

MANUFACTURING APPLICATION BRIEF



Cardboard Carton Manufacture, Assembly, and Printing

EQUIPMENT: Flexographic printer

PROCEDURE: Trim, and fold cartons; print custom graphics onto each.

Large flexographic printing machines are used in the manufacture of cartons to trim, fold, and print custom graphics onto each carton. The trimming process generates large amounts of tiny cardboard scraps and paper dust, which are sucked out of the machine via 20-inch pipes with exhaust fans at the end.

These exhaust fans are vital to the box-making process. If dust and bits of cardboard get caked inside the machine, it creates a potential ignition hazard. It can also cause the flexographic printer to shut down, costing thousands of dollars for each hour of lost productivity.

ATC's SENSERT™ remote, cloud-based process monitoring and alert system, connected to the ATC MPA2 Motor Protection Analyzer, can help get to the root of fan failures and head-off unplanned machine shutdowns.

The SENSERT system monitors under and over voltage, under and over current, power, power factor, runtime, and temperature of the front, back, and middle of each exhaust motor. In addition to continuous monitoring, SENSERT also collects and archives data setpoints while each fan motor is in operation. Data gives maintenance teams advance notice when problems occur and helps narrow down where the issue originates. This enables scheduled downtime that does not interrupt workflow or negatively impact productivity.

RESULT: In application, a packaging manufacturer realized \$30,000 in annual savings from preventative maintenance versus unplanned machine shutdown.







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As a leader in solid-state control products for over 50 years, ATC was the industry pioneer in the first Phase Monitor Relay designed to protect 3-phase equipment from adverse conditions such as Phase Loss (single phasing), Under Voltage (brown-outs), and Phase Reversal (improper sequence). Continued investment in new product R&D and continuous quality improvements allows the ATC Diversified team to offer market-leading technologies, keeping pace with the needs of an evolving industrial marketplace.

