

AMERICAN FIREBOOM MkII Technical Description



During the Deepwater Horizon oil spill the most prolific fire boom used in the response was the American Fireboom. The boom was originally known as 3M American Fireboom and was supplied in large quantities to the response community during the 1980's. The controlled burning operations during 2010 demonstrated that this was truly an effective design. It has some of the longest recorded burns of any fire boom on the market (only second to our Hydro-Fire[®] Boom.)

American Fireboom is now being produced once more and has been supplied to a number of major oil spill removal organizations with upgraded components and a lighter design. American Fireboom MkII offers an alternative to responders that prefer solid state firebooms.

American Fireboom MkII is a floating containment barrier that looks and behaves like a conventional boom but can support deliberate controlled combustion. It employs a unique high-temperature resistant ceramic core cloth components that retain their integrity from -65 F to more than 2,300 F (continuous).



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During the Gulf of Mexico controlled burn operations this boom withstood controlled burns over 11 hours in duration. This boom has also been tested at;

1988 Spitsbergen, Norway

- 1989 Exxon Valdez, USA.
- 1993 Environment Canada, Newfoundland. NOBE.
- 1995 In-Situ Burning of Alaska North Slope Emulsions
- 1996 UK, Southampton
- 1997 Test and Evaluation of Six Fire Resistant Booms at Ohmsett
- 1998 Fire Resistant boom test at Ohmsett (ASTM F 2152)
- 1999 Estimation of Towing Forces on Oil Spill Containment booms
- 2008 Towing tests in light ice conditions.
- 2009 Tests of Fire-Resistant Booms in Low Concentrations of Drift Ice.
- 2010 Deepwater Horizon, USA

This list is non-exhaustive, see enclosed summary and copies of test/incident reports where available).

This boom is manufactured in high temperature resistant materials including stainless steel knitted mesh, ceramic flotation/fabric, built in stainless steel tension cable (below the water) and covered with sacrificial PVC fabric. Two sizes are available; typically the smaller model is used for inland, swamps and rivers.



Specifications;

Total height: Float: Skirt: Weight: Section length: Storage volume: 30 inch / 760mm 12 inch / 300 mm 18 inch / 450mm 8.1 lbs/ft / 12 kg/m 50ft / 15m 77 cu/ft / 2.2 cu.m per section 20 inch / 508mm 8 inch / 203mm 12 inch / 305mm 5.1 lbs/ft / 7.7kg/m 50ft / 15m 24 cu/ft / 0.68 cu/m

American FireBoom MkII may be packaged for transport, storage and deployment using one of several systems; ISO Cntainer, open trays or airborne pallets.



Fireboom Advantages;

- · Enormous savings in cleanup costs
- · Disposal rate of many tens of thousands of gallons per hour
- Oil removal efficiencies of 95% or better
- · Minimal equipment and labor requirements

This boom incorporates design improvements developed through years of testing. Each section of the boom consists of seven segments, each of which has a high temperature resistant ceramic core flotation surrounded by two layers of stainless steel knitted mesh and high temperature resistant textile fabric that can withstands temperatures of 2300°F (1260°C) continuous. The ceramic foam has a density of 32 to 40 kg/mThe segments of the boom are encased in tubular PVC outer cover that is extended to form the skirt. Ballast is provided by a galvanized chain. A stainless steel internal tension cable runs the length of the boom section. The sections can be connected using interlocking stainless steel connectors that are built to easily connect and disconnect while boom is in water.

The boom can be deployed from container or tray by two to four persons. The boom is typically sold in 500ft /150m sets.



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Shipping information (150m / 500ft of 30 inch model) 5 wooden crates; 85"x70"x45" / 2.15 x 1.17 x 1.14 m each 515 lbs / 234 kg



Sintef in Norway successfully tested American Fireboom in ice conditions.

