

Thermaflo Incorporated

PREVENTATIVE MAINTENANCE SCHEDULE SUMMARY

Thermaflo's range of high-quality clean steam generators provide reliable performance and high quality 95% dry clean steam. To keep your clean steam generator operating and optimum efficiency for years, please reference the following preventative maintenance guideline.

Frequency	Inspections Required
Daily	<p>Blowdown Generator for 1-2 seconds at lower back shell 1". Not daily required with RO or DI water</p> <p>Check water level in sight glass.</p> <p>Visually inspect sight glass for damage or gasket leaks and replace if there are any chips, nicks, surface flaws, cracks, the glass is cloudy or roughened.</p>
Monthly	<p>Check JVV steam control valve and make sure properly responding to control panel input.</p> <p>Check for steam leaks and repair.</p> <p>Check for general leaks or loose or damaged fittings and tighten or replace.</p> <p>Inspect the feedwater RO/DI/Softener to ensure high quality, chlorine free water is being supplied to the generator.</p>
Quarterly	<p>If there are signs of scale or mineral deposits, then disassemble the float control, clean, re-assemble and re-install. Remove the 2" blind flange inspection port on shell and visually inspect bundle.</p> <p>Remove and inspect the lower heating element. If scale or mineral deposits present, then remove heating element, clean and re-install with a new gasket. Do this if scale is seen at the inspection port</p> <p>Check pressure gauges and replace as needed.</p> <p>Check high limit pressure control works correctly</p> <p>Remove and clean pressure controls if necessary.</p> <p>Inspect feed water check valve and replace as needed.</p> <p>Remove and inspect the auxiliary low water cut-off. Clean/descale as needed and re-install.</p>
Annually	<p>Level switch: Remove any debris from label (reference VEGASWING 61 O&M).</p> <p>Relay: Remove any debris from label. (reference VEGASWING 63 O&M)</p> <p>Cooling water valve: Inspect and clean (reference Sterling 56T O&M)</p> <p>Steam Trap: Inspect and clean/repair/replace (reference Thermaflo Trap O&M)</p> <p>System Pre-heater: Check feedwater supply inlet & outlet temperature and replace if temperature rise is lower than normal.</p> <p>Steam Pressure Relief Valve: Replace</p> <p>Inspect bundle: Shut down generator, remove the lower shell blowdown valve and nipple, and visually inspect the shell. If there are signs of build up on the tubes, then remove the tube bundle, pressure wash to remove scale (be sure to not damage the tubes) and re-install the tube bundle with a new gasket. (reference Thermaflo Clean Steam Generator O&M for proper removal and installation of tube bundle)</p>

Reference attached O&M for complete instructions.

For spare parts, replacement tube bundle, or other steam, controls or flow measurement needs, contact: