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Fighting Water With Water: A Revolutionary Solution To Flooding

By **Hellen Neubauer** On **Aug 31, 2023**

Rapid H2O Flood Barriers: A New and Innovative Solution to Flood Control

They say that sometimes you have to fight fire with fire. But what about fighting water with water? In the realm of innovative flood control, the Rapid H2O flood barriers are making waves in the UK market. This ingenious system utilizes water as a primary defense against flooding, offering an alternative to the age-old sandbag approach. Easy to assemble and reusable, these barriers bring a fresh perspective to the fight against rising waters.

While the concept of water barriers might seem novel, they have already garnered attention in North America and have undergone trials with various contractors and a demonstration for Leicestershire County Council. The team behind Rapid H2O is eager to secure a place in the UK market, bringing a remarkably simple yet effective innovation to the forefront of infrastructure resilience.

How does it work?

The heart of this system lies in its simplicity. Rapid H2O flood barriers consist of folding steel cages, lined with waterproof material, and filled with water. This approach stands in stark contrast to the traditional sandbag method, and it comes with several compelling advantages.

One of the most significant advantages of the Rapid H2O system is its cost-effectiveness. According to John Meehan, a technical consultant to IGP UK, the distributor for Rapid H2O flood barriers, a cost comparison for deploying a five-meter section of flood protection reveals that sandbags would cost much more. The economic appeal is evident, but the benefits don't end there.

Low environmental impact

Meehan further highlights the environmental aspect, stating, "Due to the ability to reuse the barriers, they have a much lower carbon footprint per use." In a world increasingly concerned about sustainability, this factor is a noteworthy advantage. As climate change continues to exacerbate extreme weather events, solutions that are both cost-effective and environmentally responsible are in high demand.

How Rapid H2O was born

The story of Rapid H2O's development is as impressive as its benefits. The product originated in the Czech Republic, created by Innovative Global Products Europe and initially deployed by Czech emergency services during flood conditions. Subsequent testing in the USA led to the product receiving accreditation in Florida for use in hurricane conditions. In the UK, IGP UK acts as the distributor, facilitating product demonstrations with local authorities and contractors who are now trialing sections of the barriers.

With over 5.2 million homes and businesses in England at risk from flooding, there is a significant market for innovative flood control products. The classic sandbag has a long

history of service in this regard, but it has its limitations. Sandbags are cumbersome and labor-intensive to deploy, and even when correctly filled and placed, they do not guarantee a watertight seal.

Dr. Amar Rahman, Global Head of Climate Change Resilience Services at Zurich Insurance, explains that sandbags can act as a barrier to divert moving water around structures, but they don't necessarily prevent water from infiltrating buildings. Building an effective sandbag wall requires at least two people to fill each bag, and a structure like a 1.2-meter high pyramid would necessitate up to 80 bags weighing as much as 1,600 kg. The logistics and manpower required for such an operation are substantial.

In contrast, the Rapid H2O system offers rapid installation and removal, making it suitable for a wide range of flood protection scenarios. Whether it's river or coastal protection or mitigating utility water issues, this system proves versatile. Moreover, as a fully reusable solution, it leaves no waste on-site, which aligns perfectly with modern environmental consciousness.

Not only against floods

Beyond flood protection, the Rapid H2O barriers have been trialed in managing contamination spills. They create a quick-to-install liquid container that can hold contaminants within the membrane during an emergency, allowing for controlled disposal later. This multi-purpose capability further enhances the system's value and utility.

The components of the RAPID-H2O Barrier System underscore its robustness and practicality. It consists of a reusable five-cell military-grade steel cage made from Galfan coated welded wire, along with joining pins and multi-layered polymeric reservoirs. These reservoirs are securely attached to the steel cells, creating a formidable barrier when filled with water. The entire assembly is covered with a woven poly liner on the flood side, ensuring stability and effectiveness in flood control.

In conclusion, the Rapid H2O flood barriers represent a game-changing innovation in flood control and infrastructure resilience. With their cost-effectiveness, environmental friendliness, and versatility, they present a compelling alternative to traditional sandbags. As climate change continues to pose significant challenges, solutions like Rapid H2O are vital in safeguarding communities and infrastructure against the growing threat of flooding. In the battle against water, it's increasingly clear that fighting water with water might just be the winning strategy.

Source

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