

How to Deploy

APTsorb. and APTIVATOR™

Water remediation media

APTsorb[®] and APTIVATOR[™] are versatile media and can be deployed in almost any tank, vessel, vault, or boom sock, but keep the following in mind:

1. The products are generally shipped in a saturated, fully expanded state. If the media dries prior to use, or during a dry period in the field, it may expand upon rewetting. Expansion percentages can be as high as 45 percent. Take precautions to protect the vessel and media bed if expansion will occur in situ. Contact one of our experts if you have questions about managing expansion in the field.
2. The performance of the products is sensitive to the velocity of the water. If the water is flowing past the media too quickly, the metal ions will not have enough time to form bonds with the media surface. A general rule of thumb is to keep the velocity less than 33 ft/hr (10 m/hr).
3. When using the products in a vessel, strive for a **ratio of bed height to bed diameter** that is less than one. A shorter, squatter contactor is preferred over a taller, thinner vessel. Given the recommended velocity above, this configuration allows for a favorable volume of water to be treated while maintaining residence times that are reasonable.
4. A **lead/lag system** will extend the life of the media as well as allow for some shortcomings in system design. The different mechanisms at work on the natural peat have different coefficients of performance, which means that the products will respond robustly to different system parameters. A lead/lag system can maximize the different loading mechanisms and capacities more than a single-pass treatment system.
5. APTsorb will act concurrently as a **physical filtration** media. The angular surfaces of the media are very effective at sequestering solids within the bed. Removals exceeding conventional sand filters are possible. A vessel that allows for backwashing will extend the life of the media. Backwashing rates can vary depending on the nature of the solids, but 10-15 gpm/ft² is generally sufficient to lift the APTsorb bed.
6. **Regeneration** of APTsorb and APTIVATOR are not recommended. The products form stable double bonds with metal ions, and regeneration is usually incomplete and unwieldy. Disposal of spent media is dependent on local regulations and how the product was loaded. For most metals, except for lead, we anticipate that APTsorb and APTIVATOR will pass the TCLP test (EPA 1311) following normal use.

Examples of contactors used for APTsorb and APTIVATOR water treatment

Vertical pressurized tank	
TurnAbout Upflow Downspout Filter	
Gravity-feed vault	
Boom socks	