Principal Technology Inc. offers modern burner management systems (BMS) specifically designed for the retrofit of legacy boilers, furnaces, and other fired equipment used in the process industry. Based on a modular platform, Principal’s BMS meets all applicable modern standards for safe burner management and operations and can be installed in up to half the time of a standard BMS retrofit.

Basic BMS modules offered by Principal Technology include:

- Burner safeguards
- Single burner ignition
- Multiple burner ignition sequencing
- Flame detection
- Optional pre-ignition combustible gas detection and process control

Additional modules are available to convert legacy natural draft systems to forced draft and add combustion control to improve reliability and operational efficiency.

The Principal Technology BMS detects both the pilot and primary process flame providing advanced startup and shutdown operations. Our shutdown systems are equipped with a comprehensive control philosophy to minimize nuisance shutdowns and maximize safety.
Principal Technology designed its modular BMS to satisfy the safety, regulatory compliance and operability issues that are unique to Process Heaters. By integrating hard-wired burner safeguards with modern Programmable Logic Controllers or Automation Systems, the Principal Technology BMS improves:

- System operation
- Heater on-line availability
- Supervisory control
- Operator awareness

Principal Technology’s modular approach creates a custom BMS by applying particular modules to the application as needed, unlike a traditional engineered BMS retrofit that may involve creating a completely new system specifically designed for a particular application. Principal Technology can retrofit legacy equipment with from one to 12 burners (or more) with existing fully manual or partially automated systems.

Having standardized the BMS into modular blocks, Principal Technology can adapt the components to create a unique BMS to meet the exact needs of any processing facility and complete the installation and testing 30 to 50 percent faster than a standard engineered retrofit.

The Principal Technology BMS serves these major process units:
- Process Heaters and Boilers
- Incineration Systems
- Sulfur Recovery Units
- Fired SRU Reheaters
- Amine Reboiler
- Glycol Reboiler

The Principal Technology BMS portfolio includes:
- Proprietary & traditional process burners
- Spark flame front generators
- Pilot ignition systems