

FOR OIL FIELD AND PRODUCED WATERS

Over the last two decades AATech, Inc. has supplied water softening systems to oil field operations, both locally and nationwide. The ever present need for increased oil recovery necessitates the supply of extremely low hardness waters for steam and caustic flood recovery techniques. Hardness of 1 PPM (or less) is essential to prevent boiler tube scaling in steam generation, especially with those waters typically found in oil field operations. AATech's weak cation (WAC) systems have consistently met and surpassed these demands with continued excellent performance.

This line of packaged water treatment equipment was developed mainly for oil field steam flood water softening in extremely high TDS applications for removal of high incoming hardness.

This equipment uses both hydrochloric acid (HCL) and sodium hydroxide (NaOH caustic) for regeneration.

Initially hydrochloric acid is passed through the resin which efficiently removes the calcium hardness. This leaves the resin bed in the in the acidic H+ form.

Following acid treatment sodium hydroxide is then passed through the resin converting it back to the sodium Na+ form which is necessary to remove calcium hardness from the incoming feed water with a neutral pH. Regeneration can occur in a down flow direction (COFLO) or in an upward direct (COUNTERFLO) depending on your specific requirements.

The AATech weak cation softening systems offer many features as standard that may be optional by other equipment manufacturers. Many years of valuable field experience allows AATech to provide a system designed to our high standards for unattended service with a minimum of routine maintenance. Weak cation WAC systems are a critical necessity for treating water flowing to your package boilers, heaters, or generators.

AATech offers it's customers the very best equipment at a most affordable price. We invite you to compare our features with anyone's, then check our price. You will be very pleasantly surprised. We offer a complete line of



STANDARD FEATURES

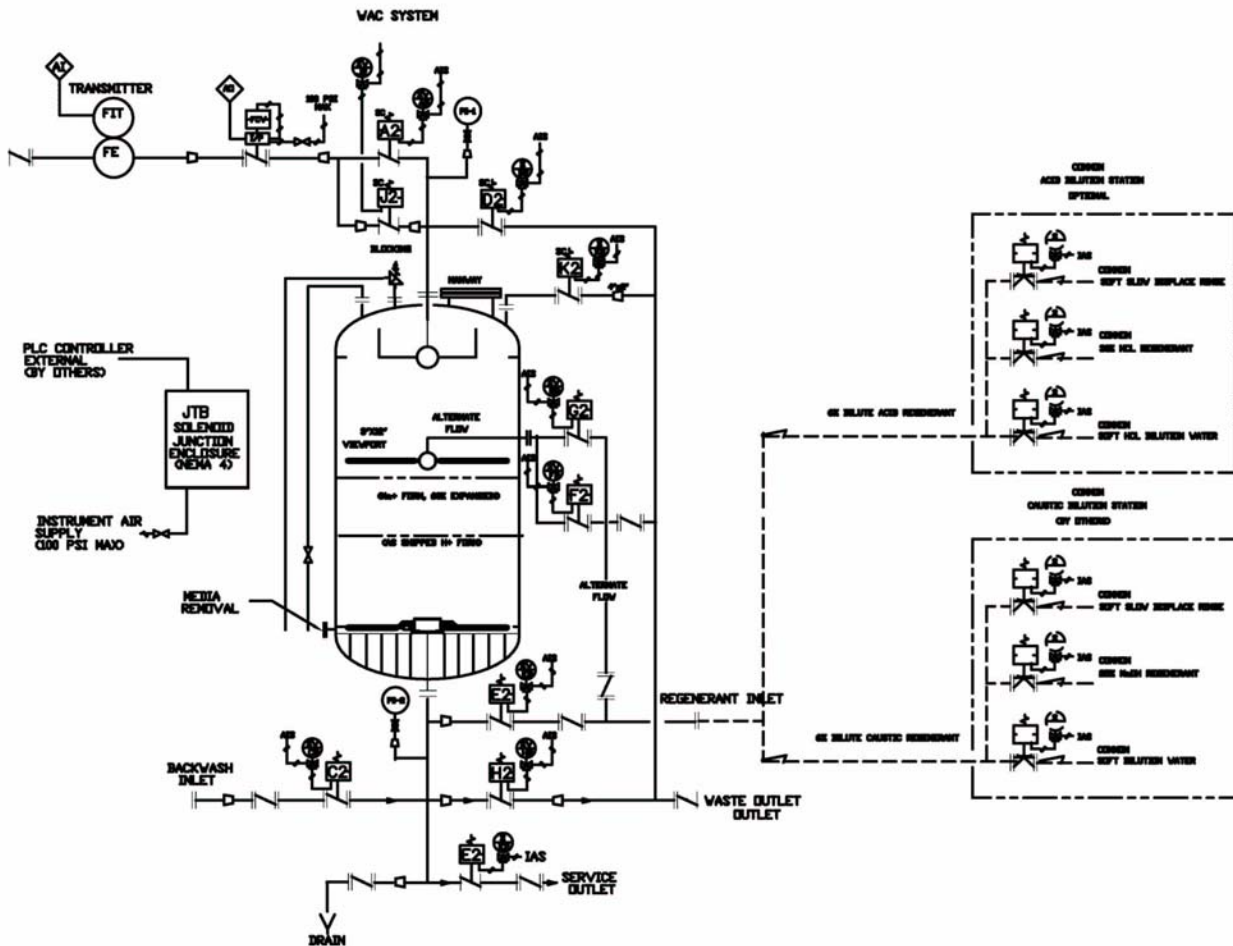
- Skid mounting, minimizing field costs
- Acid/Caustic regeneration skid
- Inlet and outlet pressure gauges
- Sample cocks for regenerant strengths
- Resin cleanout
- 100 PSI ASME code vessels/Rubber lined
- Polypropylene lined face piping
- Polyurethane coated exterior for corrosion control
- Hastelloy C, screened, underdrain laterals
- Meter initiated regeneration with lockouts preventing simultaneous regeneration
- Solenoid operated automatic valves actuated by PLC control

OPTIONAL FEATURES

- Higher pressure rated ASME code vessels
- Fiberglass Acid and Caustic tanks
- Stainless steel inlet and outlet piping
- Hardness analyzer
- Custom PLC controls
- Human machine interface screens

SPECIFICATIONS

MODEL NO.	WAC VESSEL (Dia X SS)	RESIN CAPACITY (Cu Ft)	NOMINAL FLOW RATE (Gpm)	MAX-FLOW RATE (Gpm)	CAPACITY (GRAINS)	CHEM DOSE CNFLO (Lbs)	CHEM DOSE COFLO (Lbs)
WC-5	60" X 96"	80	150	300	2,880,000	800	1,200
WC-10	72" X 120"	140	300	400	5,040,000	1,400	2,100
WC-15	84" X 120"	190	450	600	6,840,000	1,900	2,850
WC-20	96" X 144"	300	600	750	10,800,000	3,000	4,500
WC-30	120" X 144"	470	900	1200	16,920,000	4,700	7,050
WC-40	144" X 144"	680	1200	1800	24,480,000	6,800	10,200



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