





## **Monitoring and Control Systems**

## **Electrical control systems**

Beyond basic start/stop functions, an electrical control system can monitor and adjust critical blower and process variables. If a blower or process cannot be maintained within established operational parameters, the control system can further provide alarm and shutdown functions.

Spencer makes 100% of its control systems, using our complete in-house capabilities for system design and construction. Control panels may be equipped with any desired level of sophistication including data acquisition instruments, remote process controls, multiple blower sequencers and other forms of control technology.

## **Blower protection options**

Spencer offers many optional safety features that help protect your blower investment. Vibration, bearing temperature and low flow monitors, for example, alert personnel to potentially dangerous situations such as material buildup within the blower, a lack of bearing lubricant or an obstruction in the gas flow.

## **Blower and process monitors**

Spencer monitoring systems incorporate sensors, transducers, gauges, alarms and shutdown circuitry to govern blower and process parameters such as:

- Blower bearing temperature
- Motor bearing temperature
- · Motor winding temperature
- Blower inlet/outlet pressures
- Blower vibration
- · Air or gas flow level

- Dissolved oxygen level
- Water flow to water-cooled bearings
- Purge gas flow to blower shaft seals
- Blower and motor loading (low loads and overloads)

