

# Water Reclamation

## REDUCING YOUR WATER FOOTPRINT

### Reclaim source water

- 85% of the source water is reclaimed as distillate
- Return to gray water system
- Return to process water for reuse

### Reduce waste water

- 15% of source water is converted to concentrate
- Reduce leach field burden
- Reduce hauling costs

## LOW ENERGY COSTS AND OPERATING COSTS

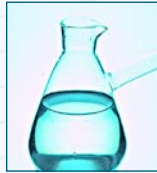
### Efficient Design

- 0.045 kWh/gal of distillate
- Counter Flow Heat Exchanger
- 72 times more efficient than traditional distillation
- 120v – 900 Watt

### Low Operating Costs

- No filters to change
- No chemicals to refresh

↓ 85%  
Reusable Water



# INTRODUCING

## The ZanAqua Element™

**THE ZANAQUA ELEMENT: BREAKTHROUGH TECHNOLOGY THAT PRODUCES EXCEPTIONALLY PURE WATER AT A VERY LOW COST AND RECLAIMS A VERY HIGH PERCENTAGE OF THE WATER, TYPICALLY 85%.**

The Element is a compact, self-contained vapor compression distillation (VCD) purification unit that integrates into water purification and reclamation systems.

**PURITY + CONFIDENCE** Distillation is the gold standard of water purification because heat kills bacteria and pure water vapor is routed away from contaminants and then re-condensed. There aren't just filters and membranes between a contaminated source and your clean water. The ZanAqua Element kills at least 99.99999% of bacteria (7 Log effectiveness) and yields endotoxin levels less than those required for water for injection (WFI).

## 7 Log Purity doesn't have to be costly

The innovative ZanAqua Element™ uses only 0.045 kWh to purify a gallon of water, making the gold standard of water purification affordable at a mere four-tenths of a cent per gallon.<sup>1</sup>

Other purification methods may require frequent changes of filter elements and membranes to maintain system performance.

## Save that water! Reduce removal costs by 85%

ZANAQUA'S TECHNOLOGY HAS A REMARKABLE 85% RECLAMATION RATE, which means for every 100 gallons of source water treated only 15 gallons are lost. Most other methods, including reverse osmosis (RO), waste more water than they reclaim.

## ZanAqua Systems Custom Expansion Models

**EXPANSION MODELS WITH CUSTOM PRE- AND POST-TREATMENT.** Each Element will purify up to 25 gallons per hour (95 l/hr) of tap water to lab-grade reagent water. The Elements are designed to be linked together in our convenient Expansion Module skid of five purification units. Each of the stackable modules has a capacity of 3,000 gallons per day (11,000 l/day).

<sup>1</sup> At \$0.10 per kWh



# Water Purity

## DECONTAMINATION AND POLISHING

### 7 Log bacteria cleansing

- High heat treatment kills bacteria
- Low risk of bacterial contamination from compromised filter material

### Effective Against Many Inorganic and Organic Contaminates

- Arsenic
- Fluoride
- Lead
- Mercury
- Asbestos
- MTBE
- TCE
- Other contaminants in solution or suspension.

### Purity

- Conductivity < 4 µS/cm
- Laboratory-grade water



## Call ZanAqua Technologies

**FOR EXCEPTIONALLY CLEAN WATER, WITH LESS WASTE**

For a dealer in your area, more information, or a site visit, call 603.883.3220 x17 or send an email to [sales@zanaqua.com](mailto:sales@zanaqua.com).

# 7 LOG<sub>H2O</sub>

more




PURITY

### RECOMMENDED WATER TREATMENT TECHNOLOGY\*

| Technology                                 | Biological |                 | Aesthetic |      | Inorganic Contaminates |          |      |         |   |          | Organic Contaminates |     |          |         |
|--|------------|-----------------|-----------|------|------------------------|----------|------|---------|---|----------|----------------------|-----|----------|---------|
|  | Bacteria   | Cryptosporidium | Hardness  | Odor | Arsenic                | Fluoride | Lead | Mercury | Iron, Manganese, Copper, Oxide, Sulfide | Asbestos | MTBE                 | TCE | Atrazine | Benzene |
| Granulated Activated Carbon                |            |                 |           | X    |                        |          |      | X       |   |          |                      | X   | X        | X       |
| Solid Activated Carbon                     |            |                 | X         | X    |                        |          | X    | X       |   | X        |                      | X   | X        | X       |
| Activated Alumina Filter                   |            |                 |           |      | X                      | X        |      |         |   |          |                      |     |          |         |
| Aeration                                   |            |                 |           |      |                        |          |      |         |   |          | X                    |     |          | X       |
| Anion Exchange                             |            |                 |           |      | X                      |          |      | X       |   |          |                      |     |          |         |
| Cation Exchange (softeners)                |            |                 | X         |      |                        |          | X    |         | X                                       |          |                      |     |          |         |
| Disinfection (UV, ozonation, chlorination) | X          |                 |           |      |                        |          |      |         | X                                       |          |                      |     |          |         |
| Reverse Osmosis                            |            | X               |           |      | X                      | X        | X    | X       | X                                       | X        |                      |     | X        |         |
| <b>Distillation</b>                        | X          | X               | X         | X    | X                      | X        | X    | X       | X                                       | X        | X                    | X   | X        | X       |

\* Source: Water Quality Association pamphlet "Recommended Water Treatment Technology" March 2007

 = Treatment finished with carbon filtration



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WASTE



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