



For Emergency Service Call 920.615.8804

Sample Maintenance Schedule: Poppet-Valve Regenerative Thermal Oxidizer

11.0 Maintenance

11.1 Maintenance Checklist

For additional information on maintaining the oxidizer components, refer to the Vendor Data section of this manual.

Kono Kogs, Inc. has exercised reasonable care and judgement in preparing these maintenance procedures. These procedures are derived in part from equipment manufacturer recommendations, experience, and other resources. If any of the recommendations in this maintenance guide conflict with those of the equipment manufacturer, the manufacturers' recommendations must prevail.

Weekly Checks (160 Hours)

1. Check the air flow screens filters and ducting for debris.
2. Check that all guards and protection devices are installed.
3. Adjust the airline regulator to obtain a minimum working pressure of 80 psi (5.5 bars) at the gauge.
4. Check for leaks in the fuel train and supply line.
5. Observe the burner flame through the sight port for stability.

Monthly Checks (640 Hours)

1. Clean the optional airline filter.
2. Check all dampers and valves for correct settings and tightness.
3. Check all piping (pneumatic, fuel, etc.) for leaks. Repair leaks and record.
4. Lubricate the exhaust fan and combustion blower(s).

Quarterly Checks (1900 Hours)

1. Check the exhaust fan coupling for correct alignment. Adjust as required. Repack the coupling if necessary.
2. Check the exhaust fan's wheel, inlet cone, and housing for wear and corrosion. Contact Kono Kogs, Inc. Service Department if either of these conditions exists.
3. Check the exhaust fan's foundation bolts, bearings, wheel bolts, and set screws for the correct torque.
4. Check all safeties for correct operation. Refer to applicable standards literature for information on inspecting and maintaining the burner(s).
5. Check all control cabinet doors for correct operation and sealing.
6. Check the fuel oil filters if present. Clean or replace them, as necessary.



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Semiannual Checks (3800 Hours)

1. Check the spark ignitor.
2. Check and clean the exterior of the oxidizer and its related equipment.
3. With the electrical power OFF, tighten all AC voltage terminal connections on the motors, motor starters, and circuit breakers.
4. Check the condition of the internal insulation. Check for signs of hot spots or leakage (sapping). Contact Kono Kogs, Inc. if such a problem exists.
5. Check that the high duct negative pressure switch operates correctly. Readjust or replace the switch as required.
6. Check that the proof of flow pressure switch operates correctly. Readjust or replace the switch, as necessary.
7. Check that the proof of flow differential pressure transmitter is calibrated. Calibrate or replace the transmitter, as necessary.
8. Check that the compressed air pressure switch operates correctly. Readjust or replace the switch, as necessary.
9. Check that the duct negative and duct positive pressure transmitters are calibrated. Calibrate or replace the transmitters, as necessary.
10. Perform a bakeout. (Optional)

Annual Checks (7600 Hours)

1. Check the fan and motor shafts.
2. Check all gaskets and seals. Replace any that are broken, brittle, or leaking.
3. Shut down and lock out the main electrical power. Torque the bus bars in the motor control cabinet according to the manufacturer's recommendation.
4. Check the ceramic heat exchange media for excessive breakage or plugging by inorganic material. Contact Kono Kogs, Inc. Service Department if either of these conditions exists.
5. Check all external surfaces of the oxidizer for rust or corrosion. Repair with primer and paint, as necessary.
6. Check poppet valve disks/seats for sealing.
7. Check the internal surfaces of the oxidizer, especially the cold face support, for corrosion. Contact Kono Kogs, Inc. Service Department if corrosion is found.

IMPORTANT: *The oxidizer must be checked annually for any damage caused by excessive temperatures. We recommend a maintenance check by a Kono Kogs, Inc. service technician. For information contact Kono Kogs, Inc. Service Department during normal working hours.*



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Quick Reference Maintenance Schedule

Maintenance Task	Weekly	1 month	3 month	6 month	12 month
Check air flow screens and ducting	X				
Check all guard and protection device are installed	X				
Adjust airline regulator	X				
Check fuel train for leaks	X				
Check supply line for leaks	X				
Check burner flame	X				
Clean optional airline filter		X			
Check dampers for correct setting and tightness		X			
Check valves for correct setting and tightness		X			
Check all piping for leaks		X			
Lubricate exhaust fan and combustion blower		X			
Check exhaust fan coupling for correct alignment			X		
Check exhaust fan wheel for wear or corrosion			X		
Check exhaust fan inlet cone for wear or corrosion			X		
Check exhaust fan housing for wear or corrosion			X		
Check exhaust fan's foundations bolts torque			X		
Check exhaust fan's bearings for correct torque			X		
Check exhaust fan's wheel bolts for correct torque			X		
Check exhaust fan's set screws for correct torque			X		
Check all safeties for correct operation			X		
Check control cabinet doors for correct operation			X		
Check control cabinet doors for correct sealing			X		
Check the fuel oil filter if present			X		
Check spark ignitor				X	
Check and clean oxidizer exterior				X	
With power off, tighten all AC voltage connections				X	
Check the condition of the internal insulation				X	
Check high duct negative pressure switch				X	
Check proof of flow pressure switch				X	
Check proof of flow differential transmitter				X	
Check compressed air pressure switch				X	
Check duct pressure transmitters				X	
Perform bakeout (optional)				X	
Visual inspection of heat exchanger internal				X	
Check fan and motor shafts					X
Check all gaskets and seals					X
With lockout of main power, torque bus bars					X



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Check ceramic heat exchanger media					X
Check external surfaces for rust or corrosion					X
Check internal surfaces for rust or corrosion					X
Check strainer/filter on gas train for debris					X
Check the burner block for cracks for damage					X
Check poppet valve disks/seals for sealing					X