



# PREVENTIVE MAINTENANCE SERVICES

## Why is preventive maintenance service important?

- > Extends the life of the equipment
- > Minimizes unscheduled downtime that can cause major problems in production
- > Maintains consistency in your product quality

Preventive Maintenance can be defined as a program in which wear, tear, and change are anticipated, and continuous corrective actions are taken to ensure peak efficiency and performance to minimize premature deterioration. Minimize downtime by correcting minor problems before they become major repairs. A detailed service record is instrumental tracking booth performance, a service report baseline of booth performance can be established as all of the critical set points and readings are recorded.

Preventive Maintenance involves a planned and controlled program of systematic inspections, adjustment, lubrication, and replacement of components, as well as performance testing and analysis. However, we realize that equipment grows old, uses change, and techniques vary. Our experienced staff takes these circumstances into consideration so an effective maintenance program is performed to keep your equipment running safely and efficiently.

### THE PROGRAM

#### Service Packages

Tailored to meet your needs, service engineers will provide maintenance and cleaning to ensure that your equipment maintains optimal performance. The program can include anything from the general maintenance of the booth to cleaning, and the replacement of filters.

#### Filter Packages

The key to optimal spraybooth performance is the regular monitoring and changing of filters. GFS can supply flexible filter packages that will accommodate all types of spraybooths. Based on your projected demands, GFS will provide scheduled "Just in Time" delivery, reducing your management time and storage space needs, while keeping your booth running efficiently and providing superior finishes!

#### Periodic Assessments

Complying with health and safety regulations is very important to your business. Our service engineers will assess your equipment to help you avoid costly down times and keep your operation running smoothly.

### THE BENEFIT

#### Reduced Operating Costs

GFS' Preventive Maintenance program helps keep fuel costs down by maintaining a paintbooth that is clean and runs at its optimum performance all year long. The program also provides regularly scheduled maintenance visits that will result in a reduction of emergency service calls throughout the year, therefore reducing the amount of down time and increasing productivity.

#### Improved Quality Finishes

Poorly maintained spraybooths are usually full of contaminants and do not produce a good quality finish. Scheduled filter changes along with preventive maintenance will maintain quality and reduce costly repaints.

#### Complete Service

GFS Technicians can provide services for Spraybooths, Paintbooths, Large Equipment and Large Vehicle Booths, Body Shop Refinishing Spraybooths, Finishing Systems, Aviation Paintbooths, Industrial Finishing Equipment including Ovens and Washers.



# Preventive Maintenance Checklist

Preventive maintenance programs insure safe and reliable operation and contribute to the longevity of the equipment. The following is a suggested routine maintenance program broken down into lists of periodic tasks.

It is the responsibility of the end user to develop an inspection, testing, and maintenance program to ensure that the equipment is in safe working order. Hours of operation and work environment should be considered when establishing frequency of maintenance.

It is suggested that logs are kept so that any variation from normal readings can uncover trouble areas and help prevent serious problems from developing.

It is imperative that all personnel involved with this equipment be instructed in the safe conduct and operation of the system. Routine maintenance and safety checks should be performed by qualified personnel only. Contact the GFS Technical Service Group for availability of Preventive Maintenance Contracts and Other Services.

**Exhaust Fan(s)**

- A) Lubrication: Fan & Motor Bearings.....
- B) Belts: Check Condition (replace if needed), Adjust Tension.....
- C) Sheave: Check Set-screws and Record setting.....
- D) Impeller: Inspect (clean as needed), Check Set-screws.....

**Air Make-up Unit(s)**

- A) Lubrication: Fan & Motor Bearings.....
- B) Belts: Check Condition (replace if needed), Adjust Tension.....
- C) Sheave: Check Set-screws and Record setting.....
- D) Blower: Inspect (clean as needed), Check Set-screws on Bearings and Blower(s).....
- E) Burner:
  - 1) Clean as needed - Manifold ports, Flame rod, Igniter & Pilot assembly.....
  - 2) Set Airflow SWITCH(ES).....
  - 3) Check / Adjust: Pilot Flame, Low fire, High fire - Temp. Rise.....
- F) Controls: Flame Safety Relay - Test Flame Failure Shutdown, Note Fault History, Current Run Hours & Cycle #.....
- G) Dirty Filter Switch: Check Operation & Adjust Trip Point as needed.....
- H) Terminal Strips: Check / Tighten All Terminations.....
- I) Damper: Check Operation, Clean and Adjust as needed.....

**Filters**

- A) Intake: Inspect & Replace as needed.....
- B) Exhaust: Inspect & Replace as needed.....
- C) Manometer(s)/Filter Draft Gauge(s): Adjust/Set Zero, Fill Gauge Oil as needed.....

**Booth Balance**

- A) Check Booth / Building Balance.....
- B) Check Booth Airflow.....
- C) Check Current Draw: Exhaust Motor(s) & AMU(s).....
- D) Adjust Sheaves and / or VFD Settings to Achieve Proper Booth Airflow & Balance.....

**Control Panel**

- A) Pilot / Indicator Lights: Check Operation & Replace any Burned Out Bulbs.....
- B) Temperature Control: Verify Operation (adjust as needed).....
- C) Operation: Observe System Start Sequence (adjust Timers as needed).....
- D) Photohelic (Auto-balance & Consta-flow): Set Zero, Verify Operation, Adjust Setpoints for Optimum Control.....
- E) Ventilation (VFD Systems Over 7.5 HP): Verify Fan Operation & Inspect Filters (Clean as needed).....
- F) PLC (Paint/Bake Systems Serial 30000 & Newer): Verify Auto Reset is Enabled.....

**Misc. & Optional Items**

- A) Air Solenoid Valve: Verify Operation.....
- B) Light Lens Switches: Verify Operation & Adjust as needed.....
- C) Door Switches: Verify Operation & Adjust as needed.....
- D) Dirty Filter Shutdown: Verify Operation & Adjust as needed.....
- E) Air flow Switches: Verify Operation & Adjust as needed.....

**OVERVIEW OF MAINTENANCE TRAINING**

Upon request GFS can also provide your operating and maintenance personnel with hands-on training, or technical assistance, during our visit.



**Operators**

Controls: Main Disconnect, Pilot / Indicator Lights, Switches and Pushbuttons, Temp. Selector/Controller, Photohelic, Bake Cycle Timer

Manometer: Setting Zero, Reading Filter Loading

Safeties: Air Solenoid Valve, Light Lens Switches, Door Switches and Dirty Filter Shutdown

**Maintenance Training**

System Overview: Start-up Sequence, Electrical Schematic, Interlocks

Resets: Exhaust Overload, VFD Faults

AMU: Blower Motor Overload, High Temp Limit, Flame Failure, High/Low Gas Pressure limit

**Questions or Requests**

We will be glad to discuss your service needs and help determine which program is a good choice for you.

**GLOBAL FINISHING SOLUTIONS**

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Notes:

- 1) All times are estimates
- 2) Labor rates include travel time.
- 3) Travel time may be divided between multiple customers in one area.
- 4) Additional expenses including but not limited to: Fuel, lodging, meals (per diem), airline tickets, etc... will be in addition to the hourly labor rate.
- 5) Replacement belts and filters can be provided by GFS for additional cost. This must be requested in advance.
- 6) Customer must supply means to access equipment. Ladders, manlifts, etc...
- 7) Equipment must be shut down to perform service.