AQAM Media

AQAM Series Separation Media

The AQAM media is provided to remove oil, heavy metals and similar organics from water either as a stand-alone filtration step or as a pre or post filtration step in combination with oil water separators, Dissolved Air Flotation, Slant Plate Clarifiers, other separation systems or other filtration systems and can be used as pretreatment to membrane filtration, GAC and ion exchange systems.

The Key to successful water treatment and filtration is selecting the right combination of media and hardware. For treatment of hydrocarbons, heavy metals, and other organic contaminants, the optimal solution is efficient oil and water separation followed by AQAM. Because AQAM can adsorb up to 70% of its weight in hydrocarbons, its life expectancy inside a filter vessel is much longer than that of other process media such as granular activated carbon (GAC) as GAC is not designed for high fuels/oils concentrations and is best suited to dissolved products where blinding is a lesser effect.

Comparisons between AQAM and organo-clays (OCs)

- AQAM has cation exchange capacity OCs do not
- Active media by volume: AQAM provides 100%, OCs provide 30% (OCs are mixed 30/70 with anthracite)
- Bulk density: AQAM is 58 lbs/ft3, OCs are 53 lbs or less.
- Lbs of active media/ft3, AQAM is 58 lbs, OCs are 21.5 Lbs.

Superior Liquid Filtration

- No swelling upon water exposure
- More active ingredients per cubic foot than organoclay media
- Can be used at full strength or custom blended
- Prolongs life of activated carbon and resins thereby reducing costs and increases efficiency
- Cost effective and environmentally sound technology

AQAM Versatility

Free Standing Mode:

Used alone AQAM can be loaded in filter vessels for use as an efficient filtration medium. Other applications include tank cleaning, oil spill mitigation, groundwater remediation, car / all vehicle wash water treatment.

Pre-Treatment Mode

AQAM can be used upstream to enhance the performance and extend the useful life of other filtration processes and media such as reverse osmosis, activated carbon and exchange resins.

Post-Treatment Mode:

AQAM utilized downstream of an oil-water separator or coalescing filter, has the ability to act as an effective cleaning and polishing agent. The density of the product will be 57-59 pounds per cubic foot.

AQAM Removes (partial list)

Oils, Grease, Fuels, Petroleum, Refined & Unrefined

All types free and dispersed

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Heavy Metals

Aluminum	Nickel
Cadmium	Selenate
Chromium	Zinc
Copper	
Lead	
Mercury	

Hydrocarbons and other contaminants

Acenaphthene	Flourine
Ammonia	Gas Range Hydrocarbons
Anthracene	2-Methylnaphthalene
Benzo (a) Anthracene	Motor Oil
Benzo (b) Flouranthene	Naphthalene
Benzo (a) Pyrene	PCP (pentachlorophenol)
Benzo (g,h,i) Perylene	Phenanthrene
BOD's	Phenolics (recoverable)
BTEX	Pyrene
4-chloro-3-Methylphenol	TCE
Chromate	TOC
Chrysene	Total Phosphorus
COD's	TPH (Total-Petroleum Hydrocarbons)
1,1 Dichloroethane	TSS's
1,2 Dichloroethane	Vinyl Chloride
1,4 Dioxane	
Flouranthene	

Constituents have had a 95%+ Reduction when treated with AQAM media.

Operating Conditions

Temperature range:	33-170° F
pH Range:	4-10
Density:	58#/ft3
Particle structure:	Crystalline pore
AQAM material:	Modified zeolite
Mesh:	8 X 14
Activator:	125 milimoles of cetyl trimethyl ammonium chloride per kilogram of zeolite
Ionic charge:	Negative, non-selective

Retention (contact) Timing

Oils:	5-7 minutes
Metals:	10-15 minutes

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