

AmTech Tank Lining & Repair takes the coating and lining industry into the 21st century.

AmTech



AmTech Tank Lining and Tank Repair • www.amtechtanklining.com
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Tank Lining and Tank Repair

AmTech Tank Lining sets the standard for underground and above ground tank linings, tank repair and corrosion protection. With such products as AT BiFlex® fiberglass systems, Armor Shield Tank Linings®, DuraChem® 540, 560, 580 & 580 PW, DK2®, AmTech Poly-Line® and HydraStone® cementitious linings, we have a solution for you for potable water, fire suppression water, wastewater, chemicals, oil and gasoline products. All AmTech products are installed by our own experienced field crews covering all 50 states and Canada, and supported by AmTech's field engineering staff.

TANK LINING AND TANK REPAIR SERVICES

DuraChem Polylining Systems Our DuraChem 500 series 100% solids polylining systems have revolutionized tank lining for the water and wastewater industries. With a high build, high temperature spray-up application, your cement, steel or laminate tanks receive a thick bonded monolithic wall. Our next generation DK2 is designed for constant immersion use with diesel, kerosene and #2 oil.

Hydrastone Alkrete Systems AmTech's HydraStoneUSA division relines hot water tanks using proven HydraStone application technologies and materials. This cementitious lining system is chosen by many DHW tank manufacturers for original equipment installation.

Armor Shield UST Fuel Tank Linings Double wall steel tanks and single wall steel tanks which develop problems can be returned to service quickly and safely by the application of our Armor Shield repair and lining system. Known as the leader in UST petroleum lining, the Armor Shield family of products includes UL listed systems for the most demanding compliance situations.

Abrasive Blasting Services Our Specialists study each project and determine the optimum approach to blasting and surface preparation based on site specific conditions such as materials, existing corrosion, humidity and other environmental conditions. We offer services for steel, concrete, stone, brick and masonry substrates.

Exterior Coating and Repair Services Tank exteriors and other containment structures are susceptible to degradation brought on by many outside causes. Our experienced coatings specialists can advise you as to the proper process and products for your tank exteriors and containments, allowing maximum service life.

Bi-Flex® Fiberglass Laminant Linings With the growth of fiberglass reinforced plastic (FRP) vessels used in water and wastewater treatment facilities, chemical plants and petroleum storage situations, the need for repair and maintenance services has increased four fold in the last two decades. Our FRP field service crews can repair, reline, restore corrosion coats and add nozzles on single and double wall laminate tanks.

Xypex and Port Seal® Concrete Waterproofing Coatings for concrete waterproofing can now be supplemented or replaced with our crystalline systems. When applied they will embed and grow throughout concrete structures and offer resistance to water permeation, even at extreme pressures.

BI-FLEX FIBERGLASS TANK REPAIRS

Fiberglass reinforced plastic (FRP) and other composite storage tanks have proven themselves valuable components for the fuel, water and chemical processing industries.

AmTech can repair worn or failed areas and recoat the interior surface of FRP tanks to extend their useful service life. In most cases the overall structural integrity of a composite tank is still intact and offers an ideal substrate to work with. Routine periodic inspection of all composite tanks is recommended and potential major problems can usually be avoided by maintenance programs designed to keep the interior top layers of reinforced plastic composite functional.

Your AmTech representative can advise you on setting up an inspection program at your facility. AmTech offers in place upgrade lining services for older fiberglass tanks used to store gasoline alcohol blended fuels such as E10 and E85, and the new Biodiesel fuels. Many of the older fiberglass tanks are not compatible with these newer fuels, and can fail when used to store these products.



XYPEX AND PORT SEAL WATERPROOFING

Concrete tanks used for potable water, fire suppression and wastewater processing are not naturally waterproof. In addition, untreated joints in concrete structures are natural conduits for liquid migration and over a period of time can lead to serious leaks and eventual undermining of the vessel.

AmTech uses proven concrete waterproofing products such as Port Seal and Xypex to treat both new and in service concrete structures. We can also provide materials certified safe for potable drinking water systems. AmTech studies each project and determines the optimum approach to surface prep based on site specific conditions such as system materials, existing concrete surface characteristics, humidity and other relative application conditions. We also feature systems approved by the Army Corp of Engineers for dam repair and related services.



HYDRASTONE ALKRETE LINING

There comes a point when service is needed in the productive lifespan of each hotwater tank. Cementitious relining is necessary when the present cementitious lining fails. Failure to reline will result in further erosion which will eventually permeate the outer steel wall. Erosion of the outer steel tank will ultimately result in tank failure. HydrastoneUSA and Hydrastone Canada provide services for hospitality, manufacturing, educational and institutional facilities. With periodic maintenance and relining you can gain decades of serviceable use, thus saving tens of thousands of dollars in capital expenditures.



BEFORE
A corroded and pitted Domestic Hot Water Storage Tank. If the corrosive action had continued, the tank would soon have required costly replacement.



AFTER
The finished product. An NSF approved Hydrastone cement lining was applied at a minimum 5/8" thickness, and further corrosion has been stopped. The tank was relined on site, and put back into service within 30 hrs.

Using the Hydrastone "Alkrete" lining system designed for potable hot water tanks, our field crews reline domestic and commercial tanks, both pressurized and non-pressurized, in all 50 states and Canada. "Alkrete" is completely resistant to virtually any condition inside a hot or cold water tank, including softened water and extremely high temperatures. With an outstanding 40 year history, Alkrete is known as the number one lining material for this application. Alkrete, handling temperatures up to 900F, is a proprietary product of Hydrastone. HydraStone is the largest field installer in North America of cementitious tank linings and engineered sacrificial anodes.

ARMOR SHIELD SINGLE AND DOUBLE WALL TANK REPAIRS

Corrosion problems in underground single and double wall steel petroleum storage tanks can occur as tanks age. The primary containment in double wall tanks can develop corrosion permeations which can cause product migration into the interstitial space of the tank. Some of these permeations may develop at weld points on striker plates, under striker plates, at welded seams or under sludge deposits. Microbial action in tank bottom sludge can cause accelerated corrosion. Other failures can be caused by wear spots and/or corrosion points on a tank's interior wall. These tanks can be returned to service quickly and safely by the Armor Shield process. Most tank shells are found to be sound and can be returned to full term useful life expectancy in the vast majority of cases.

After excavation uncovers the tank top and liquid product is removed from the tank, our field crews perform the following procedures:



Vapor Purging Using large amounts of compressed air the environment inside the tank is brought to safe levels, allowing crew entry.

Desludging The tank is cleaned of all sludge and liquids. DOT approved barrels are used to store the removed waste materials.

Access Opening If a tank does not have a factory installed manway, the field crew will cut the tank open for interior access.



Abrasive Blasting The tank then receives abrasive blasting to prepare the interior and create a surface profile.

Tank Inspection The interior tank shell is then tested for weak or permeated areas using methods from such national standards as API 1631 and NLPA 631.

Repair Any weak or permeated areas detected during inspection which fall within allowable repair criteria are repaired according to accepted industry practices.



Coating Application The entire tank interior is then spray lined with one of our Armor Shield systems to deter future corrosion and reduce sludge build-up.

Testing and Quality Control Testing is conducted on the new interior lining using methods to insure uniform thickness, material hardness and absolute coverage.

Sealing Access Opening Once interior work is completed, the access opening is sealed with overlapping plates or a manway with bolted removable cover is welded in place.

ABRASIVE BLASTING

AmTech's Abrasive Blasting Services experienced staff will help you determine the appropriate surface preparation or cleaning system to match your requirements. Proper surface preparation is critical for the success of every cleaning, coating or lining project. Shooting abrasive particles at a surface is the fastest and most thorough means of cleaning, de-scaling, de-burring and removing oxides and other surface contaminants. This process works for awkward interiors as well as on open surfaces. The force with which it is blasted and the medium used to create the pressure are all variables that AmTech understands and can confidently match to the task in order to achieve the required results. AmTech undertakes both the everyday as well as the uncommon and unusual challenges. Whether it be structural steel, concrete walls and structures or special abatements such as lead coatings, we supply a safe and effective service at the work site or at one of our facilities.

For sensitive and tough substrates we offer our thirty blast media choices to get the job done right. AmTech's blasting crews service government agencies, contractors, engineering firms, property management companies, public utilities and institutional clients. Our professional abrasive blasting crews are equipped to get the job done quickly, effectively and at a minimum downtime for our customers.



EXTERIOR COATING AND REPAIR

Steel Tank exteriors are susceptible to corrosion brought on by many outside causes. In all cases, once corrosion has started under the protective coating, the structural integrity of the vessel can be affected. If not corrected it will eventually compromise the useful life of the tank. Our experienced coatings specialists can advise you as to the proper process and products for your tank's exteriors to allow them to achieve maximum service life.



DURACHEM

The DuraChem 500 (540, 560, 580 & 580 PW) series of spray up elastomeric polyurethane lining systems has been specifically formulated for the containment of potable water, wastewater, abrasive materials, chemicals, petro-chemicals and select corrosives. The DuraChem DK2 polyurea lining system is specially produced to contain diesel fuel, kerosene and certain other petroleum distillates. These state-of-the-art 100% solids high build lining systems have maximum flex modulus and extreme adhesion characteristics to permanently bond to most materials at the molecular level. Compliant with requirements such as ANSI, NSF, NLPA, API and UL for specific immersion and containment applications, this family of poly systems has been referred to as "Industrial Strength Tupperware" for tanks and containments. DuraChem has been used on applications for the Department of Homeland Security, Department of Defense, fortune five hundred companies and many wastewater facilities and power plants across the country. DuraChem lining systems have been applied for the petroleum industry in stationary and shipboard tank applications on multiple continents. The DuraChem 500 series and DK2 systems are proprietary to AmTech Coatings, LLC.

