

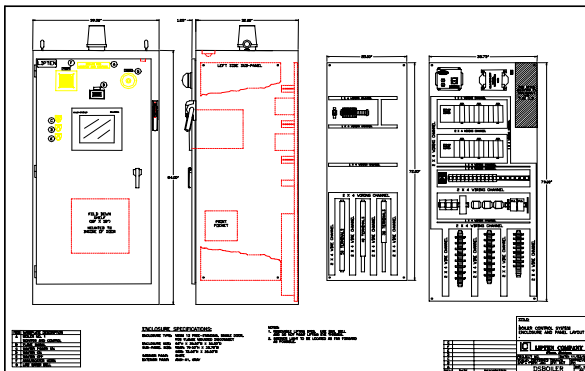
# Process Control Boiler Control System



Fenton Systems' boiler control system is based on an Allen-Bradley SLC programmable controller. The system is mounted in a NEMA 12 enclosure and can be powered from either a 120 VAC or 480 VAC source. The system contains both a Combustion Control (CCS) SLC and a Burner Management (BMS) SLC. A color, touch screen, PanelView MMI is mounted on the door of the enclosure. The boiler is operated and tuned from this MMI.

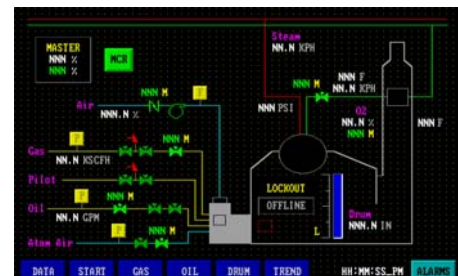
## Control Enclosure:

- ◆ Floor Standing NEMA 12 enclosure
- ◆ Option for 115 VAC or 460 VAC power Source
- ◆ Lighting disconnect for 480 VAC system
- ◆ Fold down shelf for maintenance equipment or programming panel
- ◆ Duel 24 VDC loop power supplies with status monitored by SLC
- ◆ Alarm horn and water alarm bell
- ◆ Optional enclosure "top hat" for pressure and draft gauges
- ◆ Flame Scanner with process meter display of flame strength



## Features:

- ◆ MMI provides complete real time status of boiler
- ◆ Tune fuel/air ratio from MMI for optimum combustion control
- ◆ Tune control loops from MMI with embedded trend graphs
- ◆ Standard Allen-Bradley components available from any AB distributor
- ◆ Integrated Burner Management System and Combustion Control System
- ◆ Network BMS and CCS to Power House Monitoring System

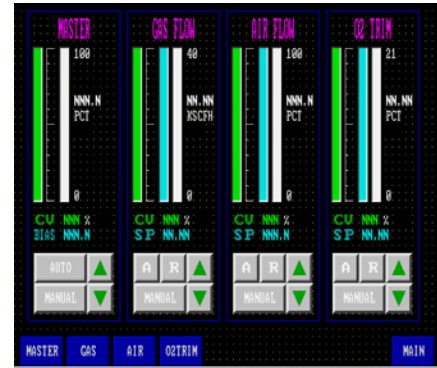


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## Combustion Control Features:

- ◆ Full set of boiler control loops:
- ◆ Boiler Master with bias
- ◆ Full metered Fuel/Air Loops with cross limiting and O<sub>2</sub> Trim
- ◆ Furnace Pressure
- ◆ Three element drum level control
- ◆ Password protected tune screens for PID's, Fuel/Air ratio, steam flow
- ◆ MMI display of all boiler process variables
- ◆ Fuel totalizers for current day and previous day
- ◆ Loop power supply status monitoring
- ◆ Network Interface to Power House Monitoring System
- ◆ Transmitter Failure detection with loop shut down interlocks



## Burner Management System Features:

- ◆ Burner startup and shut down sequencing performed by SLC to provide flexibility for diverse applications
- ◆ Redundant shut down circuits provided by SLC and master fuel trip relay
- ◆ Independent SLC scan watch dog timer
- ◆ MMI displays burner sequence status and safety circuit chain status
- ◆ Network interface to Power Plant Monitoring System

