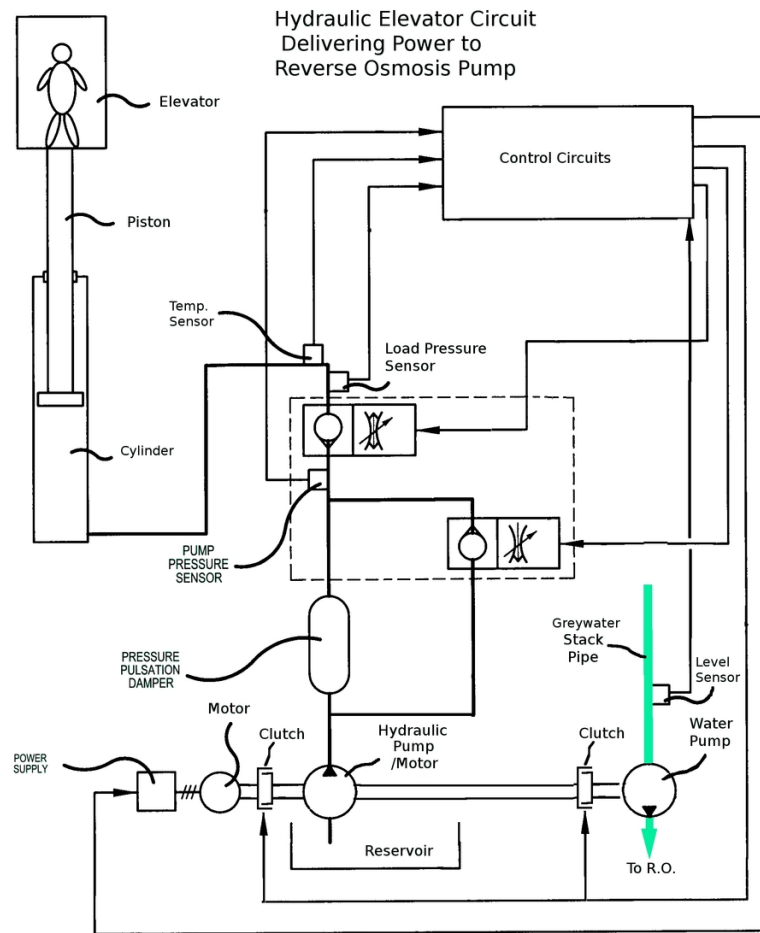


## 1/2 Building Level Reverse Osmosis System

This is an "innovative wastewater technology" (Category 2 of the contest) that uses gravity for RO.



### Solution

Reverse osmosis is very effective at turning contaminated water into potable water. The main downside of this filter technology is the significant energy needed to pump the water through the small filter openings. This concept uses gravity rather than electric pumps to produce the required osmotic pressure. For reference, water coming down from 30 stories up has a head pressure of over 125 psi, more than enough to accomplish reverse osmosis.

In practice, the greywater waste stacks of new or existing buildings would feed into a commercial reverse osmosis system in the basement (see picture). This pressure and RO system creates a building-level water treatment plant. Buildings with rainwater catchment, seawater access, and greywater collection systems would be most compatible with

implementing this concept.

When installed in tall buildings

2/2

## Building Level Reverse Osmosis System

This is an "innovative wastewater technology" (Category 2 of the contest) that uses gravity for RO.

Creative's profile



**gizmotech**  
Gearhead

Creative's top 5 skills

Product Design, User Experience