

User: Lincoln Electric

Company Information

Founded:	1895
Turnover:	\$1.04 billion
Staff:	7000+ worldwide
Business:	World leader in arc welding, robotic welding, plasma & oxyfuel equipment
Machines:	Cincinatti & Bystronic Lasers Amada, Strippit & Finn-Power Turret Punch Presses

Purchase Benefits

- ✓ Standardized on one system for all punching and profiling machines
- ✓ Replaced an ageing UNIX-based system, which previously cost a great deal to maintain and update
- ✓ Code generation processes now more streamlined as opposed to fragmented through separate modules
- ✓ Programming time reduced by 20% netting a 240 man hour saving per year
- ✓ Operators trained on JETCAM in 2 days as opposed to 2 weeks for previous system
- ✓ Saving almost a week in production time per annum due to machine cycle time improvements
- ✓ Ongoing maintenance upgrades continue to increase ongoing savings and produce new benefits, such as automatic skeleton destruction, saving up to 30 minutes per job

User Comments

"The savings we've seen installing JETCAM have more than paid for the software. The increased efficiency gained using JETCAM will only further improve our throughput. This all adds up to increased profit, and increased savings here at Lincoln Electric."

Ken Zavasnik
Process Engineer
Manufacture Engineering

Requirements

Lincoln Electric, based in Cleveland, Ohio are the world leaders in the design, development and manufacture of arc welding products, robotic welding systems, plasma and oxyfuel cutting equipment. Their production facility houses several punching and profiling machines that, until the purchase of a Finn Power punch press relied on an ageing UNIX-based CAD/CAM system. It was difficult to learn, extremely customized and expensive to support. Commented Ken Zavasnik, Process Engineer, *"We bought a turret punch from FMS Machine Tools in Cleveland and was also offered JETCAM Expert. It was only after this was installed and working that we realized how cryptic our original system was - we had to go through so many modules to generate code. JETCAM met our needs straight out of the box, whereas the old system was virtually unique for each installation, making it difficult to learn, and expensive to upgrade and maintain."*

The JETCAM Solution

The programmers received two days training on JETCAM Expert, after which they were able to competently program the new turret punch press. After six months of use Lincoln Electric decided to standardize on JETCAM for their entire production facility, purchasing the relevant postprocessors for their machine tools.

Of the crossover Ken said, *"By this time we knew that selecting one system had to be the best way looking forward, and it was obvious that it would be JETCAM. The transition was seamless, but we were also surprised at the number of positive effects it had across production. There was much more flexibility than we were previously used to, which allowed us to program parts differently - on average saving us 20% programming time, which equates to around 240 hours a year."*

JETCAM's flexible approach to program also produced savings in machine cycle time. Ken stated; *"Our old system used to add a reposition move at the end of the cycle, which we could easily eliminate with JETCAM. The two turrets have a combined annual sheet usage of just over 30,000. The reposition adds 12 - 16 seconds to the cycle time, so by removing this we gained almost 5 days in the course of a year in reduced movements."*

As their previous system had been so costly to maintain, Lincoln Electric were initially cautious about the level of support the new system would require. Ken added; *"The support from both FMS and JETCAM has been fantastic. Any questions that have been presented are always answered promptly and thoroughly. We requested some changes to code output, which was turned around quickly and met our needs first time."*

A year on from selecting JETCAM as their programming system Lincoln Electric purchased a second seat. Although initially purchased to allow their prototyping facility to make quicker modifications to parts it also allowed them to split the programming load between two programmers.

When a company makes such a heavy investment in machinery it is important to ensure that they are getting the absolute maximum performance from their programming system. Since switching entirely to JETCAM Lincoln Electric has also benefited from regular software updates, which they are able to install themselves over the Internet. Commented Ken, *"We have seen several benefits and new features from new releases, a recent example being automatic skeletal destruction. This has proved very useful on the profiling machines, saving us up to 30 minutes per job. If we were to purchase another turret punch or laser in the future, whatever we get JETCAM will be driving it. The system has already paid for itself many times over."*

