

Installed products & featured machines: FH450S, RGV FMS

FOUR-POSITION TOOL CHANGER CUTS CYCLE TIMES, STREAMLINES PRODUCTION

With today's global competition and the need for lean operations, a company's success lies in its ability to stay profitable by maximizing efficiency and minimizing waste. For Holmatro, a global supplier of high-pressure hydraulics, scrap costs and time spent on tool setup and changeover were impacting overall productivity and profitability.

Located in Glen Burnie, Maryland, Holmatro started out as a supplier of high-pressure hydraulic equipment for the shipbuilding industry in 1967. Since then, the company's expertise in the field of high-pressure hydraulics has expanded into other industries. Today, the company is one of the world's largest manufacturers of hydraulic industrial, rescue, and marine equipment.

The rescue industry constantly faces new challenges, and Holmatro has a long history of product development and innovation. Used by emergency rescue personnel to assist in the rescue of victims from vehicles and other small spaces, hydraulic rescue tools are designed to quickly cut, spread, squeeze, and pull metal or other materials that have victims trapped or pinned.

Rescue equipment leaves no room for error when it comes to performance, especially when lives are at stake. Holmatro relies on accurate, consistent manufacturing equipment to produce superior, dependable products. To support the industry's every-changing needs, Holmatro constantly evaluates and modifies its manufacturing process.

"When it was time to upgrade, we were looking for a system that would minimize our scrap costs and reduce cycle time," recalls John Freeburger, Holmatro vice president of manufacturing. Complex designs of some parts could require 60 or more tools during production. Multiple tool changes were contributing to longer cycle times.

To reduce cycle times, Holmatro decided to purchase a flexible manufacturing system (FMS) from Toyoda Machinery USA. The FMS combines a FH450S horizontal machining center with 18 buffer stations and a rail-guided vehicle. The machine's 500-tool storage matrix magazine features a four-position revolving tool changer that keeps the next tool ready and waiting for the machine's rotating arm to swap it into process.

This four-position changer eliminated any delay associated with tool changeover, even when a series of short cycle time tools is being processed sequentially. Overall, the tool capacity and speed of the matrix magazine delivered more than a 25 percent reduction in cycle time for Holmatro.

Additionally, the installation simplified operations while the machine delivered higher speeds and feeds than Holmatro's older equipment. This upgrade in technology led to other improvements, including increased throughput and reduced scrap costs.

"The new system allowed us to streamline production by cutting out the excess," Freeburger adds. *"We experienced a 35 percent increase in throughput and a 10 percent reduction in scrap."* Since scrap rate directly impacts a company's bottom line, the scrap reduction resulted in more profitable runs and higher total output for Holmatro.

"Even though the system was a significant investment, the reductions in cycle time and scrap rate completely justified the purchase," says Freeburger. *"The bottom line is, it's important to keep your equipment current."*