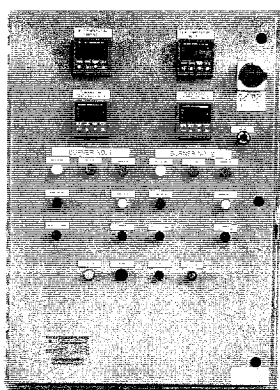


Application brief

Eclipse Product: Air Heat Burners (AH200)
Submitted by: Steve Widmer – Eclipse Combustion, Chicago
Application: Drying Oven
Description:



System Control Panel

Description of Oven:

The oven is separated into 2 zones of temperature control with a stainless steel belt running the length of the oven. The hot burner gases enter the Recirculating fan and are drawn the length of the oven zone into the Exhaust fan. Several variables such as extrusion pressure, zone temperature, volume of airflow, and belt speed affect the quality of the product. A clean burning air heater with high turndown is required to properly support the process.

Process Description:

The oven contains a stainless steel belt onto which a cornstarch emulsion is extruded. A combination of heat and high process airflow dries the material into a thin film with the consistency of latex. The film is cut and rolled at the exit end of this continuous oven. The high value product is completely controlled by PLC set-point recipes and requires subsystems such as the combustion system that are reliable and responsive to instantaneous process demands. Quality control is of the highest importance for the finished product.

Finished Product:

The cornstarch based soluble polymer film is used for a multitude of purposes requiring a “melt-away” packaging or sealer:

- Wrap individual packets of laundry detergent. The film dissolves in water and is completely biodegradable.
- Medical containers, medical waste, and other medical uses.
- Form release film.
- Other biodegradable packaging.

Each Burner System included Two AH 200 burners valve trains, control panels

Soluable Film Drying Oven – 2 Zone

