



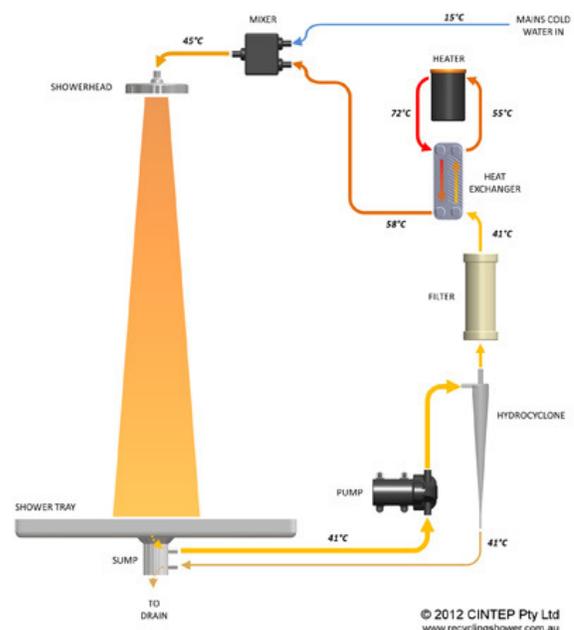
Recycling Showers



Recycling showers! Taking a daily shower uses more water and energy than any other daily indoor water use. Low-flow shower heads have done wonders in reducing the amount of water used while showering. However, the shower with a low-flow head still has the hot water and all the energy used to heat the water flowing down the drain. Not only did we use energy to heat the water, but also energy to treat the water both before and after human consumption. A recycling shower can save 10,000–20,000 gallons of water a year and an estimated 3,000 kilowatt hours for a household with two people showering daily. This is estimated based on the fact that recycling showers use 70% less water than a traditional shower and 40–70% less energy since the system does not have to heat as much water.

So how does a recycling shower work? The figure above shows that water flows into a mixer near the shower head. The mixer uses new water (30%) and recycled water (70%). The recycled water is sent through a pump to a hydro-cyclone where solids are sent down the drain with 30% of the used water. The recycled water now flows through a filter to remove smaller solid particles.

The water is then heated to kill the remaining bacteria. Once the water has been heated again the recycled water is sent to the mixer.



Using a recycling shower can save over 10,000 gallons of water a year