



Monitoring the furnace re-heat process

The Phoenix™ 'thru-process' temperature profiling system has been designed specifically to allow comprehensive monitoring of the entire slab/billet furnace re-heat process, claims the company.

Offering up to 20 thermocouple inputs using the Phoenix™ high temperature PTM1-220-HT data logger, temperatures can be measured at the surface, centre and base of the product at various positions along its length. The resulting temperature profile data can be imported directly into the furnace controller model to validate correct selection of process parameters and assumptions applied.

Passing through the reheat furnace reaching temperatures of up to 1300 °C / 2372 °F, the data logger requires significant thermal protection. Such protection is provided by Phoenix™'s specially designed TS07 thermal barrier range. Manufactured using graded insulation layers and an evaporative inner water tank, the phased evaporation of water maintains the logger temperature at a safe 100 °C/212 °F.

Applying accurate profile data to mathematical models, targeted roughing mill exit temperatures can be set to obtain a desired furnace drop out temperature throughout the product thickness. "Accurate control of such variables allows a successful rolling operation with minimal scale build-up maximising mill yields, saving energy and maximising production throughput," said Phoenix™.



For further information, log on to www.phoenixtm.com