

## Self-Closing Flood Door

Product information brochure 2020



**scfb**  
self closing flood barrier®



## Working principle SCFD

The self-closing flood door SCFD is a unique system to protect your private home 24 / 7 during your absence. Rapid onset flooding cost by heavy rainfall during the night or vacations causes the greatest damage. For deploy the more traditional type of manually operated flood-doors and floodgates systems you need warning time and time to set up the barrier what you don't have in these cases. The SCFD overcomes all the issues associated with these flood defenses and has the considerable advantage of not requiring any intervention during a flood warning, the SCFD using the approaching floodwaters to automatically raise the barrier; effectively using the problem to create the solution.

The SCFD a smaller version from the SCFB and is intended to protect small gates and privet property against floods. The working principle is very similar to that of the larger SCFB but with the reduced scale. Because of this reduced scale and the lighter materials, the barrier is easy to install and, in most circumstances, the SCFD does not require a service pit and can be fit with a standard pipe connection to the sewer. The system is made of very durable materials designed to last for 30 to 50 years and remains virtually maintenance free of many years.



In non-flood conditions, all operational parts of the barrier are invisibly concealed in the ground inside the basin. When the floodwater entered the basin the floating wall barrier will start to float up inside the basin. This gives the rubber seals space to move free when the barrier goes up; this prevents wear of the seals. When the floating wall is in the top position the angled support block will push the wall to the dry side and 'lock' the wall in position. The seals will make now a 100% watertight connection inside the basin and the guide rails.

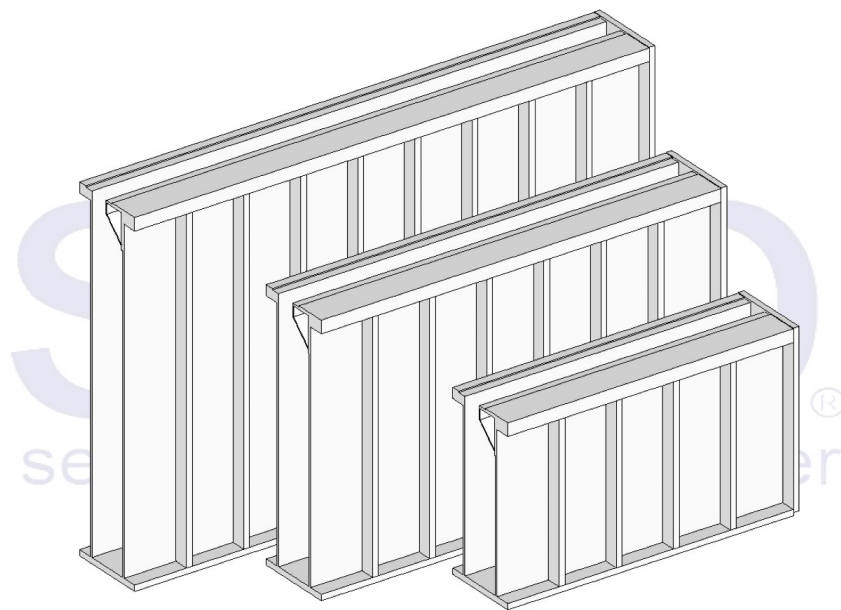
The seals have a life expectancy of over 15 years. They are protected underground and therefore are not subject to UV degradation. In its closed position the barrier is protected below ground level and therefore not prone to vandalism. The barrier is not energy driven and therefore still operates in case of a power cut.

When there is a flood the barrier will always rise completely, normally within a few minutes.

As the water level subsides back to its normal level, the floodwater in the basin is drained out by either gravity or a pump located in the service pit, through a drainpipe which is fitted with a one-way check valve. As the water continues to drain from the basin, the floodwall returns to its resting position within the basin. In its closed resting position, the lid of the barrier seals to prevent the inflow of waste or debris.

## Lengths

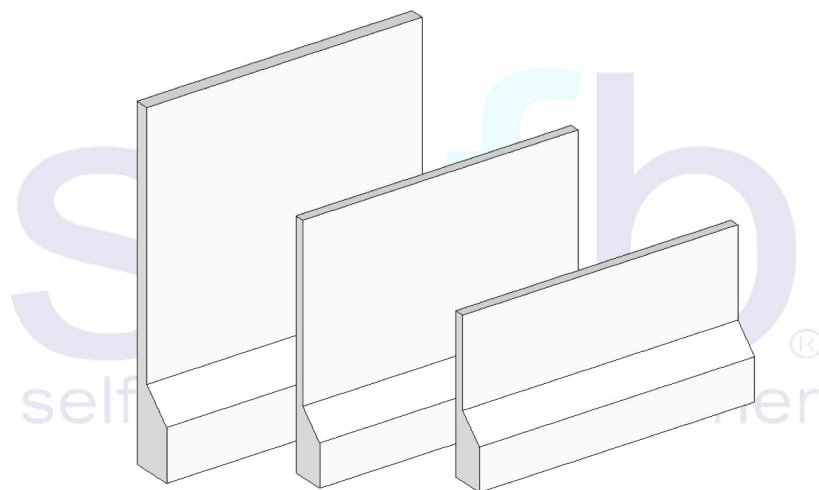
The SCFD can be built in length up to 3 meters and in standard heights from 300, 600 and 900mm. The basin from the SCFD is made out of very durable PE-HD material and reinforced with stainless steel. The top of the barrier is made of aluminium.



## Heights

The SCFD can be built in different heights. The following heights are available:

System site	Protection height	Max length	Ground depth	Top width	Pipe connection
SCFD300	300 mm	3000 mm	600 mm	270 mm	110 mm
SCFD600	600 mm	3000 mm	900 mm	270 mm	110 mm
SCFD900	900 mm	3000 mm	1200 mm	300 mm	110 mm

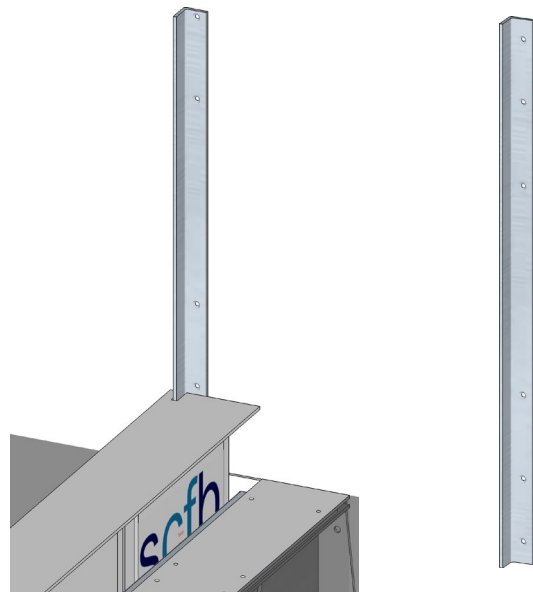


## Guide rail or guide slot

It is possible to choose between guide rails or guide slots as end protection of the SCFD. Guide rails are mounted at the outside of the fixed wall and guide slot can be mounted inside the fixed wall.

## Guide rail

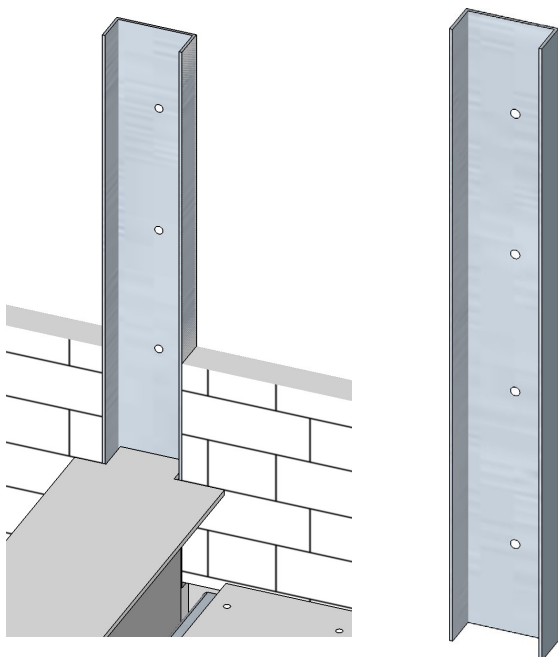
The operation of the SCFD relies on a guide rails or guide slots at each end of the barrier to seal against, (under flood conditions) the sidewalls. Where the barrier is fit between two fixed wall reveals a guide rail or a guide slot is mounted to the wall and reveal and sealed with a mastic sealant. The angle also allows the barrier to be guided when rising and falling.



## Guide slot

It is possible to choose between guide rails or guide slots as end protection of the SCFD. Guide rails are mounted at the outside of the fixed wall and guide slot can be mounted inside the fixed wall.

The operation of the SCFD relies on a guide rails or guide slots at each end of the barrier to seal against, (under flood conditions) the sidewalls. Where the barrier is fit between two fixed wall reveals a guide rail or a guide slot is mounted to the wall and reveal and sealed with a mastic sealant. The angle also allows the barrier to be guided when rising and falling.





## Installation of the SCFD

- Excavate for the SCFD basin with all necessary temporary works, which will vary depending on depth of excavation.
- Construct a good foundation level on the floor of the groove.
- When the barrier is placed check if the barrier is level and in the right position.
- Point a rubber compound or foam between the SCFD Basin and the fixed wall for a watertight connection.
- When a Service Pit is used, place the pit on its foundation in position. Generally, the top of the pit is level with the top of the basin.
- Connect the filling/drainpipe with between the SCFD and the Service Pit.
- Connect the filling/drainpipe to the area water sewer system.
- When no Service Pit is used connect the inlet pipe level to the sewer. The drainpipe with a one-way return valve must be sufficient low that it will drain the basin of the SCFD.
- Mount the guide rails to both sides of the barrier and make sure that there is a watertight connection between the guide rails and the fixed wall.
- Fill the SCFD system with water and check if the wall comes up correctly threw the guide rails.
- Empty the basin and check if the wall comes complete down and fits correct between the slot plates.
- Pour about 50 mm concrete in the grooves on both sides and underneath the SCFD and let the concrete dry.
- Fill the groove further up with clean sand. Be careful and do not overload the SCFD and Pit by stamp down (Use for the upper site some stabilized sand or a concrete pavement)
- Complete the pavement.

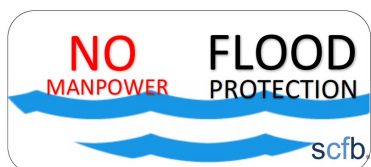
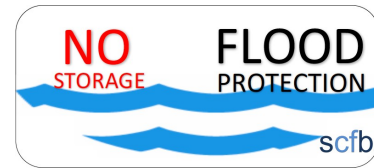
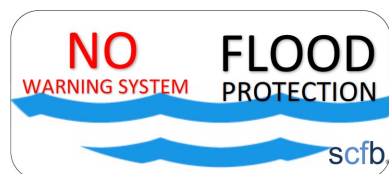
## Inspection

- The SCFD should be inspected monthly to ensure that there is no debris or refuse trapped along the length of the lid or at the guideposts / rail positions.
- Draining the system after a flood.
- Once the water level subsides to a normal level, the SCFD basin is drained through a drainpipe with a one-way check valve.
- When the SCFD is connected to a drainage sewer the system must be cleaned after a flood.





## Notes:



# Flooding Solutions

ADVISORY GROUP

## CONTACT

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