Case Study

Advance Thermal Corp

Highlights

- ✓ System paid for itself in under six months
- ✓ The only system available suitable for small run manufacturing
- ✓ System installed by JETCAM reseller completely remotely
- ✓ Complete unmanned import, nesting and generation of NC code
- ✓ RCP eliminated a 20+ processes from CAD file to NC code, saving the programmer 20 minutes per job
- ✓ IT Manager saving an hour a day no longer resolving errors
- ✓ SCAP used to debug CAD files
- ✓ User integrated into existing SQL based MRP in a single day
- ✓ Nesting between 5-25% more efficient than previous software
- ✓ Excellent support from local dealer and software developer
- ✓ Excellent documentation

Advance Thermal Corp, based in Bensenville, Illinois, manufacture removable insulation blankets from a variety of materials. They purchased a Humantec (rebranded Zund) knife cutter in 2004. Almost every job that Advance Thermal produce is unique, which cause considerable problems for the CAM system provided with the machine.

Andrew Powell, IT Manager explained; *"The old system did have rudimentary batch processing capabilities, however the problems occurred when there were issues with the CAD files. If the system did pick up a problem it would not document it, so I had to manually check the files, which often took around an hour per day, with around 15-20 errors occurring per week. Errors also often went unreported and would be discovered far down the production line, after considerable labor had been done on the part and causing the part to be scrapped."*

In 2007 the company decided to replace this system for one that would be suited the automating the production of low or single run parts, but discounted almost all systems they looked at. Andrew said; *"Most systems are designed for large quantity OEM work, making the same part over and over. All of the other systems we looked at had overheads, creating a prohibitive amount of labor each time to create a new part. JETCAM had almost no setup time, and this could be completely automated with Remote Control Processing (RCP)."*

The decision was made to purchase JETCAM Expert along with JETCAM's free form high performance nesting (FFHPN) and Remote Control Processing (RCP) modules. RCP allows virtually all instructions that would normally be done by a programmer to be executed remotely. Advance Thermal were able to integrate JETCAM into their existing SQL-based MRP system in a single day. *"The RCP instructions were extremely well documented, and the robustness and reliability of the system is impressive."*

The system was installed remotely by JETCAM distributor NestOne Solutions. Online training was also provided, which ensured minimal impact on the day to day business.

JETCAM™ MANUFACTURING MADE EASY

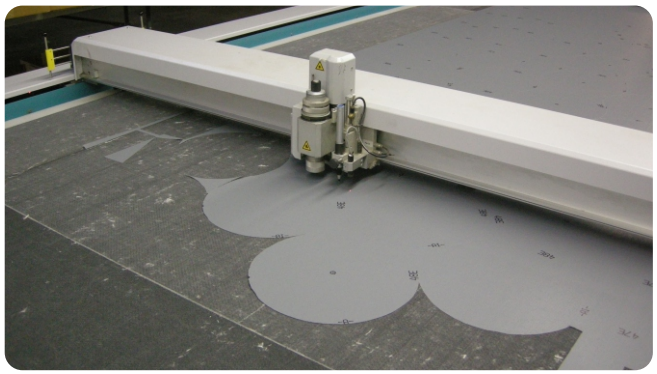
Software: JETCAM Expert
High Performance Nesting
Remote Control Processing

Machine: Humantec (Zund) MFC1800 Cutter

Installed: 2007

Web: www.advancethermal.com

After the system went live there was an immediate change of roles for the staff involved. The programmer's involvement drastically reduced, with RCP eliminating the 20+ processes required to take CAD files, automatically import and clean them, apply profiling, nest them and generate NC code. Any parts that could not be dynamically cleaned were automatically reported back to the operator for examination. Single Component Automatic processing (SCAP) was used after parts were modified to quickly 'trial and error' a CAD file to ensure integrity. Andrew's involvement to resolve problems was removed altogether.



Although the material that Advance Thermal are cutting is extremely low in cost (measured in cents per square foot rather than dollars) the savings mount up considerably over time. Their previous CAM system worked at around 70-80% efficiency, whereas Andrew cites JETCAM at delivering between 85%-95%

Advance Thermal have benefited from JETCAM's policy of continual upgrades available free for customers under maintenance and support from the local distributor. Andrew noted; *"Support has been outstanding - be it operational questions from the local dealer or feature modification requests from JETCAM."*

The company plans to add more cutting machines in the future, which will be driven by JETCAM. Andrew concluded; "For us the most valuable feature was the automation through RCP. Our manufacturing process is expanding and with that comes new challenges. JETCAM is the only product out there that could meet our needs and it allows us to reduce the cost on these additional purchases by delivering efficiencies across all machines."