

LONGEVITY ARSENIC EXTRACTOR



Product Sheet
2022



LONGEVITY
WATER SYSTEMS™



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The Longevity Arsenic Extractor

The Longevity Arsenic Extractor is an Arsenic-removal and water-treatment solution designed to effectively remove arsenic contaminants such as arsenite As (III) and arsenate As (V) from residential and commercial water sources. The Longevity Arsenic Extractor uses Point of Entry (POE) water treatment for complete absorption of Arsenic, Iron Manganese, and Hydrogen Sulfide.

The treated water is safe for consumption and any other household/business use.

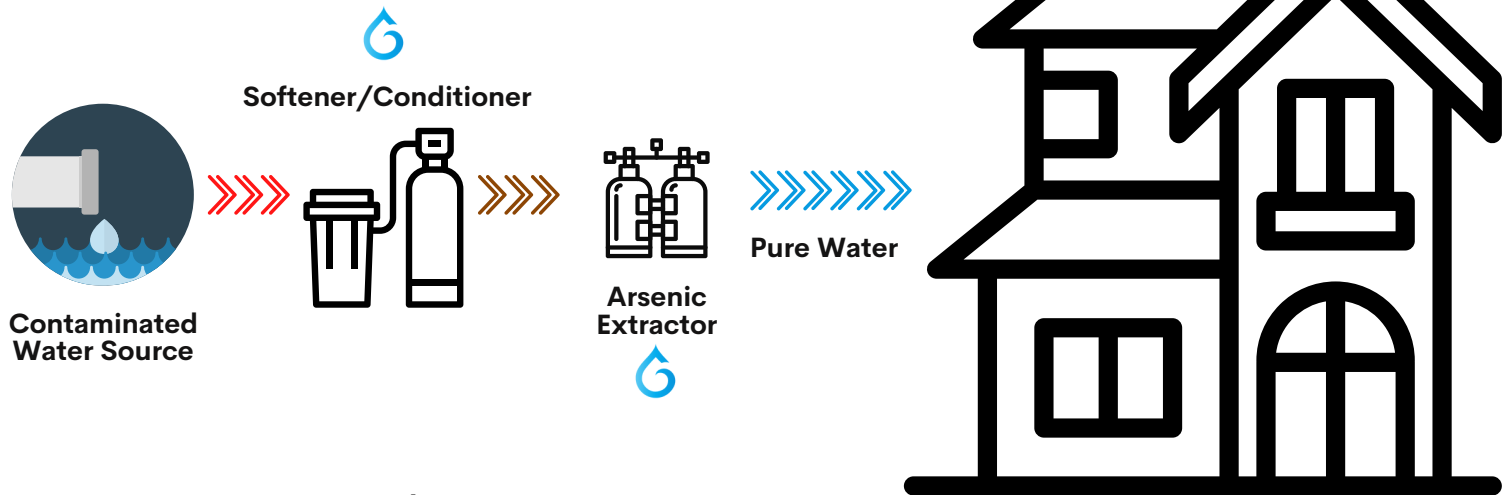
Arsenic Treatment Parameters

The Longevity Arsenic Extractor removes up to 99% of total arsenic in water, including As (III) & As (V). Treatment Goal is <10 parts per billion (ppb) total arsenic with a typical removal efficiency of 90-99% in water conditions between 5 to 500 ppb total arsenic. This treatment goal reflects current EPA MCL of 10 ppb total arsenic.

Non-hazardous waste byproducts

The Longevity Arsenic Extractor uses the highest quality media to provide reliable, high performance operation without chemicals. Once exhausted the media is non-toxic and passes Toxicity Characteristic Leaching Procedure (TCLP), (EPA test method 1311) and may be disposed of as a non-hazardous material.

How it works



Whole-house/building treatment

The Longevity Arsenic Extractor is designed to absorb arsenic in the water from the main water source (i.e. main water line into the building, well) and should be installed immediately before the water enters the house/building. The system is a pre-packaged, pre-designed modular system typically installed in tandem with a Longevity Softener as a prep system to remove hardness (primarily manganese and calcium) and "polish" the water before it enters the arsenic extraction process. This increases the lifespan of the system and the media.

How the arsenic is removed

Within the system, metal-oxide nano-particles are precipitated within the resin bed where they form strong chemical bonds with As (III) and As (V).

In the adsorption process, contaminants break their bond with water molecules and chemically adhere to a filter media. This is accomplished by directing water flow through pressure vessels that contain the adsorptive media, at a specific rate that allows just the right contact time for adsorption to occur.

The oxidative chemical locked inside Longevity Arsenic Extractor's beads is regenerated via the dissolved oxygen in the backwash water. This means chemicals such as chlorine dioxide, potassium permanganate, chlorine or sodium chloride brine solution are not needed for regeneration.

Backwash & Maintenance

Minimal water wasted in backwash

The Longevity Arsenic Extractor regenerates after a set amount of days depending on the water usage and system size. The typical regeneration occurs every 21 days. A 10 GPM backwash lasts 8-10 mins and uses 80-100 gallons of water.

AdEdge AD33 Media

Longevity Arsenic Extractor utilizes AdEdge's AD33 adsorption media for reliable, simple, and cost-effective treatment. 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.

The media used in the Longevity Arsenic Extractor is comparatively much easier to handle than other oxidative media and many naturally occurring zeolites.

Maintenance

An annual water analysis and system check should be performed by a water treatment professional to ensure the system is effectively extracting arsenic from the water before it enters the home/building. Longevity Water Systems can conduct this annual check on the system, as well as perform an lab analysis of the water. (See appended Maintenance Agreement)

System Specs

System Dimensions	14" W x 65" H Fiberglass
Media Type	AdEdge AD33
Media Quantity	4 cubic feet
Normal Service Flow	8 to 10 gpm
Peak Flow	10 gpm
Backwash Max	10 gpm
Backflow Cycle	Automatic pre-programmed
Temperature	33°F to 100°F
Inlet/Outlet	1" dia MPT PVC
Drain	3/4" connection
Underbed	Gravel/stone

Key Features

Arsenic Removed	Up to 99%
Pre-oxidation required	No
Chemical use	None
Water loss (waste)	<1%
Hazardous waste generated	None
Off-taste potential	None
Maintenance	Low
Arsenic dumping at media capacity	No
Water chemistry changes	Negligible
Arsenic Treatment Target	<10 ppb
Backwash frequency	Every 21 days
Water drained per backwash	80-100 gallons

Maintenance Agreement

For systems with **Arsenic Extractor**



Congratulations on purchasing your new system! You now have the highest-quality treatment equipment on the market, designed and assembled to meet your specific water treatment needs for many years to come. Even the best equipment requires care and maintenance. Proper maintenance will ensure that:

Water remains
contaminant free

Equipment
performs
optimally

Equipment
warranties will
stay valid

Changes to source
water don't affect
system effectiveness

01 MONITOR & REGENERATE OCCASIONALLY

Keep an eye on your system. Occasionally look for seepage, leaks or water on the floor. If your system is one with a back flush, make sure the back flush line has water in it. If you leave your location for 2 weeks or more, make sure to press the regeneration button upon returning to keep your water clean and high quality for use. Regeneration can also be performed in any event when your water needs a refresh!

02 SALT CHECK

If your system has a brine tank, make sure there are always the recommended amount of salt pellets in it. Without salt the system cannot regenerate the resin beads effectively.

03 RESET AFTER POWER OUTAGE

If there is a disruption or outage that affects your electric power, reset the time clock on the system so that it will continue to regenerate in the middle of the night.

04 ANNUAL WATER ANALYSIS & SYSTEM CHECK

To ensure your system is effectively extracting arsenic from your water before it enters the home/building, **you need to have an annual water analysis and system check performed by a professional.** Longevity Water Systems can conduct this annual check for you.

To schedule your Annual System Check contact:
spencer@longevitywatersystems.com
(801) 227-9650

BUYER: _____

INSTALL DATE: _____

SIGNATURE: _____



If your Longevity Water System is not properly maintained according to the steps outlined above we do not make any guarantees on equipment, warranties, or any system components. Longevity Water Systems is not responsible for any repair, replacement, or other work if Buyer fails to properly maintain the system or modifies it in any way. Longevity Water Systems will not be responsible for the plumbing installation or any work performed by any other person on the system. A Longevity Rep will ensure system is operating at time of install and will be responsible for the start up of the system. Rep will instruct Buyer on proper maintenance of systems. If any leaks or seepage occurs, please contact the Installer for troubleshooting. Failure to perform the Annual System Check could result in operational issues for the Arsenic Extractor system, in which case the system is not guaranteed to work effectively. Longevity Water Systems is not responsible for any system failures resulting from improper maintenance of the Arsenic Extractor.



www.longevitywatersystems.com

WATER THE WAY
it should be

Thank You!!

Reach out to us directly

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