A study on RO drinking fountain design

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ABSTRACT

Water purification in Taiwan has been a strong market for many years. In the past few years, the market has expanded to China and Vietnam. Coin operated water machines can now been found available on the streets. The Taiwanese people no longer want to drink only boiled tap water. Water that has been purified through filtration is the most common choice for drinking water. Reverse Osmosis (RO), is the most common way to filter and purify drinking water. The most profitable machines on the market are Reverse Osmosis drinking fountains. The following research paper studies the design or RO drinking fountains and makes suggestions for their improvement. The improvements can raise the quality level of RO machines, enabling users to have access to better quality drinking water. This study is broken down into two sections, internal components and external components. The section about internal components includes, the organization of the RO system, set up of electrical cords, water tubes and structure. The section about external components includes, control panel design, basin and drain, and the general esthetic design of the machine. Through the data collected, both the positive and negative aspects of the system are assessed. Following the conclusions of the negative aspects about the system are suggestions for improvement. These improvements will allow the RO system to run more effectively. In the future, these ideas and suggestions could be used to design and manufacture the next generation of RO drinking systems. The primary group of disabled individuals studied were those with visual impairments. This group was chosen because of the present danger that the hot water taps pose to them. Suggestions about how to make the machine safer and more user friendly for those with visual impairments are also included.

Keywords : Reverse Osmosis ; Water Purification ; Drinking Fountain Design

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