
Flooding Solutions

Product Information

HYFLO Passive Self Closing Flood Barriers Model: FS-009 & FS-010



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Product Information

Self Closing Flood Barrier (SCFB) FS-009

The Self Closing Flood Barrier SCFB, is a unique effective flood defense system to protect people and property from inland waterway floods caused by heavy rainfall or gales. This system has been developed in the Netherlands to provide optimal protection against extreme high water levels. The barrier systems have proved to be the best flood protection and have already been built and installed in several countries. In operational use globally since 1998, the SCFB is acclaimed as the world's most effective flood protection system. Its success can be attributed to the simple, but ingenious concept of using the approaching floodwaters to automatically raise the barrier; effectively using the problem to create the solution. With an unblemished 100% track record the SCFB is a highly favourable preference when specifying optimal and cost effective but passive flood defense.



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SCFB FS-009

The SCFB C can be built at any required length. The basin from the SCFB™ is constructed from pre-formed or formed on site concrete. The floating wall consists of a PUR foam core with a fiberglass or GRP outer layer. The walls are reinforced with composite profiles and textile fiberglass. The wall is fabricated in 1m lengths (deduction of a notional tolerance) and connected together to form the overall length of the required barrier. The connections of the walls to each other are done by a reinforced rubber* strip and stainless-steel mounting strips. Because of the unique patented design of the SCFB™ and the strength of the floating wall the barrier can be built in every required length.



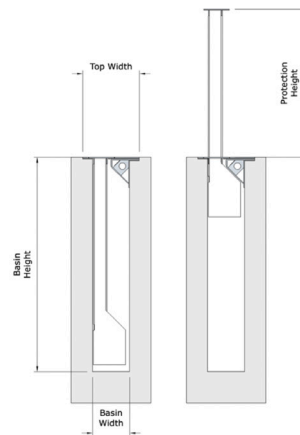
SCFB Concrete basin with Load transfer slap

E600 – Access covers and gratings capable of withstanding a 600kN test load. For use in areas where high wheel loads are imposed such as loading areas, docks or aircraft pavements.



SCFB Concrete basin with reinforced top

F900 – Access covers and gratings capable of withstanding a 900kN test load. For use in areas where particularly high wheel loads are imposed such as aircraft pavements.



	Protection Height	Max Length	Basin Height	Top Width	Basin Width	Pipe Connection
SCFB 500 C	500 mm	-----	1000 mm	490 mm	320 mm	160 mm
SCFB 1000 C	1000 mm	-----	1550 mm	490 mm	320 mm	160 mm
SCFB 1250 C	1250 mm	-----	1860 mm	490 mm	320 mm	160 mm
SCFB 1500 C	1500 mm	-----	2160 mm	490 mm	320 mm	160 mm
SCFB 2000 C	2000 mm	-----	2700 mm	570 mm	400 mm	220 mm
SCFB 3000 C	3000 mm	-----	3250 mm	570 mm	400 mm	220 mm

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Self Closing Flood Door (SCFD) FS-010

The SCFD is a smaller version from the SCFB and is intended to protect small openings and private property against floods. The working principle is very similar to that of the larger SCFB but on a reduced scale. Because of this reduced scale and lighter materials the barrier is easy to install. The SCFD basin is made out of durable PE-HD material and reinforced with stainless steel. The wall is fabricated in one length and made from a honeycomb profile. Depending on the requested length and location, Flooding Solutions can advise what the best option is for the specific location.



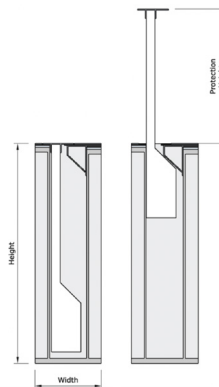
SCFD aluminum top

A15 – Access covers and gratings capable of withstanding a 15kN test load. For use in areas where only pedestrians have access.



SCFD stainless steel top

B125 – Access covers and gratings capable of withstanding a 125kN test load. For use in car parks and pedestrian areas where only occasional vehicular access is likely.



Dimensions

The SCFD can be built in length up to 6 meters with a height limit of 600mm and 4 meter length up to 1200mm high. All SCFD are designed and built to required lengths and heights.

	Protection Height	Max Length	Height	Width	Pipe Connection
SCFD 300	300 mm	6000 mm	700 mm*	270 mm	110 mm
SCFD 600	600 mm	6000 mm	1000 mm*	270 mm	110 mm
SCFD 900	900 mm	4000 mm	1400 mm*	300 mm	160 mm
SCFD1200	1200 mm	4000 mm	1800 mm*	300 mm	160 mm

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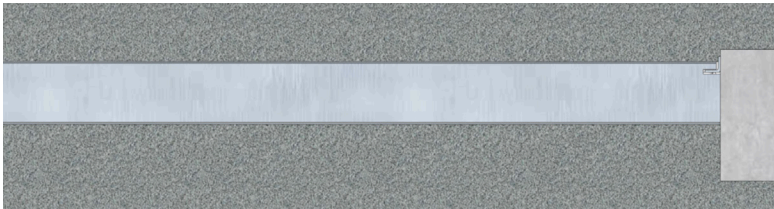
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Top Finish



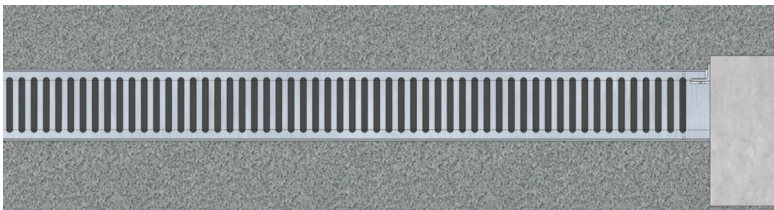
Standard top

Top plate, top strip and lid are visible



Extended top

With an extended top the top plate and top strip will have an elevation, the pavement can cover the top plate and strip. The lid is the only visible component of the barrier.



Extended top as water runnel

The lid is replaced for a water inlet lid.



Invisible top

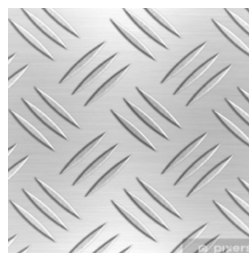
For the invisible top we use the extended top and lower the lid this creates space to “blend” the same pavement on top of the lid

Top material

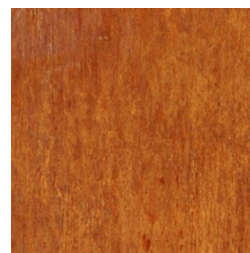
It is possible to choose between different top finishes.



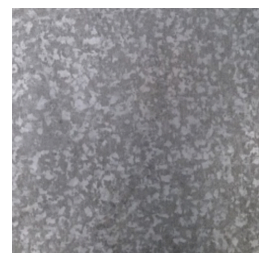
Stainless steel



Diamond plating



Corten steel



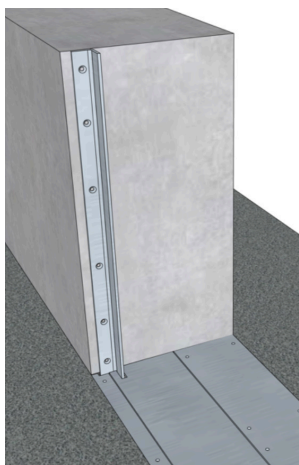
Galvanized steel

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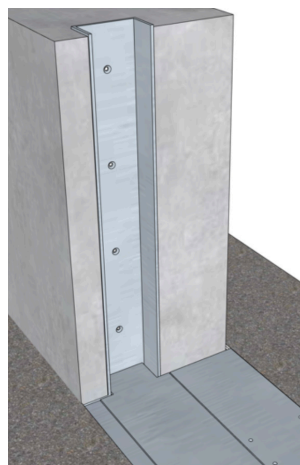
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Guide

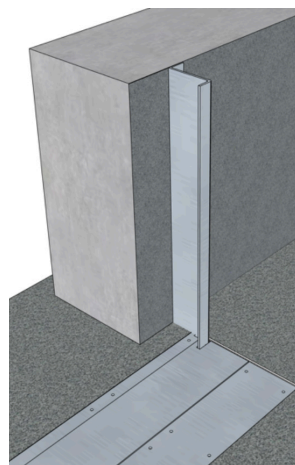
It is possible to choose between guide rails or guide slots as end protection of the SCFB. Guide rails outside of the fixed wall and guide slot can be mounted inside the fixed wall. Good operation of the SCFB relies on a guide rail or guide slot at each end of the barrier to seal against. The guide also allows the barrier to be guided when rising and falling.



Guide rail



Guide slot



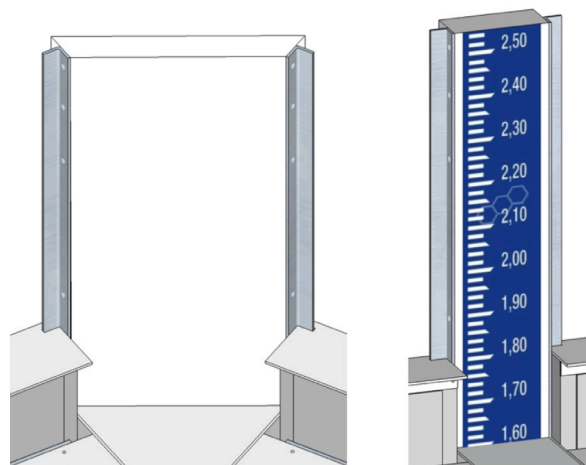
Guide rail front mounting

Where the barrier is to fit between two fixed wall a guide rail can be mounted to the fixed wall. If there is considerable pedestrian traffic it is recommended to use a guide slot to seal the barrier inside the wall.

Guide post

When two lengths of SCFB units have to be connected to each other, or when the barrier has to make an angle, they must be connected with a guide rail. Connecting guide rails can be ordered in all different angles. Where long lengths of barriers are installed, which cannot be accommodated in one length, guideposts are introduced to break the length up.

The SCFB sections are in standard lengths of 1m, which may be linked together. The use of guideposts can facilitate changes of direction or deviations from a straight line in the run of the barrier. The route of the barrier therefore needs to be defined and divided into suitable section lengths of up to 50 linear meters each.



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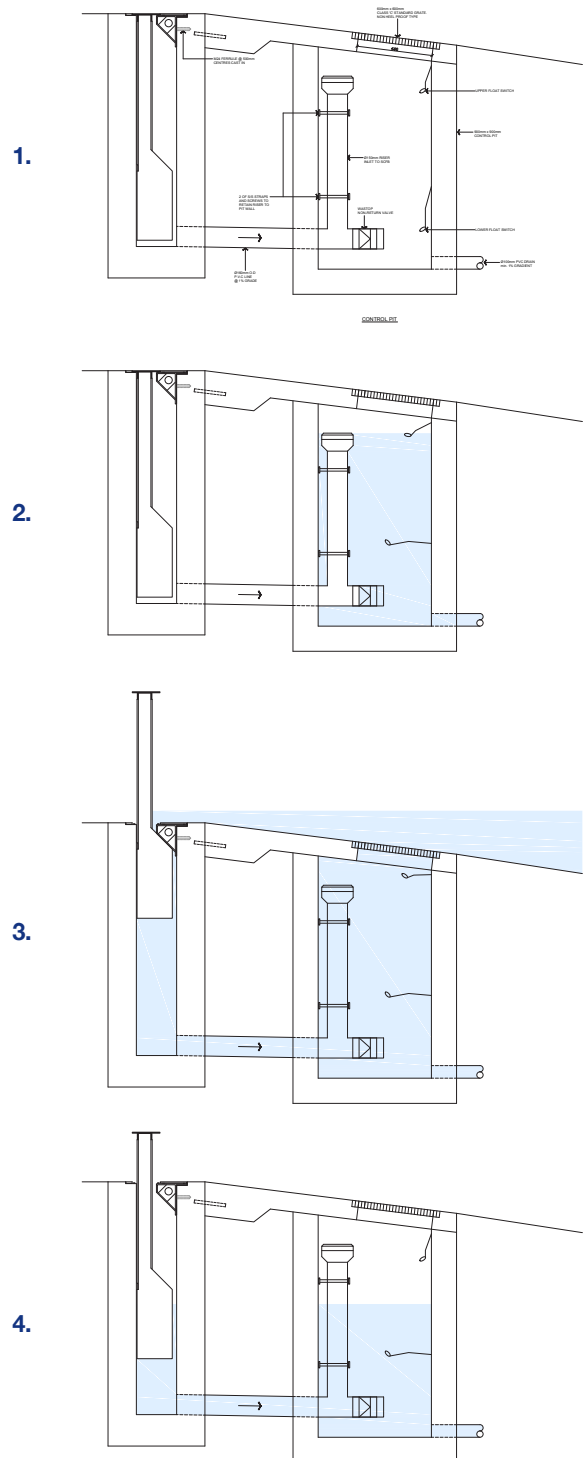
Activation

It is recommended for each SCFB unit to use a service pit to control the water inlet and drain. There are two types of pits, a standard pit and one with a pump. Which one is needed depends on the situation where the SCFB will be installed. When the surface of the area water is normally lower than the bottom of the SCFB the standard Pit or pipe connection is sufficient to drain the SCFB system.

When the surface water is higher than the bottom of the SCFB a service pit with a pump is always required. The pump switches on automatically once there is water in the system and prevents the system deploying if there is no need for it.

Additionally, in situations where water subsides slowly, the pump switches on once the waters are below flood level and the SCFB will therefore no longer be an obstacle.

For commissioning and ongoing testing, it is important to have a water supply in the area of the SCFB. The outlet of the pipe connection or service pit can be temporarily closed and the system can be easily filled by the water supply. FLOODING SOLUTIONS will design and nominate the optimal position for the control pit to ensure an appropriate design for each unique application.



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