



Hot Equipment Maintenance & Troubleshooting

PROFESSIONAL GUIDE FOR RESTAURANTS AND FOODSERVICE OPERATORS

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Downtime in a busy commercial kitchen can be costly. Ovens, fryers, charbroilers, grills, and mixers are the heart of operations, and even small problems can disrupt service. Proper maintenance, early troubleshooting, and preventive care can keep your equipment running safely and efficiently, reduce repair costs, and extend the life of your appliances. This guide provides practical tips for avoiding common hot equipment failures and keeping your kitchen running smoothly.

1. Safety and Power Checks

Before performing any inspections or repairs, it's essential to prioritize safety. Always disconnect power and shut off gas. If you suspect a gas leak or encounter electrical issues, stop immediately and contact a qualified service technician. Attempting repairs without proper knowledge can void warranties and create serious safety hazards.

Next, start with basic gas and power checks to prevent unnecessary downtime. Even simple steps can save time and reduce the need for service calls:

- Confirm that all power is on and breakers are reset.
- For gas appliances, check that main valves and line connections are functioning according to the manufacturer's instructions.
- Observe equipment for any unusual sounds, smells, or sparks before proceeding.

2. Clean and Inspect Key Components

Most equipment failures occur due to grease, carbon, or scale buildup. Keeping components clean prevents many common problems:

- **Burners, pilots, and orifices:** Clear debris with a stiff nylon or brass brush. Blocked burners can prevent ignition or cause uneven flames.

- **Filters:** Fryer oil filters, steam boiler water filters, and return-air vents should be cleaned regularly and replaced semi-annually.
- **Valves and hinges:** Ensure smooth operation and lubricate high-temp components like charbroiler valves to extend lifespan.

3. Adjust Flame and Temperature

Proper flame and heat management is essential. Yellow, lifting, or irregular flames often indicate misaligned burners or incorrect gas pressure, while electric appliances can fail if heating elements or fuses malfunction. Thermostats should be calibrated every 6–12 months using a probe thermometer, and any deviation over 10 °F should be corrected.

Small adjustments can improve efficiency, reduce energy costs, and maintain consistent cooking results.

4. Common Equipment Failures and How to Prevent Them

Even with routine maintenance, certain problems recur in commercial kitchens. Knowing the causes helps you prevent them:

- **Fryers** often fail to heat, overheat, or foam excessively. Common causes include clogged burners, faulty high-limit switches, or water left in the vat after cleaning. Prevention: clean burners, dry the vat thoroughly after boil-outs, and inspect thermostats regularly.
- **Ovens** may heat inconsistently or fail to reach the set temperature. Dirty burners, corroded tubes, and misaligned doors are typical culprits. Prevention: clean tubes, check door seals, and recalibrate thermostats.
- **Charbroilers** and grills develop hot spots or uneven flames due to grease buildup, blocked orifices, or misaligned deflectors. Prevention: clean orifices, adjust burners, and rotate food surfaces to ensure even cooking.
- **Mixers, proofers, and kettles** can stop mid-cycle, hum loudly, or overheat if gears, belts, or bearings wear out. Prevention: inspect mechanical parts, lubricate bearings, and check the power supply.

- **Refrigeration units** may have hot spots, ice buildup, or water leaks caused by dirty coils, failing fans, or worn door gaskets. Prevention: clean condenser and evaporator coils, inspect fans, and replace worn seals.
- **Dishwashers** sometimes fail to clean properly, leak, or won't drain. Clogged filters, worn pumps, or misaligned spray arms are usually the cause. Prevention: clean filters, inspect pumps, and ensure spray arms are properly positioned.

Most failures are preventable with routine cleaning, inspection, and calibration. Small issues left unattended often escalate into costly repairs.

5. Don't Overlook Ventilation

Proper hood and exhaust airflow are critical. Dirty or restricted hoods can trigger gas safety shutdowns in ovens or broilers. Clean or replace grease filter baffles regularly – quarterly for general use, monthly for heavy fryer or charbroiler operations.

6. Preventive Maintenance Routine

Maintain a service log to track inspections, calibration, and technician visits. This helps you spot patterns before they turn into failures.

- **Daily** - Wipe flues, burners, crumb trays, and exteriors. Dump and filter fryer oil.
- **Weekly** - Deep-clean cooking chambers and inspect burner orifices and filters.
- **Monthly / Quarterly** - Recalibrate thermostats, inspect flame patterns, lubricate valves, and test safety interlocks.

7. Warning Signs to Watch For

If you notice persistent burnt or smoky flavors, pilot outages under load, equipment shutting off mid-cycle, or unexpected spikes in gas or electricity usage, it's important to call a technician. Addressing these signs early can prevent more serious damage, reduce downtime, and avoid costly repairs.

8. Quick Diagnostic Flow

When troubleshooting hot equipment, always start by disconnecting power and gas for safety. Inspect and clean burners, pilots, and other key components before reconnecting and testing ignition or heating. Use a probe thermometer to measure temperatures and compare the results with past service logs to identify recurring issues. If problems persist despite these steps, escalate to a certified professional to ensure safe and effective repair.

Routine maintenance is the key to consistent performance. If you're experiencing recurring issues or want professional preventive service, Star Foodservice Equipment Repair's certified technicians are ready to inspect, repair, and maintain your commercial kitchen equipment.

Contact Star Foodservice Equipment Repair

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Your trusted partner for commercial kitchen equipment maintenance and repair.