CS Series
Control Systems

sLOC™ Local Control Panels for Blowers
sMAC™ Process and Sequencing Master Control

Your ONE Solution for Blower Systems
CS Series Blower Control Systems

Lone Star knows Control

Efficient operation of any blower system is only as good as its control and integration to the process. Operating a very efficient blower inefficiently is very common when using 3rd party integrators. Lone Star offers a One Source Solution by offering not only local panels, but also including the process integration and a guaranteed pre-engineered and automated system.

Lone Star can field service or retrofit your existing blower and process control no matter the brand or technology.

sLOC™ Local Control

Automating your blower with a local control panel saves money through improved control functionality and protects your investment by monitoring critical inputs such as surge, vibration, or temperature. Local control panels can also be provided with an integrated motor starter or variable frequency drive to save on installation and avoid integration issues. Systems are fully tested and warranted.

sMAC™ Master Control

There are two levels of master control that a sMAC™ system can provide.

The first provides organizational control of the blowers through sequencing. Sequencing automates which blowers turn on and off, modulates them to provide the total desired output, balances run hours between units, and can automatically restart a system after a power outage or unplanned shutdown. Many systems have difficulty operating multiple blowers on a common header and a master control panel can solve this through active control.

The second level can provide complete automation of your blower process. Process control provides blower sequencing, combined with the automation of process valves and instrumentation, and results in maximized energy savings.
sLOC™ Local Control

sLOC™ local control panels are designed to monitor, protect, and automate the operation of a blower. They also have a unique ability to calculate mass flow more reliably and more accurately than by using a flow meter. By calculating enthalpy across the blower, and measuring speed and power, the controller can dynamically calculate a mass flow rate, even as temperature and pressure changes. This maximizes the blowers flow range and provides an accurate and consistent flow rate on demand.

sMAC™ Sequencing Control

Efficiency Optimization: sMAC™ sequencing can optimize your efficiency as blowers are not equally efficient throughout their operating range. A smart sequencer does not move all blowers up and down together, but will operate blowers in their most efficient “sweet spot” and allow only one blower to be a variable trim unit.

Auto Start/Stop Multiple Blowlers
Balance Run Hours • Blend Multiple Technologies • Time Programmable
Lone Star offers single point responsibility for the complete automation of your process including all hardware and on-site integration. The sMAC™ Process Controller can operate the blowers to a set point such as flow or pressure, but also to process control variables such as off-gas, ammonia or dissolved oxygen at many points of use.

sMAC™ utilizes FOV – Fully Open Valve control uses flow set points to lower your header pressure to only what is required. Lower header pressure means lower power consumption! However, we can also provide traditional MOV – Mostly Open Valve type control using pressure set points.

We can control any blower technology or a mix of technologies.

Let Lone Star upgrade your existing system.

sLOC™ and sMAC™ Controllers

Use an adjustable ramp control loop to operate with any control variable set point. This automatic adjustment keeps a process stable and saves energy.
### Think Smart, Very Smart! Think Lone Star Blower!

#### Markets Served

- Water and Waste Water
- Utility Power
- Mining
- Food and Beverage
- Oil and Gas
- Pulp and Paper
- Biogas
- Hazardous Gas

#### Blower Technology

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#### Flow Control Method

- Variable Inlet Guide Vane: s
- Variable Discharge Guide Vane: s
- Inlet Valve Flow Control: s
- Blow Off Valve Control: s
- Isolation Valve: s
- Bled Valve Control (Vacuum): s
- Variable Frequency Drive Control: s

#### Temperature Monitoring

- Blower Bearing Temperature Switch: s
- Blower Bearing Temperature Transmitter: s
- Blower Inlet and Outlet Temperature Transmitter: s
- Motor Bearing Temperature Transmitter: s
- Motor Winding Temperature Transmitter: s
- Oil Temperature: s
- Temperature Compensated Surge Protection: s

#### Vibration

- Vibration Transmitter on Blower Bearings: s
- Vibration Transmitter on Motor Bearings: s
- Vibration Transmitter on Gearbox: s
- Proximity Probes: s

#### Pressure

- Inlet Filter Pressure Differential Switch: s
- Inlet Filter Pressure Differential Transmitter: s
- Inlet Vacuum: s
- Outlet Pressure: s
- Inlet Pressure: s
- Oil Pressure: s

#### Process Control Variables

- Dissolved Oxygen Control: s
- Ammonia Control: s
- Off Gas Control: s
- Vacuum Pressure Control: s
- Pressure Control: s
- Flow Control: s

#### Process Control

- Multiple Units (all technologies/brands): s
- Fully Open / Mostly Open Valve Control Logic: s
- Number of Control Variables: 1 1 1 1 2+ s

#### Motor Starter and Control

- Motor Starter and Control Combination: Motor Starter and Control Combination s
- Full Voltage or Soft Starter: s
- Variable Frequency Drive: s
- Mounted and Wired on Common Blower Skid: s
LONE STAR GL-TURBO GLOBAL NETWORK
We have locations around the world to serve you

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We manufacture the most advanced line of turbo blowers in the world.

Please visit our website at www.lonestarblower.com or call us today regarding your next application.

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