

Industrias John Deere S.A. de C.V. increases productivity and reduces costs of sheet and plate processing with ProNest

Company Profile

MONTERREY, NUEVO LEON; MEXICO

Industrias John Deere Mexico S.A. is a subsidiary of Deere & Company, worldwide business leader in the manufacturing and marketing of agricultural equipment. Through this subsidiary, John Deere has assembled, produced and marketed a wide variety of agricultural machinery in Mexico starting in 1955. Since then, John Deere has been an industry leader not only in terms of the quality of its products and services, but also for blending international production and design technology in order to meet the needs and requests of local producers. Currently, Industrias John Deere operates three plants, two in Monterrey and one in Saltillo, serving more than 140 distributors in Mexico and Central America. The John Deere philosophy is based on four core values: Quality, Commitment, Integrity and Innovation.

For more information, visit: www.johndeere.com.mx



Photos courtesy of John Deere

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 plasma cutting machines, including MG, ESAB, Koike, and many others
- ▶ Our products are so easy to learn that we can install the software and train a new customer online, the same day



Initiative for improving the plate and sheet cutting process

Industrias John Deere S.A. de C.V. has more than 30 pieces of cutting equipment for sheet and plate processing, and uses various types of CNC technology, such as laser cutting, fine plasma, conventional plasma, Oxyfuel and punching. All the cut material is carbon steel, ranging from 1mm [0.040 in] to 57.15 mm [2.250 in] in thickness.

As part of the continuous improvement process aiming to maximize profitability, IJD adopted an initiative for improving its plate and sheet cutting process.

One of the goals of this initiative was to find nesting software that would allow for better use of materials, easy to use and with the ability to support the different types of processes and machinery used by IJD.

MTC Software's ProNest beats the competition

After extensive testing of numerous cutting optimization software programs, Industrias John Deere chose MTC Software's ProNest because it was the all-in-one solution that the company had been looking for. ProNest allowed IJD to achieve standardization of the CNC programming process. ProNest's intuitive interface, which includes the Spanish language, allows users to easily learn the program fully, thus achieving more than a 50% reduction in programming time.

Another result of ProNest's implementation has been a decrease in the use of materials, an indicator that has improved by more than 20% since the program was first used by IJD more than 12 years ago.

Mr. Ignacio Mondragon, member of the Quality and Strategic Manufacturing Department and responsible for introducing ProNest to IJD, said: "The investment originally made to acquire the ProNest software was recovered in less than six months as a result of the savings obtained through better use of materials. Users of this tool are especially pleased by how easy it is to learn and use ProNest. In addition, the staff at MTC Software has always been very receptive to our needs; we have received excellent support and many of the suggestions that we have made for improving the software's functionality have been reflected in subsequent versions." ❖

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 or call your local office.



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ProNest[®] Advantage

ProNest is used to support numerous CNC cutting processes. Using ProNest as a single programming solution means you do not have to sacrifice any software features to achieve the best productivity and quality. In fact, we often hear from our customers that ProNest is not only easier to learn and use than OEM-developed programming software, but that it also offers a richer, more comprehensive feature-set. Here are just a few examples of the benefits you can achieve when using ProNest with some commonly used cutting processes:

LASER

- Use **Subrouting** of parts/profiles to both make the CNC code easier to read and to reduce the overall file size
- Use **Corner Radius** technology to identify corners on an imported part drawing and automatically replace them with small arcs; helping to optimize the NC code so that during cutting, the machine can maintain higher speeds on corners while achieving better part quality through improved part geometry

PLASMA

- Use variable **Feedrate and Kerf Parameters** plus torch **Under/Over Travel** to reduce hole taper and lead-out inconsistencies

- Use **Auto Height Control Lockout** to prevent the torch from diving and crashing when the "slug" falls out from the interior cut

WATERJET

- Use the **Quality** designation as a means to assign different feedrates to the entities of a part and control the resulting edge quality
- Use **Dynamic Piercing** to maximize piercing efficiency by rapidly moving the nozzle in a cyclical motion during piercing so that jet "rebound" does not get in the way of the incoming water stream

OXYFUEL

- Use **Heat Dissipation Cut Sequencing** to reduce plate warpage during cutting by automatically sequencing parts in different zones of the plate
- Use **Advanced Edge-Piercing** features and one of the available **Lock Lead-In** formats to reduce cycle times and improve part geometry

COMBINATION MACHINES

- Use **Repositioning** functionality to process plates that are larger than the maximum X-axis work area, using a single pass
- Use **Plate Load/Unload** support to control automatic material handling and maximize productivity