FILTRATION MEDIA

METALEASE-AS5™ ARSENIC REMOVAL MEDIA

MetalEase-AS5 is a chloride form arsenic selective hybrid anion exchange resin. It has hydrated iron oxide monoatomically dispersed throughout the polymer. The media captures arsenate first by ion exchange and then by absorption into the iron oxide hybrid. MetalEase-AS5 is intended for arsenic removal from potable water, and can also be used as an ion exchanger for removal of uranium and other trace level contaminants.

FEATURES & BENEFITS

- Highest arsenic removal capacity of any organic based arsenic removal media
- No arsenic dumping
- Superior physical stability
- Controlled particle size, low pressure drop
- Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the US FDA
- NSF/ANSI-61 Certified for Material Safety *

* NSF/ANSI-61 compliance requires conditioning with a minimum 20 bed volume rinse prior to first use.

Physical Properties

Polymer Structure	Styrene/DVB
Polymer Type	Gel
Functional Group	Hybrid
Physical Form	Spherical beads
Resin Color	Black
Ionic Form, as shipped	Chloride
Water Retention	
Chloride Form	35 to 45%
Screen Size Distribution	16 to 50 (US mesh)
Maximum Fines Content	1% (< 50 mesh)
Minimum Sphericity	93%
Uniformity Coefficient	1.6 approx.
Approximate Shipping Weight	
Chloride Form	50 lb/cu.ft.

Part Number

Chloride Form	METALEASE AS5

Suggested Operating Conditions

Maximum Temperature	
Chloride Form	170°F (77°C)
Minimum Bed Depth	24 inches
Backwash Expansion	50 to 75%
Maximum Pressure Loss	25 psi
Operating pH Range	4 to 8
Service Flow Rate	1 to 5 gpm/cu.ft.

CAUTION: DO NOT MIX ION EXCHANGE RESINS WITH STRONG OXIDIZING AGENTS. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as ion exchange resins.

Note: These suggestions and data are based on information we believe to be reliable. However, we do not make any guarantee or warranty. We caution against using these products in any unsafe manner or in violation of any patents. Further, we assume no liability for the consequences of any such actions.

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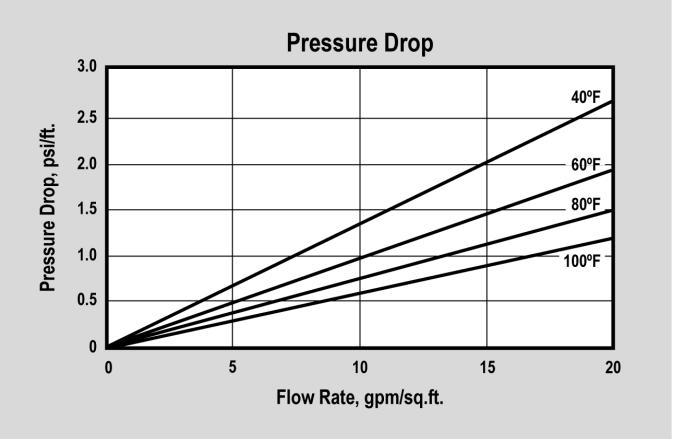
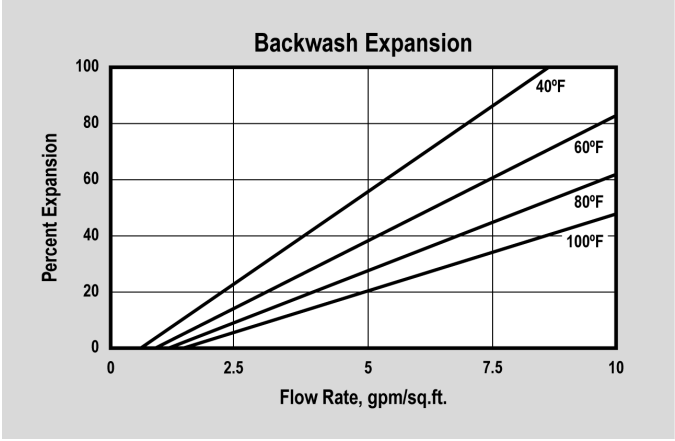
MEMBER Water Quality ASSOCIATION
FORM 1098
EFFECTIVE
DECEMBER 2021

METALEASE-AS5™ ARSENIC REMOVAL MEDIA



PRESSURE DROP — *The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.*

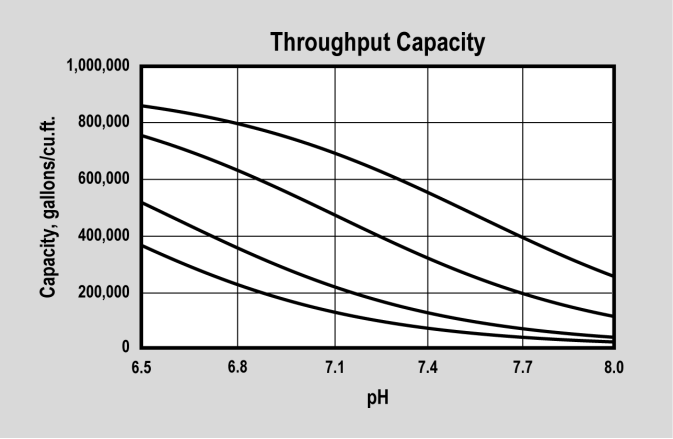


BACKWASH — *The graph above shows the expansion characteristics as a function of flow rate at various temperatures.*

APPLICATIONS

Arsenic Removal

Under ideal conditions MetalEase-AS5 will reduce 50 ppb of arsenate to less than 10 ppb for more than 500,000 gallons per cubic foot. Limiting factors are high pH, high silica concentration, and high sulfate concentration. Capacity can also be reduced by intermittant operation and various foulants, notably suspended solids.

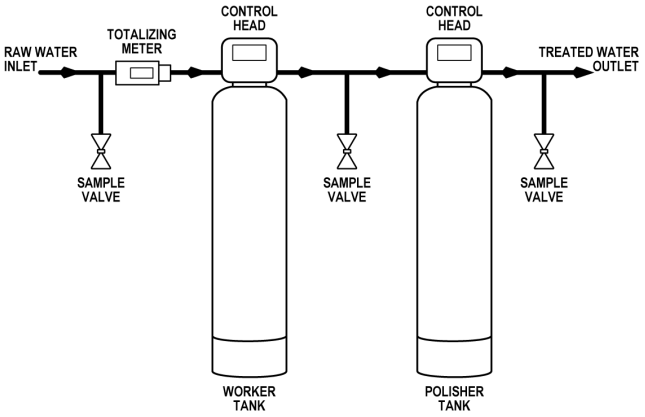


THROUGHPUT CAPACITY — *Capacity is based on clean waters that do not contain significant levels of organics, iron, manganese, or other contaminants. The graph above is based on 50 ppb of arsenate (As^{+5}) in the feed, and TDS less than 500 ppm. MetalEase-AS5 removes only modest amounts of As^{+3}, therefore pre-oxidation to As^{+5} may be required. No engineering downgrade has been applied.*

Silica Removal

MetalEase-AS5 can be used at moderate pH to remove silica. At a flow rate of 0.5 BV/min, removal efficiency of ninety percent is possible for several hundred bed volumes of throughput. Silica does not dump as the resin exhausts. Even though silica removal is not complete, some lowering of silica occurs for hundred of thousands of bed volumes.

Suggested System Configuration



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