

LAUNDRY PRODUCTS: AquaTex™ 360, 720 & Ultra



Eco-friendly wastewater reclamation & treatment systems since 1988

AquaTex™ 360, 720 & Ultra

Wastewater Resources Inc. (WRI) – WRI is an original equipment manufacturer of proprietary and patented wastewater reclamation and treatment systems for a variety of complex water applications. (WRI) manufactures three advanced water purification plants for the laundry graywater market: AquaTex™ 360, AquaTex™ 720 and AquaTex™ Ultra. To service its lodging and commercial laundry clients, WRI offers a full line of proven products to reclaim, clean, and recycle laundry graywater.

Business Case – The first AquaTex™ 360 was installed in 1989. This family of products is now the most prolific advanced water purification plants in the laundry market – reclaiming millions of gallons of water each year and billions of gallons over the past 22 years.

AquaTex™ 360, 720 and Ultra were designed to treat laundry graywater at any hotel, resort or commercial laundry. WRI received a patent for its recycling and advanced oxidation processes, coupled with membrane technology to continually filter, disinfect, and recycle laundry graywater. Its simple reclamation design reduces water and sewer charges by 60% to 80%. AquaTex™ 360, 720 and Ultra are custom engineered to accommodate a client's spacial footprint, graywater content and washer extractor brand.

As per the Uniform Plumbing Code, 2000 edition, appendix G, Graywater is defined as "untreated household wastewater which has not come into contact with toilet wastes. Graywater includes used water from bathtubs, showers, bathroom, wash basins, and water from clothes washing machines and laundry tubs. It shall not include waste water from kitchen sinks or dishwashers."



Technology – The design objective is to clean reclaimed graywater to specification for reintroduction into the intake of the entire wash wheel without adversely affecting chemical addition, product quality or laundry system operation. These design goals also use only the latest filter and advanced oxidation technologies on the market.

The AquaTex™ 720 represents two major changes in 360. Whereas the 360 was designed to treat hot water, the 720 treats hot and tempered water. Secondly, the 720 uses proprietary advanced oxidation technology. Over fifty 360, 720 and Ultra systems have been installed.

WRI's Laundry Graywater Products:

- AquaTex™ 360
- AquaTex™ 720
- AquaTex™ Ultra

AquaTex™ 360, 720 & Ultra reclaims, cleans & recycles laundry graywater.

This family of AquaTex™ products has reclaimed and treated billion of gallons of laundry graywater over the past two decades.

Did you know?

AquaTex™ Ultra at the largest commercial laundry in Las Vegas.

WRI received a patent (US 6,195,825) for an original water recycling process for treating laundry graywater. During conventional laundry operations, graywater is discharged directly into the sewer system, and freshwater is fed into the washers from a utility supply to entirely replace the water in each load of laundry. The discharged graywater is typically 120 degrees and saturated with laundry detergent and softening chemicals. When this graywater is released into the sewer system, useful chemicals and valuable heat are wasted. In addition, contaminants remaining in the graywater generally require removal or treatment downstream before the effluent is released into the environment.

WRI's patented process redirects graywater through a closed-loop system, rather than discharging it into the sewer. The close-loop system was added to reuse the heat and further circulate graywater for filtration treatment, and to reclaim and recycle the wastewater filtrate and active chemical additives for continual use by washers.

The reclamation process begins by collecting graywater prior to sewer discharge and passing it through a 10-micron vibrating shaker screen and 5-micron tubular backwash filters for loose particle separation. In a 720 and Ultra, the filtrate then flows through an advanced oxidation reactor and to the final stage of complete disinfection in a UV chamber. Reclaimed water is then reintroduced to the wash wheel without adverse effects on chemical additives, product quality or laundry operations.

AquaTex™ 360, 720 & Ultra cleans & recycles up to 80% of the laundry graywater to become its own water source.

AquaTex™ Model	Graywater Application	System	Technology
AquaTex™ 360	Small hotel, resort & commercial laundry Operators	Automated hot water reclamation & disinfection system	Prefiltration, nanofiltration, & ultraviolet chamber
AquaTex™ 720	Small to medium hotel, resort & commercial laundry operators	Automated tempered & hot water reclamation & disinfection system	Prefiltration, nanofiltration, advanced proprietary oxidation & UV chamber
AquaTex™ Ultra	Large hotel, resort & laundry operators	Automated tempered & hot water reclamation & disinfection system	Prefiltration, nanofiltration, advanced proprietary oxidation, ultrafiltration & UV chamber

Three laundry graywater products differing in tertiary treatment processes

Benefits – Benefits derived from an AquaTex™ 360, 720 and Ultra are numerous:

- Captures, cleans and recycles up to 80% of the laundry graywater
- Removes TDS and hardness but retains active wash chemicals
- Reduces municipal water company charges
- Reduces municipal sewer charges
- Offers low operation and maintenance costs
- Eliminates regulatory fines for disposal of untreated graywater and
- Reduces environmental degradation from untreated wastewater discharge.

AquaTex™ 360, 720 & Ultra reduce water & sewer charges by 60% to 80%.

Automated Controls – Every automated system that WRI manufactures comes equipped with a state-of-the-art control panel with the latest Allen Bradley PLC technology that offers user-friendly color touch screen programming, computer monitoring, and full reach-back capabilities to the corporate office. Whether wastewater streams are from gas wells, manufacturing plants, or cruise ships, WRI leads the industry in system automation technologies. At its manufacturing facility in Scottsdale, the Systems Automation Group builds control panels, installs wiring and electronic components, writes custom software, and prepares operating and training manuals for its clients.



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Wastewater Resources Inc.
 9518 N. 95th Way, Suite 102
 Scottsdale, Arizona 85258
 Office (480) 391.9939
 Website www.h2oreuse.com