Flood Control International Incorporated offers removable stop log barriers that are engineered to provide similar levels of protection to permanent flood defenses, but with the distinct advantage of being fully removable when not required. They comprise aluminum panels that are inserted into steel channels. Custom made clamps compress specialist gaskets to create a reliable barrier against flood water.

These stop log barriers can be supplied for virtually any configuration including arcs, closed rectangles or circles and straight runs of any length. The system can be used on slopes up to 20° and can be stepped for steeper gradients. Each system is load calculated based on application and the prevailing flood conditions and can be configured for flood depths up to 13 feet. A four-sided detail is available for openings that may become fully submerged.

To facilitate installation in new builds, we can supply preformed ground plates with integral anchors for the demountable supports. The systems can be also retrospectively fitted to suitable existing foundations in which case load certified, chemically fixed sleeve anchors are used to attach the demountable supports.

This leaves only stainless steel bolt blanks at each post location. Due to the strength of our beams, this can be at 10 feet spacing.

Purpose designed gaskets that resist silt clogging and reform even after prolonged compression, together with vandal resistant covers and lockable clamps, make these systems ideal for locations where semi-permanent installation is a requirement.

The modular design facilitates storage and transportation and the ergonomically positioned carrying handles enable all but the higher systems to be erected without the need for mechanical lifting equipment.

Fully removable flush-finish perimeter defences - flood depths up to 13 feet, ideal for wide area defences.

USES
• Single building openings.
• Openings in flood walls.
• Stainless / aluminum system for marine environments.
• Fully removable perimeter defense to buildings.
• A ‘usually stored’ system for erection when flood warnings received.

BENEFITS
• Low cost system.
• Lightweight - sections allow safe lifting of 10ft beams by one person for rapid deployment.
• Flexibility – can be configured to any geometry.
• High strength – single beams can span up to 10ft unsupported. Spans up to 20ft possible with optional back-braces.
• Choice of bottom gaskets - allow barriers to sit on existing non-porous surfaces.
• Completely removable - leaving a totally flat ground surface.
• Vandal resistant - covers and padlockable clamps available.
• Able to be powder coated to any RAL color.
• Long life - using galvanized and aluminum components.
SIZES

- Unsupported spans possible up to 10 feet.
- Maximum spans of up to 20 feet possible with back bracing.
- Standard maximum flood control height of 13 feet, using 12 inch standard beams.
- Beam weights of 5.5lb per linear foot allow safe single person lifting of 8ft beams.

CONFIGURATIONS

- Any length or layout is achievable.
- Posts and beams can be tailored for any gradient.
- Posts can accommodate steps and changes in direction.

INSTALLATION

- End posts can be surface mounted or recess mounted. Architectural coverplates can be applied to match building finishes.
- Intermediate posts require RC beam foundation. This can be under final surfacing finish with drilled in stainless steel sockets, or with cast in baseplates.
- Systems can be retrospectively fitted to any suitable foundation.
- Every system is bespoke designed using CAD and drawings provided.
Our new range of flood proof security doors are flood proof whenever they are locked and due to their steel frame and construction, they are able to operate simultaneously as security doors. Full height flood depths are achievable, depending on the locking mechanism chosen.

The use of these doors ensures that when a door is locked it is watertight - this removes the need to check if barriers are installed when a flood alert is received.

Available as single or double leaf doors, these systems are ideal for use in unmanned locations, such as utility sites, especially where security measures are required. Double leaf doors incorporate a removable centre mullion. The door leafs utilise 2mm zinc-coated steel and come with a range of locking mechanisms. Doors are supplied insulated and can be 60 minute fire rated if required.

Doors and frames are manufactured as standard using galvanised steel and are powder-coated to client's colour specification. Door manufacture using stainless steel is available where requested, for the harshest environments. The doors utilise adjustable seals that are adjusted upon installation to ensure the correct level of compression is applied to the seals.

Doors can incorporate windows or ventilation grilles.

**USES**

- Existing or new building openings up to 2.5m wide.
- Emergency access / escape routes.
- Where flood protection required alongside security or fire resistance.
- Secure sites such as utility sites or commercial premises.

**BENEFITS**

- Flood proof / security / 60 minute door all in one. No need for separate protection measures.
- Single or double leaf flood door.
- Permanent protection.
- No operational difficulties – operates just like a normal door.
- Suitable for constant daily use.
- Flood-proof to full height.
- Openings to 2.4m high and 2.5m wide as standard.

*Permanent Flood Protection and Security – single or double leaf – flood depths up to full height.*
PRODUCT

DESIGN

SIZES

• Single flood doors available to 1.1m width and 2.4m height as standard.
• Double flood doors are available with demountable centre mullion to 2.5m width and 2.4m height.
• Removable or liftable overpanels available where increased heights are required.

CONFIGURATIONS

• Low profile threshold for situations where doors and frames are installed in existing accesses.
• Face mounted frames enable unrestricted accesses.
• Inward or outward opening doors available.

INSTALLATION

• Doors and frames require adequate walls either side and a flat surface to seal against. Doors and frames provided with all sealants and fixings required.

BESPOKE CAD DRAWINGS
DROP-DOWN BARRIERS

When not in use, the drop-down flood barrier is unobtrusively located above the head of the opening, ready to be activated at a moment's notice. Direct drive electric motors smoothly and precisely lower the barrier into position and firmly lock it in place to form an efficient, dependable flood defence.

Barriers can be push button operated or fully automatic to operate with rising flood waters. Spans of up to 7m are possible for depths of up to 2.5m, and multiple units can be linked together.

The barriers work on dead level thresholds and require no excavation or civil works to install.

Safety is a key factor in this design and all motors have a 'free-fall' dead-stop braking system built-in as standard. In addition, all systems are installed with a pulley system that overrides the motorised drive and allows the barriers to be manually lowered and raised in safety.

As optional features, the systems can be activated remotely, triggered by water or smoke detection or by security alarm systems. Touch and motion sensors can also be added to the braking system whilst further security is available in the form of audio/visual alarms, warning as the barrier moves.

A 24 volt back-up system ensures that the unit will operate in the event of a mains supply failure.

These flood barriers can be supplied in any RAL colour. Barriers can be mounted behind building façades making them as desirable in prestigious locations (such as hotel lobbies, plazas, shopping centres and head offices) as they are essential in factory entrances and loading bays.

**USES**
- Flood protection to roller shutter door entrances.
- Underground car park / garage flood barrier.
- Chemical containment barrier for factories / storage locations.
- Internal or external mounting available.

**BENEFITS**
- Always in position above the opening ready for use.
- No restrictions to openings or access.
- Fully automatic operation available.
- Push-button operation available to put you in control or for daily operation.
- Quick erection of large flood barrier.
- No excavation required to install.
- Flood barrier can be linked to alarm systems.
- Safety systems include visual / audible alarms when operating, dead stops activated by movement sensors.
- Totally vandal resistant as lifted above head height when not in use.
- UPS option to work when mains power is unavailable.

*Automatic or push button triggered overhead barriers - flood depths up to 2.5m and widths up to 7m.*
SIZES

- Manufactured to exact size of opening up to a maximum of 7m wide.
- 100mm height increments up a maximum of 2.5m.
- Multiple systems can be linked for wide entrances.

CONFIGURATIONS

- Single barrier system can be recess or surface mounted.
- Can be fitted with stand-offs to clear roller shutters.
- Can be internally or externally mounted.

INSTALLATION

- Can be mounted directly onto any level watertight surface such as smooth concrete.
- Powder coat finished in any single colour in RAL Classic range.
- Optional hinged covers for side sections and overhead motor.
- Motor drive fitted with an independent ‘free fall’ stop dead braking system.

BESPOKE CAD DRAWINGS
FLIP-UP BARRIERS

Designed to provide totally unrestricted access to pedestrian and vehicle entrances, this self-raising flood barrier is fully recessed in to the ground when not in use. A range of surface finishes is available; from skid resistant epoxy coatings to timber cladding or paving to fit in with the external hard landscaping.

These flood barriers can rise automatically with the rising flood waters or by push button in advance keeping you in control for complete peace of mind. Uninterruptible Power Supply (UPS) and manual backups mean these barriers will not let you down.

A single system can protect openings up to 12m wide and multiple systems can be linked with intermediate posts to create a flood defence run of almost any length. Depending on span, flood defence heights of up to 2m are available.

Movement and weight sensors prevent the barriers opening if the entrance is obstructed whilst optional audio/visual alarms sound prior to and during operation.

Optional 24 volt back-up systems are available for use in the event of mains failure and permanently installed security grates cover the housing pit - serving as both a safety platform for traffic and pedestrians and as protection for the hydraulic system while the barrier remains raised.

These barriers are designed for pedestrian and vehicle entrances, or anywhere where unrestricted level access is required.

**USES**
- Public area flood protection schemes.
- Underground garage or car park entrances.
- Anywhere where unrestricted level access is required.
- Integrated into new developments for full time unobtrusive defence.

**BENEFITS**
- Fully recessed when not in use.
- No restrictions to openings or access.
- Fully automatic operation available.
- Push-button operation available to put you in control.
- Quick erection of large flood barrier.
- No deep excavations required as barrier lays flat when not in use.
- Flood barrier can be linked to alarm systems.
- Safety systems include visual / audible alarms when operating, dead stops activated by movement sensors.
- Totally vandal resistant as no exposed seals or components.

*Fully automatic flood barriers that fully recess into the ground - flood depths up to 2m as standard, up to 12m length per unit.*
PRODUCT

DESIGN

SIZES

- Single systems are able to span up to 12m.
- Maximum flood control heights of 2m are achievable.

CONFIGURATIONS

- Any length or layout is achievable using multiple span systems.
- Intermediate posts can be fixed or raised with previous spans.
- Surface finish to barrier can be non-slip epoxy coated, timber decked or clad to architect’s specification.
- Various levels of automation available with remote connection or sensor control and/or push button operation.
- Barriers able to be raised manually in the event of a power failure.

INSTALLATION

- Barriers are mounted within a reinforced concrete pit. Barrier includes for a galvanised steel grating 200mm below external surface level.

BESPOKE CAD DRAWINGS
Flood Control International has developed the ultimate glass flood defence system that is capable of withstanding virtually any flood condition. These glass flood walls can be used as a permanent first line of defence with minimal visual intrusion.

The barriers are also ‘future-proofed’ against rising flood levels by a unique design that allows the flood protection height to be raised at any later stage by simple addition of a demountable barrier directly to the top of the glass system.

Our glass flood walls utilise a combination of high strength structural glass and stainless frames and are designed to withstand the static and impact loads of the specific location.

Self-cleaning coatings can be applied to the glass to prevent the build-up of any surface contaminants and the marine grade stainless steel frames and EPDM seals make this system perfectly suited to aggressive marine environments.

The glass barrier can be mounted on top of half-height structural walls, or entirely freestanding and used as a pedestrian barrier if required. The constant profile of the top beam gives good sight lines, as opposed to the ‘post and plank’ type glass barriers found elsewhere.

The result is a continuous barrier that is ideal as a flood defence where permanent protection is advantageous and visual amenity is important. No moving parts mean reduced maintenance requirements over other barrier types and the protection is self-evident at all times.

Additionally we are able to supply flood proof windows within building openings.

*Engineered glass flood walls are the ultimate unobtrusive permanent flood defences.*
**DESIGN**

**SIZES**
- Standard sizes use panes up to 3m wide and m high.
- Maximum spans of up to 4m available as special order.
- Standard frame width is 120mm – for structural glass thicknesses of up to 70mm.

**CONFIGURATIONS**
- Any length and geometry is available.
- Low height glass flood walls up to 350mm can be simply base supported with no posts or top frame member.
- Frames can be fully recessed along the bottom and ends to maximise visual area.

**INSTALLATION**
- Systems can be designed into new installations or retrospectively fitted to suitable walls or foundations.
- Every system is bespoke designed using CAD and drawings provided.
- A range of finishes is available from polished stainless steel to powder coated any colour.
- System is quick to install and uses a dry-seal system with no curing time.

**BESPOKE CAD DRAWINGS**
Flood Control International offers a full design, manufacture and installation service for all types and sizes of Heavy Duty Flood Gates.

All our gates are individually designed and engineered for the specific customer’s requirements. Whether it is a hinged or sliding, it will provide the protection against flood water or chemical spills. Our largest single heavy duty door to date is 6.4m wide and 4.4m high, yet is still operable by a single person.

The gates are designed to incorporate automation of closure, locking and monitoring status where needed.

Hinged or sliding gates can be designed to seal with flood water assisting sealing or against the water pressure as required, meaning they can operate over a dead level threshold.

Sliding gates incorporate spring wheels to allow an easy sliding operation with the ability to compress seals when in position. Alternatively, inflating seals can be used. The sliding gate design also allows for efficient use of space, with no ‘swing area’ required.

Our Design Team welcomes the opportunity to work alongside architects or directly with clients to identify the preferred solution. Doors can be clad with a variety of finishes to suit existing finishes so that the flood protection becomes part of the building aesthetic, rather than as a post-construction add-on.

USES
- Commercial flood defences.
- Ideal for where deep flood depths are possible.
- Major utility sites requiring vehicle access.
- Large openings in flood walls.

BENEFITS
- Designed to fit any building or opening.
- Sliding flood gates have no ‘swing area’ and occupy little space.
- Any height or width combination possible.
- Full PI design insurance to give total peace of mind.
- All doors can be automated and linked to building management systems.
- Can integrate with building finishes for unobtrusive defences.
- Ability to power / automate closing and opening.
- No excavations required for installation.
- Always on-site ready to be deployed.

Hinged or sliding, our heavy duty flood gates are individually designed for each requirement.
SIZES
- Gates and doors can be fabricated to suit any opening.
- Our largest installed gate to-date is 6.4m wide with a 4.4m flood control height.

CONFIGURATIONS
- We are able to design to suit any requirement, depending on building characteristics.
- Large gates can be side hinged, sliding or raising, straight or bi-fold.

INSTALLATION
- We are able to provide loading calculations to ensure that supporting walls are suitable for each application.
- Installation can be undertaken during main construction of the building, or post-construction by assembly of pre-fabricated components in-situ if required.

BESPOKE CAD DRAWINGS
LIFT-HINGED FLOOD GATES

Our Lift-Hinged flood gates utilise a unique 'raise-swing-lower' mechanism and do not require recessed ground channels, raised ground beams or ramps. This makes them ideal for vehicle entrances and especially suitable for forklift or wheelchair access.

Even the widest flood gates can be operated by one person using the smooth winding lift action and the single point locking mechanism. The lightweight aluminium construction also provides a far higher level of operator safety than heavy steel gates.

Due to their unique design, the gates are able to open a full 180°, either with or against the direction of flooding.

These flood gates are available as single or double leaf, or integrated with a stop-log system for wide entrances. Our gates are suitable for use in unmanned locations, are fully lockable and come complete with anti-theft and vandal resistant features.

The components are manufactured from construction grade steel and aluminium with stainless steel and are virtually maintenance free. They are designed for extreme weather durability to give a lifetime of service and with EPDM seals that reform even after prolonged periods of compression, the gates can, if required be left closed indefinitely.

For locations where gate leafs greater than 4.5m wide are required, we can also manufacture these gates from steel to any size.

USES

- Openings in floodwalls for continuous flood defence.
- Building openings.
- Vehicle entrances.
- Disabled access or public areas where steps or ramps not allowed.

BENEFITS

- Can be used on dead level thresholds for vehicle / disabled access.
- Single person operation.
- Lightweight - requires less massive supporting structure.
- Virtually maintenance free due to aluminium and stainless steel construction.
- Single point locking.
- Can open inwards or outwards up to 180°.

Easy to use lift-hinge floodgate suitable for roads, vehicle and disabled access, flood depths up to 1.85m as standard.
SIZES

- Single aluminium Lift-Hinged Gates are available up to 4.5m wide and 1.85m high.
- Double gates are available with demountable central posts for flood situations up to 9m wide.
- Steel flood gates can be made to any size – our largest to-date is 6.4m wide by 4.4m high.

CONFIGURATIONS

- Lift-Hinged Gates operate over a level threshold and are able to seal against any level flat surface.
- Gates can be integrated into glass barrier systems.
- Gates can be integrated with demountable barriers for large openings over 4.5m.

INSTALLATION

Gates require adequate walls either side and a flat surface to seal against. High compression seals enable Lift-Hinged Gates to operate on a variety of surface finishes.

BESPOKE CAD DRAWINGS
PIVOT GATES

Convenience and rapid operation make our pivot flood gates the ideal flash flood or spill defence.

The precision gas lift mechanism enables the gate to be effortlessly raised and lowered and the single point locking system clamps the bate in place at the turn of a lever.

Automated pivot gates can be triggered by fire alarm, smoke detectors, heat detectors or water detectors, push button controlled for daily use.

Specifically designed to protect loading bays and wide openings, the gate supports are custom manufactured to clear any existing obstacles, roller shutters, crash bars etc, and the raised gate is safely positioned to the side of the opening leaving the access totally free.

Patented seals are designed to resist clogging and to reform after prolonged periods of compression making the system ideal for long term and semi-permanent installation. The gates are available between 200mm and 700mm as standard and higher or custom systems are possible dependent on span requirements and location.

A single pivot gate can protect openings up to 4.25m wide and dual gates can be linked with a removable central support for wider apertures. A manual slot-in version of the system is also available for use in locations with insufficient space at the side of the opening to install a pivot gate.

USES
• Wide openings such as roller shutter doors.
• Underground car park or garage flood barrier.
• Industrial or commercial sites as containment barriers.
• Anywhere where a flat surface is required.

BENEFITS
• Flood defence over dead level thresholds for vehicle or fork lift access.
• Precision gas assist lifting for effortless opening and closing.
• Rapid deployment with single point locking.
• No excavation required to install – can be ground or wall mounted.
• Maintenance free aluminium panels.
• Flood widths up to 4.25m and heights to 0.7m available.
• Can be internally or externally mounted.
• Can be installed over any flat impervious surface.

Rapid deployment pivot barriers specifically for flash floods and chemical spill containment - flood depths up to 0.7m.
**PRODUCT**

**FLOOD CONTROL INTERNATIONAL**

**DESIGN**

**SIZES**

- Single pivot gates are available for openings up to 4.25m wide.
- Double spans are available with a removable central post.
- Gates are available in standard heights from 200mm up to 700mm.

**CONFIGURATIONS**

- Gates can be wall mounted or floor mounted depending on situation.
- Gates can be manually operated or automatic and linked to Building Management Systems where required.
- Pivot gates are supplied in red as standard but can be powder coated to any standard RAL colour.
- Padlockable clamps are available for security.

**INSTALLATION**

- High compression EDPM seals enable gates to work on any level non-porous existing surface.
- Systems can be retrospectively fitted to any suitable foundation.

**BESPOKE CAD DRAWINGS**
Swing-Hinged Gates

Designed and built to the same high standards as our Lift-Hinged Gates, our Swing-Hinged Gates are ideal for opening where there is a step or ramp.

The aluminium construction results in a light and easy to use door that provides full protection. With precision engineered hinges the gates can open the full 180° and this can be further extended to 270° with modification.

Our Hinged Gates are designed for extreme weather durability to give a lifetime of service, custom seals designed to reform after prolonged compression, fully lockable and complete with anti-theft and vandal resistant features.

Designed to provide either flood protection or chemical containment in bunded areas, the gates are securely sealed with 2 or 3 lever type locking handles. With the use of a removable centre support the gates can be paired to provide protection for wider openings.

The components are manufactured from construction grade steel and aluminium with stainless steel options for salt water environments. The systems are suitable for constant daily use and can be left semi-permanently installed.

Our flood gates are virtually maintenance free due to:

- T6 grade stainless components
- Lifetime lubricated phosphor bronze hinges
- Powder coated marine grade aluminium beams
- A 50 year design life.

Our Swing-Hinged Gates are designed for extreme weather durability to give a lifetime of service.
SIZES

- Single aluminium Swing-Hinged Gates are available up to 1.5m wide and 1.6m high.
- Double gates are available with demountable central posts for flood situations.
- Steel floodgates can be made to any size – our largest to-date is 6.4m wide by 4.4m high.

CONFIGURATIONS

- Swing-Hinged Gates require a step to close against.
- Gates can be integrated into glass barrier systems.
- Gates can be integrated with lift-hinged vehicle gates or demountable barriers for increased flexibility.

INSTALLATION

- Gates require adequate walls either side and a step to seal against.

BESPOKE CAD DRAWINGS
Flood Control International produces bespoke engineered Chemical Containment Barriers that can isolate a whole site or just part of a site to retain spillages or fire-fighting run-off on the premises.

Depending on a particular site's risk assessment they may be operated manually or triggered by means of automatic sensors. Such sensors may be triggered on sumps being filled or the fire alarm being activated to ensure rapid response even on sites where an event may not be immediately noticed.

Our Containment Barriers allow vehicle and pedestrian access through bunds when required and save space that would otherwise be taken up with ramps to maintain a bund level.

Containment gates can also be specified that swing across an opening with a dead level threshold. We can also provide steel flood/fire doors that can retain full height liquid pressures for deep bunds that require occasional maintenance access.

A choice of seal materials means that the right seal can be matched to the requirements of chemical resistance, fire resistance and compressibility. Automatic barriers and gates can be fitted with acoustic and visual warnings, obstruction sensors and anti-crush systems.

Our standard barriers are tested to the rigorous TUV Certificate of Approval for openings up to 6.5m wide and 600mm high. Special barriers can be provided to any size or height and individually tested for strength and watertightness on site when required. Multi-span sectional barriers can create any size and height bund.

With a 50 year design life our containment barriers, gates and doors give dependable protection against spillages and fire-fighting run off.

**USES**
- Access points at chemical sites/warehouse facilities.
- Openings in bunds where level access required.
- Safely retain spillages and fire-fighting water on site.
- Suitable for constant daily use or can be left semi-permanently installed.

**BENEFITS**
- No modification to floor surface.
- Unobstructed access around sites - no ramps.
- Single person operation.
- Manual, gas lifted, semi-automatic and fully automatic systems available.
- All components designed to resist chemicals and pollutants.
- Built to the highest quality standards and TUV tested and approved.

A full range of containment options to protect against spillages or fire-fighting run-off.

Gas-lift pivot barrier for vehicle access.

Manual containment barrier for vehicular access.

Automatic drop-down barrier.

Hinged Gate Containment Barrier.
SIZES

- Manual aluminium containment barriers are available up to 6.5m wide and 600mm high as standard and multi-span containment barriers are available to any length, height and configuration.
- Gas-lift pivot barriers are available for widths up to 4.25m wide and 600mm high as standard.
- Lft-hinged gates are available up to 4.5m wide and 1.86m high.
- Automatic drop-down barriers can be specified to any width and height.
- Watertight doors can be specified to 2.7m high and 1.2m wide for single doors or 2.4m wide for double doors with removable centre mullion.

CONFIGURATIONS

- All barriers can be mounted internally or externally.
- Manual, pivot and drop-down barriers have a minimal footprint and do not require ‘swing area’ or ramp space.
- Containment gates can be specified inward or outward opening and work on level thresholds.
- Barriers can be manually operated, push button operated or fully automatic linked to sensors.
- UPS back up and manual override is available on all automatic systems.

INSTALLATION

- Barriers and gates require a flat level threshold on which to close.
- A detailed survey will identify optimum mounting options and useability.

BESPOKE CAD DRAWINGS