



PLC press automation replaces destroyed control—balances capabilities and cost

Upgrading under fire

Chad Rousseau, TH Manufacturing's production manager, sets up the DPPlus automation system on this 125-ton C-frame mechanical press. Air feed shown is slated for replacement by a servo feed linked to the PLC's programmable limit switch outputs.

Cooking a press control under deadline pressure isn't the ideal circumstance for upgrading a stamping operation. But a fire in a 1950s-era hard-wired relay system for a 125-ton C-frame mechanical press sent TH Manufacturing Co. on an urgent search for replacement technology.

"We were in the middle of a hot run, and the 125-ton press was the only one we could use for the job," recalls John Miller, vice president of operations at the Jackson, Wis., metalworking job shop. "We needed a new control and we needed it quickly."

The company's immediate requirement was for what Miller calls "a basic control." But management realized that it could convert a crisis into an opportunity by adding automation to the pressroom capabilities. The caveat: Cost would loom large in the project.

The needed resources were obtained from a supplier across the driveway. Ratzburg Controls is TH's corporate neighbor and an installer of process automation. Its owner, Dan Ratzburg, contacted Toledo Integrated Systems, Holland, Ohio, which had introduced a basic press

automation package less than a year ago. Within three weeks, the press was back in production with solid-state automation and a complete rewiring.

Eliminating boxes

Toledo has trade-named its entry-level press automation system DPPlus, a proprietary PLC that consolidates separate controls into a single unit. "Stampers are eager to eliminate single-function automation," says Dan Falcone, sales and marketing manager at Toledo Integrated Systems. "They don't want one box for die protection, another box for programmable limit switches and another box for the brake monitor.

"There's been a movement to get as many functions as possible into one system with one display," he adds. "The operator can go to one control with one format for every function."

