



Providing Treatment Solutions for Air, Water, & Land

www.TheiaLLC.com

(888)330-2260

Biogas Solutions

Theia provides all your solutions for treating & handling methane produced from landfills and digesters.



H₂S
(Hydrogen Sulfide)
Removal

Media Replacement
Service

Siloxanes
Removal

Service, Repair,
& Upgrades of
Existing Systems

Better Media, Better Equipment, Better Systems

Since introducing its first BG media to the market 5 years ago, Theia Air continues to outperform everything else in the market for H₂S as well as for Siloxanes Removal. Not only does Theia offer the lowest operating cost, we typically offer the lowest installed cost for new systems, proving that well engineered systems do not have to be needlessly complicated or expensive.

While our H₂S media has helped our customer save a lot of money, they really appreciate the ease of replacement service when it does come time to replace the media. The media does not clump, foul, or bind together and it is removed either by gravity or by a simple vacuum system. No confined entry is required. Equipment is typically serviced and back on line in a matter of hours and not days.





H₂S (Hydrogen Sulfide Removal)

Hydrogen Sulfide (H₂S) removal from methane gas seems complicated and expensive but it does not have to be. Theia offers simple cost effective solutions, starting with the highest performance dry media in the world. Theia offers multiple solutions and will work with you to find the one that is best for your site, your application and your budget.

H₂S Media: Theia Air offers the longest life media in the industry. Our media will outlast iron based technologies like Sulfatreat and Iron Sponge. BG medias remove 50-70% of their own weight in H₂S by converting the H₂S to sulfur or sulfate and capturing those molecules. There is no regeneration process and our media is safe to handle when it is new and when it is spent.

Unlike those iron based medias, our media will never clump, clog, or foul. Removing **our media when it is spent is as easy as putting it in when it is new, GUARANTEED.** Spent media will never leach any sulfides and can be placed into any landfill without issue. We have gotten our spent media approved in a few locations as a soil amendment which will represent a beneficial reuse.

Siloxanes Removal

Siloxanes are another troublesome and less understood problem facing those hoping to use gases derived from landfills, digesters, etc. Theia offers simple solutions which are designed for YOUR application to efficiently remove the Silica based molecules which are actually present in the gas. We offer a variety of media, each designed for a specific range of contaminant, and will combine them or use a single media, depending on the gas we are treating and based on your targets.

Theia offers specialized targeted media for removing D3-D5 range Siloxanes . Our BGS media will remove 3-5% weight by weight of these compounds . Because of the highly selective pore structure, this media will not be consumed by other contaminants, and as such, will last longer in service.

Theia also offers several proprietary blends which use BGS media as well as other high grade carbon products to remove siloxanes as well as other target compounds such as Silanes, Silanols, and Volative Organic Compounds.

Our team will service your existing equipment and optimize, retrofit, or replace systems from our competitors that just do not work. Of course, we also offer the highest quality and most innovative equipment designs in the marketplace.



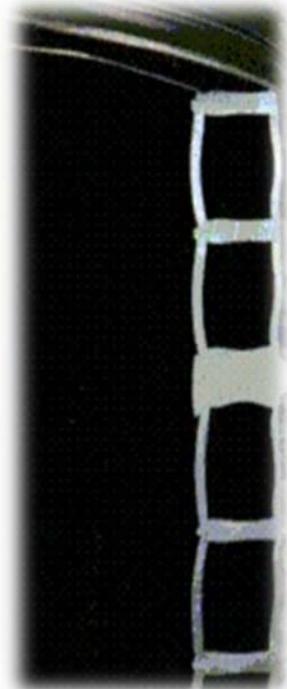


Better Equipment

Theia offers wide range of equipment designs and sizes for utilizing dry media to treat your gas. This equipment ranges from a single canister to a multi-vessel system including our self emptying units that the customer can change out themselves without the use of a vacuum truck or specialized equipment.



Cylindrical Vessels: made from heavy duty epoxy coated carbon steel or stainless steel and can handle flow rates up to 5000 CFM and 40 psig.



Cronus: manufactured from structurally reinforced polyethylene and polypropylene and can handle pressures up to 8 PSIG and 4000 CFM per bed. Units are available with as many as 4 beds in a single vessel.



High Flow Single & Dual Bed Vessels: Box style vessels that can treat up to 10,000 CFM of gas in a single vessel.



Easy-Dump: empty units without a vac truck; with the pull of a lever





Better Solutions

Theia offers a pretreatment system that reduces the level of H_2S prior to one of our media systems. The system solubilizes H_2S into the scrubbing fluid and then converts the H_2S to Sulfates without the use of chemicals. The scrubbing water is continuously recirculated, periodically dumping a small volume of water that has sulfates. The waste is non hazardous and can be used as fertilizer.



Better Systems

Theia specializes in treating your gas for H_2S and Siloxanes but we also provide some of the other items you may need for your gas handling and treatment system. We offer Particulate filters as well as filters for the removal of aerosols. We can provide gas drying as well as extraction and pressurization systems.

Theia is your one Source for Landfill and Digester Gas handling and treatment. Theia can provide you one component or a full integrated system. These systems include components which are selected for the application and for YOUR site. We work with you and your team to select the best design and components for your project.

