

QUICK DAM

THE NEXT GENERATION IN FLOOD PROTECTION™



M A N U A L



Manufactured by MegaSecur



TABLE OF CONTENTS

- How it Works2
- Golden Rules to Follow3
- Make a Corner or Curving the Water-Gate4
- Connecting Water-Gates Together6
- Securing the Ends Of Water-Gates7
- Protecting an Entrance7
- Adherence of the Water-Gate Installed on a Smooth Surface7
- Elimination of Water Infiltrations Under the Barrier8
- Importance of Not Tying The Water-Gate to the Ground.....8
- Importance of Having Water Pumps8
- Special Considerations.....9
- Calculation of Installation Time10
- Folding Up the Water-Gate for Storage11
- Maintenance, Storage, Repairs & Warranty12
- Storage Deployment Crates12
- Technical Fabric Specifications13
- Technical Information14
- Environmental Footprint15
- Frequently Asked Questions15
- Notes & Maintenance Log18

RESPONSIBILITY

Before using your Water-Gate, it is essential to read the entire user guide and conduct at least one preliminary test. This is meant to ensure you master all the steps required for installing the Water-Gate. The vendor and manufacturer shall in no way be responsible for faulty installation and/or faulty use of the Water-Gate.

TESTED & APPROVED:



US ARMY
CORPS OF ENGINEERS

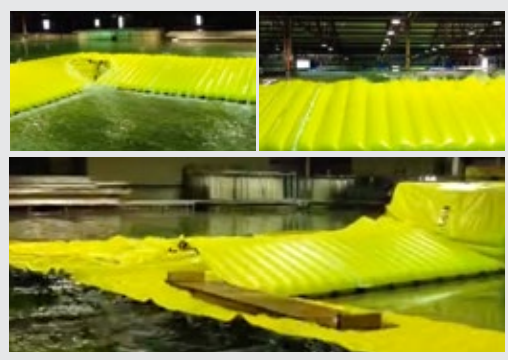
Testing Details:

- Water-Gate System was 39in High x 83ft Long
- Deployment took only 8.6 Man Hours
- Disassembly only took 2.3 Man Hours
- Zero Repairs Needed

“Only Portable Perimeter Flood Protection Barrier tested, that passed the Wave Test without causing any damage to the product itself.”

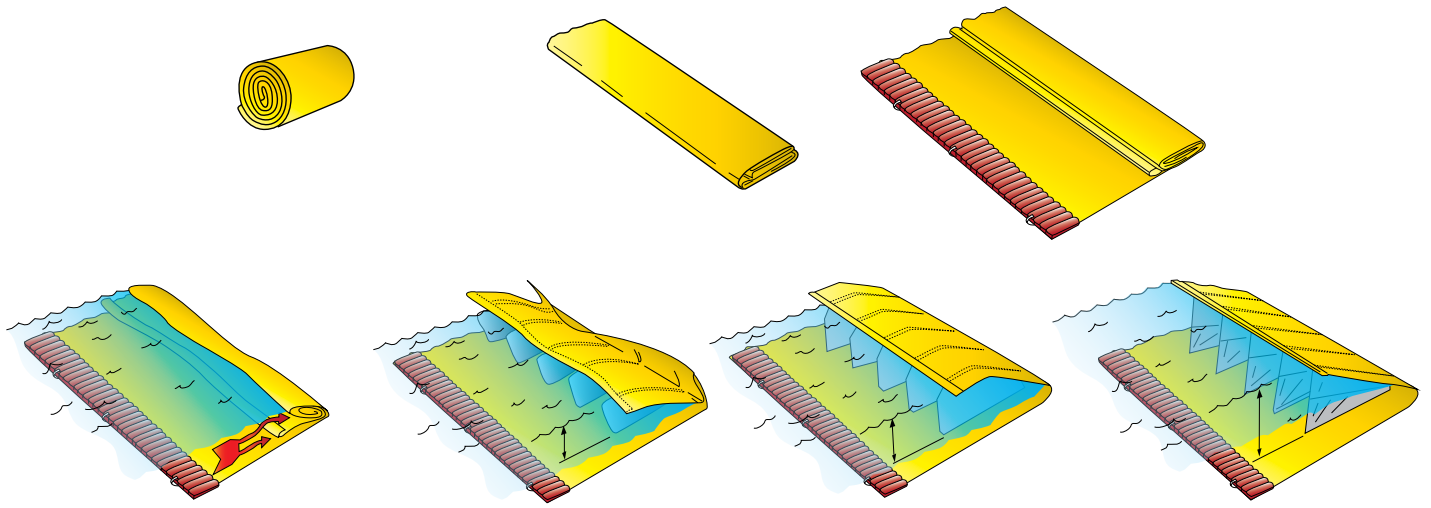


FM Approved Models:
QDWGWL-3930, QDWGWL-3950, QDWGWL-5030,
QDWGWL-5050, QDWGWL-6030, QDWGWL-6050



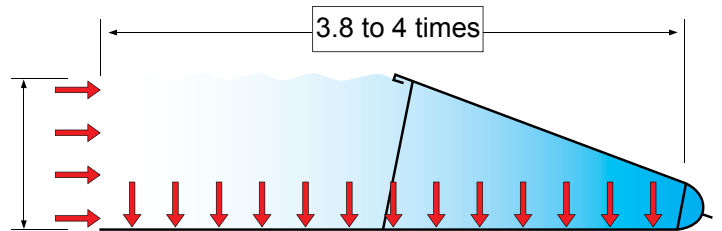
HOW THE WATER-GATE WORKS

Water accumulates inside the barrier and exerts pressure on the bottom of the fabric, which keeps the barrier in place. The speed or direction of the incoming water is not important, as it is the water pressure that causes the barrier to open up.



WATER HOLDING BACK WATER

The Water-Gate barrier has a ratio of 4:1 meaning the surface of the barrier on the ground is 4 times greater than its water retention height. It has 4 times more vertical thrust (toward the ground) than horizontal thrust, allowing for good adherence. Typically, in order for water to be able to hold back water on most surfaces such as asphalt or grass, a ratio of 1 to 2½ is sufficient to ensure safety. With a ratio of 4:1 the Water-Gate barrier is very safe and the chances of it slipping are very slim. The wider the barrier is the less likely it is to slip. The Water-Gate water barrier is 33% safer than required.

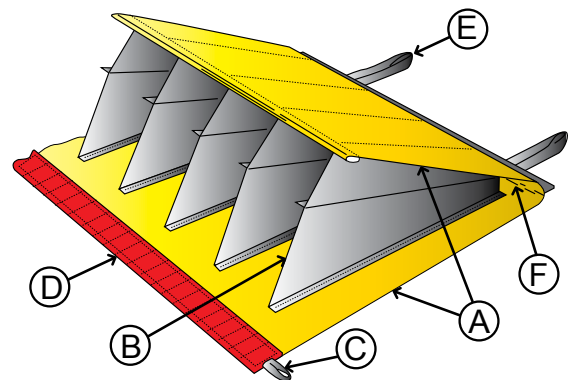


For areas where space is a concern, we also offer a 3:1 ratio, still higher than the recommended 2.5:1

MAIN FEATURES OF THE WATER-GATE

Designed for flood control.

- A** - Polyester fabric coated with super heavy-duty, abrasion resistant PVC suitable for use on all types of surfaces.
- B** - Stretched partitions made of 100% woven polyethylene
- C** - Polypropylene straps to ease in handling
- D** - Galvanized metal plate ballast weights held in polyester netting sewn to the Water-Gate.
- E** - Polypropylene straps to ease in handling
- F** - Open area behind partition to allow for water to flow through evenly



GOLDEN RULES TO FOLLOW

Pump the water at the back of the barrier



It's important to leave a reasonable amount of space (approximately 2ft) between the building and the back of the Water-Gate. Leave room to install a water pump and be able to move freely. Rain, storm water & water seeping underneath the Water-Gate should not be left to accumulate behind the barrier. Having too much water behind the unit can cause unbalancing issues, so be sure to pump out the excess water.

Place an even amount of weight at the front



Do not tie the Water-Gate to the ground, as it uses the weight of the water to stop oncoming water. However, it is very important to place weights along the length of the front flap where ever the surface is uneven, to minimize water infiltrations underneath the Water-Gate and keep it on the ground.

Prevent water from accumulating under the Water-Gate



Remove all objects likely to create water accumulating under the barrier flap. The barrier is designed to stay in place on all surfaces such as asphalt, gravel, lawns and concrete paving blocks, but if there is too much water under the flap, the Water-Gate will not adhere as well and may slip.

Never try to contain a leak at the back of the Water-Gate



Trying to contain a leak at the back of the Water-Gate will create a pool of water and make the Water-Gate unstable. If there are significant leaks, stop the water from coming in at the front of the barrier. It is expected to leak 1/2 gallon, per minute, per yard - so please plan accordingly.

INSTALLATION ON A MANHOLE

Under no circumstances should you install your water barrier on a manhole. If your water barrier must be set up in a location where there is a manhole, the best solution is to install the barrier behind the manhole, so in the event the manhole overflows, it will flow into the Water-Gate. You can also set it up in front but you will have to close up the manhole as to not create flooding behind the Water-Gate unit. We offer our Water Plug for such situations.



Water Plug: The solution to manhole overflow.
Item#: QDWGWP

NEVER SET THE BACK OF THE WATER-GATE AGAINST A WALL

If you set the back of the water barrier against a wall, water will slowly accumulate between the wall and the Water-Gate and water will then seep into your building. This will also have the effect of destabilizing the Water-Gate.



Recommended



Not Recommended



MAKE A CORNER OR CURVING THE WATER-GATE

Water-Gates can be shaped to contain or repel water. Although containing water is more of a challenge, as there is more seepage.



Method used to contain water



Method used to repel water

1. Square corner to **REPEL** the water:



A - Completely unfold the Water-Gate.



B - Place weights on the front flap of the Water-Gate as a pivot point and turn unit to the desired angle.



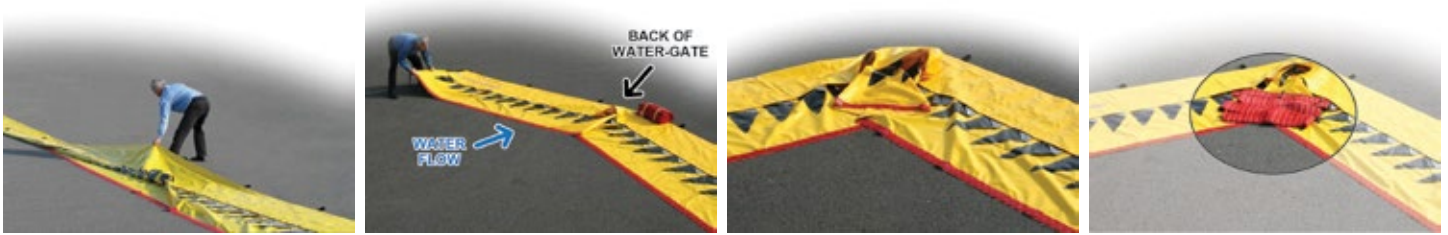
C - Pull the material up on each side so that it can easily open from the front, then fold the back edges & lay on top



D - Weights need to be added to the front folded corner to ensure that water does not seep underneath.

2. Square corner to **CONTAIN** the water:

Please note that containing water with the Water-Gate system can be difficult & often results in excessive seepage.



A - Completely unfold the Water-Gate.

B - Place weights at the back of the Water-Gate as a pivot point and curve the barrier to the angle required to contain the water.

C - From the red weighted side, pull the material up in the middle, spread it out & place on top. Lift the upper back walls on both sides to be sure that water can enter.

D - Remove the pivot weight from the back edge & place them on the front edge to prevent infiltration under the folds

3. Making a round curve to **REPEL** the water:



A - Completely unfold the Water-Gate.

B - Give the Water-Gate the desired curve.

C - In the event there are pockets from curving the barrier, try to eliminate them by using small weights to keep the fabric on the ground & prevent wind from lifting up.

4. Making a round curve to **CONTAIN** the water:



A - Completely unfold the Water-Gate.

B - Curve the Water-Gate as needed, making sure the back of the Water-Gate is not stretched.

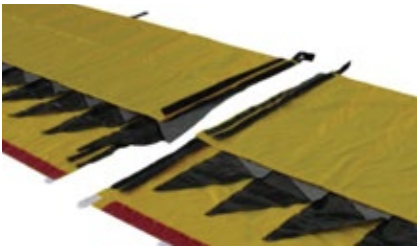
C - Sandbags can be used to close off the spaces or folds formed by the Water-Gate ballast weights.

CONNECTING WATER-GATES TOGETHER

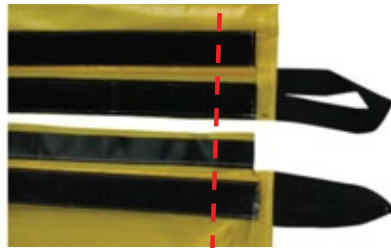
BOTH WATER-GATES MUST BE COMPLETELY UNFOLDED AT THE ATTACHMENT JOINTS.

All Water-Gates, regardless of size, can be connected together, except for the smallest 6in/15cm model, which can only be connected to barriers of the same size.

- A straight surface is required, especially under the joint where the two Water-Gates will be attached.
- Do not connect Water-Gates together in moving water. If the temperature is below freezing, the water in the velvet strips and hooks may freeze, making it impossible to connect Water-Gates together.
- It is recommended to have 2 people for this process, as one velcros the units together, the other is pulling on the ends to create tension for a smooth application.



1. Completely unroll & unfold the 2 units to join. Lay the ends next to each other.



2. Make sure the back sides of the Water-Gates are even and the hook & loop fastening strips are fully unfolded & exposed.



3. Unfold the fabrics exposing the hook & loop fasteners. Insert one into the other. Be sure to smooth out without any folds or gaps.



4. Close up the hook and loop fasteners by laying them one on top of the other from the back.



5. Keep closing up the hook and loop fasteners by starting in the back and working to the front.



6. Repeat process with each layer, always working from back to front.



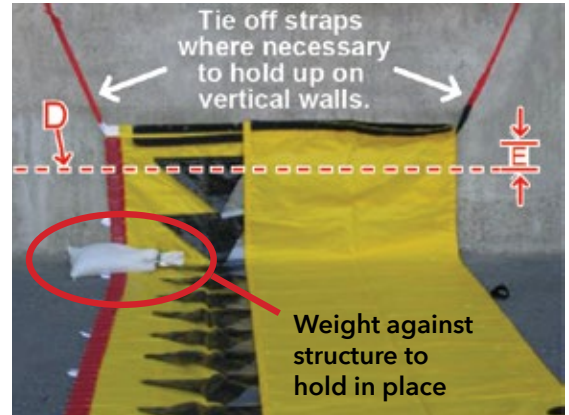
7. Close up the hook and loop fasteners by laying them one on top of the other, the same as you did for the bottom joint.

Use the same method to tie together two Water-Gates of different sizes. Follow standard instructions, the front edge will just be longer. Place a weight at these changes to prevent water infiltration.



SECURING THE ENDS OF THE WATER-GATES

The ends of the Water-Gates are not closed off, so they must be placed higher than the level of the anticipated water. Extra Water-Gate length may be needed for maximum safety.



GOING VERTICAL ON A WALL

- D** = Flood water level or maximum water barrier opening.
- E** = Extra barrier length. We recommend a minimum extra length of up to 50% depending on the flood water level.

Every time the Water-Gate is lifted against a wall, a space is created and water will infiltrate from the corner. We strongly recommend placing one or more sandbags on that corner.

Lateral Handles: These PVC handles are fitted with the Velcro joining system and are convenient to fix the extremities when going up a wall or other supports.



PROTECTING AN ENTRANCE

If you decide to only protect the entrances instead of all the walls of your building, make sure that no water can seep in through the walls. The photograph shows weeping holes that could allow water to flow inwards. Such holes are found on all insulated brick walls. Make sure you fill in these small holes before the flood and clear them again after the flood.



ADHERENCE OF THE WATER-GATE WHEN INSTALLED ON A SMOOTH SURFACE

For smooth surfaces, place additional sandbags or weights along front of the Water-Gate.

Some exceptionally smooth surfaces, such as tarred asphalt or polished cement, require particular attention. Water stays trapped between the fabric at the bottom of the barrier and the smooth surface causing loss of surface tension. The result is similar to HYDROPLANING when driving with completely worn-down tires.

It is very important to understand what it takes to ensure that the Water-Gate adheres properly to the ground: **AT NO TIME SHOULD WATER ACCUMULATE UNDERNEATH THE WATER-GATE.**

ELIMINATION OF WATER INFILTRATIONS UNDER THE BARRIER

It is important to remove any object underneath the Water-Gate in order to prevent areas for water to infiltrate.



To eliminate the Water-Gate from lifting up in uneven areas, we recommend putting sandbags on the corners.



Be careful: When the flood water enters the Water-Gate, the fabric could retract and create new spaces allowing the water to flow under the barrier. It is best to check on the direction of the water flow and adjust weights and pumps accordingly.

IMPORTANCE OF NOT TYING TO THE GROUND

The Water-Gate tends to contract as it fills up with water. Tying down the Water-Gate will put tension on the front flap, which will create spaces for the water to flow through since the fabric cannot remain tightly against the ground.



IMPORTANCE OF HAVING WATER PUMPS

Excessive water behind barrier causes unbalance & buoyancy. We strongly recommend having a generator to power all your water pumps or having gas operated pumps. Without these water pumps, the accumulated water may infiltrate the property.

Accumulated water may come from:

- Rain hitting the back side of the barrier
- Down spouts collecting behind the barrier
- Water seepage through cracks & divets under the Water-Gate
- Backflows of drain pipes
- Wet ground becomes permeable



Be sure to leave at least 2 feet of space between the Water-Gate & the property to allow room for pumps.

It is hard to determine the number of pumps needed and their required capacity. For water getting through your dam, you will need a **pump with a capacity of 1/2 gal to 3.75 gal per min for each linear yard of dam.**



SPECIAL CONSIDERATIONS



High Wind: The Water-Gate can be installed, even in high wind

The Water-Gate can be kept on the ground in very strong wind, however, some additional precautions do have to be taken. To minimize the effect of gusting wind, keep the Water-Gate folded and add a sufficient number of sandbags or weights to keep it tight against the ground.

When the flood water arrives, ensure the Water-Gate is properly deployed, by pushing off any ballast weights that are in the way. The barrier can be unfolded and will automatically deploy.

If weights or sandbags are not available, staking down a porous fabric like a netting could be used. Water will pass through & begin to anchor the Water-Gate in place, then the netting could be removed.

