



Arsenic Treatment Solutions for Residential Water Applications

Point of Use Systems
Point of Entry Systems



Medallion Series POE Arsenic Removal 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 AD33 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-5-1252, POE-7-1354, and the POE-10-1465 are sized for 5-gpm, 7-gpm, and 10-gpm flows respectively. The following table highlights the basic system specifications.

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	2.75 cubic feet	4 cubic feet
Media Type	AD33	AD33	AD33
Normal service flow	4-6 gpm	6-8 gpm	8-10 gpm
Peak flow Rate	6 gpm	8 gpm	10 gpm
Backwash max flow	5 gpm	7 gpm	10 gpm
Backwash cycles	Automatic preprogrammed	Automatic, preprogrammed	Automatic, preprogrammed
Inlet / Outlet	1" dia MPT PVC	1" dia MPT PVC	1" dia MPT PVC
Drain	3/4" connection	3/4" connection	3/4" connection
Underbed material	Gravel / stone	Gravel / stone	Gravel / stone
Shipping weight unit	120 lbs	160 lbs	230 lbs
Temperature Range	33 °F – 100 °F	33 °F – 100 °F	33 °F – 100 °F



AdEdge Water Technologies, LLC
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www.advantedgewater.com

Recommended Water Quality

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 AdVantEdge
Use with water conditioner unit:	Not required, but if utilized, place softener unit prior to AdEdge adsorption system

Notes:

1. Above table is guideline only; AdVantEdge dealer responsible for completing site specific profile for prescribing appropriate system with AdVantEdge technical support
2. Systems can reduce higher arsenic concentrations; consult AdEdge for details
3. Treatment goal reflects current EPA MCL of 10 ppb arsenic
4. Media life projections can be provided by AdEdge upon review of water profile and projected use information.
5. Spent media passes EPA TCLP (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: 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

Contact your local dealer:



AdEdge Y&A Technologies, SSO,
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Under-counter POU System for Arsenic, Cysts, Lead, PCBs, VOCs, and much more.

Model: D'i g!5 g!DV!D-8

AdVantEdge Plus-As Series System

The most technologically advanced residential water treatment device available today. AdVantEdge Plus-As drinking water systems provide the utmost in performance, safety, and convenience. Innovative, highly effective Plus-As systems feature a solid carbon block with Bayoxide E33 arsenic removal technology direct from AdEdge to provide filtration, electro-kinetic adsorption, and chemical/physical adsorption to provide the most effective contaminant reduction possible.

The effectiveness of AdVantEdge Plus-As drinking water systems in treating a broad spectrum of aesthetic issues as well as health concerns makes it the technology choice by consumers throughout the world.



One Filter Does It All!

Tested to reduce Arsenic, Cysts, Lead, PCBs, VOCs and much more.

Sub-micron filtration – 0.5 Micron

Easy and Convenient to use.

Provides wonderfully delicious drinking water. Improves the taste of beverages – coffee, tea, juices, and drinks of all kinds as well as providing high-quality water for food preparation and cooking.

Outstanding Warranty.



Plus-As cartridges are tested according to ANSI/NSF Standards 42 and 53 for the following following reduction claims:

Arsenic, Asbestos, Chloramine, Chlordane, Chlorine, Cyst (Giardia, Cryptosporidium, Entamoeba), Lead, Mercury, MTBE, Particulate matter (Class 1 (0.5 Micron)), PCB, Toxaphene, Turbidity, Volatile Organic Compounds (listed below):

Alachlor, Atrazine, Benzene, Carbofuran, Carbon Tetrachloride, Chlorobenzene, Chloropicrin, 2 4-D, Dibromochloropropane, o-Dichlorobenzene, p-Dichlorobenzene, 1 2-Dichloroethylene, 1 1-Dichloroethylene, cis-1 2-Dichloroethylene, trans-1 2-Dichloroethylene, 1 2-Dichloropropane, cis-1 3-Dichloropropylene, Dinoseb, Endrin, Ethylbenzene, Ethylene Dibromide (EDB), Haloacetonitriles (HAN), Bromochloroacetonitrile, Dibromoacetonitrile, Dichloroacetonitrile, Trichloroacetonitrile, Haloketones (HK), 1 1-Dichloro-2-Propanone, 1 1 1-Trichloro-2-Propanone, Heptachlor, Heptachlor Epoxide, Hexachlorobutadiene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Pentachlorophenol, Simazine, Styrene, 1 1 2 2-Tetrachloroethane, Tetrachloroethylene, Toluene, 2 4 5-TP (Silvex), Tribromoacetic Acid, 1 2 4-Trichlorobenzene, 1 1 1-Trichloroethane, 1 1 2-Trichloroethane, Trichloroethylene, Trihalomethanes (TTHM), Chloroform (surrogate), Bromoform, Bromodichloroethane, Dibromochloromethane, Xylenes.

This list of contaminants that Plus-As drinking water systems reduce does not mean that these substances are present in your tap water. Be sure to check for compliance with state and local laws and regulations. Not intended to be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.

Plus-As Series drinking water systems are manufactured by Multi-Pure Corporation using Arsenic Reduction technology from AdEdge Technologies, Inc.

Specifications

Model: Plus-As-Pb-PID

Filtration Cartridge	4.75" x 10.5" MPNNAs cartridge
Materials Housing	Polypropylene (4.0 lbs, Height 13.0", Body Diameter 6.75")
Particulate Retention	0.5 micron
Faucet	Lead-free faucet
Shut Off Device	Flow Meter w/Shut-off Device
Arsenic media	AdEdge custom AD33L product
Inlet / Outlet	3/8" / 1/4"

Performance

Rated Cartridge Life	960 gallons
Arsenic concentration	Up to 50 ppb influent arsenic
Replacement	Every 12 months or 960 gallons. whichever comes first
Rated flow rate	1.0 gpm @ 60psi
Water Pressure	125 psi max / 30 psi min

Contact your local dealer:

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AdVantEdge DWS-2S-2710-01

The DWS-2S-2710-01 is a dual stage water treatment approach with an integrated system design, ideal for under-counter household use. The system includes a selected 10 inch, 5 micron polypropylene sediment cartridge, a 2.75 x 9.75 inch arsenic removal cartridge, housing components, i.e., sumps, caps, mounting bracket, faucet (lead-free), shut-off device, and tubing for a complete unit. AdEdge Technologies supplies both the system components and replacement cartridges. The system is available to qualified water treatment distributors and dealers for subsequent re-sale to end users. Replacement cartridges are available through AdVantEdge authorized distributors.



Specifications

Filtration Cartridge
Arsenic Cartridge
Materials Housing
Mounting
Faucet
Shut Off Device
Arsenic media
Water source
NSF testing
Box/Packaging

Model: DWS-2S-2710-01

10 inch standard, 5 micron polypropylene sediment cartridge
10 inch standard (2.75 x 9.75 inch); AdVantEdge Model AD2710S
Injection molded polypropylene
Painted metal mounting bracket
Lead-free faucet with 1/4 inch tubing
Mechanical countdown shut-off device mounted on bracket
AdEdge custom AD33L product
Potable water of known microbiological quality (microbiologically safe)
Components tested in accordance with NSF protocols, no specific listings
Plain white box, with or without Label

Performance

Rated Cartridge Life 1000 gallons
Arsenic concentration Up to 50 ppb influent arsenic
Replacement Every 12 months or 1000 gallons, whichever comes first
Rated flow rate 0.5 gpm
Parameters 5 micron polypropylene: sediment | AD2710S: arsenic

Contact your local dealer:

AdVantEdge DWS-2S-2710-02

The DWS-2S-2710-02 is a dual stage water treatment approach with an integrated system design, ideal for under-counter household use. The system includes two selected 2.75 x 9.75 inch arsenic removal cartridges, housing components, i.e., sumps, caps, mounting bracket, faucet (lead-free), shut-off device, and tubing for a complete unit. AdEdge Technologies, Inc. supplies both the system components and replacement cartridges. The system is available to qualified water treatment distributors and dealers for subsequent re-sale to end users. Replacement cartridges are available through AdVantEdge authorized distributors.



Specifications

Arsenic Cartridge
Materials Housing
Mounting
Faucet
Shut Off Device
Arsenic media
Water source
NSF testing
Box/Packaging

Model: DWS-2S-2710-02

Two 10 inch standard (2.75 x 9.75 inch); AdVantEdge Model AD2710S
Injection molded polypropelene
Painted metal mounting bracket
Lead-free faucet with 1/4 inch tubing
Mechanical countdown shut-off device mounted on bracket
AdEdge custom AD33L product
Potable water of known microbiological quality (microbiologically safe)
Components tested in accordance with NSF protocols, no specific listings
Plain white box, with or without Label

Performance

Rated Cartridge Life 1000 gallons
Arsenic concentration Up to 50 ppb influent arsenic
Replacement Every 12 months or 1000 gallons, whichever comes first
Rated flow rate 0.5 gpm
Parameters AD2710S: arsenic

Contact your local dealer:

AdVantEdge EHC-2S-2710-01

The EHC-2S-2710-01 is a dual stage water treatment approach with an integrated system design, ideal for under-counter household use. The system includes a selected, NSF certified, 10 inch carbon block cartridge for lead, cyst, chlorine, taste and odor reduction, a 2.75 x 9.75 inch arsenic removal cartridge, housing components, i.e., sumps, caps, mounting bracket, faucet (lead-free), shut-off device, and tubing for a complete unit. AdEdge Technologies supplies both the system components and replacement cartridges. The system is available to qualified water treatment distributors and dealers subsequent re-sale to end users. Replacement cartridges are available through AdVantEdge authorized distributors.



Specifications

Model: EHC-2S-2710-01

Carbon Block Cartridge	10 inch standard (2.75 x 9.75 inch); AdVantEdge Model F-241
Arsenic Cartridge	10 inch standard (2.75 x 9.75 inch); AdVantEdge Model AD2710S
Materials Housing	Injection molded polypropylene
Mounting	Painted metal mounting bracket
Faucet	Lead-free faucet with ¼ inch tubing
Shut Off Device	Mechanical countdown shut-off device mounted on bracket
Arsenic media	AdEdge custom AD33L product
Chlorine, Taste, Odor Media	Carbon Block 0.5 micron; NSF Certified
Water source	Potable water of known microbiological quality (microbiologically safe)
NSF testing	Components tested in accordance with NSF protocols, no specific listings
Box/Packaging	Plain white box, with or without Label

Performance

Rated Cartridge Life	1000 or 800 gallons (see cartridge specifications for water parameters & capacity)
Arsenic concentration	Up to 50 ppb influent arsenic
Replacement	Every 12 months or cartridge rating, whichever comes first
Rated flow rate	0.5 gpm
Parameters	F-241: odor, taste, chlorine AD2710S: arsenic

Contact your local dealer:



By AdEdge Water Technologies, LLC

Under-counter POU System for Arsenic Reduction

Model: DWS-4510-01

AdVantEdge DWS-4510-01

The DWS-4510-01 is a single stage water treatment approach with an integrated system design, ideal for under-counter household use. The system includes a selected 4.5 x 10 inch arsenic removal cartridge, housing components, i.e., sumps, caps, mounting bracket, faucet (lead-free), shut-off device, and tubing for a complete unit. AdEdge Water Technologies supplies both the system components and replacement cartridges. The system is available to qualified water treatment distributors and dealers for subsequent re-sale to end users. Replacement cartridges are available through AdVantEdge authorized distributors.



Specifications: Model: DWS-4510-01

Arsenic Cartridge	4.5 x 10-inch; AdVantEdge Model AD4510S
Materials Housing	Injection molded plastic
Mounting	Painted metal mounting bracket
Faucet	Lead-free faucet with ¼ inch tubing
Shut Off Device	Mechanical countdown shut-off device mounted on bracket
Arsenic media	AdEdge custom AD33L product
Water source	Potable water of known microbiological quality (microbiologically safe)
NSF testing	Components tested in accordance with NSF protocols, no specific listings
Box/Packaging	Plain white box, with or without label
Dimensions	7.5" width / 21" height

Performance

Rated Cartridge Life	1000 gallons 3000 gallons
Arsenic Concentration	Up to 100 ppb influent arsenic; if higher than 100 ppb please consult AdVantEdge Up to 50 ppb influent arsenic
Replacement	Every 12 months or 1000 gallons, whichever comes first (for 100 ppb arsenic) Every 12 months or 3000 gallons, whichever comes first (for 50 ppb arsenic)
Rated Flow Rate	0.5 gpm
Parameters	AD4510S: arsenic

Contact Your Local Distributor:



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POU CARTRIDGE FOR ARSENIC REDUCTION

High Performance Point-of-Use Solutions

AdVantEdge has two POU cartridges for arsenic reduction. These products are the most cost-effective technology to date to meet the challenges of the 10 micrograms per liter ($\mu\text{g/l}$) drinking water standard for arsenic established by EPA. Products incorporate a proprietary iron oxide media for long life and high performance. Cartridges effectively reduce both Arsenic (V) and Arsenic (III) without pre-oxidation. Ideal applications include under-counter and countertop POU systems. The standard Model AD2710S has been optimized for extended life and fits most standard and slimline 10 inch housings. The AD2710S is designed to treat 50 $\mu\text{g/l}$ of total arsenic to less than 10 $\mu\text{g/l}$ (based on pH 8.5, Arsenic (V) challenges using NSF 53 protocols). The AD4510S version is a 4.5 x 10 inch BB size cartridge designed for tackling higher arsenic concentrations above 50 $\mu\text{g/l}$. Both are filled with 100% Adedge Technologies AD33 arsenic reduction media for maximum performance.

Model:
AD2710S

Model:
AD4510S

CARTRIDGE PERFORMANCE



Applications	Ideal for Under-counter or countertop POU systems Model AD2710S: 50 $\mu\text{g/l}$ of arsenic, 0.5 gpm flow, pH 6.5-8.5 Model AD4510S: 100 $\mu\text{g/l}$ of arsenic, 1,000 gallon capacity, 0.5 gpm flow, pH 6.5-8.5 Model AD4150S: 50 $\mu\text{g/l}$ of arsenic, 3,000 gallon capacity, 0.5 gpm flow, pH 6.5-8.5
Arsenic Reduction Capacity	Reduction of up to 99% of total arsenic. Effective for both As (III) & As (V). 1000 – 3,000 gallons; 4-6 times longer life than other commercial adsorption options (conservative rating at pH 8.5)
Certifications	NSF 61 product listing on Media (see Adedge for details).
Components	FDA listed components
Extractables	Imparts no harmful chemicals into the treated product water

TECHNICAL SPECIFICATIONS

General Specifications

Dimensions	2.75 x 9.75 inch
Media type(s)	Custom AD33L Iron Oxide
Contaminant Reduction	Arsenic (V) and (III)
Cartridge Life	1,000 gallons
Cartridge shell	FDA grade Polyethylene
Micron rating	25 Micron Nominal
Pressure drop	< 8 psi at 0.5 gpm Fits most conventional housings – consult your AdVantEdge Distributor for details
Housings	

Model AD4510S

Dimensions	4.5 x 9.75 inch
Media type(s)	Custom AD33L Iron Oxide
Contaminant Reduction	Arsenic (V) and (III)
Cartridge Life	1,000 gallons up to 100 $\mu\text{g/l}$ arsenic 3,000 gallons up to 50 $\mu\text{g/l}$ arsenic
Cartridge shell	FDA grade Polyethylene
Micron rating	25 Micron Nominal
Pressure drop	< 8 psi @ 0.5 gpm Fits most conventional housings - consult your AdVantEdge Distributor for details
Housings	

Recommended Water Quality for Best Performance

pH	6.5 – 8.5	Arsenic	50 or 100 $\mu\text{g/l}$ (see above)	Phosphate	< 0.5 mg/l
Iron	< 0.5 mg/l	Silica	< 30 mg/l	Sulfides	< 0.1 mg/l
Manganese	< 0.05 mg/l	Sulfate	< 100 mg/l	Fluoride	< 1 mg/l



Contact your local dealer:

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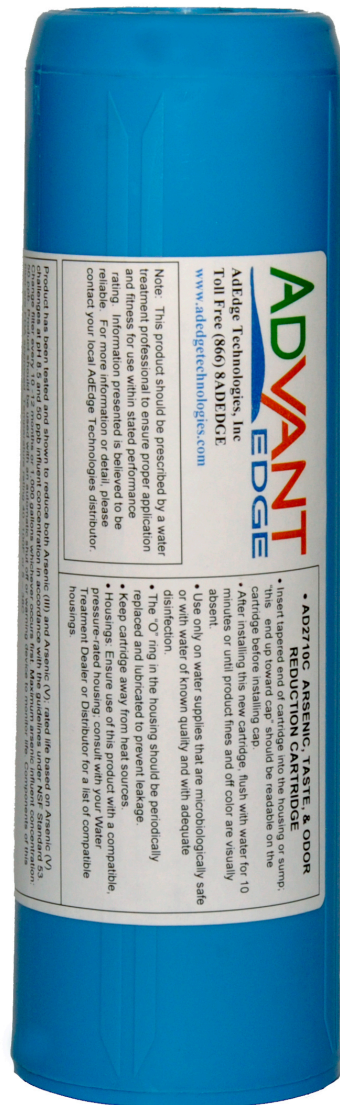
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POU CARTRIDGE FOR ARSENIC REDUCTION

Point-of-Use Arsenic, Chlorine, Taste & Odor Solution

The AdVantEdge Model AD2710C 10 inch cartridge is designed to treat up to 50 µg/l of total arsenic to less than 10 µg/l with a typical one year life (based on pH 8.5, Arsenic (V) challenges using NSF 53 protocols). This unique combination of AdEdge Technologies AD33L arsenic reduction media and granular activated carbon allows for arsenic reduction and better tasting water at the point-of-use. This product uniquely combines high efficiency arsenic reduction and taste/odor capabilities for a practical and cost-effective solution at the tap. AdVantEdge's design utilizes the AdEdge proprietary iron oxide adsorption media for long life and unparalleled performance to meet the challenges of the 10 micrograms per liter (µg/l) drinking water standard for arsenic established by the EPA. The product effectively reduces both Arsenic (V) and Arsenic (III) without pre-oxidation. Ideal applications include under-counter and countertop POU systems.

**Model:
AD2710C**



CARTRIDGE PERFORMANCE

Applications	Up to 50 µg/l of arsenic, rated flow 0.5 gpm, pH 6.5-8.5. Ideal for under-counter or countertop POU systems.
Arsenic Reduction Capacity	Reduction of up to 99% of total Arsenic. Effective for both As (III) & As (V). 800 gallons (approx. 1 year); 4-6 times longer life than other commercial adsorption options (conservative rating at pH 8.5).
Contaminants	Arsenic, chlorine, taste, and odor reduction.
Certifications	NSF 61 product listing on Media (see AdEdge for details).
Components Extractables	FDA listed components Imparts no harmful chemicals into the treated product water

TECHNICAL SPECIFICATIONS

General Specifications	Model AD2710C
Dimensions	2.75 x 9.75 inch
Media type(s)	AD33L Iron Oxide and GAC
Contaminant Reduction	Arsenic, Chlorine reduction, Taste/odor
Cartridge Life	800 gallons or 1 year
Cartridge Shell	FDA grade Polyethylene
Micron Rating	25 Micron Nominal
Pressure Drop	< 8 psi @ 0.5 gpm
Fittings	Fits most convention housings – consult your AdVantEdge Distributor for details

Recommended Water Quality for Best Performance

pH	6.5 – 8.5	Arsenic	< 50 µg/l	Phosphate	< 0.5 mg/l
Iron	< 0.5 mg/l	Silica	< 30 mg/l	Sulfides	< 0.1 mg/l
Manganese	< 0.05 mg/l	Sulfate	< 100 mg/l	Fluoride	< 1 mg/l

Contact your local dealer:

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POU *IN-LINE* FILTER CARTRIDGE FOR ARSENIC REDUCTION

The Ultimate In-Line Solution

The AdVantEdge Model AD2X10C 10 inch in-line filter cartridge is a unique combination of AdEdge Technologies AD33L arsenic reduction media and granular activated carbon which allows for arsenic reduction and better tasting water at the point-of-use. This product uniquely combines high efficiency arsenic reduction and taste/odor capabilities for a practical and cost-effective solution at the tap. AdVantEdge's design utilizes the AdEdge proprietary granular ferric iron oxide adsorption media for long life and unparalleled performance to meet the challenges of the 10 micrograms per liter ($\mu\text{g/l}$) drinking water standard for arsenic established by EPA. The product effectively reduces both Arsenic (V) and Arsenic (III) without pre-oxidation. Ideal applications include use as an RO post filter, ice maker filters and other potable applications.

**Model:
AD2X10C**



CARTRIDGE PERFORMANCE

Applications	Up to 50 $\mu\text{g/l}$ of arsenic, rated flow 0.5 gpm, pH 6.5-8.5. Ideal for RO systems and food & beverage applications.
Arsenic Reduction Capacity	Use as post filter for reduction of up to 99% of total Arsenic; Effective for both As (III) & As (V). 600 gallons (no RO); 4-6 times longer life than other commercial adsorption options. 800 gallons (post RO); based on application (consult AdVantEdge or your dealer for specific details)
Contaminants	Arsenic, chlorine, taste, and odor reduction.
Certifications	NSF 61 product listing on Media (see AdEdge for details).
Components Extractables	FDA listed components Imparts no harmful chemicals into the treated product water

TECHNICAL SPECIFICATIONS

General Specifications	Model AD2X10C
Dimensions	2 x 10 inch
Media type(s)	AD33L Iron Oxide and GAC
Contaminant Reduction	Arsenic, Chlorine reduction, Taste/odor
Cartridge Life	800 gallons post RO; 600 gallons non RO
Cartridge shell	FDA grade Polyethylene
Pressure drop	< 8 psi @ 0.5 gpm
Fittings	1/4 inch FNPT or Quick Connect® Fittings – consult your AdVantEdge Distributor for details

Recommended Water Quality for Best Performance

pH	6.5 – 8.5	Arsenic	< 50 $\mu\text{g/l}$	Phosphate	< 0.5 mg/l
Iron	< 0.5 mg/l	Silica	< 30 mg/l	Sulfides	< 0.1 mg/l
Manganese	< 0.05 mg/l	Sulfate	< 100 mg/l	Fluoride	< 1 mg/l

Contact your local dealer:

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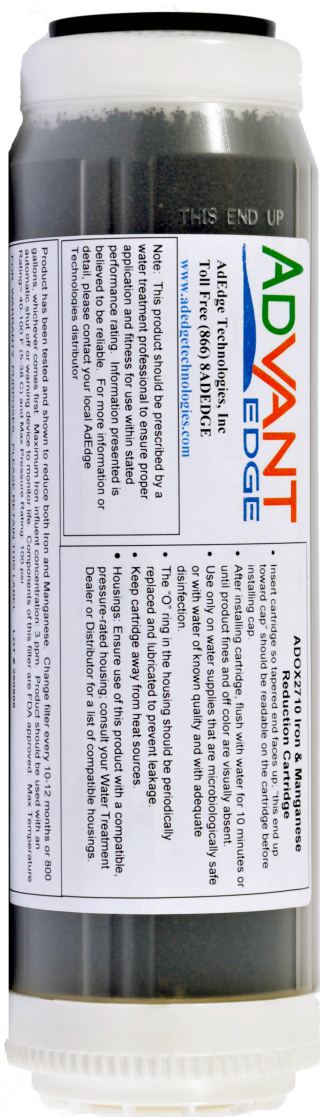
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POU CARTRIDGE FOR IRON & MANGANESE REDUCTION

High Performance Point-Of-Use Solutions

The AdVantEdge Model ADOX2710 10 inch cartridge is designed to treat up to 3 mg/L Iron (Fe) to less than 0.3 mg/L, and 0.5 mg/L Manganese (Mn) to less than 0.05 mg/L with a typical 1 year operating life. Combined with an AdVantEdge AD2710S arsenic reduction cartridge, the unique combination of filters will allow for 800 gallons (approximately 1 year) of treated water. This product contains a highly efficient media for a practical and cost-effective solution at the tap. AdVantEdge's design utilizes a proprietary oxidation/reduction media for long life and unparalleled performance to meet the challenges of Iron and Manganese reduction. Ideal applications include under-counter and countertop POU systems and often times used as a pre-filter to AdVantEdge or other POU products. Iron and Manganese contamination often results in either rust or black color stains. High concentrations of Iron and Manganese can also lead to premature failure of other high performance cartridges.

Model:
ADOX2710



CARTRIDGE PERFORMANCE

Applications	Up to 3 mg/L of Fe and 0.5 mg/L of Mn, rated flow 0.5 gpm, pH 6.0-9.0. Ideal for under-counter or countertop POU systems.
Iron & Manganese Treatment Goal	<0.3 mg/L of Fe; <0.05 mg/L of Mn
Capacity	800 gallons (approx. 1 year); 4-6 times longer life than other commercial adsorption options (conservative rating at pH 9.0).
Certifications	NSF 61 product listing on Media (see AdEdge for details).
Secondary Benefits	Effective pre-filter for many high Fe & Mn source waters that also have high arsenic and sulfide levels.
Extractables	Imparts no harmful chemicals into the treated product water

TECHNICAL SPECIFICATIONS

General Specifications	Model ADOX2710
Dimensions	2.75 x 9.75 inch
Media type(s)	Proprietary
Contaminant Reduction	Iron & Manganese
Cartridge Life	800 gallons or 1 year
Cartridge Shell	FDA grade Polyethylene
Micron Rating	25 Micron Nominal
Pressure Drop	< 8 psi @ 0.5 gpm
Fittings	Fits most conventional housings – consult your AdVantEdge Distributor for details

Recommended Water Quality for Best Performance			
pH	6.5 – 9.0	Arsenic	< 50 µg/l
Iron	≤ 3.0 mg/l	Silica	< 30 mg/l
Manganese	< 0.5 mg/l	Sulfate	< 100 mg/l
		Phosphate	< 0.5 mg/l
		Sulfides	< 0.1 mg/l
		Fluoride	< 1 mg/l

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AdEdge K UNf Technologies @ Bayoxide® E33 Arsenic Adsorption Media for Residential Point-of-Entry (POE) Systems

Q. What is the Bayoxide E33 media?

The product is a dry, granular or pelletized, iron oxide adsorption media. It has been designed specifically for reducing arsenic and is ideal for both drinking and process water applications.

Q. Does Bayoxide E33 product reduce both forms of naturally occurring arsenic?

Yes. E33 media has capacity for both arsenic (III) and arsenic (V). However, the media is more effective for arsenic (V). For situations where 100% arsenic (III) is present, AdEdge recommends pre-oxidation for enhanced performance since the total capacity of the media for arsenic (V) is greater than for arsenic (III).

Q. How is Bayoxide E33 applied for a residential application?

The media is typically employed within a standard, conventional-size cylindrical fiberglass tank with a top-mounted valve, laterals, riser and underbedding. Further sizing and use information is provided in AdEdge Technologies product bulletins.

Q. Does Bayoxide E33 media impart any odor, taste or extractables into the water?

No. The E33 media meets NSF/ANSI drinking water Standard 61 which confirms the safety and quality of products in contact with drinking water.

Q. How long will the Bayoxide E33 media last?

The media life is dependent on several key factors: water chemistry, daily water usage, contact time, and treatment goals. A typical 5 to 6 gpm design flow POE residential system treating arsenic 10 to 50 parts per billion (ppb), containing 2 cubic feet of E33 media will typically last two to four years depending on the arsenic concentration, gallons per day usage, pH, and other factors. Treated water testing will determine the appropriate changeout frequency.

Q. What do I need to know about the water chemistry before properly applying the Bayoxide E33?

The product is intended to be prescribed only by qualified AdVantEdge dealers or distributors. The following analyses (at a minimum) are needed to predict performance: arsenic, pH, iron, manganese, hardness, sulfate, phosphate, and sulfides. Although a complete water profile would be ideal, these are the most important parameters for residential applications.

Q. How is the spent media disposed?

The spent media (after being exhausted with an arsenic containing water) has been tested and has passed the USEPA's standard protocol for determining hazardous wastes. This test known as the Toxicity Characteristic Leaching Procedure (TCLP) has shown that the media can be discarded as non-hazardous waste in a sanitary landfill.

Q. Must iron and manganese be removed prior to treatment with the E33?

The product is not designed specifically for iron and manganese removal. However, like most adsorption products, E33 works best if iron and manganese are minimized before adsorption due to potential fouling of the adsorption bed with iron. Pretreatment for iron and manganese is recommended to 0.5 mg/l and 0.05 mg/l, respectively, prior to arsenic adsorption for best results.

AdEdge has considerable experience with iron and manganese treatment. Contact AdEdge for suggested pretreatment options.

Q. Does Bayoxide E33 media need to be backwashed? If so, how often?

Periodic backwashing is recommended for two reasons. The media, over time, can compact and preferential channels can develop causing short-circuiting. Additionally, sediment or suspended solids (if present) may accumulate in the adsorption media. To prevent excessive pressure drop or channeling, gentle backwashing to lift, or fluff, the bed is performed periodically. Backwashing for a residential system is typically performed once a month at 8-10 gpm/square foot for 14 minutes. Since arsenic is chemically bound to the media, no arsenic is removed or desorbed during the backwashing cycle. The backwash water typically has very low or non-detectable levels of arsenic.

Q. Can the Bayoxide E33 media be used in conjunction with an RO system or water softener?

Yes. The preferred location of the arsenic treatment is placement after the softener or RO system.

Q. Would pH adjustment ever be recommended?

The product has a very wide operating pH range from 5.5 to 8.5. The media exhibits a higher arsenic capacity with decreasing pH. Therefore, above 8.5 pH, AdEdge recommends lowering the pH for increasing the longevity of the media. Contact AdEdge for details.

Q. How do I monitor for arsenic?

Samples can be analyzed by a qualified laboratory for total arsenic using several different methods for typically \$30 to \$50 per sample. Field test kits are also available that can detect the presence of arsenic at very low concentrations (< 5 ppb). Field test kit results can be used as inexpensive indicators of system performance, but should be used in conjunction with actual laboratory results. More information can be provided about test kits by contacting AdEdge.

Q. How do I know if the Bayoxide E33 media is working and what type of monitoring should be performed with residential systems?

Based on the potential health concerns with arsenic, a monitoring program is essential for all POE systems installed. The designated water dealer or service providers are responsible to test the system initially after installation to determine if treatment goals are being met and routinely thereafter throughout the operating life. Sampling frequency may vary depending on the site specifics and state requirements. A laboratory sample of the effluent is recommended at least quarterly to semi-annually. Media should be discarded and replaced with new media when the effluent no longer achieves the treatment goals.



Notice: Information is believed to be reliable and offered in good faith with no warranties or implied warranties or fitness for a particular use. A trained Water Treatment Professional / Consumer is responsible for determining suitability of application and usage under site-specific circumstances, environmental conditions and water quality profile. Installation by a qualified mechanical contractor / plumber, and ongoing sampling and monitoring protocol is required for all installations to determine actual performance and the appropriate frequency of media replacement. AdEdge Technologies, Inc. neither accepts nor assumes any liability associated with water treatment system design, installation or performance other than as specifically noted in particular product warranties supplied by AdEdge Technologies, Inc.



Residential Arsenic Reduction Systems
Point-of-Entry Application / Site Profile

AdEdge Water Technologies, LLC

Contact Information

Consumer:		Date (mm/dd/yy) :	
Location:		Dealer Contact:	
Source of Lead:		Phone:	
Competitive Technologies Considered:		Fax:	
Desired Istall Date:		Email:	
Other pertinent Notes:			

System Parameters

Application:		(residential, other POE, commercial, other)
Size / Type:		Single family, multiple family, multiple dwelling)
Design Flow (GPM):		(Max design flow rate)
Ave Flow (GPM):		(Typical demand)
Gallons per day usage:		(Ave throughput per day)
Est. Gals per Year:	0	(Best estimate for 365 day usage)
Softener Installed:		
Iron or manganese present above MCL?:		
Sulfide odor?:		
Existing Treatment at location?:		

Water Analysis

(enter all available)

** priority parameters

pH **		Tannins**		mg/L
Total As **		Silica **		mg/L
As(III)		Sulfides **		mg/L
Alkalinity		Sulfate		mg/L
Hardness		Iron **		mg/L
Turbidity		Manganese **		mg/L
Phosphate **		Vanadium		mg/L
Flouride				

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