

Bright Idea: Waterwall
is the world's first rapid
deployment water-based
blast mitigation system

Blast buster

Water-filled anti-terror tool set to report for duty with Army's EOD experts

Report: Andrea Webb

THE world's first rapid deployment blast mitigation system to use the high mass of water to dramatically reduce the effects of explosions has been launched after trials involving members of 11 Explosive Ordnance Disposal Regiment, Royal Logistic Corps.

Waterwall™ – a ground-breaking concept developed by Cintec International – comprises a range of self-inflating, water-filled structures which are capable of providing a high level of protection to people and property against a range of terrorist devices including those containing chemical, biological and radiological agents.

Manufactured from polyvinyl chloride (PVC) or neoprene-coated fabric, Waterwall structures are internally reinforced using a specialist stitching technique to enable them to maintain their shape and stability.

Before use, the structures are partially inflated with air to assist with handling and positioning. They are then filled with water, which displaces the air through a pressure relief valve.

The time needed to fill each unit varies depending on its size and the pressure of the water supply but typically takes ten minutes or less. The water can be emptied out and the unit stored for future use.

Waterwall products of varying shapes and sizes have been designed to contain and isolate devices ranging in size from a shoe to a car bomb.

These include the Mini Bin, Maxi Bin, EOD Bin and Ram Bag. The structural stability of the Waterwall design has also enabled Cintec International to produce a unit large enough to enclose a vehicle of up to seven tons and a range of blast panels that can be linked together and rapidly deployed to lessen the impact of explosions for checkpoint security and vehicle search purposes.

Trials conducted on behalf of the MoD and the Home Office in the UK have shown that Waterwall minimises collateral damage by more than 80 per cent. A number of Waterwall bins have already been purchased by 11 EOD Regiment, RLC to supplement the isolation bins already in service.

With prices starting from £985 for a Mini Bin, the cost-effective nature of the Waterwall range puts effective blast mitigation within the reach of every government and private organisation.

It is thought that in the future security professionals may deploy Waterwall systems in the same way as security cameras, fire extinguishers and sprinkler systems, with isolation bins being put on standby in buildings, passenger aircraft, trains and ships. ■

Why water?

- Cheap and readily available in urban areas
- Reduces blast impact by up to 95 per cent
- Reduces velocity of fragments produced by an explosion and will stop all fragments completely if the water layer is thick enough
- Low down-range hazard
- Captures forensic evidence when used against improvised explosive devices
- Inhibits the formation of a toxic gas cloud
- Can be pre-mixed with decontaminants to facilitate clean-up following a dirty bomb

Why Waterwall?

- Dramatically reduces blast effects
- Rapid deployment
- Uses simple and inexpensive materials
- Accepts any type of water
- Easy to store, transport and use

