

# Circular LOGIC

## Auto supplier finds new aluminum cutting system more than capable

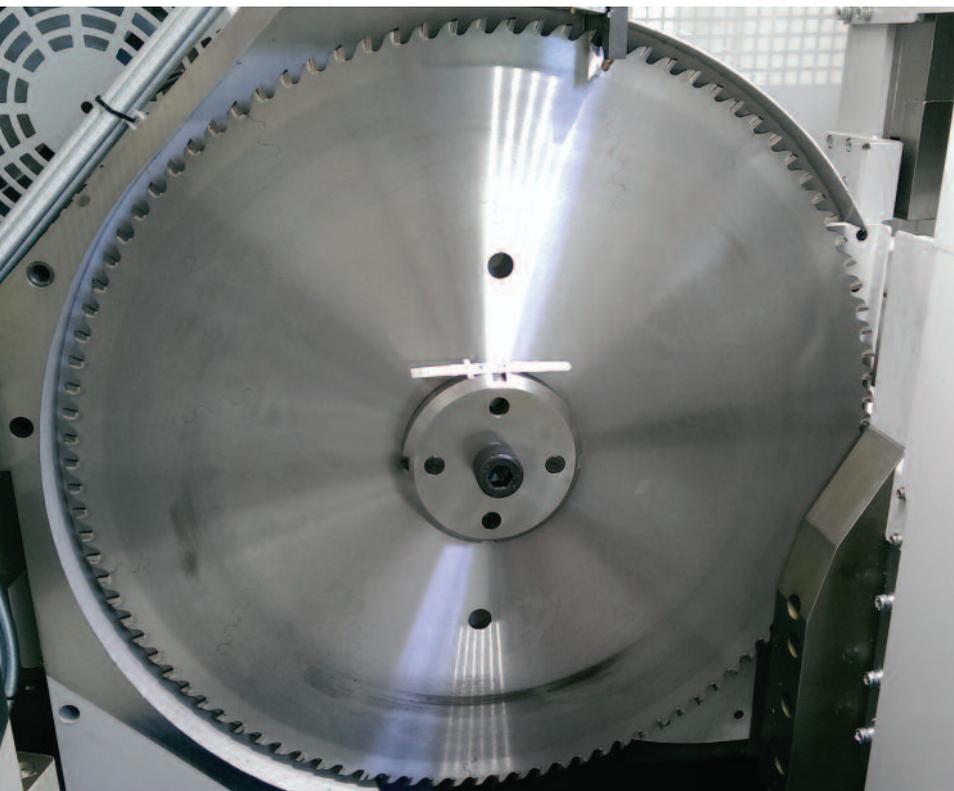
**W**hen Williams-Bayer Industries Inc.—an automotive supplier that produces CNC bent tubing, catalytic converter shells, metal

stampings, component assemblies, suspension bushings, and stamped, staked and welded assemblies—won a contract to supply aluminum extrusions for a high-volume Ford Motor Co. program,

executives realized they could use specialized sawing equipment to fulfill Ford's requirements.

Wilbert Williams, who earned a degree in mechanical engineering from the University of Michigan and supervised DaimlerChrysler Corp.'s steering and suspension group for 16 years, founded Williams-Bayer Industries as a tier II automotive components producer and distributor in January 2001. Over the past 15 years, Williams-Bayer has taken on contracts to manufacture and assemble parts for Ford Motor Co., General Motors Co., Fiat-Chrysler, Toyota Motor Manufacturing Corp., Honda Motor Co. Ltd, and Nissan Motor Co. Ltd.—all from a compact 40,000-square-foot facility in Westland, Michigan. Since its establishment, staff has grown from 50 to about 85 employees.

Before Williams-Bayer began work on its latest Ford contract, Williams and a few of his colleagues conducted extensive due diligence to determine what aluminum sawing equipment would perform best for this automaker's particular applications. The extrusions being processed are for a heavy-duty Ford truck



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# Sawing/Cutting

engine mount application.

“We investigated several aluminum cutting systems. It was an exhaustive, yet extremely important, search,” says Williams who, with his team, checked out Edinburgh, Indiana-based Tsune America LLC, a sales affiliate of Toyama, Japan-based Tsune Seiki Co. Ltd. Maker of high-production cold saws that cut through a wide range of material grades, sizes and shapes, Tsune America also offers blade regrinding machines, blade tools, lubrication systems and oils designed for sawing systems.

Tsune sales engineer John Lamb provided Williams-Bayer with a detailed overview of a menu of sawing machinery. Lamb then listened to Williams’ team and ultimately concluded that Tsune’s model TK5M-260GL circular saw with an automatic loading system was the ideal piece of equipment for the high-volume Ford truck part program.

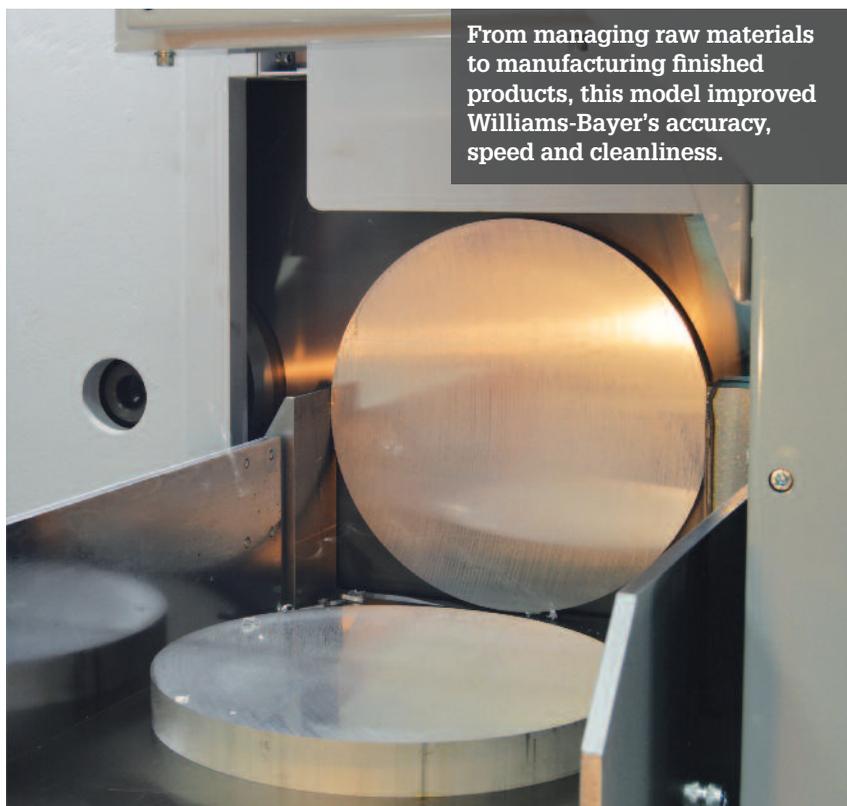
## Faster, cleaner

“Williams-Bayer needed a system that can efficiently and precisely cut large aluminum extrusions for the automotive industry,” recounts Lamb. “No piece of equipment is more suited to complete that task than our TK5M-260GL circular saw with an automatic loading system. It has a 10.25-inch capacity precision circular saw for nonferrous materials like aluminum, brass, etc. This machine was exactly what Williams-Bayer needed.”

From managing raw materials to manufacturing finished products, this model improved Williams-Bayer’s accuracy, speed and cleanliness. The TK5M-260GL circular saw “is more accurate, faster and cleaner than band saws. It also

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**John Lamb,**  
Tsune America LLC



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leaves fewer burrs on edges,” says Lamb. “The automatic material handling feature also means less operator involvement in cutting processes and it allows an operator to make cut length adjustments on the fly, while the saw is running, from the control panel.”

Tsune’s saw also eliminated unnecessary downtime and enhanced Williams-Bayer’s manufacturing output and efficiency while lowering the company’s cost per cut.

## Blade life

“This saw is designed for automatic, unattended operation,” Lamb continues. “It’s manufactured with carbide-tipped blades that increases [blade] life and reduces downtime because blade changes are less frequent.” The programming software that comes with the saw “can save up to 100 jobs, thanks to its quick recall and how easy it is to set up.”

Features of the TK5M-260GL helps production sawing in several ways. “The saw’s micro mist blade lubrication system allows parts to exit the machine virtually dry and free of chips,” says Lamb. In addition, the quality of precise cuts that can be achieved eliminates some secondary machining and reduces deburring time.

“This also helps create a cleaner, more operator-friendly shop environment and eliminates many issues generally associated with saw coolant. Some customers report they have improved or even eliminated their secondary machining operation due to the accuracy of the cut from their Tsune saw,” he notes.

Tsune America fabricated and integrated a custom automatic chain feature for the loading magazine. This feature enables the saw to precisely cut through a diverse array of aluminum extrusions for Williams-Bayer’s high-volume Ford parts.

This saw, says Williams, “has provided excellent performance relative to cycle times and great repeatability relative to cut quality and length tolerance. We investigated several aluminum saw cutting systems. We believe we made the correct choice when we purchased the Tsune system.”

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**Tsune America LLC**, Edinburgh, Indiana, 812/378-6688, [www.tsuneamerica.com](http://www.tsuneamerica.com).

**Williams-Bayer Industries, Inc.**, Westland, Michigan, 734/405-2370, [www.williamsbayer.com](http://www.williamsbayer.com).