



BCS-3000

Burner Control System

BCS3000-1
Edition 07-08



Hauck, a product brand
of the Elster Group



- Limits annunciation
- Improved troubleshooting
- System status annunciation
- Reduced downtime
- Temperature controller for precise control
- Minimal operator interaction
- Low fire mode
- Manual backup
- Dual fuel accommodation
- Single button start-up
- Flame signal indicator



The Hauck BCS-3000 provides simple reliable operation for installations requiring basic, pilot ignited single-burner control. Available in table top or drop-in configurations, the control panel provides all the necessary functions to safely and efficiently operate combustion systems commonly found on asphalt and rotary drying applications. The BCS-3000 combines the simplicity of relay-logic technology with a PLC-based status annunciator.



APPLICATIONS

- Asphalt Plants
- Rotary Drying
- Rotary Kilns
- Thermal Oxidizers
- Soil Remediation Plants
- Single Burner Applications

The BCS-3000 monitors the limits circuitry and provides flame safety and temperature control. The temperature controller modulates the burner firing rate based on the difference between the process temperature and the controller's set point. A three position mode selector switch permits selection of burner control using the temperature controller, forced low fire or manual operation in the event of controller failure. The low fire mode allows the operator to quickly drive the burner to low fire without adjusting the temperature controller. Type J or K thermocouples are available.

The BCS-3000 incorporates a system and limits annunciator that provides basic status sequencing from start-up through production cycling. The back-lit message display furnishes first-out annunciation of safety limits which pinpoints the area of trouble.

The integrated annunciator significantly reduces troubleshooting downtime compared to conventional panels without limit annunciation. An LED flame signal indicator is provided as standard equipment.

Single button start-up is provided to speed up ignition sequencing and reduce operator interaction. To accommodate natural gas, fuel oil or propane operation, standard dual fuel selection capability is provided.

All BCS panels come fully equipped with a material thermocouple, stack thermocouple, exhaust flow switch and two UV flame detectors. Options include an auxiliary high temperature limit. Temperature recorders and draft control instruments are available as stand alone units.

For additional information on this product, visit our website at:

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BCS-6000

Burner Control System



Features

- Color touch screen operator interface
- Integral dryer draft control
- Air valve characterization
- Expanded limits annunciation and system status messages
- PLC based PID control with autotune capability
- Dual-fuel accommodation
- Flame signal strength indicator
- Online help screens

Benefits

- Precise control of stack temperature, material temperature, and dryer draft
- Simplified burner setup
- User friendly operator interface
- Improved troubleshooting
- Reduced downtime



The Hauck BCS-6000 provides a modern, full-featured, state-of-the-art burner control system. The integrated color touch screen provides the most user friendly operator interface available with help functions, alarm history, firing time accumulator, and temperature trend screens. Available in table top, drop-in or wall-mount configurations, the control panel provides all the necessary functions to safely and efficiently operate the single-burner combustion systems commonly found on asphalt and rotary drying applications.

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Combustion Excellence Since 1888

BCS6000-1



Hauck Manufacturing Company

BCS-6000

BURNER CONTROL SYSTEM



ADVANTAGES OF THE BCS-6000

User-Friendly Touch Screen Operator Interface

Precise Control of Stack Temperature,
Material Temperature, and DraftTrend Analysis for Material Temperature,
Stack Temperature, and Temperature Setpoint

Integral Dryer Draft Control

First-out Limits Annunciation

Electronic Air Valve Characterization

Multiple Language Selection

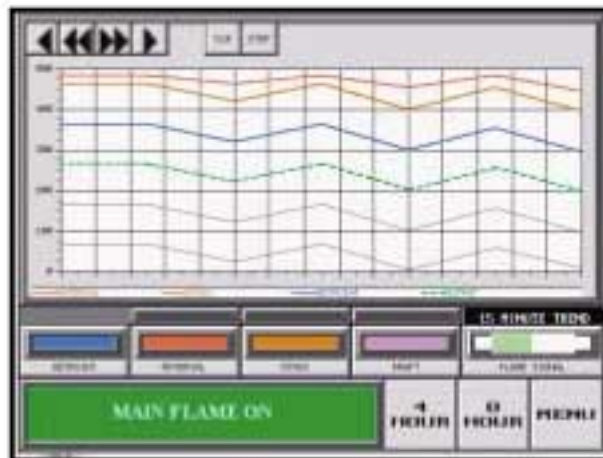
The Hauck BCS-6000 is a full-featured, user-friendly burner control system that manages all functions of an asphalt or aggregate drying system from start-up through production cycling and shutdown.

The BCS-6000 utilizes an integrated PLC controller to manage all aspects of the burner operation. The PLC, in conjunction with an 8" diagonal touch-screen operator interface, provides system messages, numerical data displays, indicators, switches and trend graphs. A pop-up keypad provides for numerical input.

The control system's processor has been upgraded for increased memory capability, more precise calculations, and PID capability. Four control loops provide for control of stack temperature, material temperature, draft, and optional flue gas recirculation. By incorporating these controls in the PLC, the BCS-6000 provides intelligent interaction between the burner management system and the temperature control and draft control functions.

| MESSAGE | SUMMARY |
|-----------------------------|---|
| HIGH GAS PRESSURE | Monitor stack 2 input 8 and the high gas pressure switch (power on terminal 12). |
| IGNITER AIR INTERLOCK FAULT | Monitor stack 2 input 2. For system which use a pressure air blower for atomization, verify that the blower is running and check for power on terminal 10. |
| LOW PRIMARY AIR PRESSURE | Monitor stack 2 input 3. Verify that the primary air or compressed air pressure switch is made (power on terminal 10). |
| LOW OIL or LP PRESSURE | Monitor stack 2 input 5. Verify that the manual shut-off valve is open and that the pressure switch is made (power on terminal 10). |
| LOW OIL TEMPERATURE | Monitor stack 2 input 2. For heavy oil systems, verify that the oil heater is operating and the oil temperature switch is made (power on terminal 10). |
| HIGH STACK TEMPERATURE | Monitor stack 2 input 3. Check for power on terminals 10 and 15. Observe the display and HPS indicator of the stack temperature instrument. A full scale reading 1000 F or 500 C indicator on open 30 or broken wire. |

Online help screen from BCS-6000



Temperature trend screen showing 5 minute analysis of setpoint, material and stack temperature and burner output from BCS-6000

AVAILABLE OPTIONS

- Flue Gas Recirculation
- Baghouse Outlet Temperature Indication
- Fuel Flow Display and Totalization
- Modem for Online Service and Troubleshooting
- Data Collection Interface to MS Excel®
- 4-20mA Draft Control