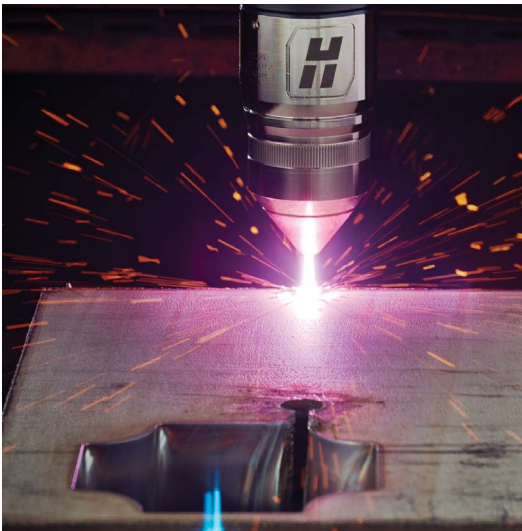# Plasma process support

Introduction

Users of ProNest advanced nesting software gain an advantage when able to program for more than one cutting process. Using a single software solution to program for plasma, laser, waterjet, and oxyfuel machines can result in:

- Reduced cost of software ownership (upgrade charges, maintenance fees, etc).
- Reduced employee (programmer) training requirements.
- Reduced business risk by making it easy for any employee to program any cutting machine using a single software product.
- Increased flexibility allowing NC output for alternate cutting processes during a machine failure.

ProNest assists companies that cut parts by providing the above benefits and delivering programming capability for virtually all plasma, laser, waterjet, oxyfuel and punch combination machines, regardless of machine brand or model.

ProNest plasma process support overview

In order to develop and maintain the highest level of ProNest plasma performance Hypertherm® performs ongoing cutting tests at its research and development facilities and also works directly with plasma machine manufacturers and their end users. Below is an overview of the plasma-specific capabilities you'll find in ProNest. Note that some machine manufacturers have their own naming convention for a number of the capabilities listed below. Please contact us with any questions you have concerning machine support not listed.

- Advanced costing for Hypertherm plasma systems
- Chain cutting
- Collision avoidance – including full and partial head raise control
- Bevel support
- Hypertherm performance application support
  - True Bevel™ technology
  - True Hole® technology
  - Rapid Part™ technology
  - PlateSaver™ technology
- Multi-head support with fixed and variable spacing
- Part Program Support – NC code integration of advanced commands for automatic job loading on the CNC
  - Amperage
  - Arc voltage
  - Cut height
  - Gas type and pressure
  - Pierce height
  - Pierce time
  - Transfer height
- Plate cropping
- Process parameters
  - Automatic and interactive separations for part, plate, and pierce spacing
  - Material type, thickness, grade and class-based process parameters including advanced kerf and feedrate commands, corner loops, corner radiusing, piercing, etc
  - Material type and thickness-based lead parameters including various lead styles, angles, extensions and over-travels
  - User defined variables – numerous parameter configurations

- Repositioning machine support for punch combination machines
- Skeleton cut-up
- Support for plate processing machines, including spindle processes
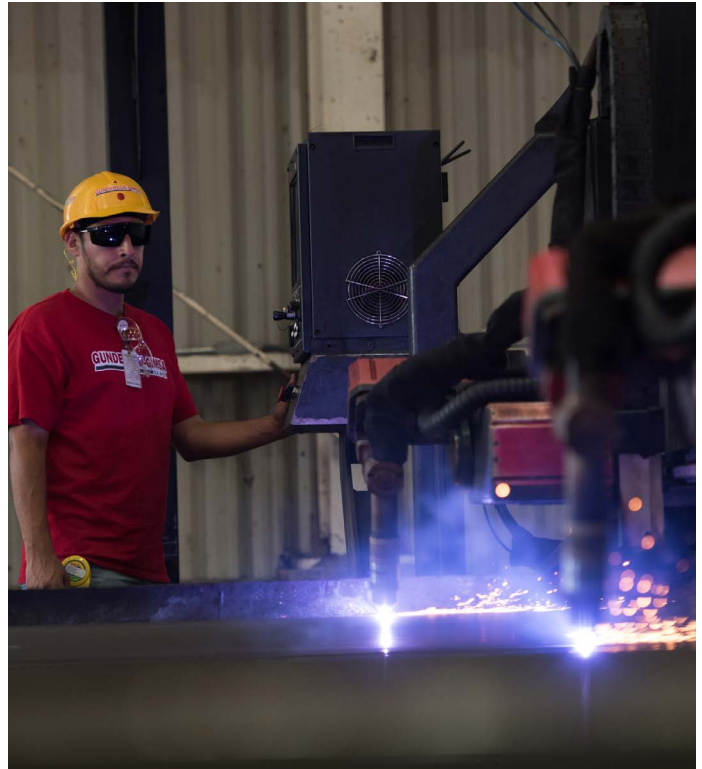
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