Intelligent control for Regenerative Combustion Systems

Increase Production
Improve Fuel Efficiency
Reduce Electricity Usage
Minimize Material Loss
Decrease Maintenance

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Intelligen™ Control System

The objective of the system is to minimize utility use (gas, electricity), while maintaining the highest production level under changing conditions in the furnace.

In the past, fuel consumption was the major contributor to the ROI consideration for many projects. Today, evaluating all the factors that are involved to operate a high temperature process is necessary.

What factors should be considered?

- **Production**—increase production levels by operating with more intelligent controls
- **Material Loss**—minimize material loss such as scale (steel) and dross (aluminum)—reducing the material loss is a major savings.
- **Fuel**—improve fuel efficiency with advanced controls
- **Electricity**—reduce electrical usage of equipment such as the combustion air and exhaust fans
- **Maintenance**—decrease maintenance requirements—providing better reliability and less component fatigue

Applications:

- New High Temperature Regenerative Combustion Systems (1800—2400 °F [1000-1300 °C])
- Any existing regenerative combustion system with older controls systems
- Continuous and batch furnaces including:
  - Steel Reheat Furnaces
  - Steel Forge Furnaces
  - Aluminum Melting Furnaces

How does it work?

The Intelligen™ Combustion Controls System is designed to look at the complete furnace process in order to maximize operating efficiency. This includes components from the blowers, combustion hardware, and flue damper to the control system and programming.

Proven Field Results:

The Intelligen™ system has been proven on both batch and continuous processes. *Production increases, material loss reductions, and fuel & electricity savings* have all been achieved exceeding customer expectations.
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- Minimize Material Loss
- Increase Production
- Decrease Maintenance
- Reduce Electricity Usage

Contact Bloom Engineering to find out more!

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Our Mission:

To enable our customers’ long term success by providing combustion products, systems, and services that achieve optimal productivity, efficiency, and environmental performance. Our global team delivers this with industry-leading expertise and innovative solutions.