Hypertherm®

Laser

ProNest® 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 laser process support overview

ProNest offers complete support for both CO_2 and fiber laser cutting processes, including Hypertherm's HyIntensity™ Fiber Laser technology.

In order to develop and maintain the highest level of ProNest laser performance Hypertherm performs ongoing cutting tests at its research and development facilities and also works directly with laser machine manufacturers and their end users. Below is an overview of the laser-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 HyIntensity Fiber Laser systems
- Collision avoidance – including full and partial head raise control
- Common line cutting (with array)
- Fiber laser and plasma combo – numerous parameter configurations
- Grain constraint
- Height sensing cutting – capacitive/freeze
- Interior cut-up
- Part Program Support – NC code integration of advanced commands for automatic job loading on the CNC
  - Wattage
  - Gas type and pressure
  - Pierce height
  - Pierce time
  - Cut height
- Process parameters
  - Automatic and interactive separations for part, plate, and pierce spacing
  - Material type, thickness, grade and class-based process parameters such as:
- Advanced kerf commands
- Corner radiusing
- Cut mode – cw/etching/pulse/vaporizing
- Cutting assist gas – type, pressure and cut flow
- Feed rates – machine/material dependent interior and exterior techniques
- Focal length

ProNest laser process support overview, continued

- Micro-joints
- Piercing (no pierce/pre-pierce/pulse/rapid/“double pump” etc.)
- Power setting control – step (fast, medium, slow)/dynamic power
- Ramping – lead-in with/out power, end cut/initial geometry/ intersection corner
- Rapid move commands – numerous parameter configurations
- User defined variables – customization tech tables/override on the fly/direct commands
  - Material type and thickness-based lead parameters including various lead styles, angles, extensions and over-travels
- Safety cuts
- Skeleton cut-up
- Repositioning machine support for punch combination machines

One of Hypertherm’s long-standing core values is a focus on minimizing our impact on the environment. Doing so is critical to our, and our customers’ success. We are always striving to become better environmental stewards; it is a process we care deeply about.

Greener Cuts™

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Hypertherm®

Cut with confidence®