

Case Study: Van Alphen Metaal



Software: JETCAM Expert
Free Form Automatic Nesting

Machine: OMAX 60120 Waterjet

Installed: 2008

Web: www.vanalphenmetaal.nl

At a glance:

- ✘ System paid for itself in just over 3 months
- ✘ Nesting efficiency improved by up to 30%
- ✘ Programmer saves 2 ½ hours per day
- ✘ Operator saves 2 hours per day
- ✘ 5 hours per week additional capacity on machine tool due to more complex nests being run
- ✘ 100% compatible NC code, and recommended by OMAX
- ✘ Virtually no support requirement since installation
- ✘ SCAP allows a directory of DXFs to be converted to geometry or nests in seconds
- ✘ System installed and user trained in 4 hours
- ✘ Remnant sheets could be reused easily
- ✘ Planned integration into existing ERP system

Van Alphen Metaal, based in Drunen, Holland, provides general metal product design and subcontract manufacturing services. Since the company's foundation in 2001 they have moved away from outsourcing manufacturing processes, gradually buying equipment to process them in house. In June 2008 they purchased an OMAX 60120 waterjet along with the manufacturer's entry level CAM system, but quickly found that the business the machine generated required a more automated approach.

Cor van Alphen, Managing Director commented; *"Our intention was to buy the machine and see how the business developed. After just two weeks it was clear that we were getting many orders for multiple parts, which required more efficient nesting. While the CAM system provided with the machine allowed us to quickly quote for and cut single components we needed to automatically process many parts. At that time we were manually nesting parts, which was taking about 5 hours of my time each day. We either had to hire another person or reduce the workload."*

Van Alphen decided to evaluate CAM systems that could provide automatic nesting, and that could also integrate with their existing *Plan De Campagne* ERP system. They investigated two CAM systems, one of which was JETCAM. *"We provided a series of parts to nest to both vendors. When we saw the results it was clear that JETCAM was more efficient, due to features such as common cutting. Also, we felt comfortable that JETCAM had an OEM agreement with OMAX directly."*

The decision was made and an order for JETCAM was placed to local JETCAM reseller Widenhorn in September 2008. Cor noted; *"We placed the order on a Tuesday, and because of workload commitments Widenhorn agreed to perform the install on the Saturday. The software was installed and we were trained that morning, and we were ready to start cutting metal on Monday morning."*

The following week the company saw an entirely different process develop. Previously parts that were taking 2-3 minutes to create were generated automatically using JETCAM's Single Component Automatic Processing facility, with complete directories of DXFs being processed without human intervention. Nests were created dynamically, with material efficiency improving by up to 30%. As the nests themselves were more complex and could deliver more parts machine utilisation increased, providing additional capacity of five hours per week.

Both the programmer and machine operator saw a drastic reduction on their workload. As all parts could be programmed and nested automatically, orders were simply being added to JETCAM's Order List and nests were generated at the touch of a button. Overall the programmer halved the amount of time he spent on CAM related tasks. The machine operator was spending less time handling materials, and had more time available between sheet changes due to the highly optimised nests, which saved him an additional two hours per day. Where sheets were partially used the remnant nests were stored in JETCAM and reused, with new parts being profiled from the remaining space.

Two months after installation Van Alphen have had no occasion to request support, which Cor puts down to JETCAM's ease of use; *"We haven't really needed to call on support, which really says it all. If you have general understanding of software then it is very easy to learn JETCAM."*

The company plans to integrate JETCAM into their existing ERP system, with orders appearing in JETCAM, ready for automatic nesting. Van Alphen has already seen a significant return on their investment, with the system that will have paid for itself in just over 3 months. Cor concluded; "We plan to expand our customer base by cutting different materials with the waterjet. JETCAM is excellent for batch production of parts and we can get much more through the machine. The best thing I get from JETCAM is my staff's time back."

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