



# Ignitor Controls & Control Interface

Fossil Power Systems Inc. (FPS) offers Ignitor Control Packages designed to control and monitor ignitor operation, while interfacing with the burner management system (BMS).

Control cabinets are customized for each application. Various types of pilot devices and controllers are available. Controlling and monitoring devices are wired to field terminals within the cabinets.

The pre-programmed FPS ignitor controls incorporate tried and proven ignitor control logic to ensure optimum ignitor performance. The FPS controls are customized to interface with existing burner controls, receiving start, stop and permit signals from the BMS and providing ignitor status signals in return.

Ignitor controls can incorporate options such as redundant processors, other equipment controls (e.g. air register control), and graphical operator interface. Controls are also available to replace older relay and pneumatic control systems.

## CONTROL CABINET/VALVE TRAIN ASSEMBLIES

FPS supplies control cabinet/valve train assemblies to control and supply oil and/or gas fuel to ignitors. Advantages of these assemblies include:

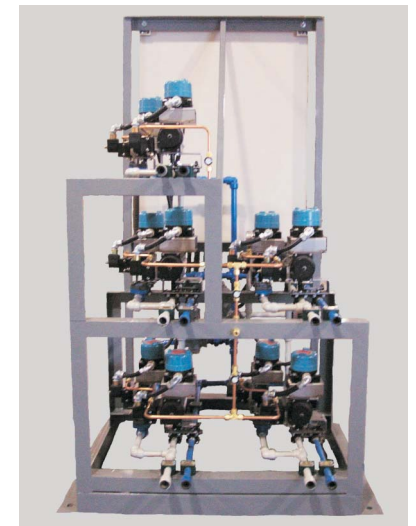
- Compact package at the burner front simplifies ignitor and ignitor valve control, monitoring and maintenance.
- Controls & valves are integrated into one easy to use package
- Live factory checkout of ignitor control, pilot devices, BMS interface and valve operation significantly reduces potential for on-site commissioning problems
- On-site electrical & mechanical installation time is minimized

The typical ignitor control cabinet consists of a NEMA 4 enclosure housing an EEPROM backed-up controller preprogrammed to allow local or remote control and monitoring of ignitors and associated valving. Door-mounted pilot devices allow local control and monitoring of ignitor operation.

Valve trains are available for oil and/or gas fuels and are constructed using FPS automatic valve assemblies. Each valve train includes factory installed instrument air lines complete to bulkhead, wiring between valve components and control cabinet, and pressure test of valve train.



IGNITOR CONTROL CABINET/VALVE TRAIN ASSEMBLIES



VALVE TRAIN FOR 5 OIL IGNITORS

Controlling  
the **power**  
of **steam**



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## A TYPICAL VALVE TRAIN FOR OIL IGNITORS INCLUDES

- Manual isolation valves and strainers on oil & air inlets
- Oil pressure regulating valve (optional)
- FPS automatic tandem fuel/air failsafe valve assembly
- FPS automatic purge valve assembly
- Purge check valve
- Fuel and air pressure gauges with isolation valves

## A TYPICAL VALVE TRAIN FOR GAS IGNITORS INCLUDES

- Gas supply, gas vent & instrument air manifolds
- Gas supply pressure gauge with isolation valve
- Manual isolation valve for each ignitor
- FPS automatic double block & vent valve assembly for each ignitor

Fuel header valve trains incorporating pressure regulator, main shutoff valves, pressure transmitters, etc. are also available.

## SINGLE IGNITOR CONTROL CABINET / VALVE ASSEMBLIES

FPS manufactures a compact ignitor control cabinet with attached valve assembly designed for installations where it is preferable to have one control cabinet per ignitor, as is traditional on Combustion-Engineering (CE) tangentially-fired boilers. This assembly offers the same advantages as mentioned in the Control Cabinet/Valve Train Assemblies section.

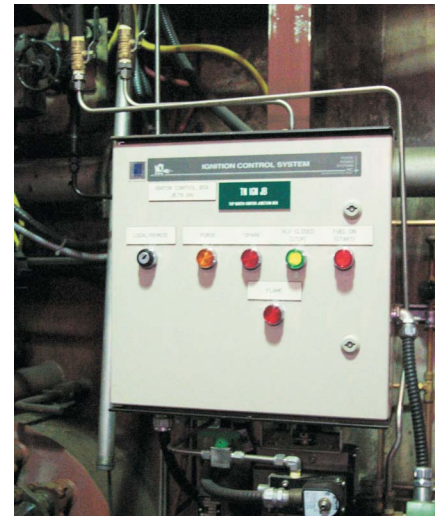
The single ignitor control cabinet/valve assembly features cabinet mounted valves to supply fuel and atomizing air (for oil ignitors) to the ignitor being controlled by the cabinet.

## A TYPICAL ASSEMBLY FOR AN OIL HORN IGNITOR ON A TANGENTIALLY-FIRED BOILER INCLUDES

- Manual isolation valves and strainers on oil & air inlets
- FPS oil flow regulator
- FPS automatic tandem fuel/air failsafe valve assembly
- Purge solenoid valve
- Purge check valve



**OIL IGNITOR CONTROL CABINET / VALVE TRAINS**



**SINGLE IGNITOR CABINET / VALVE**

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