

## Bobcat Selects ProNest to Optimize Trumpf Laser Cutting Operations

### Company Profile

GWINNER, NORTH DAKOTA, UNITED STATES—Located on the Northern Plains, Bobcat is a leading manufacturer of loaders, excavators, and other utility machinery offering a range of useful attachments. Since starting out as the Melroe Manufacturing Company in 1947, Bobcat has evolved in to a global brand, now owned by Doosan Infracore International company; a US-based subsidiary of Doosan Infracore, South Korea. Bobcat routinely produces between 30-50,000 units of its high quality industrial products annually at the Gwinner location.

### Trumpf Investment Demands Maximum Productivity

After taking delivery of three new Trumpf 3030 laser systems, Bobcat initially began programming the machines using their existing CAM nesting software with an add-on post processor. However, Bobcat experienced limitations driving the new Trumpf machines to their full potential and was not satisfied with the available technical support to help resolve these problems. A decision was made to evaluate other nesting software solutions; specifically those that included a higher level of machine technology specific to Trumpf laser applications. An independent laser service technician recommended that they contact MTC Software to learn more about ProNest; the advanced nesting software offering full-featured Trumpf laser support.

After seeing a brief presentation of ProNest, a full working trial was provided to Bobcat. Within ninety minutes, basic software training and installation was completed and Bobcat was up and running with ProNest, allowing programming of the Trumpf lasers to fully utilize all machine functionality. Commenting on the installation, Derek Claeys, Manufacturing Engineer of Steel Services for Bobcat says, "The ProNest install was very fast and easy. The intuitive design of the interface made the program very easy to learn and use. We were creating nests and generating NC code to run the machine immediately. Interestingly, MTC Software was the eleventh software company we had reviewed over the years and this was the first time we were ever offered a full working trial. It was very useful to us and gave us an immediate sense of confidence in the company and the product."

### ProNest Delivers Automated Trumpf Process Knowledge

When investing in ProNest, as part of their internal lean manufacturing effort, Bobcat selected a network installation allowing two concurrent users to access licenses from any network client workstation. Seven



Photos courtesy of Doosan Infracore International.

### Did You Know . . .

MTC Software can provide one nesting program that will work with most cutting machines and CNC controls; new and old alike.

### Interesting Facts . . .

- ▶ Our employees understand the cutting processes you work with
- ▶ Our auto-nesting saves time and material, typically outperforming attempts to manually nest the same job
- ▶ Our ProNest software works seamlessly with all leading brands of laser, including Trumpf, Bystronic, Cincinnati, Tanaka, LVD, Mitsubishi, and others
- ▶ Our products are so easy to learn that we can install the software and train a new customer online, the same day

*Bobcat continued*

Bobcat continued

programmers within the company now regularly use ProNest to develop nests, which in turn allow the Trumpf lasers to process more than 10,000 tons of steel each month; typically in the 12 gauge (2.5mm) to half inch (12mm) thickness range. In addition to ProNest leveraging the full range of machine functionality, the program has delivered many other valuable benefits:

**Reduced Machine Wear**—Sprintlas is a critical Trumpf function Bobcat was seeking to utilize through their nesting software. This machine function allows the laser resonator to keep the beam on for an entire nest, which has several key benefits versus switching on and off between every pierce. Specifically, machine motion is optimized where the Z axis motion and rapid traverse are used in conjunction with one another, pierce time is faster due to the shutter remaining open during a rapid move, and equipment deterioration is drastically reduced due to less wear on the shutter and on the contactors that are used to switch the beam on and off (the contactors are now only activated once



per nest instead of once for every pierce). The reduced machine wear and cycle time is extremely beneficial for Bobcat and offers significant contributions to the bottom line.


**Cost Savings**—Use of several of ProNest’s productivity modules, such as Advanced Common Line Cutting, Collision Avoidance, and Skeleton Cut Up have delivered substantial cost savings to Bobcat. The Advanced Common Line Cutting feature has reduced cut time and improved material utilization by allowing the software to Common Line Cut parts automatically during the nesting process. Collision Avoidance has reduced cycle time by eliminating unnecessary head raises and reducing head crash situations. Skeleton Cut Up is used on all nests to make scrap removal safe and easy. Derek Claeys states, “Since implementing ProNest we have used the Advanced Common Line Cutting feature combined with part tabbing on about ten percent of our jobs, where part geometry allows for it. Collision Avoidance runs automatically on all nests, and Skeleton Cut Up is also used on every sheet that is processed. ProNest has already paid for itself and then some.”

**Improved Part Quality**—ProNest’s **advanced lead-in technology** has improved part quality and helped eliminate issues with lead in interference. Leads always fit properly within the interior profile being cut and between parts being cut on the same nest. ProNest uses an advanced lead in parameter table for both interior and exterior contours that allows lead ins to give parts a smooth transition into the CAD geometry.

## Productivity Partnership

To ensure ongoing productivity from ProNest and their Trumpf laser systems, Bobcat utilizes MTC’s support group as an extension of their own programming team. Experienced in laser, and other cutting processes, MTC’s support team is a valuable resource.

Eric Deyle, Lead Programmer, commented, “We love the online support. When we have a question we make a call, then get connected online and within minutes, typically, we have the answer. It’s great! Not only do we get answers, MTC’s support team always takes the time to help us understand the details surrounding our questions. In fact, the folks at MTC actually are pleased to hear our questions and suggestions because they use those to guide future product development. Honestly, this is the first time I have experienced this from a vendor and we actually get to see the direct benefits”.

Software support from MTC is provided via a cost effective annual subscription program allowing customers to always access the support they need via phone, email, online meeting, or MTC’s website support area. 

# TECHNICAL BRIEF

## For More Information

Learn about MTC Software programming solutions that can help your company improve productivity and part quality, plus increase profitability.

Visit our website at [www.mtc-software.com](http://www.mtc-software.com) or call your local office.



### Americas

**United States**  
**Worldwide Headquarters**  
+1 (716) 434-3755  
[mtc@mtc-software.com](mailto:mtc@mtc-software.com)

**Canada**  
[mtcCA@mtc-software.com](mailto:mtcCA@mtc-software.com)

**Latin America**  
[mtcLA@mtc-software.com](mailto:mtcLA@mtc-software.com)

### Europe, Middle East, Africa


**United Kingdom**  
[mtcUK@mtc-software.com](mailto:mtcUK@mtc-software.com)

### Asia Pacific

**Australia**  
[mtcAU@mtc-software.com](mailto:mtcAU@mtc-software.com)

**China**  
[mtcCN@mtc-software.com](mailto:mtcCN@mtc-software.com)

**Singapore**  
[mtcSG@mtc-software.com](mailto:mtcSG@mtc-software.com)

 MTC Software, Power Made Simple, and ProNest are registered trademarks of MTC Software, Inc. in the United States and/or other countries.

©2008 MTC Software, Inc. TB/BC-08v1