

# BOOM SOLUTIONS

Our boom solutions help protect local environments, intake equipment, and waterways by reliably containing or diverting floating pollutants.



## Containment Boom

GEI Containment Boom is a reliable containment option for both commercial and private locations dealing with unwanted trash, debris, seaweed, spills, treatment areas, or aquatic plants. Designed to float on top of the water, our Containment Boom is easy to install and an industry standard.



## Perm Boom

GEI Perm Boom is a high buoyancy, long term solution for containment of many forms of floating debris in areas where long term solutions may be needed. Constructed from marine-grade materials, these boom can withstand extensive use in calm open water conditions. Our Perm Boom presents significant cost savings due to their long field-use life.



## Steel Mesh Boom

GEI Steel Mesh Debris booms are one of the strongest available options for debris exclusion, containment and deflection. Steel mesh booms are suitable for locations that require increased containment of larger items where the debris is just below the surface or where water currents tend to push debris under a traditional boom line.



## Jellyfish Boom

GEI Jellyfish Boom is a reliable option to control and contain aquatic life and jellyfish with its submerged net. During high seasons, jellyfish are a common problem around beaches, intakes, and generators at power plants. Jellyfish Boom are most commonly designed for use in calm or mild water conditions with limited currents, waves, or tidal action.



## Absorbent Boom

GEI Absorbent Boom is an effective option for sites in need of absorbing hydrocarbons and preventing the spread of spills. Absorbent Booms provide containment with maximum absorption and repel water, ensuring that the boom does not shed or sink even when saturated. They allow for convenient storage and deployment when a spill occurs.



## Oil Fence Boom

GEI Oil Fence Boom is a quick response unit used in harbors, ports, marinas, and docks. Designed to float around spills, Oil Fence Boom prevent the spread of oil and other hazardous liquids. When compared to our Containment Boom, this boom is designed to be more compact, allowing for easy storage and deployment during times needed.



## Applications

- Floating Debris
- Aquatic Plants
- Sargassum
- Demarcation
- Timber Logging
- Jellyfish
- Marine Trash
- Oil Spill Response
- Cranberry Harvest
- Tsunami/Hurricane
- Swimming Barriers
- Construction Sites
- Intake Protection

### What is a Floating Boom?

A boom is a floating barrier used to control the movement of substances that float on or just below the surface of water. Floating booms divert or contain floating debris, aquatic plants, trash and are used in emergency response to oil spills. Once collected, the materials can be extracted and in some cases recycled.

### Do I Need a Boom or Curtain?

Boom is used to contain, deflect, demarcate (or block) substances (oil, trash, seaweed, logs, or other debris) floating on or just below the surface of the water. Whereas turbidity curtains are used to contain both floating debris and sediment suspended beneath the surface of the water. Our containment and oil boom utilizes round, polyethylene foam logs rather than square polystyrene flotation. The superior density, construction, and chemical properties of PE or hardshell floats provide a better choice for impact, safety, and compatibility.

### Do You Manufacture Boom?

Yes! GEI Works proudly designs and manufactures curtain and boom at our facility in Vero Beach, Florida in the United States. We take great pride in the workmanship, durability and success of our products. Our objective is to provide you with a solution that works. We do not currently offer installation but many marine contractors, dock builders, and marine owners are familiar and capable of installation.

### How Do I Know Which Type of Boom I Need?

This will be determined by several key factors, including project goals, the application, the type of materials to be contained (oil, debris, plants, etc.), location and environmental factors like water type and conditions, current and wave activity.

### What Lengths of Boom Are Available?

It depends on the type of boom that your project requires. Nearly all of our boom is available in sections of 50 or 100 ft in length. Some are available in custom lengths. Boom sections are designed to interlock with ASTM Universal Slide connectors, so that you can connect them to form the length of barrier that your project needs.

### Does Boom Come in Different Colors?

Our Boom come in our standard yellow for high visibility as well as other colors available upon request. Customers with water-front property often choose boom in black, blue or green to blend in with the environment, whereas in a spill or marine environment where boating traffic exists, high visibility or international spill colors of orange or red may be required.

### How Do I Determine the Depth of the Boom Skirt?

Boom skirts, or the 'draft' are frequently customized to the depth needed for a specific project. We can help you determine the best depth to ensure optimal performance for your project. Additionally, the 'freeboard', or height of the boom above the water is determined by the size of foam in the barrier for the type of surface pollutant to be contained, as well as the conditions and properties of the location.

### Do I Need Lights for my Floating Boom?

You will want to check your local regulations for lighting requirements of floating barriers on public waterways. With boater safety in mind, it is common to have night-time lighting requirements and high-visibility colors or floating markers for barriers in public waters. This also helps protect your barrier. The USGC recommends marine lights be placed every 100' along the length of your boom system where marine traffic is present.

### Importance of a Tow Bridle

A tow bridle is used when towing the boom out into a body of water for installation, or when relocating the barrier. A tow bridle alleviates the stress by distributing force that towing can place upon the boom components, to avoid damage, and keeps the boom oriented at the surface with a bullet buoy.

### Best Practice for Installing Anchors and Buoys

There are a couple of common errors that can impact success with your project if you are unfamiliar with boom installation. Anchors should not be connected directly from the barrier directly to the ocean/lake/river floor, or attached to the boom without a painter line and float for shock absorption. Improperly anchored boom systems significantly impair the boom's performance and create excessive load and strain. As this can cause damage to your boom, we recommend following our anchoring guides.

### What If I Don't Use the Right Number of Anchors?

Without proper anchoring, your project may fail. Anchoring helps to keep your boom in the proper position and accounts for reasonable fluctuations due to weather. The impact of not using enough anchors (or placing them incorrectly) is significant:

- The boom may not stay in position causing the debris or surface substances to bypass the barrier.
- Insufficient anchoring places additional strain on the boom itself. This frequently causes unnecessary damage, shortening the boom's use-life.
- Various anchor design options may be recommended based on project requirements and conditions at the site, such as chevrons, top hats, segmented, or dual barriers.

### Using the Proper Number of Anchors

It depends on multiple variables such as the current, depth, and conditions of your project. We can help. Our representatives use several key factors to determine both the number and placement of the anchors for minimizing the load placed on your boom. Proper anchoring is crucial to your project's success and protects your investment and project.

### How Do I Install or Remove the Boom?

Installation instructions are boom-specific. Please see the installation guide from the product page of the type of boom you're considering. Boom removal reverses the process of installation. All floating barriers should be removed prior to a significant storm event. Boom systems are designed for 'typical' conditions, excessive forces during storm events are likely to cause the barrier system to fail, receive significant damage or become unmoored, posing fouling risks and damage to other aquatic life and property. Boom should be safely removed from moorings and stored until it can be re-installed after conditions return to normal.

### Can a Boom Be Repaired or Reused?

Containment boom can be cleaned and reused but any contaminated boom or water has to be handled very carefully. For repairs, we have patch repair kits, hardware and accessories available, depending on the nature, location, and extent of the tear on your boom. If your boom experiences damage, please provide photos to assist. We can also offer advice on how best to maintain and care for your boom, to prevent damage and promote a longer use-life. Occasionally components or sections of boom should be replaced.

### Do I Have to Maintain My Barriers?

All floating barriers, containment or spill response boom should be installed with a plan to maintain the system. It is not a 'set it and forget it' solution. It will require regular monitoring, and may require occasional re-tensioning, or resetting of the anchoring, and inspection of components and lines to ensure the current and boom are working congruently. In any marine environment, fouling will occur, and lines, hardware, and barriers should be kept free of overgrowth. Additionally, floating containment boom systems should be monitored for efficacy, to ensure there is not too much debris piling up against the system, or sinking below it. Maintenance plans should include regular inspection, cleaning, repair, retensioning or repositioning to work better with site conditions as required.