









The EAI Water Softener Assessment

Overview: Water softeners play a vital role in reducing mineral deposition and chemical consumption in many commercial and industrial water treatment programs. However, if not operated properly, their advantages can quickly become liabilities. This service is a two-to-four-hour onsite health check-up of the hardware, programming, operational and maintenance procedures of your softener to ensure:

- 01** Any operational issues are detected and addressed
- 02** Your team has the baseline training to operate within specifications going forward
- 03** You have the foundational tools to understand and track softener performance over time

		BASIC	PREMIUM
	Hardware Visual inspection <ul style="list-style-type: none"> Condition of Brine Tank, Pistons, Spacers, Seals, Valves 	✓	✓
	Regeneration Process Observation <ul style="list-style-type: none"> Control head function Test brine injection flow rate Test backwash flowrate Test slow and fast rinse performance 	✓	✓
	Controller Programming <ul style="list-style-type: none"> Measure influent water hardness Recalibrate programming for influent conditions Adjust programming based on regen observation 	✓	✓
	Basic Salt Consumption Study <ul style="list-style-type: none"> Verify and document salt additions with onsite operators Compare to manufacturer's specification to evaluate potential over/under feeding 	✓	✓
	Advanced Salt Elution Study <ul style="list-style-type: none"> Measure salt brine concentration and draw throughout regen process Compare results to ideal performance Troubleshoot observed issues and generate programming recommendations for brine draw and rinsing to improve system efficiency and results 	✗	✓
	Resin Lab Analysis <ul style="list-style-type: none"> Testing and microscopic measurement of bed quality: <ul style="list-style-type: none"> Ion Exchange capacity remaining Damaged beads Screen size distribution, moisture content Presence of dirt, debris, and metallic foulants 	✗	✓
	Summary Report and Consultation <ul style="list-style-type: none"> Health report on hardware condition System performance scorecard vs. manufacturer specs Documentation of programming changes Tailored Operator Quick Reference Playbook Quote for hardware retrofit or replacement (if needed) 	✓	✓
	Advanced OpEx Report <ul style="list-style-type: none"> Detailed measurement of potential savings in salt, resin, water, and treatment chemical consumption from changes 	✗	✓



Leaders in Managing Water

FAQ:

Q: What are some common issues that are discovered during the assessment?

A: Some common issues that we see include:

- Operating too long with degraded resin and not identifying the root cause of degradation
- Over or under-feeding regeneration salt
- Premature hardness breakthrough due to an improper regeneration cycle
- Not regularly adjusting settings to changes in incoming water hardness
- Not knowing what to look for when doing operator-level maintenance on components like pistons, valves, seals, spacers and brine tanks

Q: When is a softener assessment needed?

A: We find this assessment is most useful in the following instances:

- Your facilities team is not heavily experienced in softeners
- Your softener has been in service for several years
- You have seen a change in your water treatment program performance (e.g., hardness deposition, higher system blowdown rates)
- You are not certain that you are running your softener as efficiently as possible

Q: What kind of financial impact can a Softener Assessment make?

A: While not every facility will see a dramatic improvement in lowering operating costs and protecting downstream equipment, softeners play an important role in:

- Minimizing blowdown in steam and cooling systems
- Preventing mineral deposition on steam boiler and chiller tubes

Depending on the size of steam boiler or cooling system, the fuel, electricity, water and chemical savings can span from thousands to tens of thousands of dollars.

Q: What if the assessment findings recommend a total replacement?

A: If you decide to purchase a new softener through EAI after the assessment, then we will discount the assessment at the following rates:

- Softeners of 10 cu feet or smaller will receive a discount of \$150 on the assessment
- Softeners greater than this size will receive a discount of \$300 on the assessment

