

LaundryPure 2.0



Everyone does laundry, but only a few know of the costs associated with traditional washing. Detergents, fabric softeners, bleaches and hot water cost the average family \$500 - \$600 per year. It is a hidden expense for most families, and the chemicals in your laundry can leach into your skin and wear down your clothes; not to mention the environmental impact of the waste water and disposal of consumer containers. But there is a better, smarter, safer way to do laundry, and it is based on earth-friendly science and technology. LaundryPure 2.0, designed and made in America, eliminates the need for hot water, detergents, fabric softeners and bleaches, thereby allowing it to pay for itself over and over again. And it is easily installed and used on both standard and high efficiency washers. Clean clothes are not an option, but wasting money, protecting your skin and making an earth-friendly difference should be!



The Cost of Clean

Based on information compiled from the Environmental Protection Agency (EPA) and U.S. Department of Energy, an average American household does around 392 loads of laundry per year at an approximate cost of \$1.12 to \$1.49. Costs include detergent, fabric softener, hot and cold water, and energy costs (actual cost will vary depending on geographic location). This represents an annual expenditure of up to \$585 without factoring in any investment in the washing appliance or related maintenance. By simply using cold water and needed electricity, it is possible to reduce this cost to about \$123 annually which would save as much as \$462 per year.

Detergent Use

Beyond their ever-increasing cost, laundry detergents contain chemical surfactants and fragrances which bring a number of issues to the wash. The web site www.eczema.ms states detergent residue can either irritate or cause eczema, while studies have shown it to be a cause of allergic contact dermatitis.¹ As the largest organ of the human body, the skin has the ability to absorb the chemicals it comes into contact with, something most people should prefer to mitigate. Used over time, detergent will embed in fabrics, weighing them down, dulling colors, and contributing to the allergic symptoms of sensitive individuals. Residue from detergent use tends to make fabric appear faded and cause stiffening when dried, prompting some appliance manufacturers to recommend washing clothing in hot water and vinegar as a remedy. Many consumers turn to regular use of chemical fabric softeners.

Laundry soap can also accumulate in the internal workings of a washing machine resulting in, as reported by the Minnesota StarTribune, the build-up of mold and mildew inside the tub that is created when too much liquid detergent is used, creating a food source for bacteria. Build up may also affect drains, as detergent and softeners are carried out with discharged wash water which, along with chemicals and dirt from the wash, can eventually find their way into local aquifers and water tables. Finally, the plastic containers used for liquid detergents take years to biodegrade in a landfill if they are not recycled.

Energy Consumption

One study performed in a small town in Kansas demonstrated the energy savings potential of doing laundry by switching from older washing machines to new high-efficiency front loading units, recording a water savings of 37.8% and energy savings of 57.6% for participants.² Per load, hot water usage for the study went down 58.26% while cold water use was reduced by 30%. In their *Energy Savers Booklet*, the U.S. Department of Energy points out that switching a washing machine's water temperature setting from hot to warm can cut a load's energy use in half, and that 90% of energy used for washing clothes in a conventional top-load washer is for heating the water. Based on this, saving energy when doing laundry can be achieved primarily through reduction of hot water usage by using warm/cold water settings, replacing an existing traditional model with a new high-efficiency machine, or eliminating the use of hot water altogether, with the highest potential savings coming from going to the use of cold water only.

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Laundry Without Detergent

Utilizing processes normally found in commercial laundry operations, LaundryPure 2.0 uses the bubbling and cleaning action of water with hydrogen and oxygen-based oxidizers to clean as it removes dirt, grime, and odor-causing bacteria without the need for detergents or bleach. In contrast to the typical detergent abrasive action of “scrubbing” on cloth fibers, the use of water with hydrogen and oxygen-based oxidizers in the laundry means clothing is cleaned by working to gently and effectively lift dirt from between fibers without leaving residues and chemicals behind. By preventing the build up associated with detergents, appearance and color of clothing remains visibly brighter, towels tend to retain their volume and feeling of softness, and dark-colored fabrics are less prone to developing a faded appearance, all with the additional benefit of keeping residual chemicals and fragrances away from sensitive or allergic skin. And while a pre-treatment or reduced amounts of detergent can be optionally used on aggressive staining, the reduction or removal of detergents and fabric softeners from the normal laundry routine can be beneficial from an economic point of view as well as an overall wellness standpoint.

Money Saving Technology

Taking away the need to repeatedly purchase detergent, bleach, and fabric softeners will clearly save on monthly household expenses, and the use of cold water only creates a significant additional savings. Average costs for water heating, electricity, detergent, and fabric softener have been used to calculate an approximate annual savings of up to \$462 when using LaundryPure 2.0. Further savings

may be realized through increased usable life of clothing and by delaying replacement of an existing traditional washing machine. And since no expensive modifications or changes are required regarding electrical, plumbing, or the existing washing machine appliance, installation of the LaundryPure 2.0 can typically be performed by the homeowner.

Earth Friendly Features

Unlike some leading oxygen-based powders, the cleaning action of LaundryPure 2.0 works best in cold water, and unlike any brand of detergent, bleach, fabric softener, or eco-friendly laundry soap, there are no boxes, bottles, or buckets to throw out each month, or chemical-laden water to go down the drain and eventually into the environment. The technology in LaundryPure 2.0 infuses incoming cold water with hydrogen and oxygen-based oxidizers that bubble through the wash then break down into basic oxygen within just a few minutes, leaving only water and dirt from clothing to continue on into the waste system. As a RoHS compliant product, LaundryPure 2.0 conforms to requirements for lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (CrVI), polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

Space Certified Technology

LaundryPure 2.0 uses a variation of the technology originally developed for use in the International Space Station and is recognized as a Certified Space Technology by the Space Foundation.

Who Should Use

Available for both high efficiency and standard washing machines, LaundryPure 2.0 is intended to work with residential clothes washers and is for use by anyone interested in an economical, earth-friendly alternative to the typical detergents and chemicals currently available, without modifying existing appliances, electrical systems, or plumbing.

Complementary Products

LaundryPure 2.0 is an addition to a core group of products designed around the concept that you are what you absorb not just what you consume. The reduction of chemicals and detergents from everyday life is part of this philosophy in regard to the clothing that is in almost continuous contact with skin, and in regard to what is going down the drain and ultimately into the water system.

Re:Move - a concentrated, specially formulated, plant-based stain remover that is gentle on fabrics yet removes the toughest stains without the use of harsh chemicals. Safe for colorfast washables and whites, and recommended as a pre-treatment for laundering deep stains.

FreshAir Surround or Everest – university tested, environmentally active air purification that works out in the indoor environment

to provide cleaner, healthier air to breathe as it helps control and eliminate biological contaminants on exposed surfaces.

LivingWater – offers great-tasting pH-optimized water with buffering alkalinity and antioxidant properties with the convenience of tap water, all at a fraction of the cost of bottled water. When used with naturally occurring extracts and whole-food nutritional products, LivingWater may improve effectiveness by increasing absorption.

Essentials for Life (Re:Fuel Formula) – offers a naturally occurring, whole-food nutritional foundation to build on by covering the body's basic needs of vitamins, minerals and enzymes. Essentials for Life is the starting point for a complete supplementation program.

Re:Plenish – centered around the high ORAC value of the muscadine grape, Re:Plenish is a delicious way to help rejuvenate cells with the power of the antioxidant properties of polyphenolics and resveratrol.

Re:Sist – contains a proprietary blend of herbal extracts, ImmuXT™, Elderberry fruit extract, astragalus root extract, Echinacea extract, Reishi mushroom, Aloe barbadensis and Larch tree arabinogalactans. This blend supports the immune system and includes antioxidants to prevent damage from free radicals.

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Unique Features of LaundryPure 2.0

- **Eliminates the need for detergent** - Hydrogen and oxygen gases bubble into clothing to lift dirt and odors. A pre-treatment may be used for tough stains.
- **Prevents odor-causing bacteria without bleach** - LaundryPure 2.0 combines the power of exclusive ActivePure®, a Certified Space Technology, with the cleaning action of water with hydrogen and oxygen-based oxidizers to lift dirt and grime away from the fibers of fabric and prevent the growth of odor-causing bacteria.
- **Helps eliminate allergic reactions due to detergent residue** - LaundryPure 2.0 also helps eliminate the itching and redness caused by allergies due to detergents embedded in clothing, and the hidden effects of chemicals absorbed by skin.
- **Gets towels softer and fluffier and helps clothes last longer** - Build up on towels, linens, and clothes can weigh them down. Over time, LaundryPure 2.0 lifts old detergents out of fibers, restoring their softness.
- **Makes whites whiter and colors brighter** - LaundryPure 2.0 keeps clothes looking their best with the cleansing power of water with hydrogen and oxygen based oxidizers.
- **Protects the home** – A fail-safe leak protection circuit will shut off incoming water to the unit. A buzzer will sound and the display will turn red to notify you of any internal water issues.
- **Designed and built in the USA with the user in mind** – LaundryPure 2.0 is designed for simple use and installation. An easy to see display window glows blue when operating normally and glows red when a problem exists.
- **Friendly to people, the planet and the pocketbook** - LaundryPure 2.0 eliminates the need for hot water cycles. The unit itself is RoHS compliant and uses 50% less energy than previous models.

Frequently Asked Questions

- *Does LaundryPure 2.0 get out tough stains without pretreating?*
Tough stains could still require pretreatment. Vollara recommends using Re:Move cleaner and stain remover for pretreatment when using LaundryPure 2.0.
- *Does LaundryPure 2.0 work with all types of water including hard water?*
LaundryPure 2.0 will work with all household water qualities, but the better the incoming water quality the better the results. To improve results, if desired, use a water softener for hard water and/or a prefilter for chlorine.
- *Will LaundryPure 2.0 work with commercial washing machines?*
LaundryPure 2.0 is designed for residential use only.
- *Is a plumber required to install LaundryPure 2.0?*
The customer is responsible for installation of their LaundryPure 2.0 unit. Some customers may prefer to have a plumber perform the installation although LaundryPure 2.0 can be installed in most homes by the home owner using standard hand tools. It should be noted there are potential problems which can arise during the installation depending on the condition of the plumbing in the home and the configuration and location of the washer. If the cold water valve is stuck or the washing machine needs to be moved back, which may require re-leveling, a plumber may be required.
- *Can I connect the LaundryPure 2.0 unit to anything other than a washing machine?*
LaundryPure 2.0 is designed to work with residential washing machines. Use for any purpose other than as recommended by the manufacturer may void the product warranty.
- *What effect does LaundryPure 2.0 have on elastic?*
Normal operation of a LaundryPure 2.0 unit should have no negative impact on elastic in clothing.
- *Can I let my clothes soak overnight?*
It is not recommended that clothes are allowed to soak overnight in LaundryPure 2.0 water.

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Installing

LaundryPure 2.0 is designed to attach to a residential washing machine using the existing plumbing connection for cold water and standard washing machine hoses. Connections are made from the cold water valve outlet to the inlet on the LaundryPure 2.0 and from the outlet on the LaundryPure 2.0 to the cold water inlet on the washing machine. The hot water connection should remain connected from the hot water valve outlet to the hot water inlet on the washing machine. Power is supplied by a universal AC adapter inserted into a standard electrical outlet, with the DC power cord inserted into the LaundryPure 2.0. Level, horizontally positioned installation on a stable, flat wall surface using appropriate wall anchors is required.

Using LaundryPure 2.0

LaundryPure 2.0 is completely automatic, requiring no additional effort for typical use beyond correct initial installation. Maintenance is normally limited to periodic replacement of the unit's desiccant dryer cartridge. Pre-treating can be done as normal for aggressive and tough staining. Sorting should be performed the same as before using LaundryPure 2.0. For optimal performance and energy savings, use cold water only.

Special Considerations

- Water quality will affect results. A water softener or pre-filter may be installed if needed. Do not use with high iron content water.
- To achieve desired results, aggressive or tough stains may require pre-treatment or a reduced amount of detergent before

washing with LaundryPure 2.0.

- LaundryPure 2.0 is designed to work with residential washing machines. Use for any purpose other than as recommended by the manufacturer may void your warranty.
- When installed on an existing used washing machine, an initial cleaning cycle will be required to remove detergent build up that may dislodge and contaminate clothing.
- For correct operation, the internal desiccant dryer cartridge's protective cap must be removed when the unit is installed, prior to initial use.

Warnings

- Install indoors on potable water systems only. Do not install in areas where water may freeze.
- Water pressure of 20 to 60 psi is required for proper operation.
- LaundryPure 2.0 reduces or eliminates the need for laundry detergent. While many users find that LaundryPure 2.0 alone effectively cleans their laundry, some may find it necessary to pre-treat or use a reduced amount of detergent to remove certain stains. If it is determined that detergent is necessary, it is recommend using 1/8th the amount previously used before purchasing LaundryPure 2.0.
- Do not operate LaundryPure 2.0 with the front cover removed or improperly installed.
- See LaundryPure 2.0 owner's manual for proper installation and operation procedures.

Specifications

Model	LaundryPure 2.0
AC/DC Adaptor	AC in: 100 – 240V ~ 50/60 Hz .45A DC out: 12V 2.5A
Power Consumption	0.4W AC (standby mode) 1.3W AC (operating mode)
Water Pressure	Minimum 20 psi to 60 psi maximum
Water Temperature	Use cold water only (do not use hot water)
Operating Environment	50°F – 100°F (10°C – 37.8°C) Humidity 40% ~ 85%
Dimensions	• 17.3" wide x 5.19" high x 3.69" deep • 43.94 cm x 13.48 cm x 9.37cm
Weight	4.3 pounds • 1.95 kg
Warranty	Three (3) year limited warranty

Key Scientific Studies

1. J Am Acad Dermatol. 2002 Feb;46(2):200-6. Allergic contact dermatitis to detergents: a multicenter study to assess prevalence. Belsito DV, Fransway AF, Fowler JF Jr, Sherertz EF, Maibach HI, Mark JG Jr, Mathias CG, Rietschel RL, Storrs FJ, Nethercott JR. Source Division of Dermatology, University of Kansas Medical Center, Kansas City, KS 66160-7319, USA.
2. Tomlinson, J.J., D.T. Rizy, "Bern Clothes Washer Study, Final Report," Energy Division, Oak Ridge National Laboratory, for U.S. Department of Energy, March 1998