

RESINTECH ASM-10-HP is a chloride form arsenic selective hybrid anion exchange resin. ASM-10-HP has hydrated iron oxide monoatomically dispersed throughout the polymer. It captures arsenate first by ion exchange and then by absorption into the iron oxide hybrid. ResinTech ASM-10-HP 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.



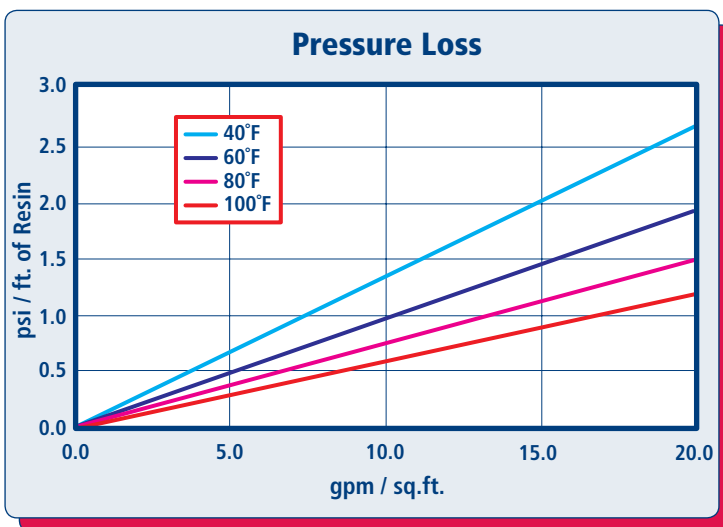
**NSF/ANSI-61 CERTIFIED FOR  
MATERIAL SAFETY**

**FEATURES & BENEFITS**

- **HIGH AFFINITY FOR ARSENIC OVER OTHER ANIONS**  
Highest arsenic removal capacity of any organic based arsenic removal media
- **NO ARSENIC DUMPING**  
Effluent arsenic levels will not exceed influent levels if resin is operated past exhaustion point
- **SUPERIOR PHYSICAL STABILITY**  
93% plus sphericity and high crush strengths together with carefully controlled particle distribution provides long life and low pressure drop
- **COMPLIES WITH US FDA REGULATIONS**  
Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the US FDA

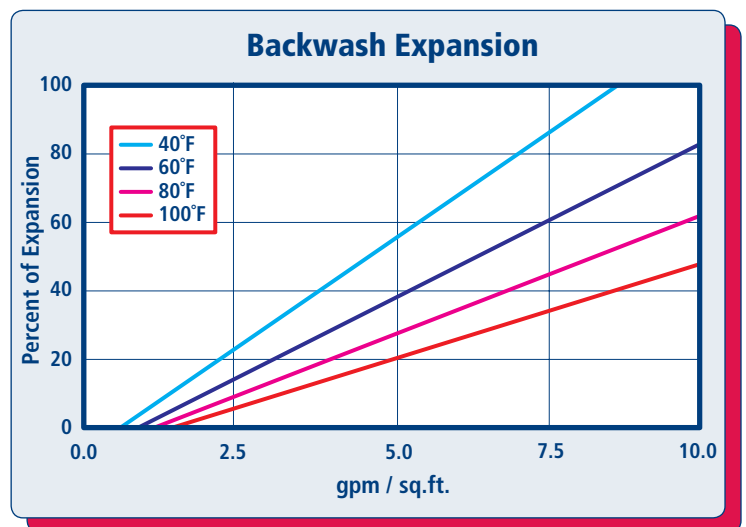
Prior to first use for potable water, resin should be backwashed for a minimum of 20 minutes, followed by 10 bed volumes of downflow rinse.

**HYDRAULIC PROPERTIES**



**PRESSURE LOSS**

The graph above shows the expected pressure loss of ResinTech ASM-10-HP per foot of bed depth as a function of flow rate at various temperatures.



**BACKWASH**

The graph above shows the expansion characteristics of ResinTech ASM-10-HP as a function of flow rate at various temperatures.

# RESINTECH<sup>®</sup> ASM-10-HP

## PHYSICAL PROPERTIES

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

Note: Physical properties can be certified on a per lot basis, available upon request

## SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature	
Chloride form	170°F
Minimum bed depth	24 inches
Backwash expansion	50 to 75 percent
Maximum pressure loss	25 psi
Operating pH range	4 to 8 SU
Service flow rate	1 to 5 gpm/cu.ft.

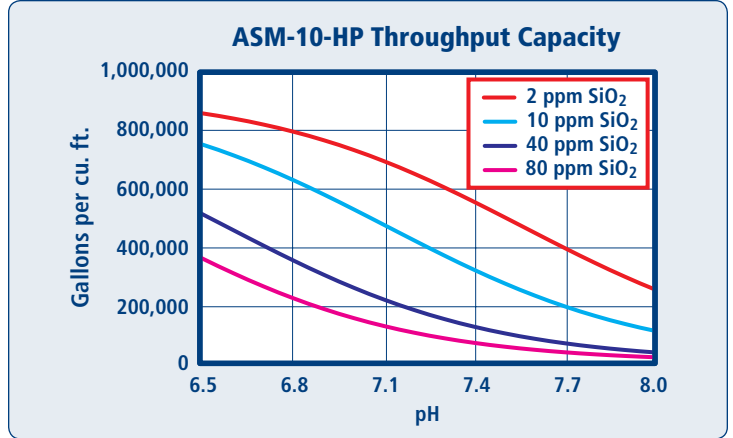
Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

## APPLICATIONS

### ARSENIC REMOVAL

Under ideal conditions *RESINTECH ASM-10-HP* 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 intermittent operation and various foulants, notably suspended solids.

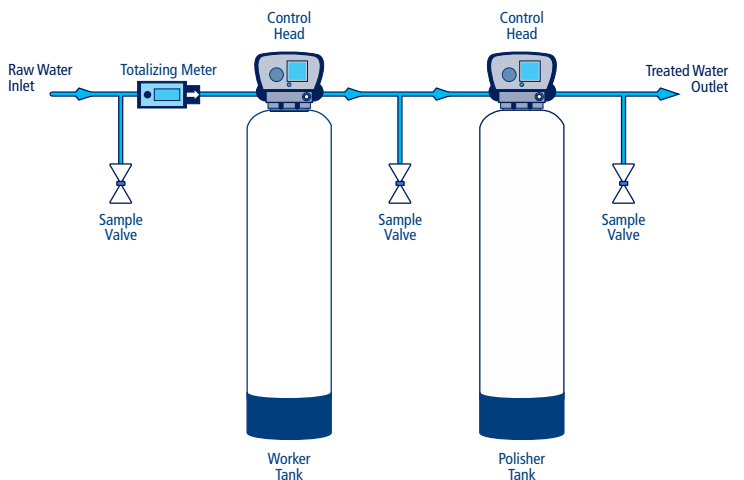


Capacity is based on clean waters that do not contain significant levels of organics, iron, manganese, or other contaminants. The chart is based on 50 ppb of arsenate (As<sup>+5</sup>) in the feed and TDS less than 500 ppm. ASM-10-HP removes only modest amounts of As<sup>+3</sup>, therefore pre-oxidation to As<sup>+5</sup> may be required. No engineering downgrade has been applied.

### SILICA REMOVAL

ResinTech ASM-10-HP 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 FOR ASM-10-HP



East Coast - West Berlin, NJ p:856.768.9600 • Midwest - Chicago, IL p:708.777.1167 • West Coast - Los Angeles, CA p:323.262.1600

**CAUTION: DO NOT MIX ION EXCHANGE RESIN 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. MATERIAL SAFETY DATA SHEETS (MSDS) are available for all ResinTech Inc. products. To obtain a copy, contact your local ResinTech sales representative or our corporate headquarters. They contain important health and safety information. That information may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used. These suggestions and data are based on information we believe to be reliable. They are offered in good faith. However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

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