FlashCut CNC Newsletter - December 2023

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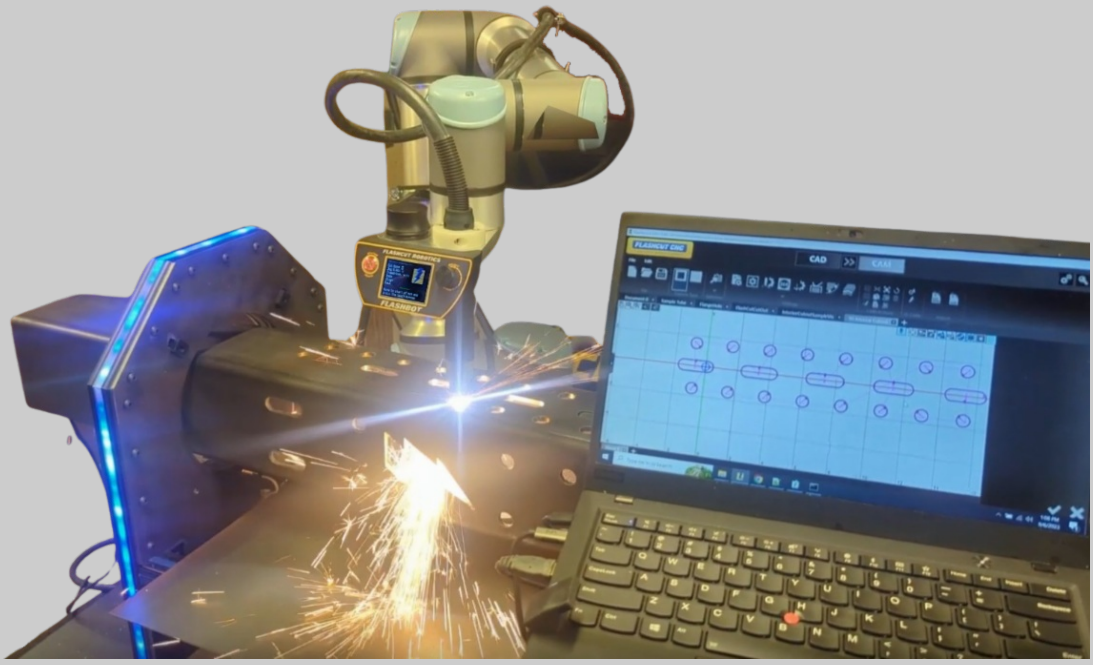
Introducing FlashBot



Experience the future of manufacturing with FlashCut CNC's revolutionary plasma cutting cobot solution

Our latest innovation, FlashBot, **seamlessly integrates our world-renowned CAD/CAM/CNC technology with collaborative robotics**, marking the advent of a new era in cutting automation on the shop floor. These workstations empower manufacturers to automate traditionally manual tasks that were previously unattainable on a standard plasma cutting table, **optimizing workflows and significantly boosting overall productivity**.

The **user-friendly interface and compatibility with major cobot and plasma machines**make the FlashBot suitable for a wide array of applications, including Beam, Tube, Pipe, Dome, and Flat Sheet

Cutting.

Additionally, our solution can **easily be retrofitted onto existing cobots**. Stay ahead in the rapidly evolving world of automated manufacturing by exploring how FlashCut CNC is reshaping possibilities with this cutting-edge solution.

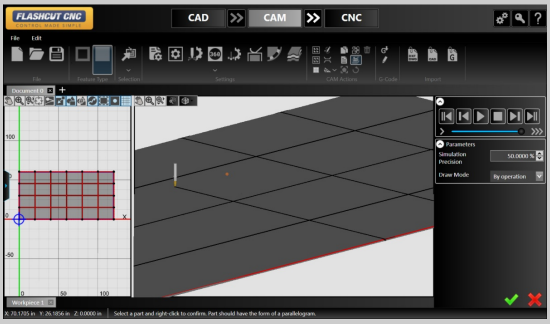
Our target availability for the first release is set for **April 2024.**

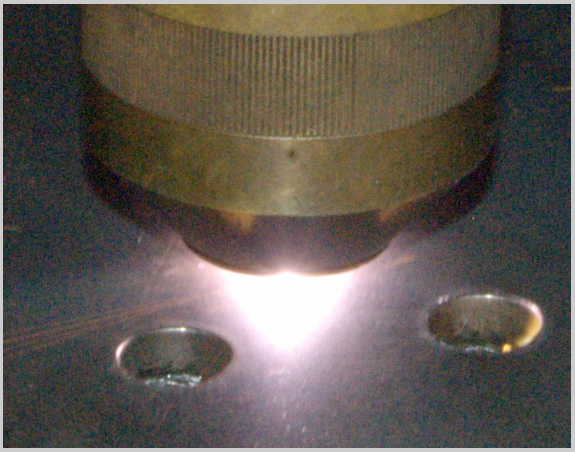
Visit our website, call us at 847-940-9305 or e-mail us at sales@flashcutcnc.com to delve deeper into this transformative technology and discover how it can elevate your machining capabilities.

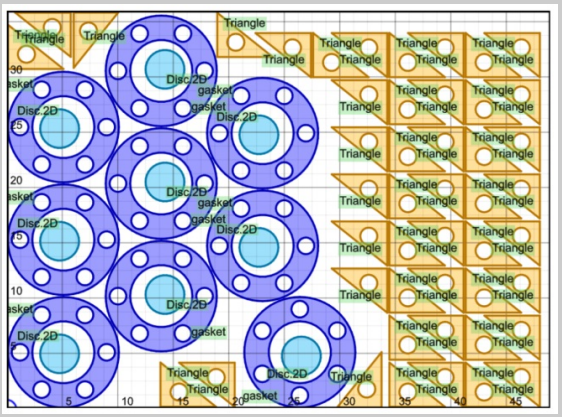
Click Here for More Info

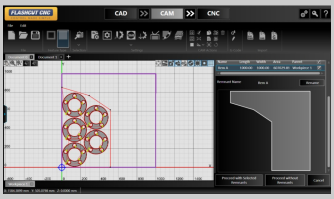
Year End Sale - 10% off V10 Premium!

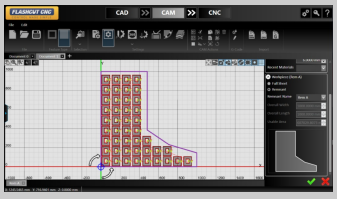
For a limited time, get an extra 10% off our Version 10 Premium which **bundles some of our most powerful add-on features for over 50% savings!** Features included: Common Line Cutting , Bridge Cutting, Chain Cutting, Smart360™ Hole Cutting Technology, Advanced G-Code Management , Collision Avoidance, and Nesting Report with Time Estimates
This discount offer also applies to adding our cost saving remnant support which will pay for itself in no time!

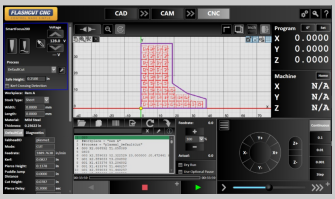












Click Here for 10% Off V10 Premium or V10 Premium + Remnant

Offer Expires December 31st, 2023

FABTECH 2023 in the Books!

We had an incredible time showcasing our latest technology at FABTECH 2023 - our best show yet! We had an excellent response from live demos of our newest innovations:

- The **FlashBot - FlashCut's Cobot Plasma Cutting Application**
- **EtherCAT support for Hi-Def Plasmas** like The Kjellberg Q and the Hypertherm XPR
- Version 10 Demos including V10 Premium and Remnant Support

We are grateful for the engaging discussions, insightful feedback, and new connections made during the event. We extend heartfelt thank you to everyone who visited our booth and contributed to our success at Fabtech!
We look forward to seeing the same crowd and new friends at FABTECH 2024 in Orlando!

Automate 2024 Coming Soon to Chicago!

We are really looking forward to the first production version of the FlashBot making its debut at Automate, the largest automation show in North America May 6–9, 2024 in Chicago, Illinois, USA.

If you want more information about getting tickets to Automate or any future shows, please call us at 847-940-9305 or e-mail us at sales@flashcutcnc.com. If you can't make it to a show, feel free to contact us to schedule a live demo or a tour in our Deerfield, IL USA HQ.

Click Here for a Free Ticket to Automate 2024

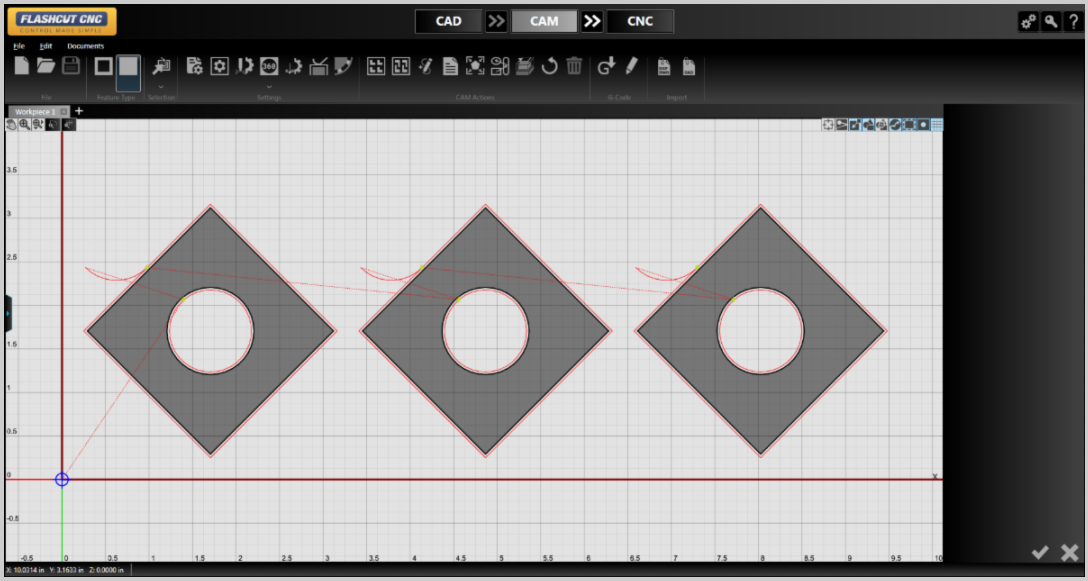
Tech Tip: Determining and Eliminating Mechanical Backlash

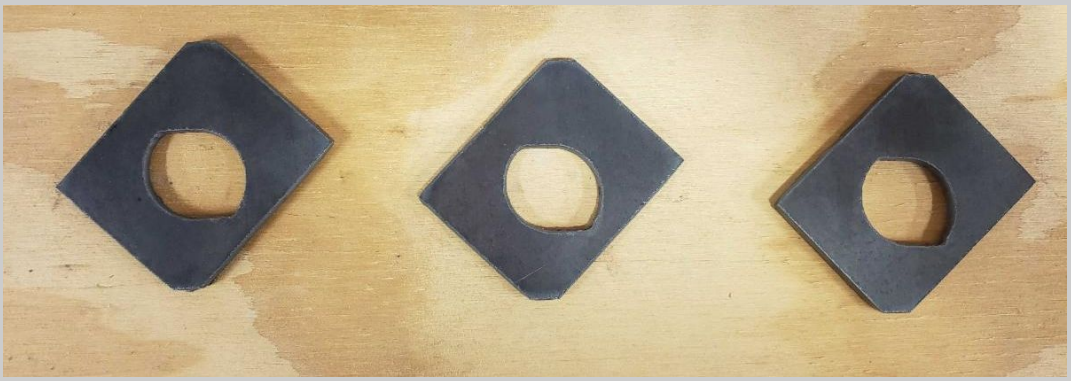
Mechanical backlash refers to the looseness or play in a mechanical system that causes lost motion. Unnoticed mechanical backlash in your CNC machine can cause parts to be inaccurate, have unwanted flat spots, or holes that are far from round.

Many times, these issues are erroneously thought to be motion control issues in the software or motors. The flat spots are a tell-tale sign of backlash. Also, in the case of backlash, this inaccuracy in parts is very consistent and repeatable.

Here are some examples of parts cut on machines with backlash. In this first example, the CAM drawing shows the intended tool path, but when cut, both the holes and diamonds have flat spots on the top and bottom. These flat spots were caused by excessive backlash in one axis. Once the source of backlash

was identified on this machine, the components were tightened to eliminate slop and good parts were cut.

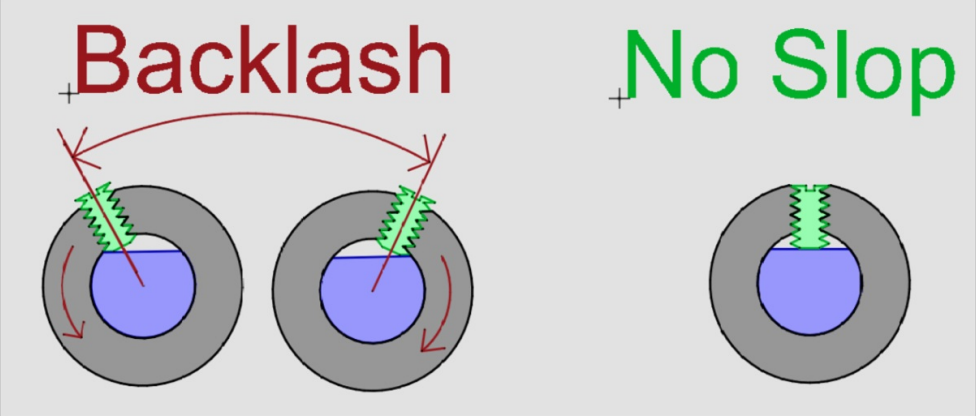


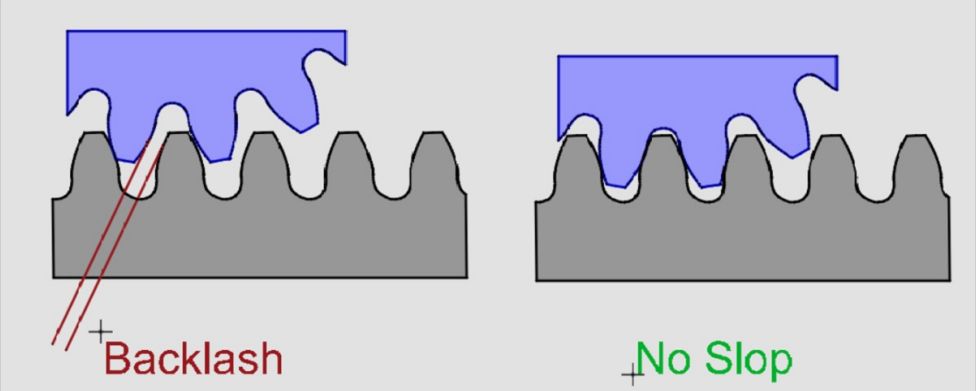


Similarly, the flat spots on the top and bottom of the holes below were caused by excessive play in the Y axis mechanics.

There are many possible sources of mechanical backlash. The most common that we have seen in CNC machines are:

- Play or too much clearance in the meshing of a rack and pinion system
- Play or too much clearance in the meshing of a gear train
- Loose set screws on a pulley, pinion, or gear
- Loose drive component and motor mounting screws
- Excessive wear on a screw or nut in a leadscrew driven system
- Loose timing belt in a belt-driven system





By understanding the causes and effects of mechanical backlash and implementing appropriate mitigation strategies, engineers and mechanics can design and maintain mechanical systems that deliver high levels of precision and performance.

The FlashCut system also gives you the ability to measure and correct for backlash that you cannot remove mechanically. For more in-depth information about backlash and how to correct for it, please see the knowledgebase article on our website.

If you have any tech tips of your own, please feel free to e-mail them to us at sales@flashcutcnc.com.

Click Here For More Information About Backlash

Season's Greetings!

As the year draws to a close, we at FlashCut CNC want to extend our warmest wishes to you and your loved ones. May this festive season be filled with joy, peace, and prosperity. **Thank you for your continued support and partnership throughout the year.**

As we reflect on the past year, we are grateful for the milestones achieved and the challenges that have spurred our growth. **We remain committed to delivering cutting-edge CNC solutions and exceptional service. Here's to a prosperous and innovative new year!**

FLASHCUT CNC
CONTROL MADE SIMPLE