



HAN-TEK's Bucket-Crane Modernization Reduces Cement Maker's Energy Costs, Eases Maintenance

To save money by reducing energy consumption and eliminating a problematic, inefficient DC generator, a HAN-TEK customer sought to upgrade the 50-year-old crane that redistributes material in its cement manufacturing plant. The modernized crane would need to withstand a severely dusty environment and would need to interface with the plant's internal radio-controlled network.

HAN-TEK designed, engineered, manufactured and installed electromotive upgrades to the customer's 10-ton bucket crane. Previously, the mammoth crane – with a 150-foot span and 450-foot bridge – consumed electricity continuously, though it was needed only half the time the plant was operating. Further, its on-board DC generator had become increasingly unreliable and difficult to repair.

By using AC inverter VFDs rather than the old DC and collector-bar system, the HAN-TEK solution permits the customer to run the modernized crane more efficiently, using half as much energy. The HAN-TEK system is also designed to link the crane's controls to the customer's internal network via radio control.

The HAN-TEK Bucket-Crane Modernization solution features:

- ◆ Totally enclosed severe-duty motors: two 150 hp blower-cooled and five 75 hp fan-cooled.
- ◆ Electromotive controls enclosed in double box-frame girders that reduce dust exposure and enhance worker safety.
- ◆ Compliance with U.S. Mine Safety and Health Administration codes.
- ◆ A projected two-year return on investment.