

Ranger Streamlines Boat Building with New Tool

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Ranger Boats anticipates the JetTool to result in a cleaner work environment and improved cost savings. Ranger Boats, Flippin, AR, has improved its boat manufacturing process with the use of a JetTool. The high-pressure robotic water jet is designed to make precise uniform cuts for openings of deck hatches, storage compartments and deck hardware.



Built by KMT Robotic Solutions, the high-pressure, robotic water jet projects water through a near-microscopic nozzle at 60,000 psi, and according to the company, the process is faster, cleaner and less expensive than man-made cuts.



Prior to performing the cuts, the JetTool initiates a calibration process using lasers to measure the precise placement of the cutouts. The unit is able to work on all current Ranger models, being capable of cutting a boat up to 25 feet.

"It's a computer and it's a mechanic," said Jim Lacey, Ranger Boats' independent sales representative for Canada. "When you program the JetTool, it can do the same thing day in and day out, all day long. It's always going to be precise. It can run through the cutting process quicker than what a human can do. The JetTool can work above a top deck, making cuts from section to section, saving the time it would take for a person to walk around the boat to work."

One example of the JetTool's efficiency is the cutting of Ranger's Z520 Comanche. Previously, it took four operators approximately 30 minutes to perform the same task the JetTool can do in 16 minutes.

According to Randy Hopper, president of Ranger Boats, the interior deck compartments were previously made using a variety of jigs, routers, saws and drills. "It was a difficult job that generated a lot of fibreglass dust," said Hopper. "With the new robotic water jet, everyone benefits. Employees get a cleaner work environment and the cost savings from improved efficiency help offset the rising cost of raw materials and the initial equipment investment."

"There will be substantial annual savings each year in perishable tooling," said Lance Newton, Ranger Boats' engineering project manager. "As our process becomes leaner, it results in decreased manufacturing costs for Ranger, which can ultimately result in a more stable cost to our dealers and customers."

According to Ranger, the JetTool saves the company approximately US \$100,000 per year in perishable tooling costs and the initial investment will be returned in less than three years.