



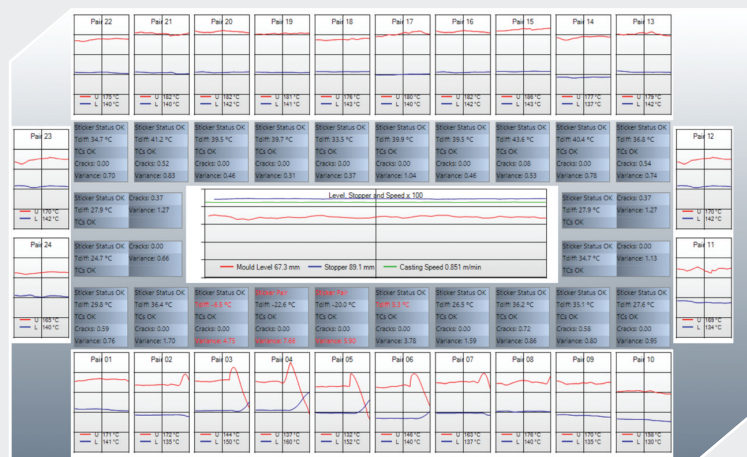
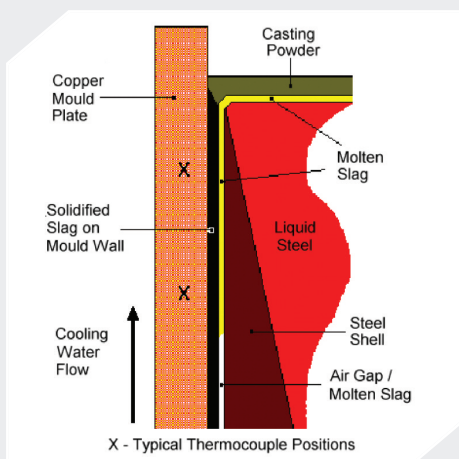
New Mould Thermal Monitoring System for a Steel Slab Caster

THE PROJECT

The Materials Processing Institute was asked to design and install a new mould thermal monitoring system for its client's continuous slab casting machine.

Thermocouple data acquisition hardware was fitted into the continuous casting mould to measure temperatures and transmit the data via fibre optic links to the client's process control network.

State of the art servers are used to process and store the data in real time. The data processing uses algorithms developed over many years of monitoring the thermal conditions in continuous casting machine moulds. The algorithms are able to detect the onset of dangerous conditions, steel breakouts, and slow the casting machine before damage occurs, which can typically cost in excess of £100,000.



THE OUTCOME

The commissioned system has operated continuously during casting operations since installation. It has successfully protected the casting machine against steel breakouts.

The data generated by the system is available by live online displays and existing plant information systems; this now forms an integral part of the quality control data for the plant.

