



WHAT'S INSIDE MATTERS™

3 TYPES OF WATER



Raw
Water



Working Water



Drinking
Water

There are three grades of water in your home. The raw water is used outside for things like irrigation and pressure washing. The working water is the water you use for laundry, dishes, bathing, cleaning, and so on. The drinking water needs to be the highest quality.

PRECIPITATION TEST

This test will visually compare your tap water with the water run through the Maytag® mini conditioner.



Precipitation Test – The chemical reagents in this demonstration pull the Calcium and Magnesium [major contributors to hard water] ions out of solution to form a cloudy precipitate in hard water. This enables the viewer to see the precipitated hardness minerals in the water. The water that has been run through the ion exchange resin has had these ions removed, therefore the sample should remain clear [with yellow dye color]. **THE MINERALS SEEN IN THE HARD WATER DO NOT INDICATE THAT THE WATER IS UNSAFE TO CONSUME.**

HARDNESS TEST

This test will show us how hard your water is in grains per gallon. Specifically, we're determining the amount of magnesium and calcium in your water.



Total Hardness Test – Total Hardness of a water supply generally represents the total concentration of Calcium and Magnesium ions expressed as Calcium Carbonate (CaCO_3). Other ions may contribute; however, they are usually present in insignificant quantities. The quantity is reported in grains per gallon which is a measurement of weight. 7000 grains is equal to 1 pound of hardness. This test estimates the measurable hardness of your home's water.

HOW HARD IS YOUR WATER?

Conditioned Water	→	Less than 1 GPG
Moderately Hard Water	→	1 - 3.5 GPG
Hard Water	→	3.5 - 7 GPG
Very Hard Water	→	7 - 10.5 GPG
Extremely Hard Water	→	10.5 or more GPG

Source: Water Quality Association



WHAT IS HARD WATER?



This 50 pound rock in a sink helps illustrate the dissolved rock problem. Dissolved rock in water is measured in grains per gallon. A grain is a measurement of weight. The harder your water tests in grains per gallon, the more dissolved rock is entering your home.

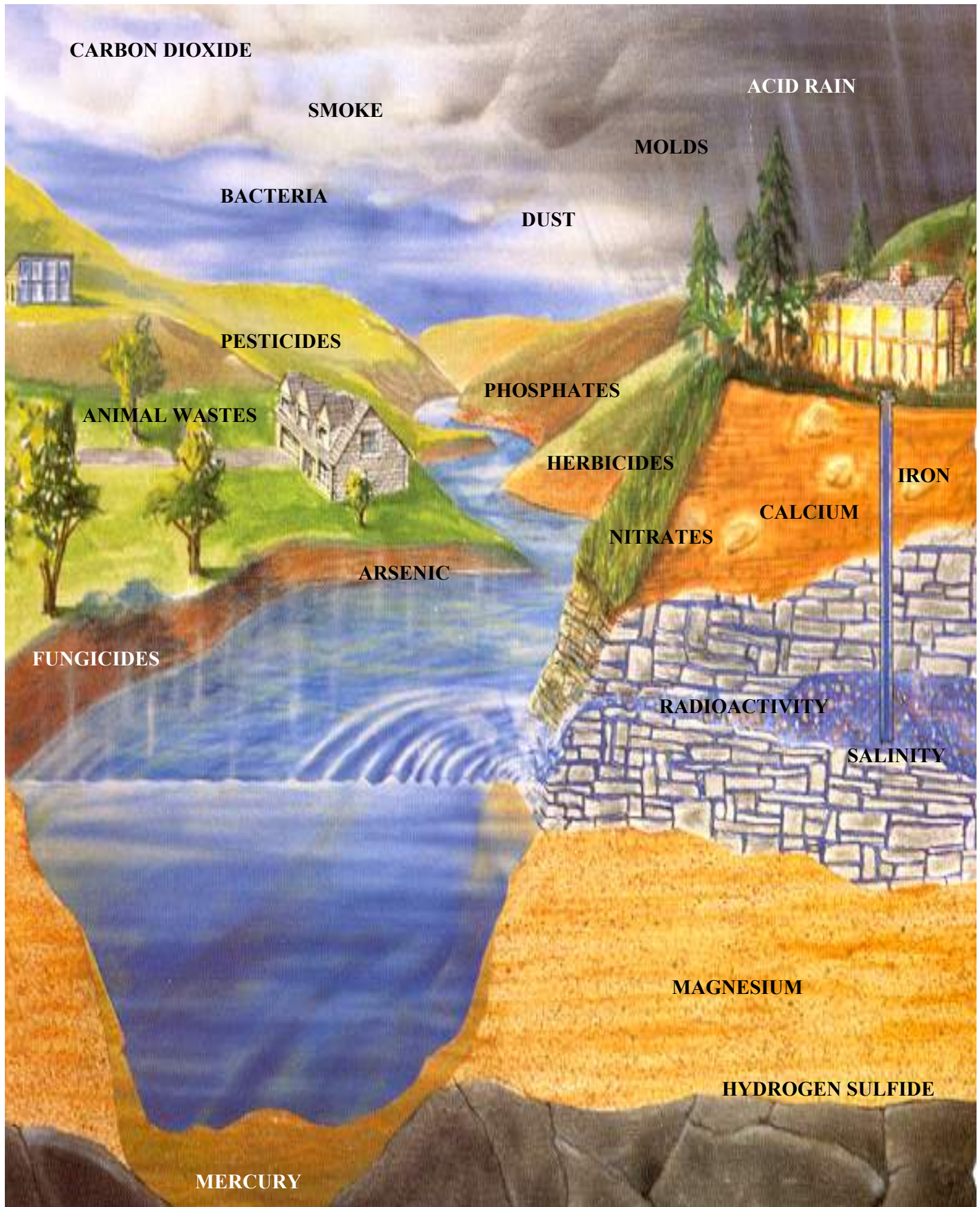
HOW MUCH ROCK IS COMING INTO YOUR HOME?

$$\begin{array}{r} 5 \text{ gr/gal} \\ \times \text{ 72,000 gal/yr} \\ \hline 360,000 \text{ gr/yr} \\ \div \text{ 7,000 gr/lb} \\ \hline 51 \text{ lbs/yr} \end{array}$$



51 pounds of rock per year!

HYDROLOGIC CYCLE



CHLORINE TEST



This pool test kit will help us determine approximately how much chlorine is in your water. It is measured in parts per million.

Chlorine Test – The orthotolidine (OTO) is an indicator solution that will measure the amount of residual chlorine in the water. Within a few seconds of the OTO solution being added to the water, you will see the results. Compare the resulting color to the scale to estimate the amount of free chlorine in the water. Wait 1 to 2 minutes and compare colors to estimate combined chlorine reading. Most pool water test kits will indicate the ideal chlorine range for a swimming pool between 1 and 1.5 parts per million.

DEFINITIONS

Definitions obtained from Dictionary.com

Chlorine – greenish-yellow incombustible, water-soluble, poisonous gas that is highly irritating to the respiratory organs...used widely to purify water, as a disinfectant and bleaching agent.

Ammonia – A colorless, pungent, suffocating, highly water-soluble, gaseous compound usually produced by the direct combination of nitrogen and hydrogen gases: used chiefly for refrigeration and in the manufacture of commercial chemicals.

HARD WATER PROBLEMS

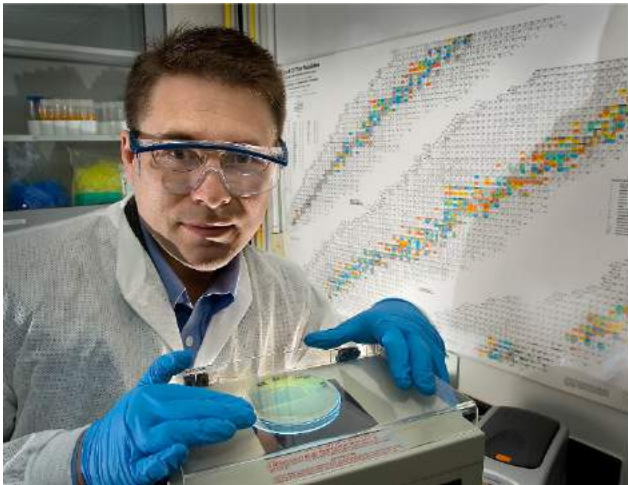
Hard water contaminants will shorten the lifespan of your plumbing and water using appliances by damaging or clogging anything they pass through.



Battelle

The Business of Innovation

The 2009 Softened Water Benefits Study



Under controlled laboratory conditions, Battelle studied the effects of the efficiency and performance of water using appliances, faucets, and fixtures.



Testing Water Quality
Hard water was 26.2 grains per gallon with .99 parts per million of iron.



Water Heaters – The Test

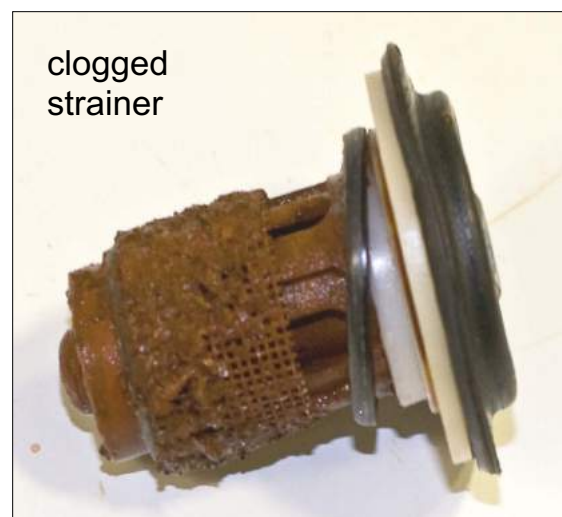
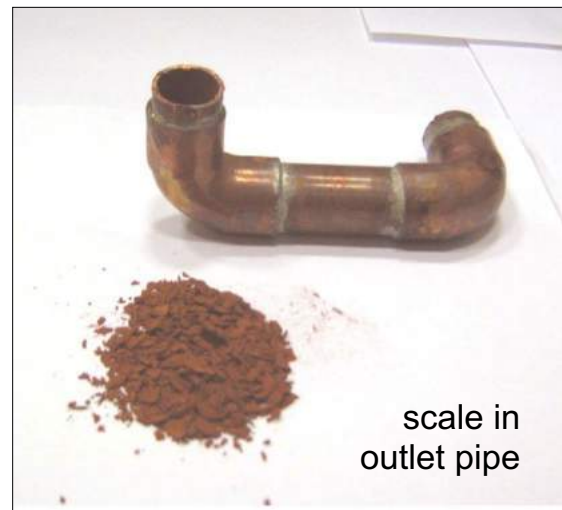


Battelle set up and tested ten gas, ten electric and ten instantaneous water heaters. Five of each type of water heaters were tested using hard water and five using softened water.



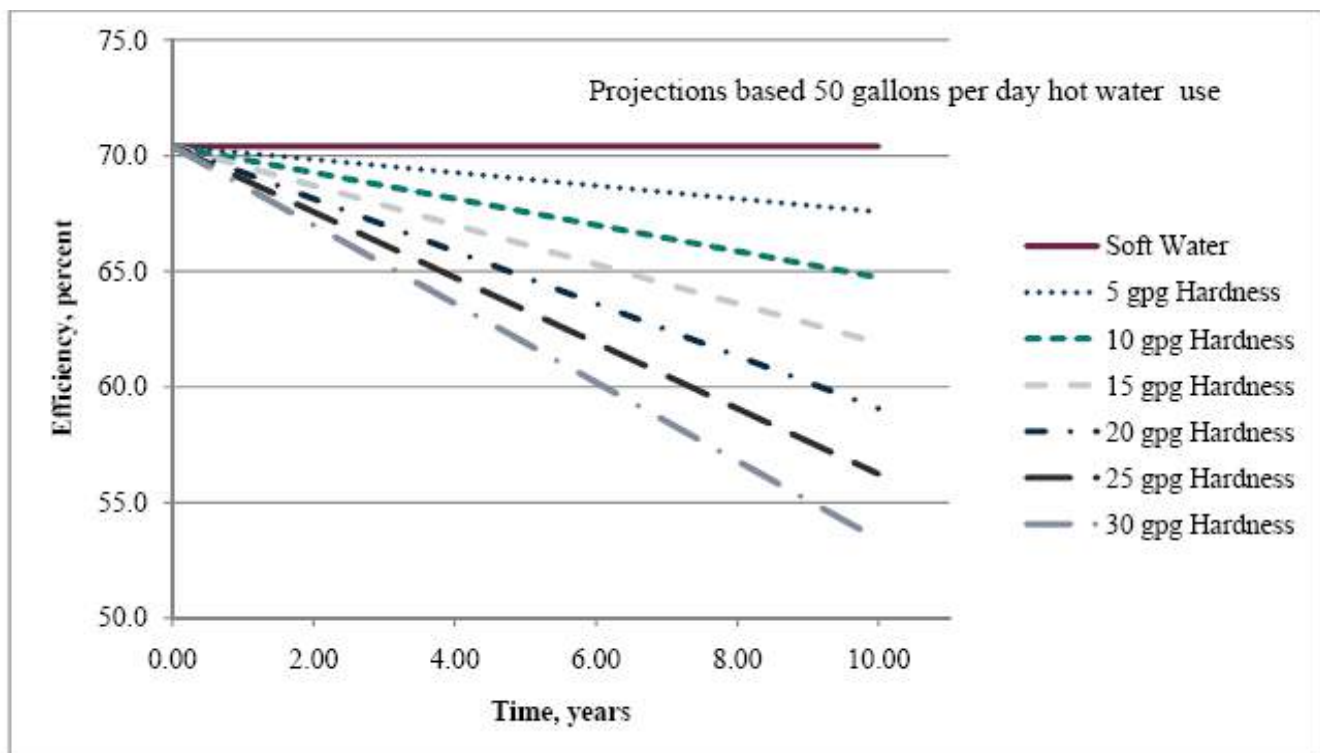
Instantaneous Water Heaters – The Results

Two heaters stopped working as a result of insufficient flow after 1.6 years of equivalent use. The third made it 2.3 years and the last two made it to 2.5 years.



Gas Water Heaters – The Results

Gas water heater on the hard water sample would be 48% less efficient than the soft water sample if the family uses 100 gallons of hot water per day.



Teardown Analysis:

After 90 days of accelerated testing equivalent to 2.25 years of field service.



GAS WATER
HEATERS



ELECTRIC
WATER
HEATERS



Tested Using
Hard Water

Tested Using
Soft Water

Dishwashers – The Test / Results

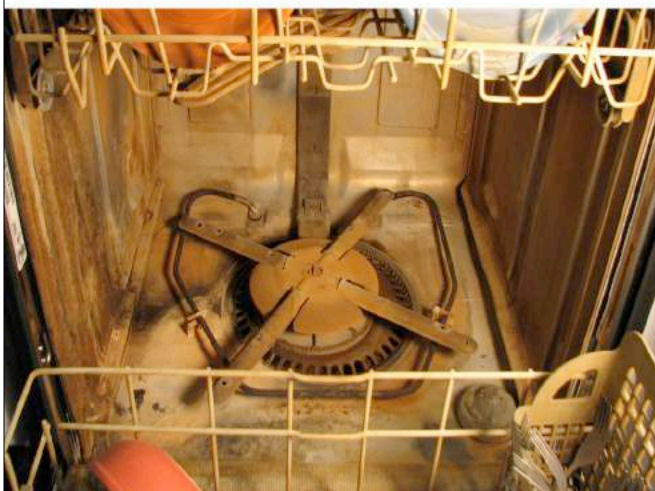
The dishwashers completed a total of 240 cycles over a 30 day period.



Hard Water Results



Soft Water Results



Laundry Washers – The Test / Results

The washers completed a total of 240 cycles over a 30 day period.



Tested Using Soft Water

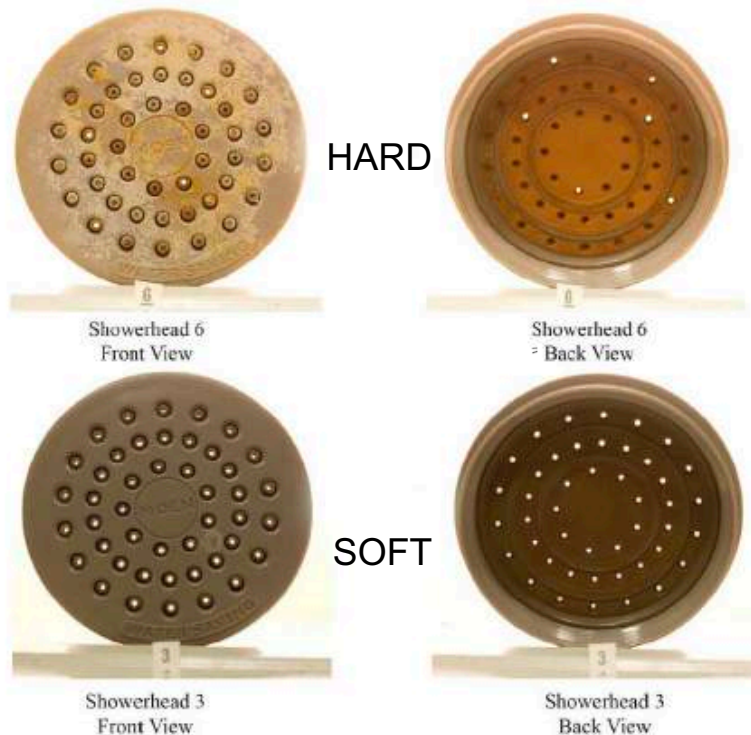


Tested Using Hard Water



Shower Heads and Faucets - Results

The fixtures using hard water clogged in less than seven days of accelerated life testing, whereas those units using softened water made it through the test without any problems.



Teardown Analysis

WASHING MACHINE DEMONSTRATION

This demonstration will illustrate how pure liquid soap performs in hard water vs. soft water



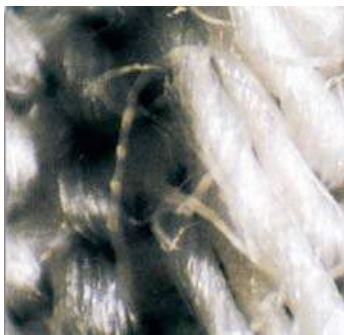
Washing Machine Demonstration – Water hardness challenges are demonstrated by comparing how hard water reacts with pure liquid soap. This pure liquid soap has no softening agents or chemical additives of any kind. It is not utilized in this demonstration as a comparison to the customers store bought soaps. It merely demonstrates how poorly hard water performs with pure soap without additional softeners added.

Benefits of Using Soft vs. Hard Water in Laundering Operations

Over 18 months, using four different fabrics and three detergents, researchers discovered:

1. The life of clothing and household textiles was prolonged up to 15% when washed in soft water.
2. Hard water washing did not remove soil as well and clothing was re-soiled more quickly.
3. Greater amounts of detergent were needed.
4. The greater the deposits (hardness minerals) the greater the deterioration of the fabric.

Cotton washed in
unconditioned water



Cotton washed in
conditioned water





Technical Director, Richard F. Weickart, P.E.

Report Entitled: **Estimated Annual Savings from Water Softening**

According to the report the following soap savings can be realized when using soft water vs. hard water.

<u>Total GPG</u> (grains per gallon)	<u>Savings Percentage</u>
5	27 %
10	42 %
15	52 %
20	59 %
25	64 %
30	68 %



DRINKING WATER

Total Dissolved Solids (TDS) Tester

Insert TDS meter into water sample to get immediate results of Total Dissolved Solids in the water. Results are shown in parts per million. (ppm)



TDS Meter Test — A TDS meter detects the amount of Total Dissolved Solids in a solution. The meters are factory calibrated for accuracy and can be recalibrated as needed. Water temperature can affect the accuracy of a TDS meter. Most modern meters have a built-in temperature compensation feature to adjust for water temperature. The meter reports the results in parts per million (ppm). Average accuracy is +/- 3%.

THE SOLUTION

The Maytag® AP Water Treatment System

Unlimited conditioned water

Reduce your costs for soaps
and cleaners

Save hours of cleaning

Extend the life of your
plumbing, appliances, faucets
and fixtures



HOW IT WORKS

Before water can enter your home,
it must first pass through your Maytag® water treatment system.

1 Unconditioned water enters the mineral tank, which contains a proprietary filtering media that acts like a magnet, attracting the undesirable contaminants to its surface and separating the contaminants from the water.

2 Then, the clean, treated water flows back up the riser tube to be distributed throughout your home.

3 Next, treated water from the brine tank – the mineral tank's trusty sidekick – recharges the filtering media so your Maytag® water treatment system can stay ready to treat your water 24 hours a day, 7 days a week, 365 days a year.



THE MAYTAG® WATER TREATMENT SYSTEM IS PROVIDED WITH A SPECIALIZED CONFIGURATION



RENEWABLE HIGH MICROPOROSITY COCONUT SHELL CARBON

Reduces chlorine, unpleasant taste and odor.



ION EXCHANGE MEDIA

High-capacity resin removes more iron
and hardness-causing minerals.



BACTERIOSTAT 55

Inhibits bacteria growth and reduces heavy metals.



GARNET FILTRATION MEDIA

Provides 20-micron sediment filtration
and even distribution of water flow.

DRINKING WATER

You can produce this
same high-quality
Maytag® water right from
your kitchen sink for just
a few pennies per gallon.



NSF is a registered trademark of the National Sanitation Foundation. The Maytag™ Drinking Water System M-550 is tested & certified by the National Sanitation Foundation International to NSF/ANSI-Standard 58.



LIFETIME LIMITED WARRANTY

MAYTAG® WATER TREATMENT SYSTEMS



WHAT'S INSIDE MATTERS™

LIFETIME LIMITED WARRANTY

The LeverEdge (hereinafter LE) warrants any Maytag® brand water treatment system manufactured by LE and installed by a duly authorized Maytag® dealer, to be free from defects in materials and workmanship to the original residential purchaser (hereinafter CONSUMER) from the date of purchase. All aspects of this warranty are subject to the following limitations, terms and conditions.

1. DURATION OF WARRANTY

If LE equipment consisting of the Mineral and Storage Tanks, Controls and Valves, Pumps and Switches, Ion Exchange Resin and Treatment Media, Drinking Water Systems (excluding replacement exchange modules or inline filters) and Ultraviolet Lights (excluding bulbs and sleeves) is determined to have failed as a result of a manufacturing defect, LE will, at its sole discretion, repair or replace the defective part at NO CHARGE to the CONSUMER (excluding labor, and applicable shipping and handling costs) for the duration of the CONSUMER's ownership of the original equipment (hereinafter "LIFETIME").

2. LIMITATIONS OF COVERAGE

This warranty extends only to the CONSUMER for damage resulting from defects in materials and workmanship, and does not include renewable components. It does not extend to damage caused by the CONSUMER'S neglect or abuse, or by accident, to damage caused by wind, hail or abnormal weather conditions, or to damage caused by acts of God, civil insurrection or extraordinary circumstances beyond the control of LE.

LE shall not be liable for any direct or indirect damage resulting from the use of the equipment, and in no event shall the extent of this warranty coverage exceed the purchase price of the equipment.

LE cannot know the characteristics of a CONSUMER'S water supply or the purpose for which one is purchasing LE equipment. Also, water qualities vary seasonally and over time. Therefore, LE assumes no liability for the determination of the proper equipment necessary to meet a CONSUMER'S requirements, nor does it authorize others to assume such obligations on its behalf.

This warranty excludes any equipment which was not manufactured by LE and installed by an authorized Maytag® dealer or on which the date code has been removed or altered. Any tampering or attempted repair performed by anyone other than an authorized dealer, including the CONSUMER, voids this warranty.

3. MISCELLANEOUS

In order to be considered for validation, all claims for warranty coverage must be accompanied by a copy of the purchase agreement indicating the date of initial installation, and a copy of the CONSUMER's current utility bill. LE reserves the right to inspect the LE equipment prior to honoring any warranty claim.

This warranty is only issued by LE, and the CONSUMER is hereby advised that Maytag® is not the manufacturer of the equipment, and provides no additional or separate warranty whatsoever in connection with the equipment.

This warranty gives you specific legal rights, and you may have other rights which may vary from state to state. Any and all inquiries or claims under this warranty must be submitted in writing to The LeverEdge, Attn: Warranty Department, 1423 Gunn Highway, Odessa, FL 33556.

THE LEVEREDGE
1423 Gunn Highway
Odessa, FL 33556
Phone: (866) 910-8351
www.theleveredge.com

MAKE A CLEAN BREAK FROM HARD WATER



Let's Review

- Save by reducing detergents and cleaning supplies
- Increase the life expectancy of all your water using appliances, faucets, fixtures, and plumbing
- "Fresh Squeezed" RO water eliminates bottled water costs and reduces drink mixes by 25%
- Enjoy the benefits of softer hair and skin without the adverse drying affects of chlorine and chemical byproducts of chlorinated water supplies
- Reduce household cleaning
- Extend life of clothing / textiles
- President's Cancer Panel recommends drinking purified tap water, not bottled water

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1423 Gunn Highway Odessa FL 33556 | maytagwater.com

Limited warranty provided by the manufacturer.