



FLOODGATE

UNIQUE PROTECTION
AGAINST FLOODWATER
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ABO



UT FLOODGATE



The concept of a completely removable, flood protection door barrier was first devised by inventor John (Ian) Harrison in the mid 1990's to help protect his local seaside restaurant from the devastating effect of seasonal high tides. He soon realised he was not alone in needing protection and Floodgate was born.

With help from the University of Wales College Cardiff and the Welsh Office, Floodgate's became commercially available in 2000 and we are still manufacturing them in Wales today. Floodgate was one of the first flood protection products to successfully pass the stringent physical tests set by the Environment Agency to BSI PAS1188-1 and conducted by hydrologist engineers from HR Wallingford.

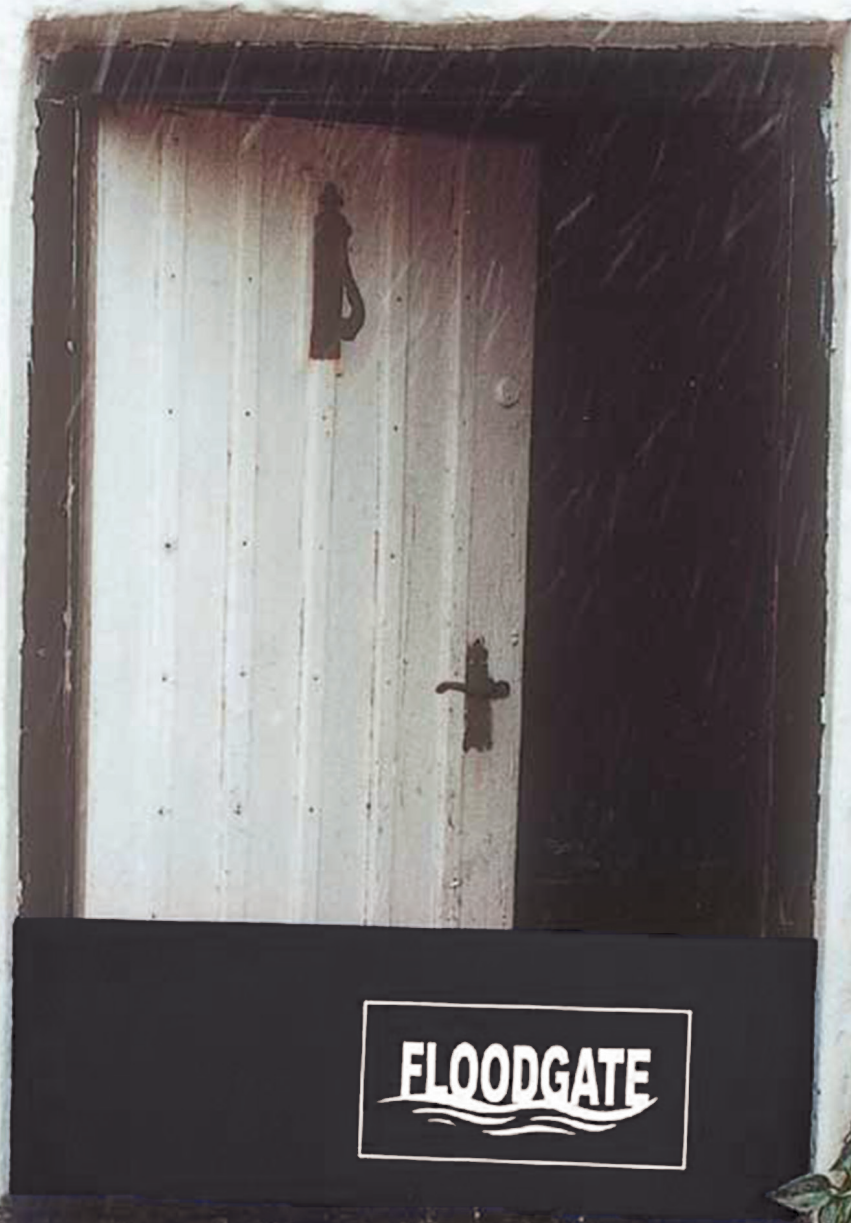
Our team has over 50 years experience in handling both domestic and commercial flood protection projects. With over 50,000 units currently providing reliable flood defence throughout the UK, Europe, the Far East, Africa, America and Australasia, we are a world-wide leader in property level flood protection.

Our extensive portfolio of clients in the UK include the Environment Agency, local authorities, housing associations, water utility companies, engineering companies as well as the general public.

According to the Association of British Insurers, 90% of flood damage is caused by just the first inch of water entering a property and the average flood claim is between £15,000-£25,000.

These statistics make Floodgate protection a cost effective approach to the threat of flooding.

PROTECTING D



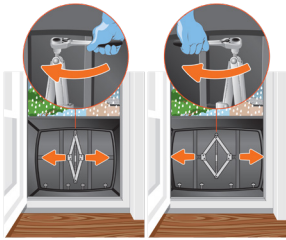
FLOODGATE

DOORWAYS

Floodgates comprise of a tubular, powder coated, steel frame enveloped by a grey rubberised cover.

A jacking mechanism attached to the rear of the frame allows both the frame and cover to expand telescopically widthways into the walled area (the reveal) immediately in front of the door. Four bolts situated along the bottom edge of the frame are then adjusted to provide a seal along the ground.

Step 1



Step 2



Due to its unique expandable design, Floodgate does not normally need any permanent fittings to the property and does not require pre-drilling of the door frame, making it ideal for use on old and listed buildings.

Any remedial work required to make good the surfaces to help achieve a tight seal, can usually be undertaken by a competent DIYer.

All Floodgates are 68cm (2' 3") high – research shows that above this level, water pressure on the outer walls can be powerful enough to cause structural damage.

A single Floodgate provides superior protection than over 50 sandbags yet it weighs less than one! They are also a lot easier to store and are completely reusable.

We stock 4 "off-the-shelf" Floodgates with other sizes and versions available to special order:

Model	Recommended Width		Approx Weight
	Minimum	Maximum	
Standard	77.0 cm	89.0 cm	15.0 Kg
Regular	89.0 cm	97.5 cm	16.0 Kg
Medium	97.5 cm	113.0 cm	16.5 Kg
Large	119.5 cm	136.0 cm	18.0 Kg

The majority of our customer's needs are satisfied by the off-the-shelf sizes but here are some indicators that you will need to contact us before ordering your Floodgate solution:

Please don't hesitate to contact us if...

- The opening that you want to protect is less than 77 cm (2' 6") wide – we have smaller gates available to special order.
- The opening that you want to protect is more than 136 cm (4' 6") wide – we have larger gates available to special order.
- The door requiring protection opens outward – we have bespoke gates available to special order.
- You are unsure where to measure or the walls and/or ground is uneven or you have minimal depth of reveal or anything else.

For more information on our products including full installation instructions please visit www.floodgate.ltd.uk

PROTECTING W



FLOODGATE STANCHION OPENINGS

The stanchion system allows multiple Floodgates to be connected together to form a continuous flood protection barrier.

The system comprises two basic parts; a blue, powder coated mild steel upright and, a grey stainless steel ground anchor that the upright bolts on to.

The uprights can be deployed in a matter of minutes and are completely removable, allowing unhindered access in non flood conditions.

The anchor is set permanently into the ground leaving its top face flush with the surface. Four grub screws are supplied to protect the threaded mounting holes on the anchor from dirt and debris when the upright is not attached.

When the time comes to deploy the system, simply remove the protective grub screws from the anchor and attach the upright using the capscrews and allen key provided. Floodgates can now be fitted into position between the stanchion and walls to complete the job.

The Floodgate stanchion system is ideal for protecting larger openings such as garage doors, shop entrances, factory doors or even driveways.



PROTECTING A



AIRBRICKS

Even a small amount of water in your home or business can cause untold damage and it's not just doorways that provide an easy route for water to enter a property.

The **Ventguard** is a simple to use Glass Reinforced Nylon (GRN) shield that is screwed to the wall surrounding an airbrick. When there is a risk of flooding, it takes seconds to manually insert the quick release bungs into both sides of the Ventguard to seal it from floodwater intrusion.



The **Ventguard** is available in three different colours – white, terracotta red or stone grey.

The **Ventguard** measures 330mm x 230mm to cover a standard single airbrick (240mm x 120mm)

The **SMART AirBrick®** has been designed by Eco Coverage Technologies to replace your existing airbrick. Whilst it is more complex to install in the first place, you can relax knowing that it will automatically close in response to floodwater.



The **SMART AirBrick** has been designed to allow air to pass through freely but not water. It features simple flood activated valves that ensure compliance with BS493:1995 as an airbrick but, as soon as water enters the brick, the valves are forced closed preventing flood water from passing through.

The **SMART AirBrick** is available in terracotta red or stone grey to match your brickwork and has the following dimensions: W: 213mm H: 62mm D: 58mm

Two **SMART AirBricks** can be stacked on top of each other to replace double height air bricks.

Both Ventguard and SMART Airbrick have been independently tried and tested to BSI PAS1188-1.

PROTECTING D



RAINS

Property flooding can also occur from the back-filling of waste pipes, causing flood water to enter via downstairs toilets and showers, plug holes, dishwashers, washing machines etc.

The traditional solution to this problem has been to excavate a new manhole outside the property and fit non-return valves to the existing pipes to eliminate the possibility of backflow. This can be expensive and time consuming.

The WAR Non Return Valve is easy to fit and operates on 110mm/4" straight or angled** inspection chamber pipes constructed from clay or plastic.



The valve is a universal product due to its unique design, with a shaped, stainless steel reinforced flap that has an integrated mechanism that allows it to

be sealed from backflow. Its revolutionary design offers protection from flooding, rodents and noxious fumes.

The valve is WRc approved and certified.

What it does?

- Stops backflow of effluent into properties, businesses and homes during flooding.
 - Stops rodents, frogs, snakes and other vermin from entering homes, businesses and other properties. Also prevents noxious fumes from entering properties. Ideally suited to the food and catering sector.
 - The flap has an inbuilt stainless steel plate to stop rodents biting through, providing efficient pest control.
 - A lockable flap allows you to close down entry pipes to inspection chambers to allow essential maintenance to be carried out.
 - The valve is completely re-usable when used for maintenance purposes. The valve can be inserted while work is carried out then removed and used again.
 - The valve can open on a 45 degree bend due to its unique flap design.
 - The unique flap design also means the flap doesn't catch on the chamber walls – which could restrict its movement and operation.
 - Unique funnel shaped body design means the flow of water is increased when passing through the unit; reducing blockages
 - Fits both Clay and Plastic 110mm or 4" pipes.
- **Fits 45 and 90 degree inlets on 450mm diameter chamber bases only.

For more information on our products including full installation instructions please visit www.floodgate.ltd.uk

Don't just take o



"The way that Floodgate works means that there are no day to day obstructions to the shop which would interfere with the business or customer entry. However, the flood gates themselves are flexible, easy and very quick to put in place when heavy rain or a flood is threatened. So this has been an ideal solution for me."

Niall Cowan - Dumfries Scooters

"There have been a few raised eyebrows this afternoon with questions such as "What! you have no sand bags?" I just say that with Floodgate - "I don't need sandbags!!"

Mr Kerr (Banffshire)



"Although we appreciate that insurance companies are businesses that need to balance their risk, it still came as a major shock to find out that they would no longer provide any flood cover whatsoever."

"It was fortunate that our brokers had the foresight to look beyond the immediate response and bring in Floodgate to help us come up with a strategy to reduce our risk to insurable levels."

Tony Jones - Summer Inns Ltd.

"Floodgates have proved to be excellent value for money. Our insurance company reduced our flood excess from £10,000 to £1,000 after we sent them photographs of the products in place."

Karen Evans (Gloucestershire)

our word for it...



"We bought two of your Floodgates after the 2007 floods and are very pleased to report that, having had their first proper test since then, they have passed with flying colours. One gate held back 21" of water and avoided approx 4" of water entering our house"

Jeff Clarke

"Just wanted to say thank you for a great product. It had its first real test when the tide came up the gate but, we were dry inside. This is the first time in about 20 years my defenses have held! I was put off with other products that require channels - your product is simple and quick to use."

Heath Hardy - Cove Cafe, Weston-super-Mare



"We have floodgates up at all doors and they are working, if they weren't we would be under at least a foot. It is coming through the walls and floors but only trickling."

Ian Baikie - The Hawbridge Inn, Gloucestershire

"Floodgates are excellent, they are the only solution that we have found that enables us to respond so quickly to flood risk.

The fact that they are completely re-usable is an added bonus making them extremely cost effective. We have evaluated other products but they all require preparatory work on properties before deployment, defeating the object of rapid deployment."

Adam Smith, River Inspector for the Coastal Protection and Flooding Unit - Aberdeenshire Council

CASE STUDY

Fowey artisan bakery rides out the tidal surges



during the winter storms

Tom French and his partner Nicola Hanks opened the Quay Bakery on Webb Street, just up from Fowey's Main Quay in 2012. They have received glowing reviews from customers and critics alike since then and the business had gone from strength to strength.

For most of us, the violent storms of the 2013/14 winter were a nightly television spectacle as the national news delivered extraordinary images of the impact of the storms on the coastline around the UK.

For Tom and Nicola and many others in Fowey and along the South Cornish coastline, the reality was right on their doorsteps - literally. Storm after storm pounded the coastline with storm surges compounding the seasonal high tides to send sea water cascading up busy shopping and residential streets in the centres of these normally quaint and picturesque seaside Cornish towns.

The Cornish, historically, are no strangers to wild weather but when high tide means the wheelie bins are floating past your windows, it is definitely time to take serious measures to protect your homes and businesses.

For Tom and Nicola, their solution was to use the Floodgates that had already been purchased by their landlord and came with the premises when they moved in in 2012. They quickly discovered that they were an invaluable asset, protecting their business and home.

Floodgates take only minutes to deploy meaning that, for the rest of the time, when the tide was lower, they could still have unhindered access to their business, only needing to put them in place ahead of the high tide.

The picture here was taken by Tom himself, during the final day of flooding - For Tom and Nicola, Valentine's Day will never be quite the same again.

"In a strange sort of way, we don't mind the flooding now because we are completely confident in the protection from the Floodgates - It also doesn't seem to seriously affect the business. Even with the Floodgates in place, our customers still came out in their waders and queued outside the door for their bread to be passed over the gate" said Nicola.

"It used to be just us with Floodgates, now most of our neighbours have them too and we all just keep going."

There is an old Scandinavian saying "There's no such thing as bad weather - just inappropriate clothing." It would seem that the same concept can be applied to buildings and flood protection.

CASE STUDY

Protecting national critical infrastructure from the



e effects of flooding...

After the unprecedented floods in the summer of 2007, the government set up a review headed by Sir Michael Pitt. In his Interim Report, Sir Michael concluded, "that the Government should establish a systematic, coordinated, cross-sector campaign to reduce the disruption caused by natural events to critical infrastructure and essential services."

Since then we have seen repeated catastrophic flooding across the UK from the West Country of England, all the way up to the Highlands of Scotland. The protection of national critical infrastructure is becoming more and more crucial to ensure that key services can continue operating during these events.

Here at Floodgate, we have been playing our part, supplying a significant quantity of products through local and national government agencies and directly to private sector organisations such as utility companies and infrastructure operators.

One recent example has been Gatwick Airport.

In the aftermath of the winter storms of 2013/14, the airport operator, Gatwick Airport Limited, had identified a number of risk areas across their estate, the most pressing being the area beneath the main terminal buildings. This is on the landside of the airport and houses offices and storage for retail units as well as electrical and communications equipment rooms. As it is at basement level below the main buildings, it is potentially at risk from flooding

Chris Poole, GAL's project manager, explained "We needed to implement a solution that, in the event of flooding, would buy us time to deal with the cause of the flooding at source, be it a blocked culvert or some other reason, so that we can bring in pumps and other equipment to ensure that everything can continue operating as near normal as possible.

The fact that Floodgates can be deployed so quickly and easily by anyone was what attracted us to them as a solution in the first instance."

He went on to say "The fact that Floodgates are so robust and if, for example, the neoprene covers get damaged, we can replace just those components, means that we can expect a long life from our investment. Additionally, the expandability of each Floodgate means that we only have to keep a small range of sizes to store rather than specific gates for each aperture that we are protecting - this greatly eases the complexity of actual deployment which is critical for us as the whole point is to get them in place as quickly as possible while we get on with solving the bigger problem of why there is flooding in the first place.

The Gatwick project has been one of the largest that we have undertaken in the UK to date and has extended from the initial landside phase into subsequent airside phases in conjunction with GAL's airside contractors.

CASE STUDY

Bron Afon Community Housing uses Floodgate



s for rapid deployment flood defence

Changing weather and flooding patterns over the past few years have led to a greater degree of uncertainty of where flooding will actually occur. Flash flooding caused by torrential rainfall overwhelming local drainage is seen to be an increasing risk in areas which, previously, had little risk of the more predictable river or coastal flooding.

Local Authorities and Housing Associations are responsible for large numbers of tenants and leaseholders and need to make provision for flood protection.

The traditional sandbag is expensive, time consuming and often inefficient despite the apparent simplicity of the solution. Preparing and distributing sandbags as well as their subsequent disposal consumes manpower which is usually needed elsewhere.

Modern sandbag substitutes can reduce the initial workload but still require careful disposal as sewage contamination is often a problem in the aftermath of a flooding event.

The Floodgate is unique amongst floodbarrier solutions as it requires no fixtures to the property where it is deployed. This means that a small number of Floodgates held in a central depot can be deployed to wherever they are needed at very short notice, providing highly effective and economical risk mitigation to cover a substantial and geographically distributed housing stock.

Bron Afon Community Housing Limited was set up in 2008, to take over the ownership, management and improvement of homes previously owned by Torfaen County Borough Council.

After the disappointingly wet summer of 2008 had left the whole area of the South Wales valleys waterlogged, it was clear that any further rainfall was likely to significantly increase the risk of flash flooding.

Wednesday 3rd September 2008 brought another severe weather warning from the Met Office for the coming weekend...

Dave Sharman, Director of Property at Bron Afon Community Housing, said: "Whenever we get a severe weather warning we check our stores for stocks of sandbags. This often means we have to use our staff that should be out working on tenants' homes to come in and fill the bags. We estimate that it costs around £9,000 to repair a flood damaged home. But there are other factors that you can't put a cost on such as the distress to a family and the inevitable missed days off school and work.

"We decided to look into alternative flood protection systems and found Floodgates. After placing our order on Wednesday they arrived on Friday which was just in time for a heavy downpour. A tenant in Blaenavon called us and we immediately went out and fitted one to their door. It did a first class job of protecting the house, which saved us thousands of pounds and avoided the distress of moving this tenant into emergency housing."



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