

Case Study: CNC Metal Fabrication Inc

Software: JETCAM Expert Premium
High Performance Rectangular Nesting

Machines: Finn-Power A5-25 Punch Press
Danobat P1631 Punch Press
Mitsubishi ML3015 LV Plus Laser

Installed: 1992 with first machine



At a glance:

- ❖ Single CAM system to drive different brands and types of machines
- ❖ Scrap reduced by 80-90%, with nests often 20% more efficient than before
- ❖ No longer reusing CNC Programs - now nesting 'just-in-time'
- ❖ Programming time reduced by 30%
- ❖ Single geometry file stores both punch and profiling information
- ❖ Easily switch any part or nest to another machine
- ❖ Very easy to learn
- ❖ Features received under maintenance provide further benefits
- ❖ Payback (on original single system) within 2 years
- ❖ Excellent same day support from local distributor

CNC Metal Fabrication Inc, based in Toronto, Canada was founded in 1988 and manufactures electronic instrument cabinets. They acquired their first license of JETCAM Expert CAD/CAM software with a Finn-Power punch press in 1992, but also acquired other CAM systems with other machine purchases which, over time, needed consolidating.

Chandrakant Patel, Engineering Manager explained; "We've replaced the first Finn-Power twice since 1992, and with each new Finn-Power machine we've used JETCAM without problems. We had an old CAM system which was driving another punching machine, but this had no automatic tooling capability and was difficult to use. When we purchased our first Mitsubishi laser in 1999 another system was recommended which we were advised could drive it - we were told it was the best system for laser machines, but it too proved difficult to learn and did not seem to have the same level of functionality as JETCAM. Parts sometimes require both laser and punching operations, which needed programming on two separate systems."

By this time CNC Metal had used JETCAM Expert with High Performance Rectangular nesting to drive three Finn-Power punch presses along with a Danobat punch press, purchased in 2005. After replacing their Mitsubishi with a newer model they contacted US Distributor NestOne Solutions to see whether JETCAM could be upgraded to support it and were surprised to find that a postprocessor already existed. They decided to standardise on JETCAM and purchased postprocessors for their two licenses to drive the new laser.

Over time CNC Metal have compared JETCAM to

the two other systems that they have used, with Chandrakant citing several examples of savings made because of efficiencies the software has delivered; "The biggest saving has been in programming time. The old system had no form of auto-tooling, so the process of tooling up punched parts is 50-70% faster, with programming reduced overall by around 30%. Although most of our runs are short our sheet utilisation has improved considerably, often by up to 20%, which has reduced our scrap levels by up to 90%. As JETCAM stores the tooling information on the part, not the nest, we can store both punch and laser information and then generate a nest for any of the machines immediately. Previously we used to keep NC code of old nests but we don't need to do that anymore. Also, features received in new versions such as 'finishing cuts' have further reduced programming time and improved the quality and speed of getting to the finished part."

Support has also been excellent, with Chandrakant noting the speed of remote support; "We were having difficulty trying to program one particular part so we put in a call to support. Within an hour NestOne connected to our PC remotely and showed us what to do. A month later we got a follow up call to make sure that everything was still OK - that was really appreciated."

The company had originally purchased four licenses, but as they have taken advantage of JETCAM's automation have reduced this to two over time. Chandrakant estimates the return on investment on the original software purchase at less than two years.

Chandrakant concluded; "When we first bought JETCAM it was top of the line, and still is. We have consistently found it easy to learn and use. JETCAM is a long established product and as it supports so many different makes and models of machine we know that we are not locked to any one machine brand or technology."