

Peak Performance Checklists for Project-Critical Equipment

A schedule of regular checks prevents headaches and keeps equipment running at its best. These peak performance checklists help teams avoid downtime, improve efficiency, and extend equipment life.

Daily Compressor Operation Checklist

Keep this at the point of use for operators to catch small issues before they grow.

Pre-Start Checks

- Inspect for visible oil, coolant, or air leaks.
- Check oil and coolant levels.
- Ensure intake filters are clean and unobstructed.
- Verify hoses and fittings are intact and not worn.

Startup Sequence

- Confirm correct voltage/power supply.
- Start compressor and listen for unusual noises.
- Verify pressure gauges reach correct setpoints.

During Operation

- Monitor temperature and pressure stability.
- Ensure condensate drains are working.
- Watch for abnormal vibration.

Shutdown

- Follow manufacturer's shutdown sequence.
- Drain condensate from tanks if not automatic.

Weekly / Shift Supervisor Checklist

- Check and record running hours vs. service schedule.
- Inspect belts, couplings, and guards.
- Verify safety valves and emergency stops are functional.
- Check dryers and filters for saturation or blockages.
- Inspect electrical connections and panels for wear/damage.
- Confirm environment is clean and well-ventilated around compressor.

Monthly Performance & Efficiency Checklist

Ensure system is operating efficiently — not just running.

- Inspect pressure drop across filters (replace if high).
- Check for leaks across piping and fittings.
- Verify load/unload cycles are within expected range (not short-cycling).
- Measure and record system pressure at point of use.
- Review energy consumption vs. production output.
- Clean cooling systems, vents, and intercoolers.

Project-Critical “Before You Start” Checklist

- Confirm compressor sizing matches project demand (flow, pressure, duty cycle).
- Ensure redundancy plan is in place (backup unit, hire access, or contingency).
- Verify air quality requirements (filtration/dryers in place for sensitive equipment).
- Confirm hoses, couplings, and layout are designed for efficiency (minimal bends/length).
- Review emergency hire contact details and escalation process.

Shutdown & Standby Checklist

- Drain air receiver tanks fully.
- Isolate power supply.
- Change oil if due (storing with degraded oil accelerates wear).
- Clean filters and replace if near end-of-life.
- Cover intakes/exhausts to prevent dust and pests.
- Store in a dry, ventilated environment.