

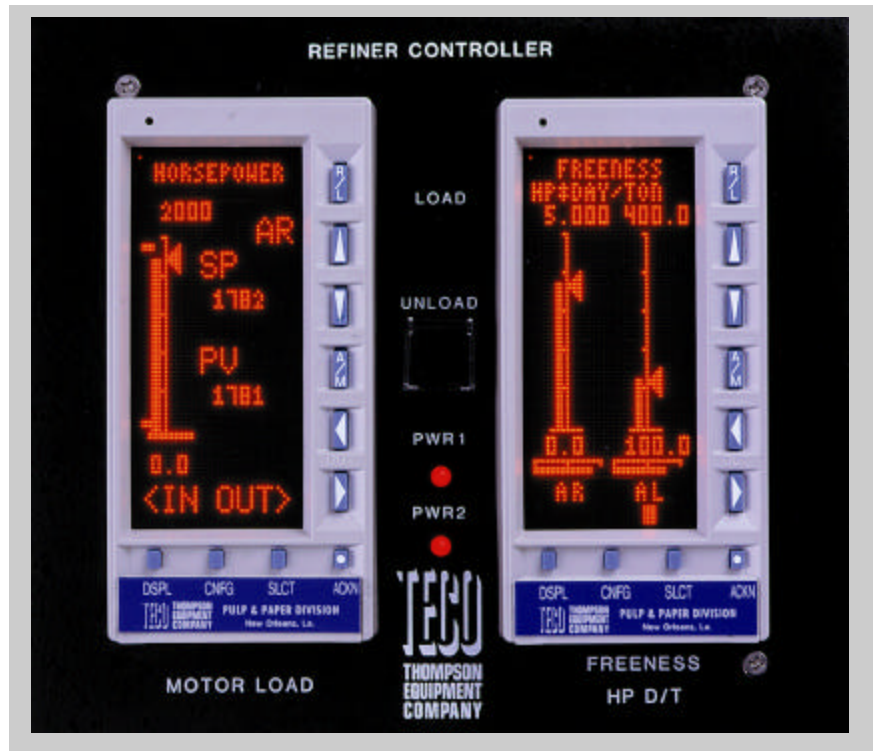
Brainac™ Refiner Control System

Product Summary

The Brainac™ Refiner Control System is designed as a complete solution to fit your refiner control needs.

Used as a stand-alone system, or integrated into any existing DCS platform via standard protocol communication links, the Brainac™ Refiner Control System will optimize your refiner controls through controlling: specific energy, freeness, and overall power consumption, allowing papermakers to consistently maximize their furnish quality, minimizing web breaks, and lowering their overall refining energy consumption.

Safety is a critical issue for refining controls. The Brainac™ Refiner Control System is equipped with redundant power supplies for complete reliability. The high speed interlock logic and controlling relays are powered by these redundant power supplies to assure that the refiner is protected from any plate damage. Automatic unload alarm limits, along with continuous Measurement Validity Checks (MVC) on external devices complete the safety package.



Features & Benefits

- Continuous control of the refiner based on freeness, consistency, flow, and power measurements.
- Specific Energy Control - providing uniform refining during production rate changes or changes in consistency.
- Freeness Control - minimizing web breaks, optimizing energy consumption, and maximizing overall quality.
- Redundant Power Supply - for complete reliability.
- High Speed Interlocking Logic - maximizing refiner plate protection.
- Measurement Validity Check (MVC) - ensures control adjustments are only made on sound data.
- Digital Communication - easily integrates into any DCS platform.

Description

The Brainac™ Refiner Control System uses measurements of power, consistency, flow and freeness to provide coordinated control of your refiners.

When implemented to use all of these inputs, the Brainac™ Refiner Control System is a unique triple cascade unit. The upper level of the cascade controls compares the measured relative freeness levels with the desired relative freeness level and adjusts the specific energy (horsepower day/ton) setpoint. The second level, in turn, tracks this requested specific energy adjusting the power setpoint. The lower level of the cascaded controls meets the required power by adjusting the plate position via plate movement contact closures to the refiner plate positioner.

Specifications

Display	Graphical Gas Plasma
Power	115V AC, 60 Hz
Mounting Options	Panel 6.75”H x 7.25W Cutout / 19” Rack Pedestal
Analog Inputs	(10) 4 - 20 mA Remote Setpoint (3) Transmitters (7)
Analog Outputs	(4) 4 - 20 mA (900 ohm load)
Discrete Inputs	(8) Dry Contact (Self Powered TTL)
Discrete Outputs	(2) 7.5 Amp 30VDC / 120VAC / 240VAC
Gear Motor Contacts	(4) 20 Amp Solid State Dual SCR 120/240/480 VAC or Dry Contact (Self Powered TTL)
Communication	(1) Choice of Protocols: RS232 / IEEE 422 / IEEE 484

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