

# Case Study: GT Metal Products

**Software:** JETCAM Expert Premium  
High Performance Nesting

**Machines:** Mazak Laser

**Installed:** 2009



## At a glance:

- ▶ System paid for itself within 2 months
- ▶ Programming time reduced by 50% through automation
- ▶ Nesting time improved by 90%
- ▶ Machine cycle time improved by 20%
- ▶ Material utilisation improved by 25% due to high performance nesting
- ▶ Was able to learn the system very quickly due to user-friendly interface
- ▶ Remnant sheet management adds further material efficiencies
- ▶ Excellent local dealer support, with lower support requirement
- ▶ Addition of floating license expands flexibility

**G**T Metal Products, based in Alberta, Canada, provides custom fabrication services using two Mazak STX510 MkII 2.5kW lasers. They had previously been running two CAM systems to drive the lasers, but experienced problems that made them consider alternative solutions.

Said Dustin Sim, Production Manager; *"Previously we could only specify one cut condition per thickness, which gave us quality issues. Also, we were looking to find a faster way to nest parts and reduce material waste. Based on our previous CAM experience and the ability for it to allow for multiple cut conditions per thickness we selected JETCAM. We also opted for JETCAM's High Performance Nesting module to maximize efficiency and material usage."*

Two licenses of JETCAM Expert were installed in May 2009, one with the High Performance Nesting module. This allowed for two programmers to design parts and for one machine to be used for generating highly optimised nests. Staff were provided initial training and were able to learn the system independently due to additional training material provided.

After installation a number of benefits immediately came to light. Programming time was halved, as processes took much less time than the previous systems due to many being automated. Once profiling information is applied to each part it is immediately available for each machine, with any updates reflected automatically on any nests. Nesting time itself saw a 90% reduction, as users simply queue up

all parts to be nested for a given material and thickness, specify an amount of time that the nester can run for (which can be overnight to allow the system to consider the most optimized nesting options) and generating NC code. Machine cycle time also saw a 20% improvement due to optimized lead-ins, common line cutting, path optimization and finishing cut sequences all playing a part. Finally, material utilization saw a 25% improvement not only because of the optimized nests from High Performance Nesting but also the ability to store and re-use remnant sheets efficiently. Dustin commented; *"One of the major benefits is that we can quickly queue up multiple jobs and nest them together for efficiency. Added up, these savings paid for the system within just two months."*

Support requirements had previously taken up more of their staff's time, with one of their previous systems taking considerably more than the other. Dustin cited; *"The support we've had from NestOne has been exemplary. The system is faster to use than all of the others and requires significantly less support than before."*

**GT Metal plans to purchase a CNC plasma machine in the future, with Dustin citing that JETCAM will be used to drive it. The company is also about to convert their two licenses to a server-based floating setup, allowing several PCs to have the software installed and for two to run concurrently. Dustin finalised; "JETCAM is faster and much more flexible than all of the previous systems we've used. It excels in material utilization and generating optimised NC code."**

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