

UNITED INTERNATIONAL  
HYDRO ENG. TECH



## NOAQ FLOOD PROTECTION

**United International Hydro Engineering Technologies (UIHET)** provides total environmental and industrial solutions for better tomorrows. We owe these to future generations because we inherited a good environment from our past generations. **UIHET** with their technical and business partners and alliance strive to introduce proven and new technologies in the field of thickening and dewatering, for the Future of the next generations. **UIHET** believes that new challenges cannot be solved with old techniques. This philosophy necessitate **UIHET** to be on the edge of the technology and invest in the continuous research and developments as the main success factor for our company. **UIHET** advanced line of municipal and industrial flow protection equipment includes a wide range of modern technologies to meet your requirements. With precision engineering to meet rigid standards, **UIHET** is the official exclusive agent for NOAQ flood protection equipment in MENA region. **UIHET** NOAQ flood protection equipment is supported by a reliable engineering staff with extensive experience. This experience aids our customers in creating solutions for today's complex problems and challenges.



# TECHNICAL DETAILS

The NOAQ flood protection is a mobile freestanding flood barrier, intended for temporary use to protect buildings and other objects from flood water. It consists of elements "boxes" that are snapped together to form a protective chain - a box wall. It is self-anchored, as it is automatically stabilized by the weight of the flood water itself. A NOAQ flood protection can also be used to redirect fast flowing water in a flash flood situation. A third application is making a temporary basin - a "NOAQ flood protection".

A NOAQ creates a dam for water up to a height of 50 cm. It is so light that it can quickly be set up to protect buildings and other property against water damage, and also to keep roads open. NOAQ is designed for use on a relatively even surface, such as a paved street, a concrete floor or a lawn. NOAQ is patented in a large number of countries.

NOAQ consists of sections (boxes) that are linked together by means of a simple manual operation. No tools are needed. For bends and corners there are certain corner boxes. There are also gable units for the finishing of a NOAQ.

A new straight model BW52 replaces an older model BW50, but the two models are fully compatible. However, the corner boxes that were developed for the previous model (BW50-IC and BW50-OC) have not been replaced by new ones.





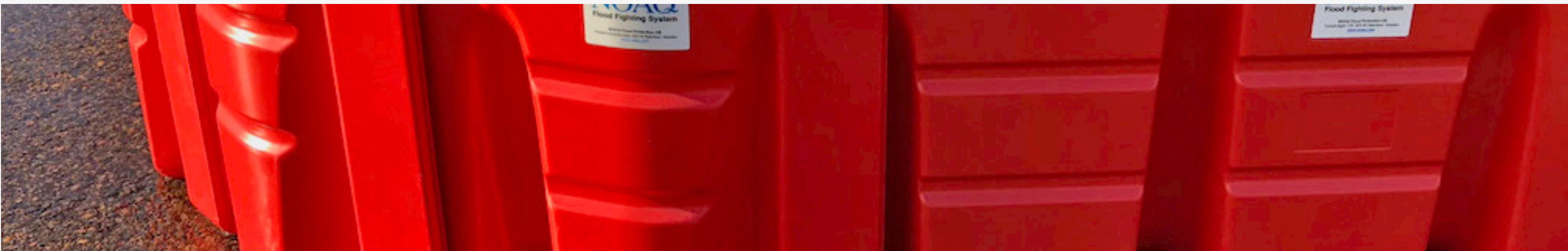


Each box consists of a damming part (the rear wall), an anchoring part (the horizontal section that rests on the ground) and a sealing part (the front edge of the horizontal section). Sealing strips of cellular plastic are fitted under the front and side edges. Each box is also fitted with three cellular rubber soles to create a good grip on the road.

A boxwall is built up by snapping boxes one at a time onto the previous one. The easiest way is to work from left to right (viewed from the dry side). You should avoid working from two directions, as it is difficult to make the two wall sections meet at exactly the same point.

As with all mobile flood barriers you need to count on a certain leakage. This can be minimized by covering the barrier with a plastic liner. But water is also leaking through the ground under the barrier. Water may also come to the protected area as rain and through brooks which have been cut off by the barrier itself. Therefore one or more pumps must always be put on the intended dry side of the barrier.

The boxwall can be placed on land that is already flooded, but if the ground surface is difficult to see through the water, you must take particular care to make sure that the boxes are not placed on uneven surfaces, on the wrong side of surface water drains, etc.



## NOAQ FLOOD PROTECTION TYPES


**NOAQ Boxpool BP50** – The NOAQ Boxpool is a temporary basin for storing liquids of different kinds. Clean water, contaminated water, firewater, dredged material etc. It can also be used for temporarily storing dry matter like sawdust, wood chips and pellets.

**NOAQ Boxwall BW52** – The NOAQ Boxwall BW52 is a freestanding temporary flood barrier. It is designed specifically for the urban environment, with even surfaces like asphalt streets, but it works as well on lawns etc.

**NOAQ Boxwall BW102** – A NOAQ Boxwall BW102 is a freestanding temporary flood barrier, able to dam 1 meter of water and is self-anchoring. It is designed specifically for the urban environment, with even surfaces like asphalt streets, but it works as well on lawns etc.

**NOAQ Tubewall** – NOAQ Tubewall is a temporary flood barrier. It consists of a number of air inflated sections (tubes) that are interconnected by ordinary zips to form a continuous protective barrier.





**NOAQ**  
Flood Fighting System

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## IMPORTANT

Floods result from a course of events controlled by forces of nature that can only be controlled to a limited degree. Furthermore, no two events are the same, which means that all protective equipment must be used not only with good knowledge of its function and limitations, but also with generally sound judgement. Those who provide the equipment, manufacturers, resellers, hirers, etc. can never accept liability for the actual use and any possible personal injury or damage to property that might arise.



## HOW DOES IT WORK?

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The NOAQ is a temporary basin for storing liquids of different kinds. Clean water, contaminated water, firewater, dredged material etc. It can also be used for temporarily storing dry matter like sawdust, wood chips and pellets.

A is made by snapping together a number of individual elements, "boxes". Each box has a horizontal part laying on the ground on the flood side. The weight of the flood water entering on top of the horizontal part press the device against the ground, and the barrier is hereby anchored reliably. A couple of rubber soles on the underside provide the necessary friction. The can even be overtopped without tipping or sliding.

The corner boxes are 30°, which means 12 pieces can be used to build a circular boxpool. Using the BW52 components, such a NOAQ will contain a little more than 1 m<sup>3</sup>. Using the BW102 components it will instead contain

9 m<sup>3</sup>. By cutting the circle in two, and inserting a number of straight boxes, an elongated boxpool is created. In fact there is no limit – the modularity of the system enables you to create a boxpool the size and shape you want.

Deployed on a road it can be made narrow enough to only occupy one lane – the other lane can still be open for traffic. For the use of the BW52 and BW102 components for temporary flood barriers, see specific fact sheets. (see separate fact sheet).





## ABOUT NOAQ FLOOD PROTECTION

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NOAQ Flood Protection AB is a Swedish company located in Näsvisken that develops and sells mobile flood protection barriers on the global market. Its main products, the NOAQ Boxwall and the NOAQ Tubewall, consist of self-anchoring barriers stabilised by the weight of the flood water itself. NOAQ's products are easy to use and quick to deploy, offering the market efficient and sustainable alternatives to conventional flood protection systems like sandbags.

As a climate-adaptation solution, NOAQ's system plays an important role in protecting buildings in urban areas that could otherwise face significant damage to property and crucial infrastructure. Coastal and urban areas face an increasing probability of flooding events due to the rise in sea levels, extreme rainfall and river flow events.





## APPLICATIONS

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- Buildings and other objects temporary protection from flood water
- Temporary Basin
- Redirection fast flowing water in a flash flood situation
- Protect property on beaches from tides
- Protecting buildings and properties near rivers
- Protect buildings and pedestrian walkways in case of heavy rain

## FEATURES & BENEFITS

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- **Temporary Basin For Storing Liquids** - The NOAQ Boxpool is a temporary basin for storing liquids of different kinds. such as clean water, contaminated water, firewater, dredged material etc. It can also be used for temporarily storing dry matter like sawdust, pellets and wood chips.
- **Fast and Easy To Assemble** - The individual "boxes" are easily snapped together, and by letting the barrier form a closed figure a basin is created. The basin is then covered by a liner.
- **Flexible Shape and Size** - The corner boxes are 30°, which means 12 pieces can be used to build a circular boxpool.
- **Low Weight and Easy To Use** - The NOAQ weigh is only about 15.2 kg each and the barrier not more than 17 kg per meter. This makes it easy to use, and fast to deploy. Two people can build 100 linear metres of NOAQ in an hour.
- **No Tools Are Needed For Installation** - It is based on self-anchoring System.
- **Effective Storage** - Can be stored on top of each other in the form of packages.



