

The Smart Drum with Smart Sponge® Filtration Media

HYDROCARBON ABSORPTION CANISTER (HAC)

SMART SPONGE TECHNOLOGY IS BASED ON A PROPRIETARY BLEND OF SYNTHETIC POLYMERS AIMED AT THE REMOVAL OF HYDROCARBONS AND OIL DERIVATIVES FROM WATER.

SMART SPONGE®

Is chemically selective to hydrocarbons and capable of removing up to 1.5 times its own weight in hydrocarbon contamination. Smart Sponge is capable of transforming hydrocarbons into a stable solid per the EPA's Toxicity Characteristic Leaching Procedure (TCLP).

SMART SPONGE® PLUS

Is registered with the EPA (Registration # 86256-1) for the reduction of total coliform bacteria. Smart Sponge Plus features an antimicrobial agent that is chemically and permanently bound to its polymer surface.

SMART SPONGE® HM

Reduces Cadmium, Copper, Chromium, Lead, Zinc, Iron, Arsenic, Selenium and Orthophosphate. Smart Sponge HM also inhibits growth of mildew and mold in a variety of applications.



The Smart Drum HAC developed by AbTech Industries for hydrocarbon removal applications. The Smart Drum HAC is ideally suited for free phase and mechanically emulsified hydrocarbon removal for industrial wastewater process streams, hazardous waste remediation, produced water and many other hydrocarbon removal applications.

HYDROCARBON REMOVAL

Smart Sponge absorptive polymers have a distinct advantage over traditional products. Once the oil or contaminant comes in contact with the Smart Sponge it is permanently encapsulated in the structure of the polymer and cannot be released under any amount of pressure. This process makes the Smart Sponge material operationally superior for removing sheen levels of hydrocarbons (15 – 300 ppm).

Smart Drum products are constructed with AbTech's patented Smart Sponge media which is non hazardous and can be specified for a variety of applications. The Smart Sponge technology is deployed in products that offer customized solutions for stormwater pollution prevention, oil spill response, process water filtration and other industrial applications to meet specific environmental needs. AbTech Industries offers an extensive product line that is upgradeable to meet evolving community needs and regulatory requirements.

HEAVY METALS REMOVAL

AbTech Smart Sponge Heavy Metals (HM) media uses renewable resource based metal nanocomposites extruded into a macro-porous sponge. The media is in the form of hematite/magnetite and will bind to phosphorus resulting in removal rates as high as 98%. Phosphorus is one of the major nutrients contributing in the increased eutrophication of lakes and natural waters. Its presence causes many water quality problems including increased purification costs, decreased recreational and conservation value of impoundments, loss of livestock and the possible lethal effect of algal toxins on drinking water

APPLICATIONS

- General manufacturing
- Groundwater remediation
- Mining
- Nuclear plant decommissioning
- Parts machining operations
- Produced water treatment
- Petrochemical and refineries

KEY BENEFITS

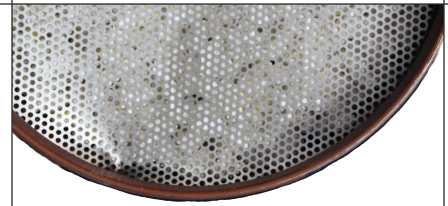
- Durable corrosion resistant construction
- Ease of disposal
- Extends life of activated carbon
- Simple installation
- Proven Smart Sponge media
- Robust hydrocarbon absorption ratio
- Parallel or series operation

Experts in Water

THE EXPERTISE TO CONSULT BUSINESSES ON COMPREHENSIVE WATER SOLUTIONS

SPECIFICATIONS

Specifications	Operating Parameters
Dimensions	22.5"D x 33.5" H
Inlet Connection Fitting	FNPT 2"
Outlet Connection Fitting	FNPT 2"
External Coating	Phenolic Epoxy
Maximum Flow Rate	10 Gallons / Minute (38Lpm)
Maximum Operating Pressure	10 psi (68.9kPA)
Maximum Operating Temperature	100° F 37° C
Maximum Pressure Loss	< 2 psi at 10 gpm
* Oil and Grease Removal Capability	>90%
** Hydrocarbon Holding Capability	Approx 100 lbs.
Hydrocarbons Absorbed	Crude Oil, Diesel Range Organics, Petroleum Fuels, Machine Oils, Select Food Grade Oils
External Coating	Baked Enamel



ABTECH'S PROCESS CREATES A VERY POROUS STRUCTURE WITH HYDROPHOBIC AND OLEOPHILIC CHARACTERISTICS CAPABLE OF SELECTIVELY REMOVING HYDROCARBONS WHILE ALLOWING FOR HIGH FLOW THROUGH RATES.

DISPOSAL

The Smart Sponge samples saturated with hydrocarbons both in the lab and in the field have been tested according to the EPA's Toxicity Characteristic Leaching Procedure ("TCLP"). These tests show that Smart Sponge is a "non-leaching" (i.e., non-detect or "N.D.") product. As a result, Smart Sponge technology can afford many cost effective and environmentally friendly disposal options.

Waste-to-Energy Facilities - A specialized segment of the solid waste industry has used spent Smart Sponge as an alternative fuel in the production of electricity.

Cement Kilns - This industry has used the spent Smart Sponge as an alternative fuel in the production process of Portland Cement. This process is considered a beneficial reuse of waste products. The BTU value of spent Smart Sponge is consistently above the average acceptable levels set for this high temperature.

Landfills - As discussed above, spent Smart Sponge products have been classified as a solid waste and have been accepted at Subtitle D Landfills.

ABOUT ABTECH

AbTech offers innovative solutions for Stormwater Management and Industrial Water Treatment. AbTech integrates its own advanced technologies along with third-party technologies and systems to provide customers with effective and economical solutions. AbTech products include advanced filtration media technologies and various water treatment systems.

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