

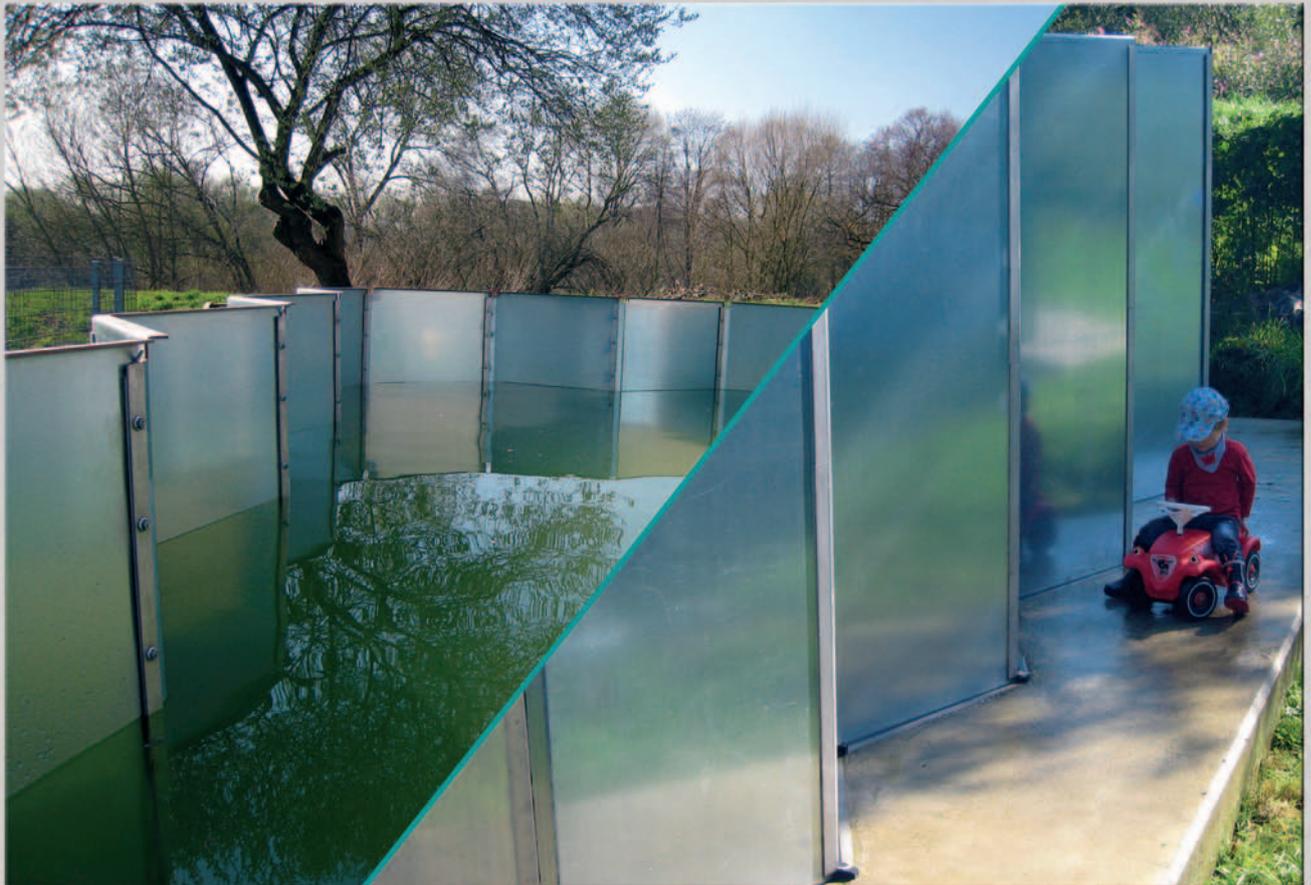


Steinhardt®
HYDRO SWIZZ



The zig-zag floodwater barrier

The ground-breaking barrier system
for effective flood protection



patented

Steinhardt®
Water Technology Systems



Mobile flood protection barrier system

The challenge

Climate change, global warming and the associated shifts in weather patterns have increased the frequency of high intensity storm events with the consequence of extensive flooding. Large areas of land are now becoming subject to regular inundation with great economic cost to residents and others.

The way

Our innovative mobile floodwater protection barrier is ready for service in just a short time – the barrier can be erected quickly and when the flood water has subsided, just as quickly dismantled and packed away for its next deployment taking up only a minimum of storage space.

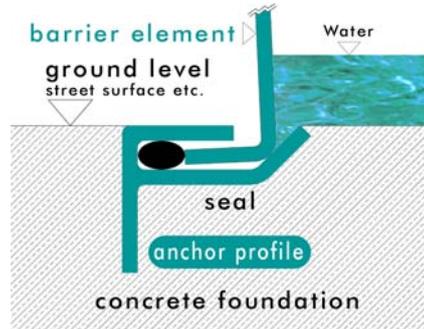


The system

The system consists of “anchor profiles” which are set at an angle of 135° to each other and fitted flush to the ground on a prepared concrete foundation. The profiles and the foundation are the only permanent parts of the system. No parts protrude from the ground so that in normal dry conditions there is no visible impact on the landscape and no obstructions to traffic or pedestrians.

The steel sheets making up the barrier are slotted into the pre-formed profile. The foundation is constructed in such a way that the receiving

groove faces away from the expected flood path. As the water level rises, the water pressure pushes the barrier sheets tighter against the seal in the slotting groove thus increasing its effectiveness. The barrier remains watertight against the rising floodwater. A bolting strip is used to fix the sheets together giving the protection barrier 100% stability and making extra supporting structures unnecessary.



The patented mobile flood barrier protection system has undergone rigorous testing. Finite element analysis for various critical load cases has been applied; this includes the case of a car colliding from the landward side or of increased pressure from floating refuse on the water side.

Professor Dr.-Ing. M. Feldmann from the Technical University in Aachen concludes that,

“The mobile flood protection barrier system adequately fulfils the boundary conditions of all relevant requirements.

Its strong feature is flexibility of design which allows extreme versatility of application.

The system is simple and quick to erect which makes it a promising solution for portable floodwater protection.”



As a substitute for sandbags

The SWIZZ emergency flood protection barrier represents a flexible and quickly-constructed alternative to the laborious filling and stacking of countless sandbags.



Advantages:

- Uncomplicated and speedy mounting
- Competitive cost compared to other flood protection systems
- Deployable up to a height of 2 m
- No vertical supports
- No ground bolting
- Exceptionally robust system (galvanised steel sheets)
- No danger of freezing when in use
- Low 10% storage space ratio
- Low on logistics with just one single protection barrier element
- No cleaning of elements necessary following deployment
- Elements and tools for a 30 or 60 m barrier in one transportation and storage case
- Minimal impact on landscape, no traffic obstruction when not in use.
- Foundation flush with ground
- Ideal for emergency deployment