Flood Defence Systems

PROTECTING LIVES, PROTECTING LIVELIHOODS, PRESERVING INFRASTRUCTURE

FDS Inflatable Flood Barriers

Efficient, Durable and Reliable

Best in Class Rapidly Deployable Flood Protection

Preparation is crucial to prevent irreparable damage.

"The most effective Emergency Management activities are proactive prevention/mitigation measures. The return-on-investment for these activities....would generate savings of $6 for every $1 invested in prevention."

EMERGENCY MANAGEMENT STRATEGY FOR CANADA: TOWARD A RESILIENT 2030 - Public Safety Canada 2019

Holding stockpiles of modern protective equipment enables much faster, well-planned and effective responses to natural disasters.

Deploying modern flood defence systems quickly and efficiently, is essential to mitigate the enormous costs and disruption that would otherwise occur through reliance on outdated, labour Intensive and unwieldy alternatives such as sandbag walls or water-filled barriers.

COMPARED TO SANDBAGS

- **Completely reusable**
- **Cost savings of 25% to over 65%**
- **90% reduction in set up and tear down times.**
- **95% reduction in storage space.**
- **93% reduction in transport requirements.**
- **99% reduction in carbon emissions.**

SAVE MONEY, TIME AND LABOUR WITH FDS HIGH PRESSURE AIR INFLATABLE FLOOD BARRIERS

EFFECTIVE

Small footprint maintains traffic flow

FDS barriers have a constant base width of 0.56m regardless of height. This means that they do not impede traffic on roads and sidewalks they are meant to protect.

Sandbags and water-filled barriers have base widths of 2 - 4 times their height and can often seriously impact pedestrian or vehicle traffic.

Deploy barriers of any length

All barriers can be connected together to form a single barrier of unlimited length, to suit your needs. Add extra sections even when the barriers are fully inflated. Connection equipment is included at no extra cost.

Tested and Proven

FDS barriers all underwent rigorous testing conducted by the National Research Council of Canada.

The barriers were connected together at 90 degrees and subjected to various water depths up to 1.2m and waves up to 0.3m.

They significantly reduced the flow of water such that it could easily be drained through normal city drains or pumped out with a small water pump.

EFFICIENT

Fast setup and dismantling

FDS barriers can be set up and taken down by a trained team of 3 - 6 people in under an hour. No more need for hundreds of volunteers or military personnel.

Furthermore, after the flood, the barrier covers can be removed and the support posts can be left in place for even faster response to the next flood .

Easy to handle and store

All the barrier components can be carried by one or two people and no special handling equipment is needed Two of the largest barriers fit easily in the bed of a pick up truck and the low packed volume makes them very easy to store.

Variable height and connection angle

The barriers can be varied in height and configuration to provide the best protection for your site.. FDS2 barriers protect up to 0.7m water depth and the FDS4 barriers protect up to 1.22m water depth.

Our barriers can be connected at any angle up to 90 degrees, This means that they can easily follow street lines and go around obstacles..

ECONOMICAL

Completely reusable

Our barriers are completely reusable. After use, simply clean the outside of the deflated barriers and store them till needed again.

They quickly pay for themselves when compared to single use sand-bags or water-filled barriers needed to build a wall of equivalent length and height.

No hidden costs

FDS barriers come complete with everything needed for immediate use. No extra straps, restraints, valves or special fitments have to be bought.

Additionally, there is no need for water trucks or special equipment to move huge amounts of sand or water to fill the barriers and no toxic sand waste or thousands of litres of water to dispose of afterwards.

Highly durable

FDS barriers are made using advanced materials technology. This allows them to be inflated, with air, to over 25 psi. and have the strength to withstand over 66,000N water force.

The covers are made from military grade materials and are resistant to UV rays, mildew, mould and abrasion.

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Model No.	Length m (ft)	Max Height m (inches)	Packed Size L x W x H cm (inches)	Packed Vol cu.m (cu. ft)	Weight Kg (lbs)	Set Up Time (3 - 6 pers)
FDS 2-24	**7.3** (24)	**0.7** (28)	**132 x 92 x 112** (52 x 36 x 44)	**1.36** (48)	**62** (136)	**< 45 minutes**
FDS 2-12	**3.66** (12)	**0.7** (28)	**92 x 92 x 97** (36 x 36 x 38)	**0.82** (29)	**31** (68)	**< 30 minutes**
FDS 2-04	**1.22** (4)	**0.7** (28)	**76 x 76 x 81** (30 x 30 x 32)	**0.47** (17)	**18** (39)	**< 20 minutes**
FDS 4-24	**7.3** (24)	**1.42** (56)	**152 x 92 x 112** (60 x 36 x 44)	**1.56** (55.0)	**137** (302)	**< 1 hour**
FDS 4-12	**3.66** (12)	**1.42** (56)	**152 x 92 x 97** (60 x 36 x 38)	**1.35** (48)	**76** (167)	**< 40 minutes**
FDS 4-04	**1.22** (4)	**1.42** (56)	**152 x 76 x 81** (60 x 30 x 32)	**0.94** (33)	**26** (57)	**< 20 minutes**
EWSK-01	The Extreme Weather Support Kit (EWSK) is fitted when the water levels are expected to exceed 0.9m (3ft) or in very strong winds. The EWSK comprises an additional crossbeam, Rear Base Plate, a Rear Bracing Strut and all fittings.					

Recent deployment proves barrier effectiveness

During a recent urban flooding simulation exercise, FDS barriers held back almost 1m (3 ft) of water, and would have prevented this shopping mall from being completely overwhelmed

FDS 2 series:
Up to 0.7m (28in) of protection

FDS 4 series:
Up to 1.25m (50in) of protection

EASY 2-STEP INSTALLATION

STEP ONE - SUPPORT

Fix the Front Base Plates to the ground, attach the Support Tubes and fit the deflated Barrier Cover. Secure the front and rear aprons to the ground using anchors, stakes or one row of sandbags.

STEP TWO - INFLATE

Inflate the crossbeams using an air compressor and secure the Barrier Cover to the Support Tubes.

EXTREME WEATHER SUPPORT KIT

Secure the Rear Base Plates to the ground and fit the Bracing Struts between the Rear Base Plates and the Support Tubes

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