

Leading Edge Safety Technology for the Foundry



Ford Meter Box is implementing a groundbreaking safety innovation in its foundry. Working closely with KANDO Innovation, Ford supervisors requested a new saw design that functions by way of vision-activated technology. The new Guardian Abrasive Saw was engineered specifically to meet the demands of our casting operations. The result is a successful working prototype now in daily use.

This design goes beyond standard safety saws. Traditional systems detect contact only after a fingertip touches the blade. The saw is stopped within milliseconds but often destroys the blade in the process and requires the saw to be repaired.

The approach behind this Guardian saw is different. Equipped with cameras and smart software, the system detects when a hand approaches a danger zone and stops the blade instantly before contact is made. In situations where the operator's hand is hidden from view, such as inside a casting, there is a second layer of safety. Embedded conductive fibers in the operator's gloves send an electrical signal allowing the system to recognize unsafe positioning and stop the blade with the same level of speed and precision. There is no damage to the saw, no cartridge to replace, and no interruption to production.

Installed on June 7, the saw is now in daily use in the Ford foundry. It cuts runners, gates, and other excess material from cooled castings as part of the finishing process. The team continues to expand its use by testing on a wider variety of castings and adjusting procedures as needed. Operators say the interface is intuitive and provides clear feedback for any errors. That real-time insight helps reinforce safe technique and improve performance with every use.

By combining high-level craftsmanship with advanced safety technology, Ford Meter Box is helping define the future of foundry work, one smart cut at a time.

