

## [pbbs.com/accessories](http://pbbs.com/accessories)

### **Burners**

For new or used boilers, these complete upgrade packages from 800,000 BTUs to 200,000,000 BTUs include all fuels. Additionally, these units include high turndown capability (up to 10:1) along with low NOx capability, integral load tracking, lead lag control of multiple boilers, and O2 trim.

We offer burners from: **CLEAVER BROOKS, NAT-COM, PRO-FIRE, LIMPSFIELD, WEBSTER and RIELLO.**

### **Controls**

For controlling combustion, draft, and multiple boiler sequencing with the capability for supervisory control and data acquisition. An entire plant including boilers, chillers, cooling towers, and auxiliary equipment may be monitored and operated from a single location. Data gathered is saved for later review and used to print out customized log sheets and fuel usage comparisons.

### **Monitoring Systems**

Lighted annunciator panels show, at a glance, exactly what your boiler system is doing. Then, they automatically dial a phone, phone paging system, or pocket pager advising the responsible party of an emergency condition.

Systems monitor:

- Flame Failure
- Power Outage
- High Pressure or Temperature
- Low Pressure or Temperature
- Low Water
- Boiler Water Conductivity
- Low Chemical Tank Level
- High Stack Temperature
- Compressor Operation
- Access Control Condition
- Security Operation
- Fire Protection Operation
- Phone Line Operation

PBBS carries controls and monitoring systems by: **AUTOFLAME, CLEAVER BROOKS, HAYS CLEVELAND, and FIREYE.**

### **Heat Exchangers**

Heat exchangers are used for heating or cooling liquids for process systems, heat recovery, and comfort systems using steam or liquids.

### **Pumps**

Circulators, horizontal, vertical in-line and multi-stage and metering pumps.

PBBS offers Heat Exchangers and Pumping equipment from: **THRUSH and GRUNDFOS.**

### **Oxygen Trim Systems**

Are designed to keep your boiler in tune in spite of changes in atmospheric conditions that can cost you money in wasted fuel. In fact, an 8% change in barometric pressure could result in a full 1% change in your boiler's flue gas oxygen level. That minor change in fuel air ratio can cost you thousands of dollars a year depending on the size of your boiler. An oxygen trim system can save you that money by continually tuning your boiler while in operation.

The continuous adjustment in your boiler's fuel-air ratio by an Oxygen trim system is accomplished by measuring the oxygen level in your flue gas (excess air). If the O2 varies from the original tune up settings, adjustments are automatically made to either the air damper, or the burner fuel flow using a separate trim actuator. The Hays Cleveland O2 trim system provides this money saving control with a variety of easy to maintain options.

More precise systems, such as the Auto-Flame Exhaust Gas Analyzer (EGA), go one step further, monitoring not only Oxygen, but Carbon Dioxide (CO2), and Carbon Monoxide (CO) as well. This 3-parameter trim system by Auto-Flame insures that the O2 and CO2, which are directly related, are tracking as they should, and if the numbers don't work, re-adjusts the burner to insure that it is operating safely. The monitoring of the CO provides additional information to the trim response, and the EGA can maximize the performance of your burner while minimizing the CO. This is all done by use of the Auto-Flame parallel positioning servomotors.

But Oxygen trim is not for everyone. Depending on your boilers load and run time, an oxygen trim system may not provide the performance expected. Oxygen trim systems are not "boiler tune-up machines" as some would have you believe. Your boiler should be tuned up prior to installing an O2 trim, allowing the O2 trim to keep your boiler in tune.

So call your PBBS representative and ask if Oxygen Trim is right for your boiler.

PBBS carries O2 Trim Systems by: **CLEAVER BROOKS, AUTOFLAME, HAYS CLEVELAND and SIEMES.**

### **Steam Specialties**

Steam specialties include control valves for pressure and temperature, steam regulators, reducing and relief valves, steam traps, flow switches and liquid level controls.

PBBS offers specialty steam equipment from the following manufacturers: **SPENCE, NICHOLSON STEAM TRAP AND SPIRAX SARCO.**

### **Venting Systems**

PBBS offers a full line of stacks, vents, grease ducts and auto-draft vent systems from **METAL FAB and TJERNLUND.**