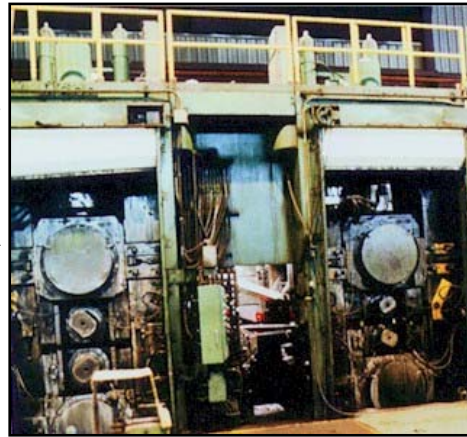




Three Stand Hot Mill Upgrade

The Application

A large aluminum manufacturer was struggling to maintain the obsolete control equipment on their only hot mill. The mill, which normally produces over a million pounds of aluminum per day, experienced two weeks of down-time during the summer of 1996 because of breakdowns related to this equipment. A new control system was needed to provide dependable operation and minimal disruption to production during installation.



The PCT Solution

PCT Engineered Systems was asked to design, program, assemble and install a new system for control of the mill drives, winders and shear, as well as providing an interface to the Mannesmann Demag MARAS gauge control system being installed. The PCT control system utilized new digital control boards connected to the existing mill drive SCR's thereby leaving the high current components (SCR stacks, bus work and overcurrent protection) in place.

The control system's design and the fact that new standard Reliance parts are easily reordered instead of having to be custom built, greatly reduced the cost of the new equipment and allowed more efficient maintenance of the equipment.

PCT scheduled on-site project work around the customer's scheduled shutdowns to reduce the impact on production. The entire upgrade was completed during two separate two-week outages.

Metals



Modifications Included:

- New Reliance AutoMAX control system with Allen-Bradley remote I/O
- Reliance Distributed Power Systems for control of the existing mill drive SCR's
- New drives for the entry and exit pinch rolls
- New drive and motion controller for control of the shear
- Development of two Intellution FIX operator stations
- Design and supply of a new computer room and mezzanine
- Design and assembly of a new operator console for the existing pulpit
- Programming of the communications interface to the Mannesmann MARAS System

*Within weeks of PCT's completion of the project,
the customer sets a record for continuous
operation of the mill.*

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