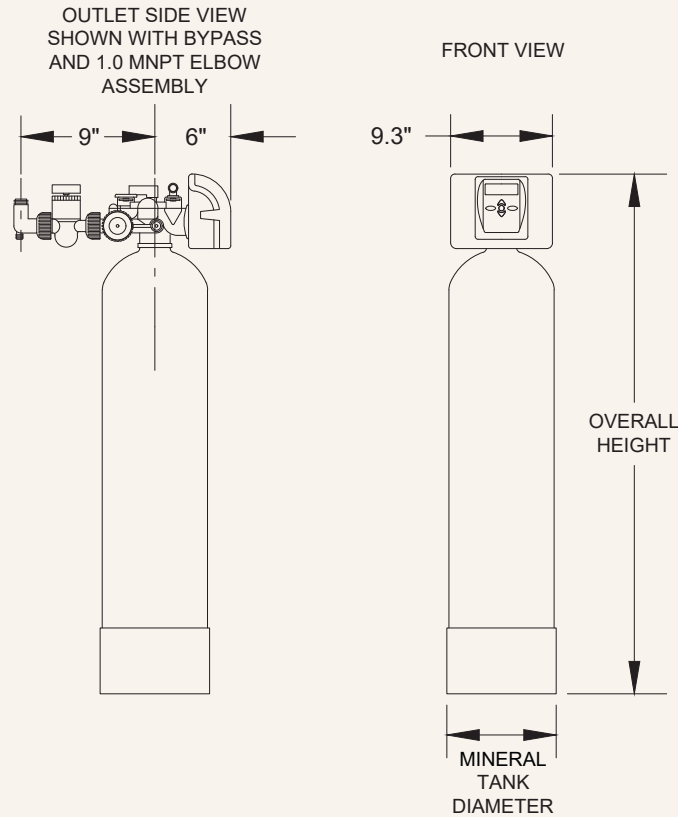


X-FACTOR SERIES LXAR ARSENIC REDUCTION SYSTEM



LXAR PROGRAM CYCLES ¹		WATER AVAILABLE TO SERVICE DURING REGENERATION		ARSENIC REDUCTION SYSTEM (SINGLE TANK MODEL)					
Model Number		7-LXAR-75B		7-LXAR-100B		7-LXAR-150B		7-LXAR-200B	
		Minutes	Gallons	Minutes	Gallons	Minutes	Gallons	Minutes	Gallons
Cycle 1: Backwash (program in minutes)	Untreated Water ²	10	13	10	22	10	22	10	32
Cycle 2: Rinse (program in minutes)	Untreated Water ²	5	6.5	5	11	5	11	5	16
DLFC - Drain Line Flow Control (GPM)	-	1.3		2.2		2.2		3.2	
Total Gallons of Water to Drain During Regeneration	-	19.5		33.0		33.0		48.0	
Total Regeneration Time (Minutes)	-	15.0		15.0		15.0		15.0	
Days Between Regeneration ³	-	7		7		7		7	
Service Alarm (Years) ⁴	-	0.5		0.5		0.5		0.5	

¹ Factory Program Settings

² To prevent untreated water availability to service during regeneration, an optional No Hard Water Bypass (NHWBP) Valve is available - consult factory.

³ Days between regeneration can be field adjusted, refer to manual. Periodic backwashing is recommended.

⁴ Service Alarm is used as a reminder to obtain a sample of the treated water every 6 months and have it tested for arsenic to determine if a filtration breakthrough has occurred. For a lead / lag style system (two identical filters plumbed in series; highly recommended) the treated water sample should be obtained between the two filters. When a treated water analysis has detected a breakthrough of arsenic, the media will need to be replaced immediately. Contact the installing contractor for service. To clear and reset the FLASHING YELLOW service alarm display and scrolling banner text "SCHEDULED SERVICE REQUIRED", simultaneously press and hold the UP and DOWN arrow buttons for > 3 seconds.

X-FACTOR SERIES LXAR ARSENIC REDUCTION SYSTEM

LXAR SPECIFICATIONS		ARSENIC REDUCTION SYSTEM USING ASM-10-HP MEDIA*			
Model Number		7-LXAR-75B	7-LXAR-100B	7-LXAR-150B	7-LXAR-200B
Inlet/Outlet Fitting Options (Inches) ¹		0.75 - 1.0 ¹ - 1.25 - 1.5	0.75 - 1.0 ¹ - 1.25 - 1.5	0.75 - 1.0 ¹ - 1.25 - 1.5	0.75 - 1.0 ¹ - 1.25 - 1.5
Built-In Meter		Included	Included	Included	Included
Bypass Valve (PN: BP2000)		Included	Included	Included	Included
No Hard Water Bypass (NHWBP) Valve - Optional		Not Included	Not Included	Not Included	Not Included
Drain Fitting Elbow NPT		3/4 NPT	3/4 NPT	3/4 NPT	3/4 NPT
Water Pressure Range (PSI)		20 - 100	20 - 100	20 - 100	20 - 100
Water Operating Temperature Range (°F)		35 - 100	35 - 100	35 - 100	35 - 100
Feed Water Requirements ²	Operating pH Range	5.0 to 8.0	5.0 to 8.0	5.0 to 8.0	5.0 to 8.0
	Water Hardness (GPG)	≤ 4	≤ 4	≤ 4	≤ 4
	Ferrous Iron (PPM)	< 0.3	< 0.3	< 0.3	< 0.3
	Manganese (PPM)	< 0.05	< 0.05	< 0.05	< 0.05
	Turbidity (NTU)	≤ 1	≤ 1	≤ 1	≤ 1
	Total Suspended Solids (PPM)	≤ 1	≤ 1	≤ 1	≤ 1
	Free Chlorine (PPM)	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
Plug-In Power Adapter Input (VAC - Hz - A)		120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A
Plug-In Power Adapter Output (VDC - A)		15V DC - 0.5A	15V DC - 0.5A	15V DC - 0.5A	15V DC - 0.5A
Plug-In Power Adapter Cord Length (FT)		15 FT	15 FT	15 FT	15 FT
PC Board Relay Terminal Block DC Output (VDC)		12V DC	12V DC	12V DC	12V DC
Pre-Installed 3 Volt Lithium Coin Cell Battery (Type)		CR2032	CR2032	CR2032	CR2032
Service Flow Rate Range (GPM) ³	Minimum	0.75 GPM	1.0 GPM	1.5 GPM	2.0 GPM
	Normal Range @ PSI Pressure Drop	1.5 GPM @ < 5 PSID 5.5 GPM @ 5 PSID	2.5 GPM @ < 5 PSID 7.5 GPM @ 5 PSID	3.5 GPM @ < 5 PSID 6 GPM @ 5 PSID 10.5 GPM @ 11 PSID	4.5 GPM @ < 5 PSID 9.5 GPM @ 5 PSID 14.5 GPM @ 11 PSID
	Peak @ PSI Pressure Drop	7.5 GPM @ 9 PSID	10.0 GPM @ 8 PSID	15.0 GPM @ 18 PSID	20.0 GPM @ 18 PSID
Approximate Throughput Capacity (Gallons) ⁴		525,000 Gal. at flow rates up to 5.25 GPM	700,000 Gal. at flow rates up to 7 GPM	1,050,000 Gal. at flow rates up to 10.5 GPM	1,400,000 Gal. at flow rates up to 14 GPM
Overall Height (Inches)		51.20	47.60	61.40	55.50
Mineral Tanks Size: Diameter x Height (Inches)		8 x 44	10 x 40	10 x 54	12 x 48
Bottom Distributor Type		Plate	Plate	Plate	Plate
Top Distributor Type		Basket (PN: DI203)	Basket (PN: DI203)	Basket (PN: DI203)	Basket (PN: DI203)
Underbed Layer (Support Bedding)		No	No	No	No
Cubic Feet of Resin (LBS)		0.75 (37.5 LBS)	1.0 (50 LBS)	1.5 (75 LBS)	2.0 (100 LBS)
DLFC - Drain Line Flow Control (GPM)		1.3	2.2	2.2	3.2
Water to Drain (Gallons)		19.5	33.0	33.0	48.0

X-FACTOR SERIES LXAR ARSENIC REDUCTION SYSTEM

*ResinTech ASM-10-HP is a strongly basic hybrid anion exchange resin specially formulated to selectively remove arsenic. This clean, dust-free, robust gel-type anion exchange resin is extremely selective for arsenic and will generally reduce arsenic concentrations to below the typical detection limit of 1 ppb. It has very fast kinetics, excellent flow characteristics, low-pressure loss, high capacity and superior physical strength.

ASM-10-HP has hydrated iron oxide monoatomically dispersed throughout the polymer giving the product hybrid properties that provide exceptional capacity and high affinity for arsenic over other anions.

The initial capture of arsenate (As+5) by ASM-10-HP is by ion exchange. Ion exchange reactions are very fast; once inside the gel phase, the arsenate is exposed to the immobilized iron and immediately precipitates onto the iron, leaving the resin free to react with more arsenic while the iron-bound arsenic remains trapped inside.

When sulfate is present (almost every potable water supply) and if the resin bed is overrun, the sulfate cannot displace the arsenic, i.e. no arsenic dumping will occur.

¹ 1.0 MNPT Elbow Standard - Options Available

² ResinTech ASM-10-HP is not greatly affected by ordinary ions commonly found in drinking water. Ions, such as sodium, bicarbonate, chloride and sulfate pose no interference unless concentrations are well above the maximum range for drinking water.

In general, the TDS (total dissolved solids) should be less than 2,000 ppm and no single ion concentration greater than 1,000 ppm.

TDS caused by salts, such as sodium bicarbonate, calcium chloride and magnesium sulfate, has practically no effect on ASM-10-HP throughput until the concentration is greater than 1,000 ppm.

Substances, such as silica, phosphate, and the oxyanions (e.g. nitrate, sulfate, carbonate, chlorate) either interfere with the adsorption or compete for adsorption sites, reducing the arsenic removal capacity.

ResinTech ASM-10-HP has limited capacity for arsenite (As+3) compared to arsenate (As+5). It is useful to know not only the total arsenic concentration, but also the relative fractions of arsenate and arsenite.

Whenever arsenite is more than 25% of the total arsenic or 5 ppb or greater, the feed water should be chlorinated to convert arsenite (As+3) to arsenate (As+5).

Prechlorination converts arsenite (As+3) to arsenate (As+5); follow by granular activated carbon (GAC) for dechlorination.

For potable waters, the optimum pH range is below 8.0. The operating capacity decreases more and more rapidly as pH rises. At pH levels above 8.0 and when silica is present, a significant decrease in operating capacity can be expected.

Calcium carbonate scale will blind off the media and could eventually cement the bed together. Pre-soften the water to reduce scaling potential by removing scale forming compounds.

Suspended solids will tend to accumulate in the media's void spaces and on the bed surface over the very long service cycle. Periodic backwashing is used to maintain void spaces and prevent channeling.

For suspended solids greater than 1 ppm, pre-filtration is recommended. Periodic backwashing at weekly or bi-weekly intervals is recommended (day override factory setting 7).

³ Service flow rates based on ResinTech ASM-10-HP suggested operating conditions - 1 to 10 GPM/CU. FT.

⁴ The Base Throughput Capacity for Arsenic in Gallons/Cu. Ft. at unit volume flow rates up to 7 GPM/Cu. Ft. is approximately 700,000 Gallons/Cu. Ft.

This is based on waters containing 50 ppb of As(+5) at neutral pH with no silica, vanadium, phosphate, sulfide or other oxyanions (e.g. nitrate, sulfate, carbonate, chlorate).

For other Arsenic concentrations, the following formula will give approximate gallonage at flow rates below 7 GPM/Cu. Ft. ...

Base operating capacity, gallons per cubic foot = 34,000,000/(As ppb).

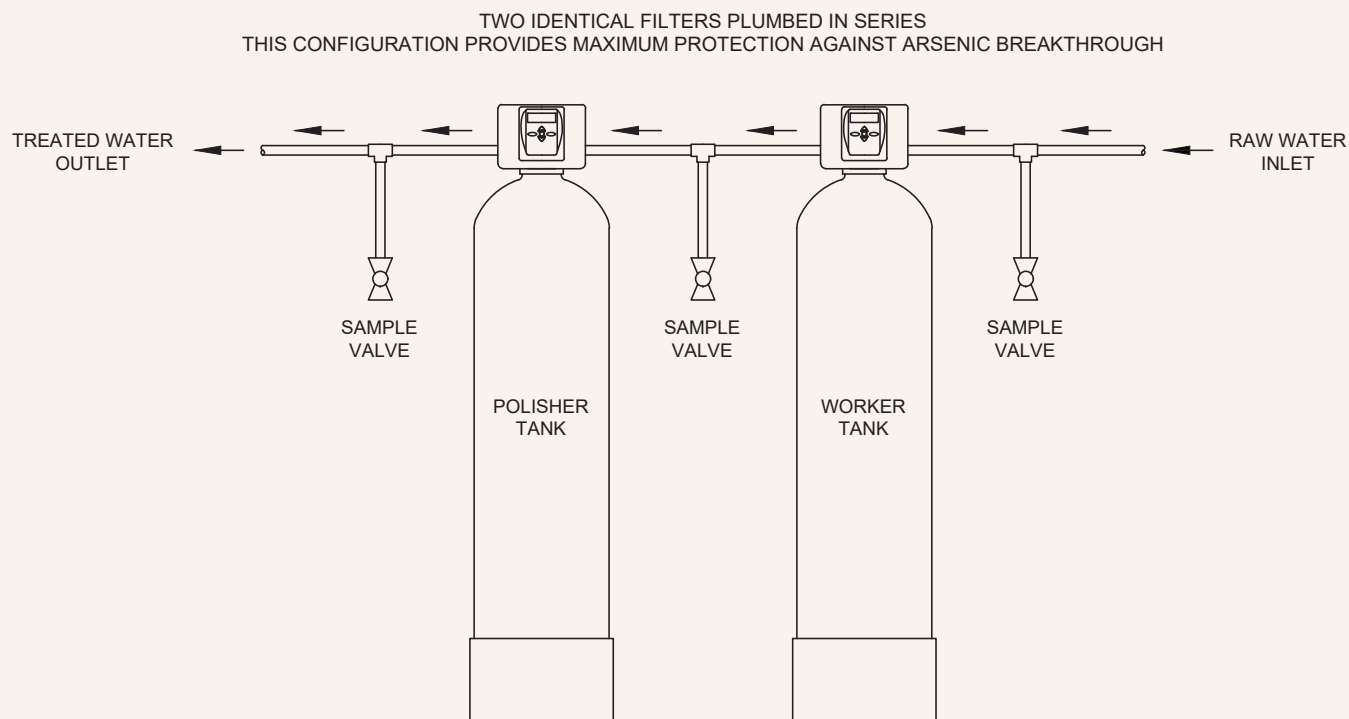
For example, a water with 35 ppb of As would treat approximately $34,000,000/35 \text{ ppb} = 971,000$ gallons per cubic foot between change-outs.

The operating capacity of ASM-10-HP decreases with increasing pH. Below pH of 7.0, silica and pH have a relatively minor impact on performance. As the pH rises, their presence causes reduced operating capacities.

Due to the complexity of throughput calculations and their dependence on a complete water analysis, no throughput recommendation should be considered a guarantee of performance.

X-FACTOR SERIES LXAR ARSENIC REDUCTION SYSTEM

LEAD / LAG (WORKER / POLISHER) SYSTEM HIGHLY RECOMMENDED



A FLASHING YELLOW service alarm display with scrolling banner text "SCHEDULED SERVICE REQUIRED" is used as a reminder to obtain a sample of the treated water every 6 months and have it tested for arsenic to determine if a filtration breakthrough has occurred.

For a lead / lag style system (two identical filters plumbed in series; highly recommended) the treated water sample should be obtained between the two filters.

When a treated water analysis has detected a breakthrough of arsenic, the media will need to be replaced immediately. Contact the installing contractor for service.

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DISPOSAL OF MEDIA: Although ASM-10-HP passes the current EPA TCLP leachables test, this test may not reasonably reflect actual landfill conditions, e.g. the presence of acid wastes that conceivably might cause arsenic to be released. ResinTech recommends compliance with all federal laws governing disposal. Always check with your local solid waste authority before disposal, as regulations regarding the disposal of spent water treatment media may vary.