



by AdEdge Water Technologies LLC

Arsenic Treatment Solutions for Residential Water Applications

Point of Use Systems
Point of Entry Systems



PACKAGED RESIDENTIAL ARSENIC ADSORPTION SYSTEMS

AdVantEdge’s POE Medallion Series treatment systems offer a new level of quality and convenience. These packaged residential and light commercial systems, specifically designed for arsenic treatment are the culmination of years of experience. The systems utilize AdEdge’s Bayoxide® E33 adsorption media for reliable, simple, and cost-effective treatment. No other technology can compare to its simplicity and ease of use. The media can operate over a wide range of water quality and utilizes no regeneration chemicals, salt or additives. Only periodic backwashing is required. The spent media, upon exhaustion, is easily disposed as non-hazardous waste.

Some features and benefits include:

- Complete pre-packaged, pre-designed modular system for ease of use
- Reduces Up to 99% reduction of Arsenic (V) and (III) without chemicals
- Automatic controls with LCD display / readout
- Proven, reliable treatment without hassle of chemicals or brine
- Long product life for economical performance

AdVantEdge offers three sizes of systems to accommodate home, light commercial and low flow remediation applications, The POE-4-1054, POE-5-1252, POE-7-1354, and the POE-10-1465 are sized for 4-gpm, 5-gpm, 7-gpm, and 10-gpm flows respectively. The following table highlights the basic system specifications.



Specifications	Model POE-4-1054	Model POE-5-1252	Model POE-7-1354	Model POE-10-1465
Dimensions	10"W x 54"H	12"W x 52"H	13"W x 54"H	14"W x 65"H
Quantity of Media	1.5 cubic feet	2 cubic feet	2.75 cubic feet	4 cubic feet
Media Type	Bayoxide® E33	Bayoxide® E33	Bayoxide® E33	Bayoxide® E33
Normal Service Flow	3 - 5 gpm	4 - 6 gpm	6 - 8 gpm	8 - 10 gpm
Peak Flow Rate	5 gpm	6 gpm	8 gpm	10 gpm
Backwash Max Flow	4.5 gpm	5 gpm	7 gpm	10 gpm
Backwash Cycles	Automatic	Automatic	Automatic	Automatic
Inlet/Outlet	1" dia MPT PVC			
Drain	3/4" connection	3/4" connection	3/4" connection	3/4" connection
Underbed Material	Gravel/Stone	Gravel/Stone	Gravel/Stone	Gravel/Stone
Shipping Weight	105 lbs	120 lbs	160 lbs	230 lbs
Temperature Range	33°F - 100°F	33°F - 100°F	33°F - 100°F	33°F - 100°F

Medallion Series POE

DATA SHEET



Q: What is the recommended incoming water quality for best performance?

Parameter	All Models
Arsenic Concentration Range	5 - 500 ppb ^{1,2}
Typical Treatment Goal	< 10 ppb total arsenic ³
Arsenic Types Reduced	As (V) and As (III)
Removal Efficiency	90 - 99% typical
Estimated Media Life	Water quality and usage dependent ⁴
Spent Media Disposal	Non-hazardous waste landfill ⁵
Recommended Incoming Water Quality for Best Results:	pH range: 5.5 – 8.5 Arsenic: 5 - 100 ppb Iron: < 0.5 mg/L Manganese: < 0.05 mg/L Sulfides: < 0.1 mg/L Silica: < 30 mg/L Phosphate: < 0.5 mg/L Sulfate: < 100 mg/L Fluoride: < 1.0 mg/L Hardness: < 300 mg/L Sediment: Use pre-filter Tannins: Consult us
Use with Water Conditioner Unit:	Not required, but if utilized, place softener unit prior to AdEdge adsorption system
Notes:	<ol style="list-style-type: none"> Above table is guideline only; AdVantEdge dealer responsible for completing site specific profile for prescribing appropriate system with AdVantEdge technical support Systems can reduce higher arsenic concentrations; consult AdEdge for details Treatment goal reflects current EPA MCL of 10 ppb arsenic Media life projections can be provided by AdEdge upon review of water profile and projected use information. Spent media passes EPA TCLP (Toxic Characteristic Leaching Procedure)

Note:

Bayoxide® E33 is a registered trademark of LANXESS Deutschland GmbH.

Q: What are some of the valve/microprocessor features?

- Built-in flow controls
- Flow totalizer for tracking gallons treated for media changeout
- Built-in sample ports
- LCD readout
- Variable sequencing backwashing capability

Q: How does the technology compare to other treatment alternatives?

Comparison of Point of Entry Treatment Alternatives			
Feature	Anion Exchange	Reverse Osmosis	Medallion Series POE
Type of arsenic treated	As (V)	As (V)	As (V) and As (III)
Pre-oxidation step required for Arsenic removal	Yes	Yes	No
Chemical Use	Yes, salt	Membrane cleaning	None
Loss (waste) of water	5%	25 - 75%	< 1%
Frequency of regeneration	Approx. every 2000-4,000 gallons	N/A	Non-gallons
Hazardous waste generation	Yes	Concentrated arsenic reject	None
Off-taste potential	Yes	No	No
Maintenance	High	High	Low
Arsenic "dumping"	Possible	N/A	No
Changes in water chemistry	Lowers pH	Removes TDS	Negligible
Cost	Moderate	High	Moderate