

Turbidity Products

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

Note: FL DOT Turbidity Curtains meet or exceed Florida DOT requirements. Please review your state's requirements for differences, we build to suit!



Type 1 Contractor

GEI Type 1 Contractor Turbidity Curtains are designed for calm waters with short term requirements and low silt levels. Used in marine construction projects, ponds, lakes and harbors, these barriers surround projects and help to contain materials until they have enough time to settle.



Type 1 DOT

GEI Type 1 DOT Turbidity Curtains are part of our DOT-compliant product line to address silt control and containment concerns along roadside projects, ports, marinas, ponds, lakes, harbors, or other regulated areas. These curtains comply with most state DOT requirements and feature a robust fabric that holds up to extended marine use.



Type 2 DOT

GEI Type 2 DOT Turbidity Curtains are designed to meet or most exceed state DOT requirements for silt and turbidity control in areas with moving water, currents, waves or tides. These barriers surround projects and help to contain materials until they have enough time to settle.



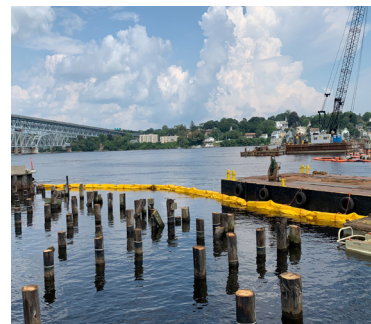
Type 2 HD

GEI Type 2 HD Turbidity Curtains control silt in areas dealing with currents, flows, tides, waves, or adjusting water levels. High-grade components help keep the barriers stable against flowing water and are commonly used around job sites, dredging area, docks, bridges and intercoastal waterways to keep sites in compliance.



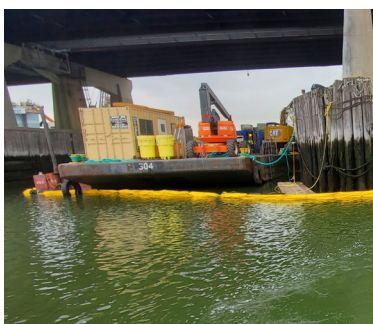
Type 2 HD Permeable

GEI Type 2 Permeable Turbidity Curtains are designed to control and contain materials in a moving water location. Permeable silt curtains feature a woven geotextile filter panel that is located within the bottom skit. This helps to filter water through the barrier while effectively containing silt or sediment.



Type 3 DOT

GEI Type 3 DOT Turbidity Curtains are designed to meet or exceed most state DOT requirements for silt and turbidity control in areas with fast water, waves, or demanding conditions. These barriers surround projects and add increased strength to any containment or control area.



Type 3 HD

GEI Type 3 HD Turbidity Curtains are high strength silt and turbidity control options that are designed for use in demanding water conditions. This may include offshore use, coastline turbidity control, great lakes, and fast moving rivers. The Type 3 HD model is designed to meet or exceed most state DOT requirements.



Type 3 HD Permeable

GEI Type 3 Permeable Turbidity Curtains are designed for demanding locations that are in need of floating filtration. Permeable silt curtains feature a woven geotextile filter panel that is located within the bottom skit. This helps to filter water through the barrier while effectively containing silt or sediment.

What Sizes Do Silt/Turbidity Curtains Come In?

Lengths: Turbidity curtains are typically sold by the section. Standard section lengths are either 50 feet or 100 feet.

Depths: Depths for the curtains will vary significantly and are dependent on the water depth/conditions in your location. Standard depth for all curtains is 5 feet, however, the depths of our curtains can range anywhere from 3 to 100 feet.

How Do I Know What Depth I Need?

Depth for the turbidity curtain is chosen based on the depth of the water in your location. As a standard rule of thumb, the ACOE recommends the depth of the skirt to extend down until it is about one foot (1') from the floor. This allows for aquatic life to pass through and for the curtain to provide maximum containment without the bottom of the skirt getting bogged down with settled silt.

Which Silt/Turbidity Curtain Should I Use?

Choosing the right silt curtain for your location is often dependent on different site factors and conditions. The standard classifications for our silt curtains are as follows:

Type 1: Calm Water
Type 2: Medium Water Conditions
Type 3: Fast Water Conditions

When Should I Use a Permeable Silt Curtain?

Permeable Silt Barriers are most commonly used when they are either specified in a site project or when the curtain will be dealing with a significant amount of water pressure. Use of the bottom filter panel can help reduce pressure on the curtain by allowing water to continue to flow through the curtain.

What Site Conditions Do I Need to Evaluate?

For many locations, the three most influential factors on the silt curtain are wind, waves and current. Depending on where your work area is located these factors can act as a force on the turbidity curtain causing it to move and adjust while installed. This, in turn, can limit the turbidity curtain's ability to contain silt and sediment in a given location.

If you are dealing with a site that has any of the above conditions a Type 2 or Type 3 silt curtain will probably work best for your area. These silt curtains include the addition of a single or dual tension cable along the top of the curtain. This increases the strength of the curtain and its ability to hold up to moving water areas.

Can I Use My Turbidity Curtain in Salt Water?

When using the Type II Silt Barrier in salt water areas, consideration should be given to the tension cables and connectors. The following component adjustments are recommended for any location with salt water; Stainless Steel Cable and Zinc Anode Connectors upgrade, Stainless Steel Chain upgrade, or a combined Cable/Chain upgrade. For short term projects, galvanized components can be used for a period of up to 12 months.

Do I Need Lights for my Floating Barrier?

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 curtain system where marine traffic is present.

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 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 curtain's performance and create excessive load and strain. As this can cause damage to your curtain, 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 curtain 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 turbidity curtain may not stay in position causing the debris or surface substances to bypass the barrier. The barrier may break free and cause damage.
- Insufficient anchoring places additional strain on the curtain itself. This frequently causes unnecessary damage, shortening the curtain'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 curtain. Proper anchoring is crucial to your project's success and protects your investment and project.

How Do I Install or Remove the Curtain?

Installation instructions are curtain-specific. Please see the installation guide from the product page of the type of curtain you're considering. Turbidity curtain removal reverses the process of installation. All floating barriers should be removed prior to a significant storm event. Curtain 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. Turbidity Curtain should be safely removed from moorings and stored until it can be re-installed after conditions return to normal.

Can a Turbidity Curtain Be Repaired or Reused?

Turbidity Curtain can be cleaned and reused but any contaminated curtain 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 repair required for your curtain. If your curtain experiences damage, please provide photos to assist. We can also offer advice on how best to maintain and care for your turbidity curtain, to prevent damage and promote a longer use-life. Occasionally components or sections of curtains should be replaced.

Do I Have to Maintain My Barriers?

All floating barriers, containment or spill response curtains 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 curtain are working congruently. In any marine environment, fouling will occur, and lines, hardware, and barriers should be kept free of overgrowth. Additionally, turbidity curtain 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.