

DIGITAL ERA PROMPTS A THERMAL PROCESS MANAGEMENT RE-THINK

To increase efficiency and reduce costs in today's competitive digital business environment, original equipment manufacturers (OEMs) in verticals such as automotive, building materials, food and beverage, metals, pharmaceuticals and pulp and paper – and organizations in sectors including education, hospitality and healthcare – require connected solutions that give them visibility into the performance, health and lifecycles of their critical thermal process equipment.

Combustion engineers need advanced remote monitoring and performance tracking capabilities to obtain real-time data on everything from combustion quality and faults to firing rates, fuel efficiency, and low flame signals. Through the insights gleaned from this data, they can make informed decisions that can lead to lower levels of unplanned downtime; reduced service, repair, and scrap costs; and better maintenance planning.

The challenge is that most thermal process equipment, until now, has not been digitally connected to enable such capabilities.

HONEYWELL SMART BURNER: A COMPLETE, CONNECTED COMBUSTION SYSTEM

To meet this market requirement, Honeywell introduces SMART Burner, a complete, connected combustion system that reflects Honeywell's strategy to embed connectivity throughout its product line to help customers thrive in this industrial software era.

SMART Burner integrates a burner, controller, flame scanner, sensors and a cellular modem into a single package in which each component is linked via Thermal IQTM, Honeywell's secure, cloud-based platform for connected thermal solutions.

Through Thermal IQ connectivity, combustion engineers can access real-time thermal process data such as firing rates, flame signals, fuel flow, fuel consumption, output temperature and more – anytime, anywhere via the Thermal IQ Operate mobile app or Thermal IQ Optimize enterprise dashboard. At a later date, Honeywell plans to enrich the solution with recommended actions based on this data.

SMART Burner supported by the Thermal IQ Operate mobile app enables users to receive critical alerts and notifications, get a high-level overview of each piece of equipment, drill down to see the status of alarms and key parameters, check alarm configurations and track historical data and alarms.

SMART Burner supported by Thermal IQ Optimize, meanwhile, delivers all the information provided by Thermal IQ Operate in an enterprise-level dashboard that provides full visibility of single or multiple sites. In addition, it provides fault pattern analysis, application-specific asset libraries with machine learning-based analytics, analysis of financial loss or gain based on active and resolved alerts and process deviations, and more.

KEY FEATURES OF SMART BURNER

- Configurable and customizable alerts when process parameters deviate from normal
- Historical data tracking
- A high-level view of burners spanning single or multiple sites
- In-depth analysis of issues together with quick troubleshooting
- Real-time monitoring of underperforming burners along with recommendations (will be available in future releases)



SMART Burner's remote monitoring capabilities mean that combustion engineers can diagnose issues without having to physically visit a site as they did in the past, significantly reducing the time and expense associated with maintenance, and eliminating the age-old risk of bringing the wrong tools for the job.

Moreover, the fuel consumption monitoring capability can help reduce fuel costs – one of the highest costs incurred by thermal equipment users; while more effective operations can be realized through the monitoring of parameters such as flame strength and output temperature. At a later date, Honeywell plans to extend the solution's monitoring capabilities to reduce the risk of non-compliant pollution or emissions that could lead to financial penalties.

With its wide range of capabilities, SMART Burner also represents a timely response to the steady, industry-wide decline of thermal combustion expertise which has been accelerated by the retirement of long-time, skilled engineers.

MODELS

SMART Burner is initially available in a standard emissions version, with a low emissions version to follow. Both versions will be configured to meet the technical requirements and standards of customers in Europe, Middle East, and Africa (EMEA) as well as customers in the Americas. They include:

- SMART Burner (standard emissions version) combines a low temperature burner (Honeywell Eclipse HeatPak Burner Package with Ratiomatic, Ratioair and Thermair for EMEA markets) with BCU 570 burner control, a cellular modem and Thermal IQ. This solution provides users with insights on the status of their equipment and processes from any mobile device.
- SMART Burner (low emissions version; to be released at a later date) combines a low temperature burner (Maxon OvenPak LE Burner for Americas markets) with Honeywell SLATE™, a combustion management system that integrates configurable



flame safety and programmable logic into a single, modular platform; integrated sensors; and Thermal IQ. This solution delivers advanced analytics, insights and actionable information about the current state of processes, plus a remote troubleshooting capability to help reduce downtime.

CONNECTED THERMAL SOLUTIONS POWERED BY THERMAL IQ

With a track record of innovation spanning 100 years and over 1 million installations around the world, Honeywell – together with its Eclipse, Exothermics, Hauck, Kromschröder and Maxon brands – has unmatched expertise in combustion and thermal processing systems.

Developed by Honeywell thermal process experts, SMART Burner is just the first of what will become a full range of Connected Thermal Solutions powered by Thermal IQ – designed to bring connectivity to combustion processes in a safe and secure manner.

For More Information

To learn more about Honeywell SMART Burner or Honeywell Connected Thermal Solutions powered by Thermal IQ, please visit $\underline{Thermal Solutions. Honeywell.com}$ or contact your Honeywell sales engineer. Alternatively, email: $\underline{HoneywellThermalSolutions@honeywell.com}$

Regional Offices

Americas:

Honeywell Combustion Safety 2100 Apollo Dr. 44142 Brook Park, OH USA

Phone: +1 (216) 749-2992

Europe, Middle East and Africa:

Honeywell Thermal Solutions GmbH Postfach 28 09 49018 Osnabrück Germany

Phone: +49 541 1214 0

Asia Pacific:

Honeywell China Bldg. 1, 136 Yinsheng Rd. Shengpu, SIP 215126 Suzhou Jiangsu China

Phone: +86 512 6281 2998

Honeywell India Honeywell Automation India Ltd. #56-57, Hadapsar Industrial Area, Hadapsar, Pune-411013, Maharashtra, India Phone: +91- 20-66039400

Honeywell Process Solutions

www.honeywellprocess.com

2101 CityWest Blvd. Houston, TX 77042



THE

FUTURE IS WHAT

MAKE IT