When Macro Plastics of Fairfield, California purchased a plant in Shelbyville, Kentucky they got a facility that was operational but also included several older injection molding machines. And when one of them, an Italtech MSK6000 6,600-ton press built in 1988, stopped functioning, they once again turned to Cincinnati Process Technologies to give this old machine a new brain and much more. “We've used CPT for two control retrofits in the past few years including here and at our facility in Union Gap, Washington, so we knew who to call when it was time to give this machine new life,” said Plant Manager Jonathan Kitchen.

Though the bones of the machine, used to manufacture agricultural bins and containers, were essentially solid, the controls and hydraulics were severely outdated. More importantly, there were no OEM upgrades, parts nor support available for the machine.

CPT's technical team worked closely with plant personnel as well as a secondary vendor who brought the hydraulic system back to OEM specs. It's this coordination of components and services that makes CPT a leader in retrofitting injection molding, structural foam, compression machines and extruders. “We've become especially adept at managing retrofit projects for larger, more complex machines,” says CPT General Manager Mike Green. “These are more than free-standing presses. They are total ecosystems that include material handling, robotics and links to our support system.”

The heart of the retrofit to the Italtech is the B&R PC2100 which includes a 15” touchscreen controller. This system interfaces to every component of the press and ancillary equipment while monitoring everything from pressure and temperature to flow rates. “One of the great benefits of the new control system is the ability to monitor, support and upgrade it remotely,” said Kitchen. This allows CPT's technical team to diagnose and repair issues quickly, minimizing down time and ensuring that Macro is always running the latest software version.

In addition to the new controller, CPT installed new wiring and cabinets, robot interfaces, relays and pressure transducers. “It's essentially a new machine and it delivers on every expectation we had,” adds Kitchen. “The revamped press now is capable of cycling a part every 170 seconds, a savings of 15 seconds or eight percent per unit produced. We think we can save even more time once we upgrade our material handling system to match it. Equipment uptime has dramatically improved since the retrofit and startup/debug was completed.”

According to Green a retrofit will almost always increase revenue through improved cycle time, reduce downtime and repair costs, eliminate waste and improve precision of controls. A modern control interface allows operators to quickly adjust virtually every facet of the machine for precise outcomes.

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