



## **Guide to Oven Preventative Maintenance:** *Helpful Recommendations and Considerations*

If you work in the manufacturing industry, preventative maintenance is not a new concept. While most industrial equipment undergoes a great deal of wear and tear over time, few “take the heat” like industrial ovens. Thus, it is crucial to develop, follow and document an effective preventative maintenance program. Doing so will not only maximize the life of your industrial oven, but will also help to ensure safe and optimal performance of your equipment. Quite often the expense of proper oven maintenance is less than the cost of scrap created by poorly maintained process heating equipment.

Every industrial oven is unique; therefore it is important for you to refer to your oven operating manual when creating your preventative maintenance schedule. At a minimum, here are a few guidelines that LEWCO recommends as preventative maintenance items for your industrial oven:

### **DAILY**

---

- Inspect the oven workspace, ductwork, plenums, air intake(s), and exhaust ducts for accumulation of foreign matter and clean as necessary
- Inspect oven door(s) regularly for a proper seal. Common issues include worn or damaged gaskets, as well as damaged doors

### **MONTHLY**

---

#### *Both Fuel-Fired and Electric Ovens:*

- Inspect electrical connections and components periodically for tightness and signs of wear.
- Tighten setscrews between bearings and shaft collars. Also tighten wheel setscrews on all fans
- Oil the pivot joint and apply grease to the latch spring and cam on the oven door(s)
- Check for belt tension and wear on belt driven fans
- Inspect circulation and exhaust fans. Fan shaft bearings should be lubricated every 500 hours of operation

#### *Fuel-Fired Ovens:*

- Inspect flame sensing devices for good condition and cleanliness
- Verify proper gas pressure
- Inspect and clean igniter(s) and flame rods as necessary
- Inspect and clean combustion fan filters. Replace if necessary
- Inspect and clean the combustion air blower impeller

## **BI-ANNUALLY**

---

### *Both Fuel-Fired and Electric Ovens:*

- Confirm operation of all pressure switches
- Confirm exhaust rate at the stack outlet with the oven nameplate or drawing. Inspect exhaust stack for cleanliness and structural integrity
- Larger motors, or those subjected to severe duty, should be lubricated more frequently

### *Fuel-Fired Ovens:*

- Test gas shutoff valves and gas train piping for leakage

## **ANNUALLY**

---

**Note:** Per NFPA 86 requirements, the national standard for industrial ovens and furnaces, operator training or refresher courses should be conducted every year.

### *Both Fuel-Fired and Electric Ovens:*

- Inspect explosion relief devices
- Fractional horsepower electric motors should be lubricated at least every 5,000 hours of service
- Conduct a safety inspection verifying all interlocks and safety switches work properly
- Replace all thermocouples / RTD's

### *Electric Ovens:*

- Verify each heater leg is within 10% of the FLA listed on the oven schematic

### *Fuel-Fired Ovens:*

- Replace manual gas blocking valve
- Adjust combustion settings
- Conduct a leak test on safety shutoff valves for tightness and proper closure
- Test the pressure switch settings by checking the switch movements against the pressure settings and comparing these with the actual impulse pressure
- Visually check the igniter and flame sensor cables and connectors

We hope you found this document informative and useful. For any additional questions, please contact LEWCO engineers directly at 419-502-2780, or by email at [ovensales@lewcoinc.com](mailto:ovensales@lewcoinc.com). We'd be happy to help. Thank you!