

The Standard for Residential Arsenic Treatment

Adedge's new POE *Medallion Series*TM treatment systems bring household water to a new level of quality and convenience. These packaged residential systems, specifically designed for arsenic and other heavy metal treatment are the culmination of years of experience. The systems utilize an advanced iron oxide adsorption media AD33, for reliable, simple, and cost-effective treatment. No other technology can compare to its simplicity and ease of use for the consumer. The media has a very high operating high operating capacity and works over a wide range of water quality. Media replacement is typically 2-4 years depending on water chemistry and usage. The systems utilize no regeneration chemicals, salt or additives. Only periodic backwashing is required. The spent AD33 media, upon exhaustion, is easily disposed as non-hazardous waste. These systems are currently offered through authorized Adedge distributors and dealers.

Some Features and Benefits include:

- Complete pre-packaged, pre-designed modular system for ease of use
- AD33 High performance Adsorption media for arsenic and heavy metals
- Up to 99% reduction of Arsenic (V) and (III) without chemicals
- Reduces other heavy metals such as lead, zinc, chrome, copper
- Automatic controls with LCD display / readout
- Proven, reliable treatment without hassle of chemicals or brine
- Long product life for economical performance

Adedge offers three sizes of systems to accommodate the usage patterns, home size, and contaminant concentrations for most applications, The POE-5-1252, POE-7-1354, and the POE-10-1465 are sized for 5-gpm, 7-gpm, and 10-gpm flows respectively for residential and light commercial applications. The following table highlights the basic system specifications.

Home Model Specifications



Specifications	Model # POE-5-1252	Model # POE-7-1354	Model # POE-10-1465
Dimensions	12"W x 52"H, fiberglass	13"W x 54"H, fiberglass	14"W x 65"H, fiberglass
Quantity of AdEdge Media	2 cubic feet	3 cubic feet	4 cubic feet
Media Type	AD33S Adsorption Media	AD33S Adsorption Media	AD33S Adsorption Media
Normal service flow	4-6 gpm	6-8 gpm	8-10 gpm
Peak flow Rate	6 gpm	8 gpm	10 gpm
Backwash max flow	4 gpm	5 gpm	6 gpm
Backwash cycles	Automatic preprogrammed	Automatic, preprogrammed	Automatic, preprogrammed
Inlet / Outlet	1" dia MPT PVC	1" dia MPT PVC	1" dia MPT PVC
Drain	1/2" connection	1/2" connection	1/2" connection
Underbed material	Gravel / stone	Gravel / stone	Gravel / stone
Shipping weight unit	60 lbs	75 lbs	90 lbs
Temperature Range	33 °F – 100 °F	33 °F – 100 °F	33 °F – 100 °F

Recommended Water Quality

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

Parameter	All Models
Arsenic concentration Range	5 – 100 ppb ^{1, 2}
Typical treatment goal	< 10 ppb total arsenic ³
Arsenic types reduced	As (V) and As (III)
Removal efficiency	95-99% typical
Estimated media life	2 to 3+ years, 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 Adedge
Use with water conditioner unit:	Not required, but if utilized, place softener unit prior to AdEdge adsorption system

Notes:

- Above table is guideline only; AdEdge dealer responsible for completing site specific profile for prescribing appropriate system with AdEdge 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 Toxic Characteristic Leaching Procedure

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: Does the system reduce other contaminants in addition to arsenic?

A: Yes. Heavy metals such as lead, copper, zinc, selenium, antimony, chromium, and others are reduced with the AD33 technology

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

Comparison of Point of Entry Treatment Alternatives			
Feature	Anion Exchange	Reverse Osmosis	Medallion Series AD33 Adsorption System
Type of arsenic treated	As (V)	As (V)	As (V) and (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	Not Applicable	Non regenerable; disposable media
Hazardous waste generation	Yes	Concentrated arsenic reject	None
Off-taste potential	Yes	No	No
Maintenance	High	High	Low
Arsenic "dumping" when capacity of media reached	Possible	N/A	No
Changes in water chemistry	Lowers pH	Removes TDS	Negligible
Relative cost	Moderate	High	Moderate

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