

Collision Avoidance

ProNest® optional module

Benefits:

- Better productivity
- Maximized machine up-time
- Reduced potential for cutting head damage

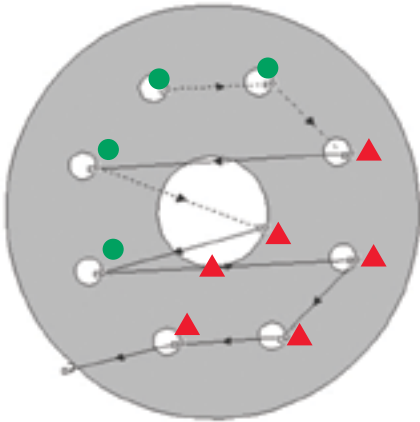
Many machine operators are careful to keep away from tipped-up parts and other obstacles that might collide with the cutting head. Unfortunately, this can mean having the operator watch carefully over the whole process, or cutting the entire nest with full head raises. These steps might prevent collisions but take a long time to complete due to all the up/down motions.

With Collision Avoidance enabled, ProNest automatically adjusts leads, traverse paths, and the cut sequence to avoid possible head crashes right from the start. This allows for safe head-down motion and faster job completion.

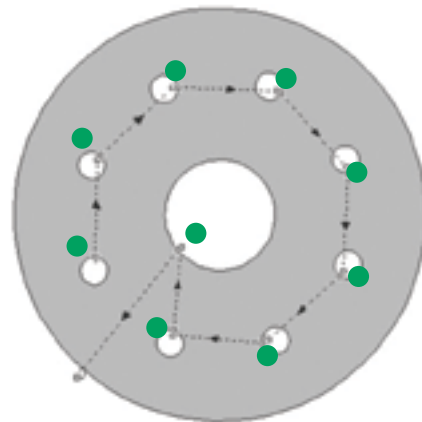
This is achieved in several ways:

1. Leads are repositioned so that the head is always moving away from the previously cut profile. This means the head is no longer in danger of colliding with previously cut parts or cut-outs that have tipped up. Also, exterior leads are positioned closer to the next part in order to minimize traverse time.
2. The internal cut sequence within a part is optimized to best support collision avoidance and minimal traverse time.
3. Rapid traverse paths between cuts are routed around potential tip-ups, further reducing the chance of crashes.

Before Collision Avoidance



After Collision Avoidance



▲	Possible head crash
●	Clear path

Collision Avoidance and Rapid Part™ technology:

ProNest is designed to operate seamlessly with all major cutting machines on the market today. Yet, by combining ProNest with select Hypertherm hardware, many of our customers are achieving better results than ever before. Introducing Hypertherm's Rapid Part technology, a revolutionary application for plasma that further reduces cut-to-cut cycle time, and can achieve up to a 100% increase in the number of parts produced per hour.

ProNest's Collision Avoidance module is a key component of Rapid Part technology, helping to optimize motion. In addition, the Hypertherm torch height control delivers advanced capabilities like rapid torch retract, intelligent initial height sensing, and simultaneous gas pre-flow.

Rapid Part is delivered via Hypertherm's SureCut™ technology.



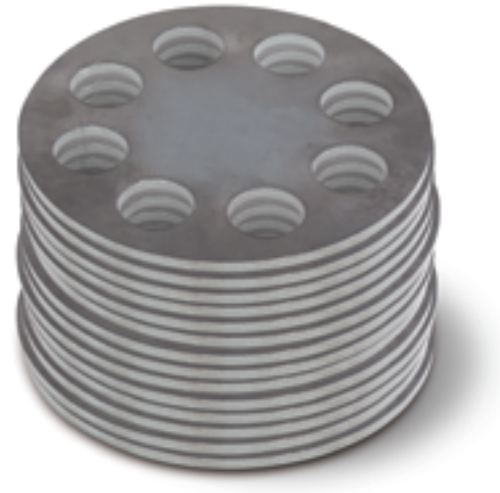
Here is what people are saying about Collision Avoidance:

“ProNest's Collision Avoidance feature has been huge for us, especially for use on some of the older lasers where raising and lowering heads is slower. We can now traverse with the cutting head down vs. a full retract between every pierce and that has translated to a savings of just over an hour of production time per day, per laser, which is awesome!

Collision Avoidance has, on average, eliminated ninety five percent of the head raises we had been doing in an effort to run our machines without crashing the cutting head. We now see significantly reduced wear and tear on the laser machines; which reduces our costs.

For quality reasons, customers have asked us to get away from using tabs. Now, with Collision Avoidance, we don't need tabs to prevent tip up scenarios during the cutting process.”

- Olympic Steel



Visit our website www.hypertherm.com/CAM to request a free production trial.

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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.



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