RESULTS ENGINEERING

RECENT RESULTS ENGINEERING EXPERIENCE IN NONWOVEN APPLICATIONS

Project: **Retrofit Controls for three existing Cardlines and one Airlay Former producing a NonWoven for the Automotive Industry.**

Engineering: PLC programming and implementing the graphical operator interface for operation of the cardline. The logic and control for each line involved speed control with interfacing to variable speed motor drives, and coordinated control of numerous motor loads.

Equipment: An ALLEN BRADLEY PLC5 system replaced the existing controls and a PANEL VIEW graphics station provided the operator interface.

Location: Auburn, Maine

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Project: **Integrated Control System for NonWoven Bonding Oven.**

Engineering: Services included process engineering, control system design, sensor specifications, PLC programming, Supervisory Control programming of PC based software, AutoCad drafting, custom control panel fabrication, system testing and on-site start up assistance.

Programming implemented closed loop control of several parameters, complete air heater burner control, first out annunciation, and graphic screens representing the process dynamics and the associated measured data and discrete events.

Equipment: The system included PARAGON process control software running in an industrial computer providing supervisory control and the graphical operator interface. An ALLEN BRADLEY PLC5 system performed the logical and analog loop control functions.

Location: New York

P.O. Box 357 ◆ Saco, Maine 04072 ☎ (207) 282-2428 ◆ Fax (207) 282-0463
339 Parsons Road ◆ South Paris, Maine 04281 ☎(207) 743-0278◆ Fax (207) 282-0463
691 Hogan Road ◆ Bangor, Maine 04401 ☎ (207) 992-2496 ◆ Fax (207) 992-2497

RESULTS ENGINEERING

RECENT RESULTS ENGINEERING EXPERIENCE IN NONWOVEN APPLICATIONS

Project: **Integrated Control System for NonWoven Bonding process.**

***Engineering*:** Services included process engineering, control system/instrumentation design, PLC programming (ICOM), CADD drafting, custom control panel fabrication, and system testing. Programming implemented complete Burner Control, first out annunciation, PID control and the graphical process representations on the operator station.

Equipment: The application involved a direct gas fired 3 MMBTU air heater and associated flame safeguard controls (HONEYWELL BC7000). The control system included an ALLEN BRADLEY PLC 5/15, an ALLEN BRADLEY CONTROL VIEW graphical operator interface and the sensors required to regulate the process.

Location: North Carolina

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Project: **Retrofit Industrial Computer System with new Automatic Computer Control system for Drying and Curing a continuous web of Fiberglass Roofing Mat.**

Engineering: Services included integration of new hardware into existing control panel, programming the process control algorithms, developing graphics frames for the operator interface, generating production and engineering reports, configuring the data acquisition interface, configuring the Ethernet network interface between two nodes of FACTORYLINK, CADD drafting, and on-site start up assistance.

Equipment: The application involved two nodes of FACTORYLINK process control software, an Ethernet communications network, an Industrial computer system, and OPTO 22 signal conditioning hardware. The computer control system automatically regulates the Drying and Curing performance from a high level menu available to the operator. A wide variety of information is available through graphic screens and printed reports.

***Location*:** Missouri

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691 Hogan Road ◆ Bangor, Maine 04401 ☎ (207) 992-2496 ◆ Fax (207) 992-2497

RESULTS ENGINEERING

RECENT RESULTS ENGINEERING EXPERIENCE IN NONWOVEN APPLICATIONS

Project: **Integrated Control System for a web production line including pulp/nonwoven blending formation equipment and a thermal bonding air system.**

Engineering: Services included design and specification of the PLC Control System which involved sensing process parameter combustion control and overall line speed control. All motors were controlled by a Motor Control Center (MCC) integrated into the system. The MCC involved numerous variable speed drives, soft starts and starter buckets.

CAD Drawings for the entire system included electrical schematics, field interconnects, system block diagrams, communication configuration diagrams, MCC layout, and PLC subpanel assembly drawings.

Programming included PLC code for closed loop control of many sensed values, electrical line shaft control using motor drives, and logical control of direct fired air heaters. The Graphical Operator Interface was programmed to deliver a single window from which the entire line could be run.

Equipment: An Allen Bradley PLC 5/40 controlled the system and the PanelView touchscreen color monitor station provided the operator interface. Included in the MCC were numerous digitally linked Allen Bradley 1395 Drives controlled motors for line speed coordination via the PLC. A wide variety of process sensors were also delivered with this integrated control system.

Location: Arkansas

P.O. Box 357 ◆ Saco, Maine 04072 ☎ (207) 282-2428 ◆ Fax (207) 282-0463
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RESULTS ENGINEERING

RECENT RESULTS ENGINEERING EXPERIENCE IN NONWOVEN APPLICATIONS

***Project*:** **Retrofit Industrial Computer System with new Automatic Computer Control system for Bonding a continuous NonWoven web.**

Engineering: Services included integration of new hardware into existing control panel, programming the process control algorithms, developing graphics frames for the operator interface, generating production and engineering reports, configuring the data acquisition interface, CADD drafting, and on-site start up assistance.

Equipment: The application involved FACTORYLINK process control software, an Industrial computer system, and OPTO 22 signal conditioning hardware. The computer control system automatically regulates the Bonder's performance from a high level menu available to the operator. A wide variety of information is available through graphic screens and printed reports.

Location: Arkansas

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