

# SURE CURE

## Computer Control System

# SC

## Take Control!

**Do you know how your concrete cured last night?**

**Did your cylinders follow your product?**

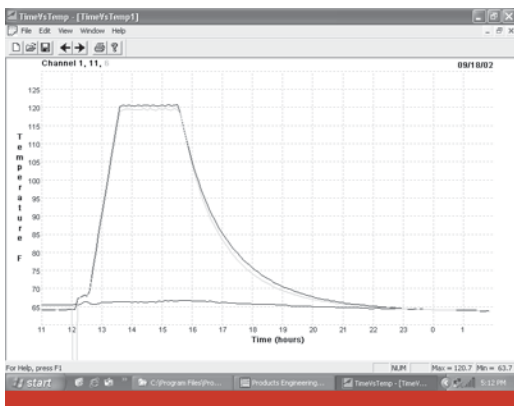
**Can you control your curing process?**

### BENEFITS

Computer-controlled curing systems reduce costs dramatically. Labor costs diminish because production delays are minimized. Material costs decline because optimized curing reduces the materials used to develop high strengths. Energy costs de-



Operational SURE CURE Computer System



Time-Temperature plot on computer

crease because curing temperatures are controlled. With electric curing systems the computer cuts costs further by limiting electrical demand.

The SURE CURE system generates real-time information on the status of every form and test cylinder. The system operator can identify and correct problems *as they occur*, avoiding costly production delays. He can program the optimum cure cycle for any mix by keying time-temperature coordinates into the computer.

The SURE CURE Computer Control System can control all the cylinders necessary for an entire precast plant. It records time-temperature information and maturity values for both products and molds. The computer can control molds to follow any preprogrammed time-temperature curve.

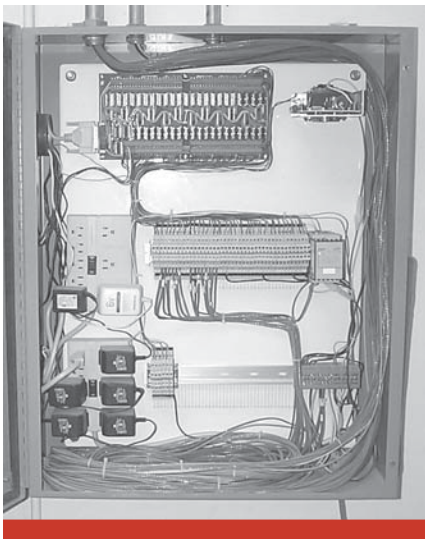
### FEATURES

**Temperature Control.** The basic system provides up to 168 channels for controlling or monitoring curing temperatures. The operator programs the system by simply entering the desired temperatures at specific times throughout the cure cycle. Actual temperatures can be charted for any channel over any time-span.

**Maturity.** The computer continuously provides maturity values for all channels on the system.

**Energy Consumption.** With electric systems the computer keeps track of kilowatt-hours for each heating circuit; for boiler systems, the computer compiles valve times.

**Demand.** Demand costs make up a significant part of a plant's electric bill, so for electric curing systems the computer limits peak demand to a level set by the operator. The savings generated by this feature alone can quickly pay for the computer system.



Installed control hardware

**Records.** Daily records are generated for each form and its test cylinders. The data included in the records are customized to fit the user's needs. The records display both the programmed and actual time-temperature curves. Data is stored in database format, enabling statistical analysis.

**Operation.** No computer or programming skills are necessary to op-

erate our system. However, a good understanding of accelerated concrete curing is important.

**Quality Assurance.** Checking the quality of materials coming into the plant can become a reality with SURE CURE Cylinder Molds. The computer-controlled mold enables the precaster to make, cure, and test cylinders in 6 hours or less.

**Research.** Used in conjunction with sure cure molds, our computer system makes an excellent research tool. High early strengths are a function of heat (the amount and rate at which it is induced into the concrete) and materials (the type, amount, and ratio in the concrete mix). You can vary the curing cycle and materials and test the results using the computer-controlled molds. Don't experiment on the bed.

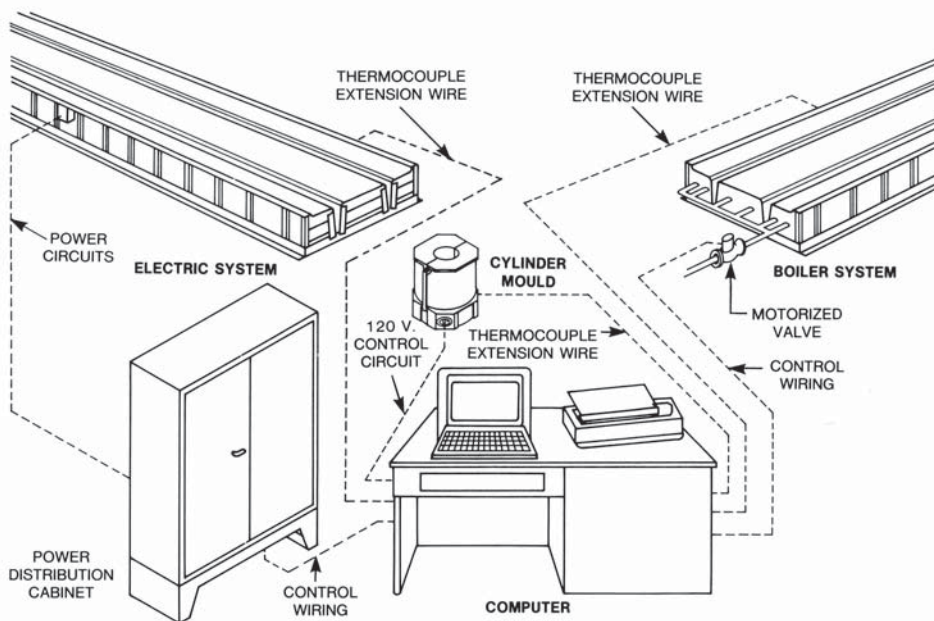
**Circuit Analysis.** For electrically cured products, the computer can measure amperage for each electric heating circuit. The operator can identify and correct problems before the curing cycle

commences. Using this feature, the operator can check the curing system prior to each use. If an amperage has dropped, the problem can be fixed before production is affected.

**Troubleshooting.** The computer continuously generates data that is extremely useful in troubleshooting curing systems. This real time data enables the operator to find and correct almost any problem quickly. The computer can also make a phone call to alert the operator if temperatures fall outside a preprogrammed range.

**Maintenance.** Reliability of the system is excellent. No regular maintenance is required on the computer other than periodic cleaning.

**Support.** A company rep oversees the installation of the system at the plant and instructs personnel in system operation. Additional custom software packages are available to increase the system's capabilities.



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