

# Case Study:

## MPE, Inc



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

**Machine:** 2 x Amada 2510 Apelio III  
Amada 357 Pega Queen  
2 x Amada 357 Pega Vipros  
2 x Mitsubishi ML2512LXP Laser  
Mitsubishi 3015LVPlus Laser

### At a glance:

- ✘ Single system driving punching, laser, and combination machines across different brands in two locations
- ✘ JETCAM generated least 5% more efficient nests than 3 other system benchmarked
- ✘ Tooling is placed on the part, not during the nesting stage
- ✘ Up to 60% reduction in programming time
- ✘ 10-15% machine cycle time improvement
- ✘ Up to 20% reduction in material waste
- ✘ Can train new users within 2 hours due to the ease of JETCAM
- ✘ Return on investment in just over a month
- ✘ Excellent, fast support
- ✘ Additional software benefits received under maintenance through software updates

**M**PE, Inc, with manufacturing plants in Milwaukee, Wisconsin and Monterrey, Mexico are manufacturers of custom, high-value carts, consoles, tables, metal fabrication and assemblies for the medical industry. With a collection of Amada and Mitsubishi punch and laser machines split across both locations, MPE were using two CAM systems to drive them. One system, supplied by the machine vendor, was difficult to learn and use, with new operators having to go to the manufacturer for training. The other system ceased development in 1999, with technical enquiries often taking days to receive a response from the vendor. Neither system provided nesting capabilities, so MPE were creating static rectangular nests with very few parts.

In 2005 MPE decided to standardize on a single CAM system and embarked on researching the market. They compiled a series of 15 components which they provided to four vendors to provide benchmark nest comparisons, one of which was JETCAM.

Said Jason Grundel, Manager, Industrial Engineering; *"The closest competitor to JETCAM produced nests that were at least 5% less efficient. The other systems applied tooling on the nest, but JETCAM applies tooling to the component - we wanted to tool jobs in engineering so that we could send jobs out to the shopfloor with all tools assigned. We have several thousand special tools, so this was important. This also meant that if we changed a part then all nests containing that part would be dynamically updated. JETCAM was also by far the easiest to use."*

MPE purchased four licenses of JETCAM Expert from NestOne Solutions to drive the machines in both plants, along with JETCAM's Free Form High Performance nesting module. Training was provided to key staff, with other staff being trained

internally. Jason commented; *"We could train new staff in-house on the fundamentals in a couple of hours."*

What was immediately noticeable after installation was the time savings that JETCAM achieved. Jason commented; *"Complex parts that would take 30 minutes on the previous systems would be done in up to 60% less time to tool in JETCAM. Once the nests were run we were seeing between 10-15% improvements in machine runtime because of the optimized cutting path and tool/profile placement."*

As nests were now automatically created dynamically MPE saw a massive reduction in material waste; *"In 2006 the amount of material we scrapped dropped by 20% using JETCAM in comparison to the previous year."*

MPE subscribed to an annual maintenance contract, downloading updates directly from the JETCAM website and have seen developments across all elements of the software, from interface enhancements through to the ability to track the status of parts through the manufacturing process. Support has also been excellent Jason added; *"If we have a question we can generate a file that contains all the relevant parts and nests, and can send this to NestOne. We generally get a response within a couple of hours. We also appreciate the ability to go back to JETCAM to suggest new features."*

**MPE are planning to fully automate the NC programming generation process, starting with the lasers and moving onto the punch presses. Jason is confident that JETCAM will be able to provide this; "The system paid for itself in just over a month due to the material savings alone. We have already seen several benefits due to updates received under maintenance and I am really excited to see the developments that JETCAM are talking to us about for the future"**

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