PyroBoom® - The New Standard for In-Situ Burning

Proven Oil Spill Technology
In-situ burning, once reserved for oil spills in remote regions, is now considered a practical alternative to mechanical removal under specific conditions. Experience from the Deepwater Horizon Spill in the Gulf of Mexico validated “controlled burning” as an effective technique and PyroBoom® proved itself to be an excellent performer.

Performed properly, under the right conditions, In-situ burning can rapidly eliminate large quantities of oil, efficiently, with minimal and generally acceptable net environmental impact. In the Gulf, PyroBoom® played a key role as In-situ burning helped to greatly reduce the amount of oil hitting the beaches and marshes. In-situ burning is accepted for certain areas around the world, and is recognized by Environment Canada as a “viable alternative to mechanical methods.” For spills in Arctic waters, In-situ burning is often the only practical cleanup technique.

For more information about In-situ burning, visit the U.S. NOAA website at www.noaa.gov. Environment Canada’s Emergencies Science Division has also performed extensive testing of In-situ burning techniques and equipment and issued a report, In-situ Burning: A Cleanup Technique for Oil Spills on Water (2000).

Advantages of In-Situ Burning
- Removes large quantities of oil quickly
- Eliminates the recovery and disposal chain
- Practical in a wide range of conditions, including broken ice, open water, intertidal zones, rivers, swamps and marshes
- Low net environmental impact when performed properly
Developed specifically for In-situ burning of oil, PyroBoom® is the only product that meets all the responder’s needs from the Arctic to the tropics. In numerous burn tests, including those conducted in accordance with ASTM F 2152, PyroBoom® has repeatedly demonstrated its effectiveness, survivability and ease of use.

Advantages of PyroBoom®
Other fire booms, including those using active water-cooled fabric blankets, are subject to burn-through and catastrophic failure, especially if any component in the complex water cooling system fails. In addition, these designs are complicated to use, requiring extensive training and practice. They become water-logged; the resulting dramatic weight gain makes subsequent retrieval difficult, and drying, storage and maintenance virtually impossible in field conditions. In contrast, the advantages of the PyroBoom® design and construction have been proven repeatedly over 25 years of development, testing and real-world use.

Patented Refractory Fabric
Our proprietary Inconel/Fiberfrax® refractory fabric with silicone coating has been proven in repeated burn tests at temperatures up to 1315°C/2400°F with no catastrophic failures.

Fail-Safe Operation
Degradation of the PyroBoom® refractory material is gradual, predictable and easily observed, ensuring fail-safe operation. Degraded refractory fabric is easy to replace in the field using only common hand tools.

Stainless/Glass Foam Floats
Stainless steel floats filled with glass foam have completed over 150 hours of burn testing with no damage.

Simple Modular Construction
Boom components are assembled using stainless connectors and off-the-shelf fasteners, making it easy to extend, repair or replace boom sections in the field.

Ease of Use
With no auxiliary pumps, compressors or delicate connections, using PyroBoom® is a simple four-step process:
1. Deploy
2. Collect
3. Burn
4. Retrieve
Because PyroBoom® weighs practically the same wet or dry, retrieval is much easier than with water-cooled booms.

Low Maintenance/Life-Cycle Costs
Except for replacing degraded refractory fabric after a burn campaign, PyroBoom® is virtually maintenance-free. It can be deployed, then retrieved and stored with no disassembly or extended drying period, making it ideal for training and drills.
Proven in the Gulf and in the Arctic
24 Hour test burn
No Inflators
No Power Packs
No Water Pumps
No Reels
No Wet Blankets
Simple, proven, reliable and reconditionable
Lower acquisition cost and lowest life cycle cost of the leading brands
Construction features

- Silicone coated Inconel & refractory barrier fabric
- Folded urethane fabric
- Stainless steel fasteners
- Stainless steel cable tension member
- Hemispherical stainless steel float shells filled with glass foam
- Stainless steel stiffening bracket
- Stainless steel shackle
- Vulcanized nitrile coated polyester/nylon
- Eye bolt
- Stainless steel piano hinge end connectors
- Ballast chain
- Stainless steel cable tension member
PyroBoom® Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>US</th>
<th>Metric</th>
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<tbody>
<tr>
<td>Total height</td>
<td>30 in.</td>
<td>76 cm</td>
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<tr>
<td>Freeboard</td>
<td>11 in.</td>
<td>28 cm</td>
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<tr>
<td>Draft</td>
<td>19 in.</td>
<td>48 cm</td>
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<tr>
<td>Weight</td>
<td>8.9 lb/ft</td>
<td>13.3 kg/m</td>
</tr>
<tr>
<td>Operational temp</td>
<td>&lt; -40°F to &gt;2400°F</td>
<td>&lt; -40°C to &gt;1315°C</td>
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<tr>
<td>B/W ratio</td>
<td>3.3 : 1</td>
<td>3.3 : 1</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>&gt;1,000 lb per in. width</td>
<td>&gt;1.75 kN per cm width &gt;133 kN total</td>
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<tr>
<td>Refractory barrier</td>
<td>Inconel interwoven with stainless steel and Fiberfrax® refractory fibers, then coated with silicone</td>
<td></td>
</tr>
<tr>
<td>Subsurface skirt</td>
<td>Nitrile rubber</td>
<td></td>
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<tr>
<td>Floatation</td>
<td>Stainless steel hemispheres filled with high-temperature glass foam</td>
<td></td>
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<tr>
<td>Ballast</td>
<td>3/8 in.</td>
<td>9.5 mm</td>
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PyroBoom® in a 20 foot container or in cages. Makes storage and transport very easy.

Two PyroBoom® Burn Kits shown flaked on deck.
Your DESMI contact for Oil Spill Response

Need more information or specifications? Contact us at desmi@desmi.com or read more about DESMI and DESMI’s other products and solutions at www.desmi.com