergency spill response systems. We are committed to provide our customers with superior quality products and services. Our leadership and products are based on innovation and safety. The *Water-Gate* barrier is your best ally; quick, easy, simple to use, cost-effective and reusable. High standards, our commitment; your safety, our priority.

This dominant market position will remain and even expand throughout the upcoming years thanks to our international distributors. *MegaSecur Environmental Security Inc.* considers quality and environmental protection an integral part of our actions. We established strict parameters when our quality control was implemented and when our plant's layout was created.



Our certification by FM Approval confirmed our commitment to manufacture top of the line products.



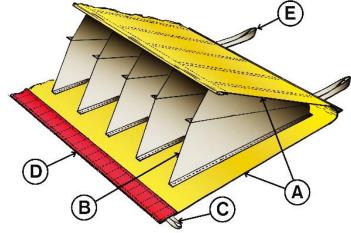


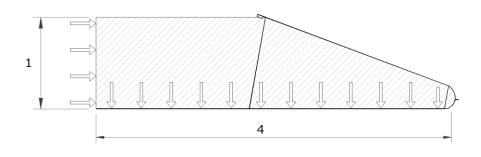
How it works

MAIN FEATURES OF THE WL SERIES

Designed for flood control (industrial use)

- A. UV protected polyester fabric coated with super heavy-duty, abrasion-resistant PVC and suitable for use on all types of surfaces.
- B. Stretched partitions providing better adherence to smooth surfaces.
- C. Polypropylene straps to lift up the ends during specific installations.
- D. Galvanized metal plate ballast weights held in polyester netting and sewn to the water barrier.
- E. Extra resistant polypropylene straps to facilitate handling.
- In order to receive the FM Certification, quality control was performed by FM Global on all components





Water holding back Water: The concept of the *Water-Gate* is simple : it's the weight of the water that stops and contains the water. Its unique design allows the liquid to enter the fabric barrier and instantly stabilise it onto the ground.

First, unroll the barrier to the proper position and correct configuration. Second, unfold the front bib equipped with integrated ballasts (WL Series). If using the WP or WA Series barrier, you will need to fill and place the supplied ballasting bags or a uniform weight on the front bottom bib's edge. Just like a parachute deploys with incoming air, the barrier will deploy itself as water enters and unfolds it. The Water-Gate is 4 times wider than its height, giving it a lot of retaining power as it can withstand 4 times more vertical than horizontal water pressure. The *Water-Gate* will remain stable on any surface.



How it works (cont'd)





Installation location: The *Water-Gate* can be installed anywhere and will fit snuggly on all types of surfaces. In some areas, a summary preparation of the area may be beneficial. If a large obstacle is behind the *Water-Gate* (tree, rock, etc.), you may rest the water barrier against the obstacle as this will not affect its efficiency. In some configuration, a few sandbags may be necessary to prevent water infiltration through the 90^o inside corners. The barrier should <u>never</u> be fixed onto the ground. All *Water-Gate* barriers dispose of strong handles for easy handling.

Manufactured entirely with resistant, corrosion proof components and capable of withstanding the majority of toxic products, the *Water-Gate* barrier is built 3 times stronger than required.





Water-Gate Series Selection

MegaSecur Environmental Security Inc. has developed several *Water-Gate* series, but our most popular and well-known is our yellow PVC Water-Gate barrier which can be seen on <u>YouTube</u>. Different height size barriers can be attached together.

WL Series - The heavy-duty Water-Gate barrier made of yellow PVC fabric with integrated ballast weights. Specifically designed for emergency flood applications with a protection height of 6" to 78" (15,24cm to 2m) and lengths of 30' or 50' (9,15m to 15.24m). All barrier size can be attached to each other. Mainly used for Flood Control.

Water-Gate - WL Series					
	Item #	Rentention level	Length	Weight	
	WL-0630	15cm / 6"	9.1m / 30'	19 kg / 41.8 lb	
	WL-1430	35cm / 14"	9.1m / 30'	24 kg / 53 lb	
	WL-1450	35cm / 14"	15.2m / 50'	39.7 kg / 87.5 lb	
	WL-2030	50cm / 20"	9.1m / 30'	30.4 kg / 67 lb	
	WL-2050	50cm / 20"	15.2m / 50'	50.2 kg / 110.6 lb	
	WL-2630	67cm / 26½"	9.1m / 30'	38.6 kg / 85.2 lb	
	WL-2650	67cm / 26½"	15.2m / 50'	62.9 kg / 138.6 lb	
	WL-3230	81cm / 32"	9.1m / 30'	62.9 kg / 138.6 lb	
	WL-3250	81cm / 32"	15.2m / 50'	103.9kg / 229 lb	
	WL-3930	1m / 39"	9.1m / 30'	76.8 kg / 169.4 lb	
			126.8 kg / 279.6 lb		
(A) Canada	WL-5030	1,3m / 50"	9.1m / 30'	117.5 kg / 259 lb	
	WL-5050	1,3m / 50"	15.2m / 50'	187.7 kg / 413.8 lb	
(B) CMCR	WL-6030	1,5m / 60"	9.1m / 30'	123.8 kg / 273 lb	
(B) CMC	WL-6050	1,5m / 60"	15.2m / 50'	204.8 kg / 451 lb	
Letters = Series / First 2 digits = Height / Last 2 digits = Length					
FM approved					









Water-Gate Series Selection (cont'd)

WA Series - The standard heavy-duty Water-Gate made of strong yellow PVC fabric for damming streams, containment and diverting. Can also be used to control floods. Mainly used for operations in streams or ditches, spill response, fire protection water supply (natural drafting points).

Water-Gate – WA Series						
Item #	Retention Level	Length	Weight			
WA-1525	38cm / 15"	7,6m / 25'	12,7 kg / 28.2 lb			
WA-1550	38cm / 15"	15,2m / 50'	24,6 kg / 54.2 lb			
WA-2125	53cm / 21"	7,6m / 25'	17,5 kg / 38.6 lb			
WA-2130	53cm / 21"	9,1m / 30'	20,6 kg / 45.4 lb			
WA-2150	53cm / 21"	15,2m / 50'	33,5 kg / 73.8 lb			
WA-2825	71cm / 28"	7,6m / 25'	24,1 kg / 53.2 lb			
WA-2835	71cm / 28"	10,7m / 35'	34,1 kg / 75.2 lb			
WA-2850	71cm / 28"	15,2m / 50'	46,7 kg / 103 lb			
WA-3915	1m / 39"	4,6m / 15'	33 kg / 71.8 lb			
WA-3930 1m / 39" 9,1m / 30' 65		65,1 kg / 143.6 lb				
WA-3950	1m / 39"	15,2m / 50'	108,7 kg / 239.6 lb			
WA-6030	1,5m / 60"	9,1m / 30'	106 kg / 233.6 lb			
WA-6050	1,5m / 60"	15,2m / 50'	174,3 kg / 384.2 lb			
Letters = Series / First two digits = Height / Last two digits = Length						











Water-Gate Series Selection (cont'd)

WT Series- Spill Response Dam equipped with bottom release holes

This serie is used as an underflow dam for HAZMAT containment. In order to have full control of the water flow, each hole is equipped with an individual flap. The first responders using the barrier may open or keep close as many flaps as needed to adjust the water or substance flow. The holes have a 4.5" (11.4 cm) diameter.

Absorbents booms can be set under the dam floater or adjacent to the top edge tarp. The dam can be propped open with dowels. Sorbent booms, blankets or filter clothes can be attached to these dowels. With the deep recovery zone created by the dam, skimmers are conveniently introduced in a stream or ditch initially a few inches deep.
Mainly used for HAZMAT containment.

Water-Gate – WT Series						
ltem #	Retention Level	Length	*Weight	Release Holes		
WT-2115	53cm / 21"	4,6m / 15'	14,74 kg / 32,5 lb	11		
WT-2125	53cm / 21"	7,6m / 25'	21,87 kg / 48,1 lb	19		
WT-2130	53cm / 21"	9,1m / 30'	25,89 kg / 56,9 lb	23		
WT-2150	53cm / 21"	15,2m / 50'	42,47 kg / 93,3 lb	39		
WT-2815	71cm / 28"	4,6m / 15'	18,33 kg / 40,4 lb	14		
WT-2825	71cm / 28"	7,6m / 25'	29,62 kg / 65,2 lb	24		
WT-2835	71cm / 28"	10,7m / 35'	41,92 kg / 92,2 lb	34		
WT-2850	71cm / 28"	15,2m / 50'	57,97 kg / 127,5 lb	49		
WT-3915	1m / 39"	4,6m / 15'	37,2 kg / 82 lb	14		
WT-3930	1m / 39"	9,1m / 30'	71,97 kg / 158,1 lb	29		
WT-3950	1m / 39"	15,2m / 50'	119,97 kg / 264,1 lb	49		
				Release Holes are for		

Letters = Series / First two digits = Height / Last two digits = Length Underflow Damming







Carrying bags: the strong and sturdy handles contour the bag for easy handling and a top pocket keeps the instructions' manual handy. The bottom of the bag is made from polyethylene and PVC fabrics for maximum resistance to abrasions. Each barrier is labeled with the series/size/length code and a pictogram shows proper set-up and direction of the incoming water flow.





Rolled Water-Gate / Storage Bag



Why choose the Water-Gate





Advantages of the Water-Gate water barrier:

- Flexibility: The barrier is not affected by the circulation of vehicles and adapts to all types of surfaces. It is flexible enough to make interior and exterior 90° angles where circular protection is needed. The barrier will not lock you in when installed.
- Attachment system: Different retention barriers can easily be joined together using the double Velcro attachment system.
- Overtopping: The barrier is not affected by overtopping, it will continue to hold the water. A side current will not affect the barrier. Floating material will bounce off the barrier.
- Reusable: The life expectancy of the water barrier is 10 to 15 years but could last up to 20 if proper maintenance is done after each use.
- Minimal maintenance: Once finished using the barrier, simply rinse in and out debris with clear water, hang to dry, fold and store away in its carrying bag for future use. Keep the bagged barrier away from UV rays.
- Security standards: The barrier meets environmental standards for aquatic environment works.
- Little workforce required: The Water-Gate barrier can be carried and installed by one person alone in just a few minutes (28 in. / 71cm models and smaller). Larger models can be installed by less than 4 workers.



Why choose the Water-Gate (cont'd)

Advantages of the Water-Gate water barrier: (cont'd)

- Fast deployment: Simply unroll it in the stream, unfold the first fold and let the water accumulate inside the barrier. The water pressure causes the barrier to open up. It will exert pressure on the bottom of the fabric and will keep the barrier in place.
- Quick intervention: Since the barrier is so simple to use and quick to install, the speed to which you can respond to an emergency is just incredible.
- Equipment: The barrier does not require any water or air inflation nor do they need filling. No metal anchoring nor heavy machinery are required to transport, manipulate or install the barrier (28 in. / 71cm models and smaller.)
- Rapid removal: Take one end of the barrier and pull it or press on the barrier to let the water escape.
- Deployment Crate: When an emergency becomes everyone's priority, the deployment crate is your best ally. Several barriers pre-attached together in each crate can protect a whole block of buildings in minutes' time. (see below pictures)











Why choose the Water-Gate (cont'd)

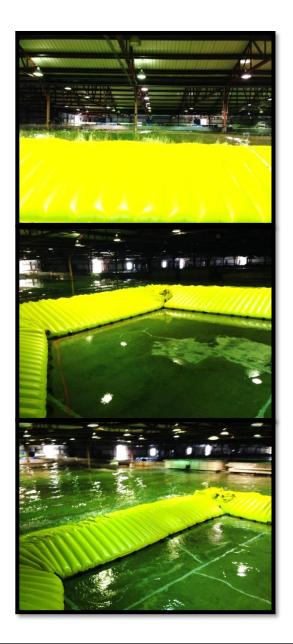


Certification: Our certification by FM Approval confirmed our commitment to manufacture top of the line products. We are now part of the National Flood Barrier Testing & Certification Program, the most recognized certification in our field.

<u>http://nationalfloodbarrier.org/</u>.Very few companies received successful testing results therefore, our certification is a warrant to all FM Global customers.

http://www.fmglobal.com/page.aspx?id=50010000







Warranty Terms

Water-Gate barriers are warranted against manufacturing defects. Damage caused by improper use, or wear and tear, is not subject to these warranty terms.

This includes for example:

1) Improper handling

Dragging instead of carrying the water barriers may cause material abrasions, which can adversely affect the performance of the water barriers. Damage due to the action of solid, liquid or gaseous substances or inappropriate chemicals.

2) Repair work

Any damage (cracks, holes) resulting from sharp objects, can be repaired, but these are not covered under warranty. Any repair work done by the manufacturer or distributor will be covered under warranty.

3) Exceptional stress

Water barriers which are stressed over the specified pressure loading.

4) Storage

To avoid fungus on wet water barriers, the barriers should be dried after every use. Ultraviolet rays remain the most harmful factor for the water barrier's components. The barrier should be stored out from direct sunlight. The use of crates is strongly recommended.

5) Improper use

This declaration of conformity loses its validity in case of improper use.

Our warranty exclusively refers to parts supplied by us and devices.

The warranty is void if without our permission, modifications or repairs have been made.

All our products are covered under warranty for a maximum period of two (2) years against any defects in material and labour. All our products are covered under warranty for a maximum period of twenty (20) years against any premature wear of materials.

All warranty claims must be transmitted in writing to *MegaSecur Environmental Security Inc.* as soon as possible and must include a description of the damages, photos and/or videos and any other relevant material. *MegaSecur Environmental Security Inc.* will confirm the course of action to be taken.

Disclaimer:

MegaSecur Environmental Security Inc. has taken great care to ensure that our customers receive the fullest satisfaction and protection from our unique products. However, we cannot accept any liability whatsoever, for claims of damage, accidental or otherwise.

Flooding and its effects are always unpredictable and can vary from property to property. If used in accordance with instructions Water-Gate products should give good protection against flooding but no responsibility is accepted for flood claims. The Water-Gate should be used with water pumps behind it, to cope with seepage, rain and groundwater.

All reports and recommendations are offered in good faith and the advice given is the best that is currently available.

PLEASE NOTE: This disclaimer does not affect your statutory rights as a consumer.



Case study



Triovest Realty Advisors, whom provides property management services for income properties, contacted us following the devastating flood that took place in Calgary AB in the summer of 2013.

Keynote Tower, consisting of two residential condo towers and a smaller commercial tower, encompasses an entire city bloc. Experiencing power outage for several days, the high rise condo owners experienced many inconveniences such as having the elevators being out of service. In the meantime the commercial tenants needed to reinforce security, especially the Bank. This costed millions of dollars in damages and other related expenses.

Following this natural disaster caused by the overflow of the Bow and Elbow Rivers, Triovest Realty Advisors implemented a flood mitigation team whom started looking out for flood control solution systems.

They were looking for:

- Fast deployment system;
- Several models with different retention heights that could be connected to each other;
- Little workforce required;
- Easy storage;
- ✤Training;
- Turnkey solution.

MegaSecur Environmental Security Inc. were able to answer all their needs. Being able to deploy 2,396 ft. (730 meters) of *Water-Gate* barrier thanks to 6 fast deployment crates in less than an hour was more than what they had expected. We also supplied 10 Water-Plugs and 15 water pumps.

By offering them hands-on training, we simulated an emergency deployment with their team which included many different scenarios that could take place in such a stressful situation. We also confirmed that they had enough barrier to secure the entire site.





Triovest Mitigation Team

Inside a fast deployment crate





As an international electricity and gas company based in the UK and northeastern US. <u>nationalgrid</u> plays a vital role in connecting millions of people safely, reliably and efficiently to the energy they use.

Hurricane Sandy caused a massive power outage in the Northeast. According to the Department of Energy's Office of Electricity Reliability and Delivery, about 8.5 million customers (residential, commercial, and industrial) were without power at some point during or after the storm, mostly in parts of the Mid-Atlantic, Northeast, and the Ohio Valley. On 10/30/12, the day after Hurricane Sandy made landfall, 8.2 million customers were without power. For New Jersey, it was the largest power outage in the history of the state. The recovery efforts have been slowed by flood damage and recent snowfall. In many areas, structures needed repair or rebuilt before service was restored. Utilities incurred very large labor and equipment costs to restore electric service. However, the flooding caused by Hurricane Sandy, especially in the New York City area (where most of the lines are underground), demonstrated that underground transmission and distribution infrastructure were not necessarily immune to damage.

Following this natural disaster, <u>nationalgrid</u>'s US Flood Mitigation Team were looking set-up a prevention plan to avoid any future flood damages. This plan included temporary flood control system and after looking at different options, the inquired about our **Water-Gate** system.

They were looking for:

- Fast deployment system;
- ✤ A retention height of 1.5 meter (60 inches);
- Little workforce required;

- Easy storage;
- Training;
- Turnkey solution.

We, at *MegaSecur Environmental Security Inc.*, were able to answer all their needs. They wished to protect 6 substations and since they were close to each other, they wanted to be able to move their protection from one location to another. They purchased 1,497 ft. (456 meters) of WL-6050 *Water-Gate* barriers, our largest version. By offering them hands-on training, they will now be ready for any situation.



Rolled Water-Gate / Storage Bag



Nationalgrid - US Engineer Team





Thames Water Utilities Ltd, known as **Thames Water**, is the private utility company responsible for the public water supply and waste water treatment in large parts of Greater London, the Thames Valley, Surrey, Wiltshire, Kent, Gloucestershire, and some other areas of the United Kingdom. Thames Water's 15 million customers comprise 27% of the UK population.

Every day, Thames Water abstracts / extracts, treats and supplies 2.6 gigalitres (2.6×10⁹ litres) of potable tap water from 100 water treatment works via 288 clean water pumping stations through 19,300 miles (31,100 km) of managed water mains to 9 million customers (3.6 million properties) across London and the Thames Valley.

In 2014 Thames Water first purchased 2,395 ft. (730 meters) of the WL model Water-Gate Barriers in varying heights ranging from 5.9 in. (15 cm) high to 4.93 ft. (1.5 meters). The various heights and lengths meant that the company could be ready for anything ensuring they could offer their customers the very highest level of protection should any flooding occur.

Being a self-deploying and reusable system, the Water Gate has not only saved Thames Water money through being able to use the system more than once, but also in its effectiveness. Previously, it had been thought that sandbags were the go-to resource to prevent flooding. However, it has now been proven that this course of action is ineffective and costly not only to deploy but also to clean up.

The Water Gate's effectiveness also aided in Thames Water saving money on insurance claims, clean-up teams and flood related fines.

Thames Water's Justin Lambourne comments: "Flooding is a miserable experience, which is why we are arming ourselves with the latest technology to help protect our customers. We've found the Water-Gate flood barriers work well, are quick and easy to use and are cost-effective, as we can reuse them."









The "Boucle de Besançon" is now completely protected against a possible centennial flood. Even though several measures were taken to protect the city, the Republic Bridge remained a problem as the water could flow over the bridge's deck after a certain height. Since the Republic Street is at a lower level, the water could overpass, accumulate and cause flooding.

You may watch the demonstration video by following this link: https://youtu.be/LvVc-DRn5iY

The simple and low cost solution was the use of the **Water-Gate**, a self-deployable temporary barrier. All there is to do is to unroll, unfold and let the water flow do the rest of the work, it's that easy.

They looked at different options but the **Water-Gate** was the best solution since it could be put in place in minutes and only when they actually need it.

Besançon has joined others such as Denmark and the United Kingdom in protecting their population at a lower cost. The local residents will now be able to stock goods in their basements.

(Text freely and partially translated from an article published in the *Est Republican* newspaper on June 26th 2016. Some pictures are also from the newspaper article.)









Sellafield Ltd is the company responsible for safely delivering decommissioning, reprocessing and nuclear waste management activities on behalf of the Nuclear Decommissioning Authority.

The Sellafield site has been operational since the 1940's, when it was used as a Royal Ordnance factory supporting the war effort. The site is also home to the world's first commercial nuclear power station – Calder Hall, which generated electricity from 1956 to 2003.

Today the site is home to a wide range of operations including the decommissioning of redundant buildings associated with site's early defence work; spent fuel management including Magnox and Oxide fuel reprocessing; and the safe management and storage of nuclear waste.

In January 2015 Sellafield Ltd. Purchased 32 WL-2650 Water-Gate barriers.

"The service that was provided was very good, communications were excellent and they dealt with our issues in a very responsive and professional manner" said Trevor Palmer, SADS Project Manager.





Inside a fast deployment crate



www.water-gate.com







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