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Installation Errors - Site Survey

Common Residential Installation Problems & Challenges

- Not enough water to backwash filters.
 - o Examples:
 - Carbon filter backwash rate = 8-10 gallons per square foot.
 - Greensandplus/Pyrolox Advantage backwash rate = 12-15 gallons per square
 - Birm backwash rate = 10-12 gallons per square foot
 - Backwash Rates
 - o How old is the well pump? Should it be replaced?
 - o Is the well pump a jet pump? If so, consider replacing. Jet pumps may not be powerful enough.

• Electrical Issues

- Test the circuit with a Voltmeter
 - Be sure you are plugging the system into 120V not a 220V outlet.
- Does the electrical system look like a spider-web? Is lamp wire coming into the outlet box?
 - Suggest the owner invest in an upgrade before adding equipment.
- o Is the system wired into the light switch? Turn the light on it works, off it doesn't.
- Kinetico Systems don't use electric above does not apply.

• Inadequate space for the installation

- Crawl space installations Is the system properly designed? Capacity may be compromised because the equipment is smaller than normal.
- UV light What is the overall length of the system? Is there enough space for bulb replacement? Bulb replacement requires space double the bulb length.

Drain water discharge

- Do not discharge to the well pit.
- o Be sure to use an air gap when direct connecting to a septic or drain.
 - An illegal drain is a direct connection with no air gap. Air gap should be 1-1/2 times the diameter of the drainpipe. Check local codes.

Drain is too slow – can't accept the volume of water from the backwash.

- Don't take their word for it flush some toilets, run the spigots.
 - Will the water backup in the basement?
 - Will the septic system handle it?
 - Take a walk outside to see if there are ugly gray spots or a bright green swamp over the septic drain field?

• Do the state/local authorities allow installation of water softeners?

- Delaware requires a waiver; check with your local government before installing.
- Always use a high efficiency demand softener system. No time clock regenerations.



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What is the water temperature?

- o Temperature affects efficiency of Reverse Osmosis.
- Colder water is denser so there is more lift. More backwash water lift than warm water system.
- Improper grounding. "City electrician on country water."
 - Cable company, telephone company, security company equipment is grounded to the copper pipe sending milliamps in the plumbing resulting in pinholes and leaks.
 - Ground the plumbing to an outdoor ground with a proper pole, hammered into the ground.

Common Commercial/Industrial Installation Problems & Challenges

- See all of the above.
- Will the system fit?
 - o How wide are the mineral and brine tanks? How wide is the doorway, elevator, etc.?
 - o Is the ceiling high enough to accommodate the system?
- Are the drains open and available to use?
- Is there enough water and water pressure to operate properly?
- If an electrician is required who will provide?
- Is current electrical up to code?
- Do you know who are you working with? Is everyone on the customer's team aware of the scope of work?
 - o Plant manager, boiler operator, purchasing agent, etc.
- How will the system be transported?
 - Is it going up a stairway to a mezzanine? How will it be moved, who will move it customer or vendor (you)?
 - o Forklift for delivery purposes and/or installation/rebed purposes.
 - Is a forklift available for your use?
 - Who is authorized to drive it?
 - Will you have to wait, or will it be ready for use?
 - Do you have to rent a forklift?
- What are the safety regulations?
 - o Will there be a safety meeting at the start of the job? How long will it be?
 - Clothing long sleeves, no shorts, steel toed shoes, etc.
 - o Facial hair allowed?
 - Safety meeting prior to job start.
 - Lock Out, Tag Out
 - Confined Space
- Is the facility union or non-union?
- Is there adequate parking? Sites may have restricted areas.



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Extra Information

Delaware Water Softener Waiver

Backwash Rates