VERICUT

Superior CNC
Simulation software.

U Vericut

vericut.com

Trusted for over three decades (and counting).

For more than 35 years, CNC manufacturers across the globe have chosen Vericut to help make their machining, and lives, easier.

Our industry-leading CNC simulation, verification and optimization software is the world's choice for error-free machining - helping to free your production from costly mistakes, while enhancing your entire process along the way.

Vericut simulates directly from your post-processed NC program - enabling you to catch errors that cannot be found in the CAM simulations.

With Vericut, you can confidently wave goodbye to idle machines, damaged tools, costly collisions, scrapped parts, lengthy prove-outs, and wasted material.

Make every cut the right cut - even on parts running for the very first time.

We have the solution for all your machining needs.

A suite of software that plugs in to your CAD/CAM, Tooling & Model Interfaces.

Vericut

POST-PROCESSING

VERIFICATION & SIMULATION

☑ CNC Machine Simulation

☑ AUTO-DIFF™

☑ Multi-Axis

☑ Additive

☑ Vericut Reviewer

☑ CNC Machine Probing

☑ Grinder-Dressing

☑ CNC Machine Connectivity & Monitoring

OPTIMIZATION

☑ Force Optimization (Vericut add-on)

☑ Vericut Optimizer (Standalone software)

Vericut Drilling & Fastening

☑ VDAF Simulation

☑ VDAF Programming

Vericut Composite Applications

☑ Composite Programming (VCP)

☑ Composite Simulation (VCS)

"Vericut has allowed us to completely eliminate manual prove-out processes, freeing up valuable machine time to run more parts. It's also proving highly beneficial in reducing our scrap rates, which are now almost zero for first-article parts.

Plus, our machining process is much safer now. I can say that our machinists' safety is the biggest benefit we see on a daily basis."

Onur Benzergil
New Part Supervisor
HMS Makina

Industry integrated since 1988.

Vericut CNC simulation software is tightly integrated with all CAD/CAM, tooling, and modeling systems, to help you create the most accurate, seamless, and efficient NC programs, ever.

"We have been a customer to Vericut for almost 10 years and the reason for that is we are really keen on getting stable processes.

The worst thing that can happen is if you have a crash. And since we start using Vericut we have no crashes."

Claes Nord
Visitor Experience Specialist
Sandvik Coromant

CAD/CAM INTERFACES

TOOL MANAGEMENT INTERFACES

MODEL INTERFACES

Vericut Verification

Without CNC verification software, your machining efforts are a gamble.

Vericut Verification removes the risk by reading, verifying and simulating the same post-processed G-code that runs on your machine, and informs you of any potential collisions or errors before you send the real part for machining.

CATCH MISTAKES BEFORE THEY HAPPEN.
Vericut Verification

- Rapid NC program error detection for hyper-accurate machining.

- Emulate all CNC machine G-code and control logic.

- Reduce programming mistakes by translating NC data to APT and other data formats.
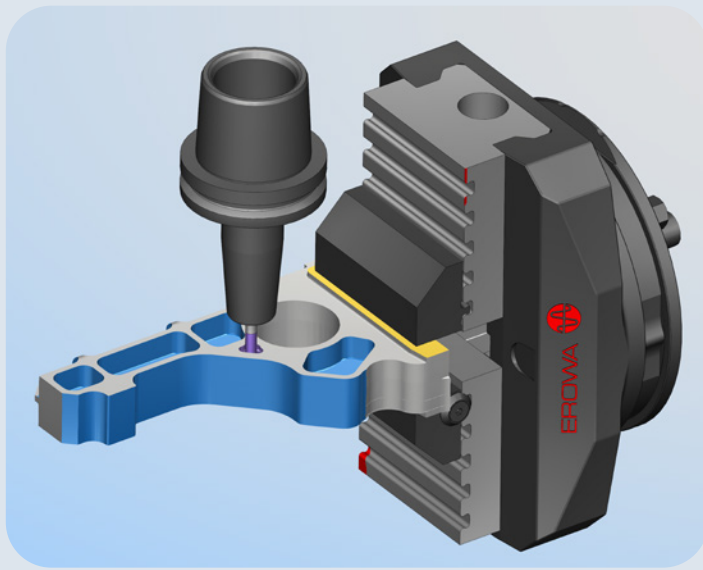
ENJOY ON-THE-GO VISIBILITY.
Vericut Reviewer

- Quickly view CNC machine simulations wherever via a Windows laptop or tablet.

- 360° interactive review file, including pan, zoom and rotation.

- Free application for all Vericut users.

CNC Machine Simulation

Few things are more costly to your production and profits than a collision. After all, a crash can ruin your machine, and delay your entire schedule.

Thankfully, CNC Machine Simulation can help. With its superior collision-checking capabilities, expensive machine crashes and production setbacks will never trouble your shop floor again.

PROTECT YOUR PRODUCTION FOR THE LONG HAUL.
### CNC Machine Simulation

- Examine the entire path of travel to catch any potential collisions and close calls.

- Quickly verify and emulate all machine G-code and control logic for precise simulation.

- Create a like-for-like digital twin that mirrors how your real machine behaves.

- Wave goodbye to lengthy manual prove-outs, helping your shop floor get parts to market faster.

- Boost safety and efficiency across your entire operation for future-proofed machining.
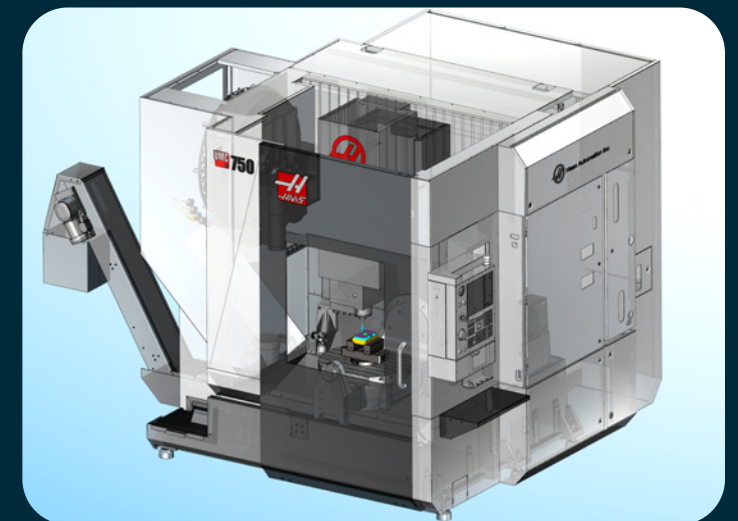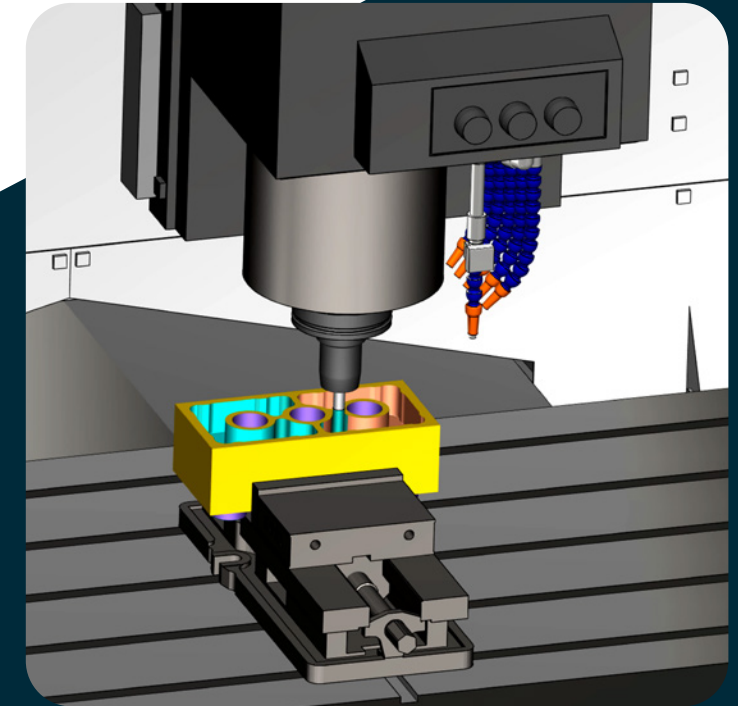
Multi-Axis & AUTO-DIFF™

Errors have a habit of rearing their ugly heads when machining complexity increases—especially when more spindles, tools, departments, or systems are involved.

The Vericut Multi-Axis and AUTO-DIFF™ modules work tirelessly to eliminate machining weaknesses, making your complex jobs a lot less complex.
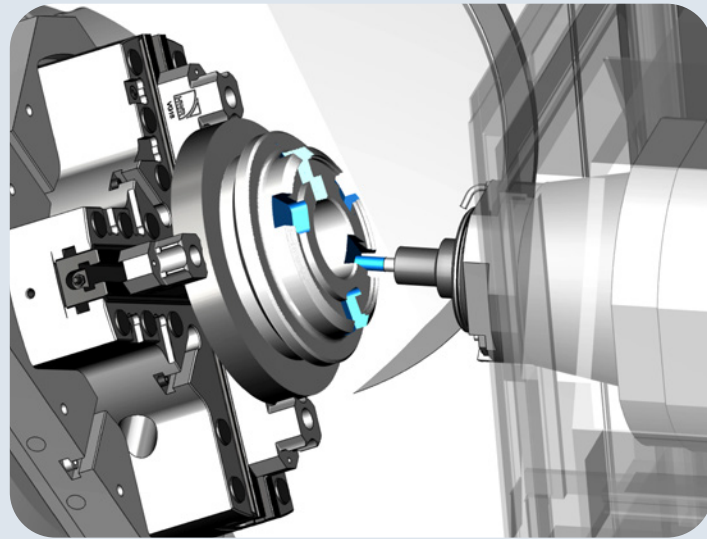
EXPERT ANALYSIS FOR EVERY APPLICATION.
Multi-Axis

- Accurately simulate all 4 and 5-axis machining applications.

- Make data-driven decisions for all mill, drill, turn, and mill/turn jobs.

- Digitally manipulate the cut model and material removal process.

COMPARE CAD DESIGNS WITH CONFIDENCE.
### AUTO-DIFF™

- Compare solid, surface, and 3D point models from any CAD/CAM system.

- Constant gouge and excess checking during simulation.

- Make the most informed machining choices with detailed error reports.

CNC Machine Probing & Grinder-Dressing

When working with inspection probes and grinding wheels, you're never far away from tool breaks and headaches.

The Vericut CNC Machine Probing and Grinder-Dressing modules allow manufacturers to perform these machining tasks with the utmost precision and protection.
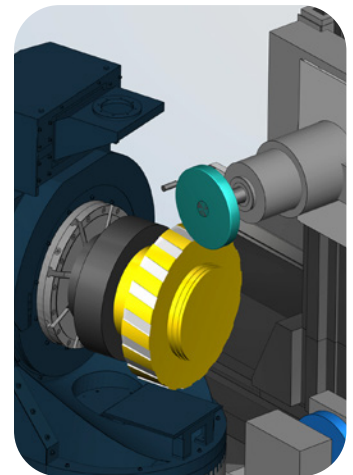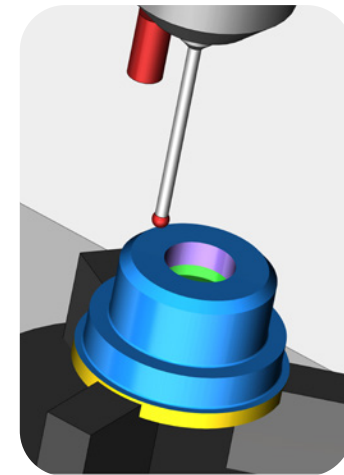
PROTECT YOUR PRECIOUS CNC PROBES.
CNC Machine Probing

- Instantly alerts when a probe tip comes into contact with another object.

- Rapidly detects tool failure.

- Exclusive in-process model unavailable anywhere else in the CNC market.

KEEPS YOUR GRINDING WHEELS IN CHECK.
Grinder-Dressing

- Forwarns collisions from grinding wheel changes by observing clearance between the component and tool.

- Quickly measures and analyzes complex wheel shapes and geometries.

- Primed and ready for 4 and 5-axis machining applications.

Optimization

Manufacturers don't just call on Vericut to eliminate machining collisions and errors. They're hungry for significant savings in machining time, too.

Our optimization solutions analyze and optimize tool paths and machining conditions to slash machining times. Whether you're an existing Vericut customer or not, we've got an optimization product for you.
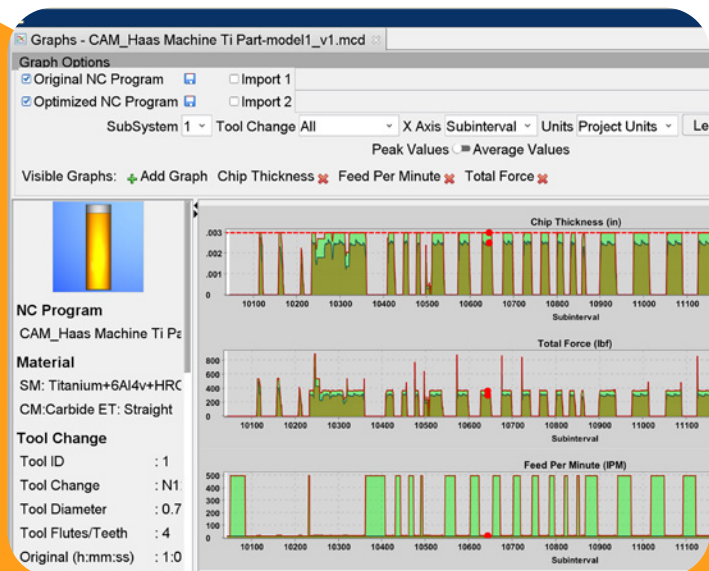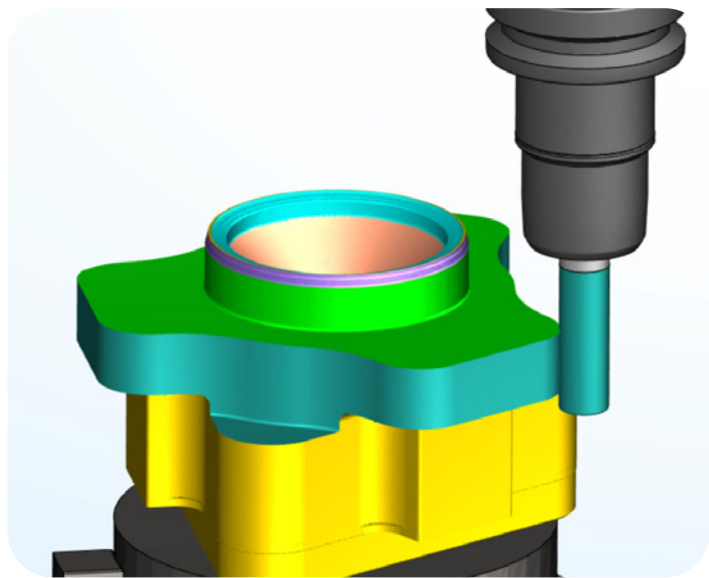
UNLEASH YOUR MACHINE'S TRUE POTENTIAL.

Force Optimization
(Vericut add-on)

- If Vericut helps you get it right each time you machine, then Force helps you do it faster each time.

- Slash machining cycle times and extend your tool life by up to two times.

- The most accurate cut-by-cut analysis on the CNC market.

- Endless optimization capabilities across any NC program - new or existing

THE STANDALONE OPTIMIZATION CHOICE.

Vericut Optimizer

- Get the benefits of Force optimization without requiring Vericut Verification base software.

- Optimize APT/CL-file or G-code program outputs from almost any CAM system.

- Capture detailed performance data with Tool Use and Graphs windows.

CNC Machine Connectivity & Monitoring

The CNC machines on your shop floor are loaded with valuable data and information.

Vericut's CNC Machine Connect and CNC Machine Monitoring modules harness that data, transforming it into actions that help you maximize your machine's performance and productivity.
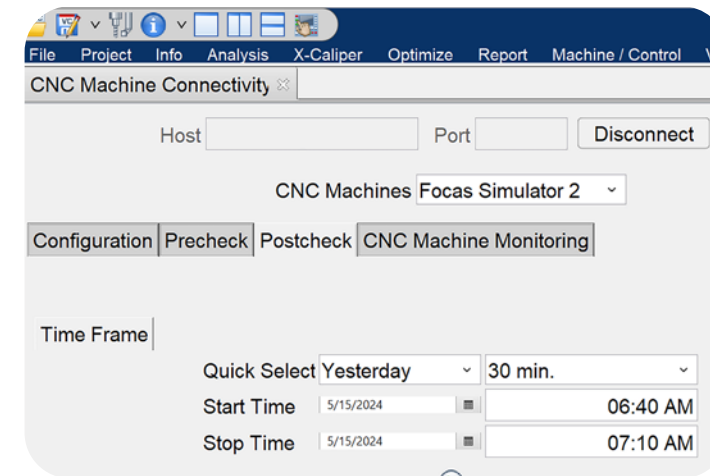
AN ALMIGHTY COMBO FOR OPTIMAL MACHINING PERFORMANCE.

## CNC Machine Connectivity & Monitoring

- Accurately ensure your machining setup matches your Vericut simulation.

- Quickly gauge feed rate, spindle utilization, system programming and overall machining status.

- Observe exactly what your CNC machines on the shop floor are doing in real-time.

- Retrieve and re-run archived data in Vericut to investigate issues that may have happened during the machining process.

- Powered by Scytec's DataXchange software.
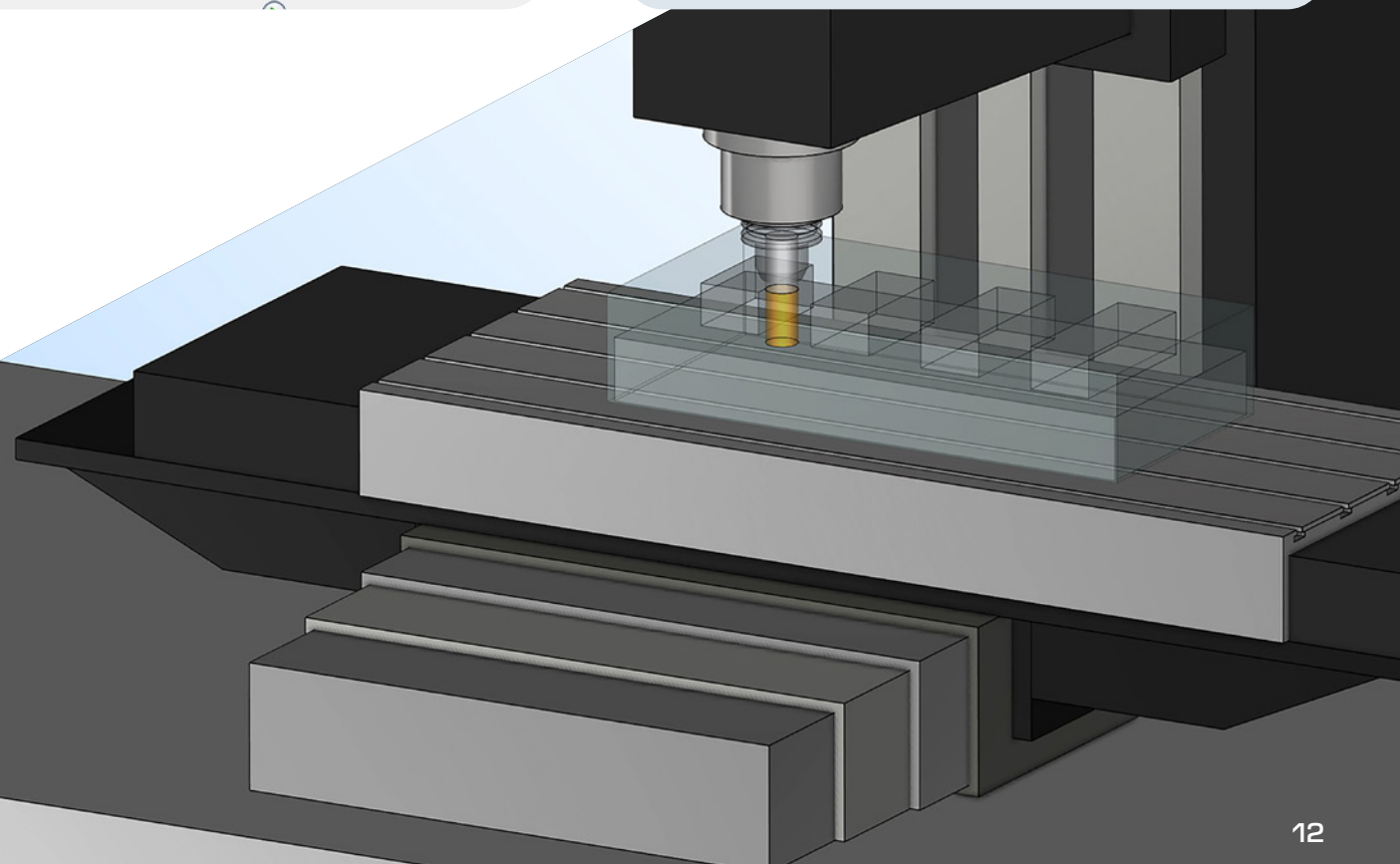
Additive Manufacturing

Additive processes give manufacturers an unparalleled sense of machining freedom, enabling them to produce almost anything.

The trouble is that additive manufacturing is a complex and often expensive business. And this complexity increases when working with hybrid CNC machines. Vericut's Additive module effortlessly simulates both additive and traditional machining capabilities for milling and turning applications, helping you produce your best results ever.
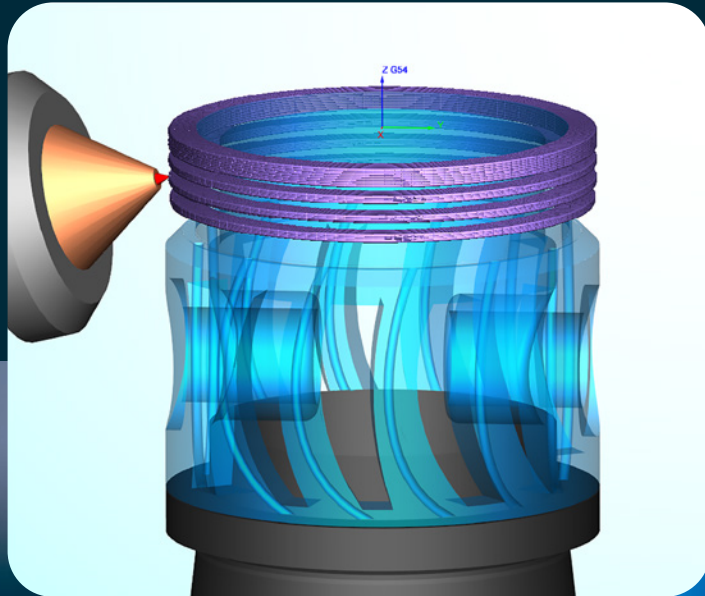
YOUR MOST ACCURATE 3D
METAL PRINTED PARTS.
Additive

- Hyper-accurate simulation for laser cladding and material deposition applications.

- Detect collisions and close-calls on hybrid CNC machines, so errors never reach the shop floor.

- Primed for 5-axis milling and turning, and laser sintering jobs.

- Endless optimization capabilities across any NC program - new or existing.
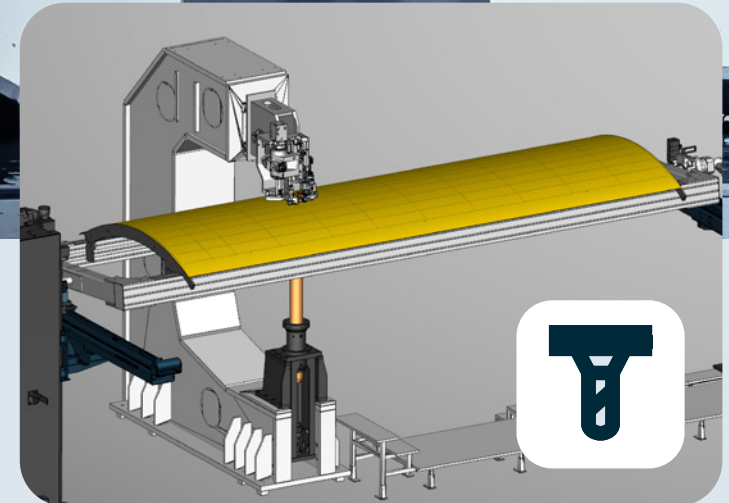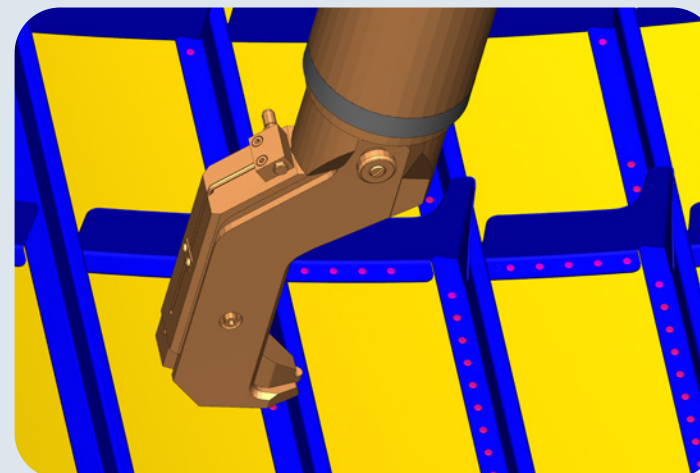
Vericut Drilling & Fastening (VDAF)

Manufacturers working with expensive, intricate assemblies know that the cost of drilling or fastening mistakes is sky-high.

Thankfully, Vericut Drilling & Fastening (VDAF) simulation and programming modules can help. Together, they allow manufacturers to monitor and manage their auto-drilling and fastening machine behaviors with exceptional detail.

UNPRECEDENTED VISIBILITY
ACROSS YOUR APPLICATION.
VDAF Simulation

- Simulate auto-drilling and fastening applications with the utmost precision.

- Uses the same NC program that runs on your machine.

- Emulate CNC controls with Vericut Machine Configurations (VMCs).

PRODUCE UNIQUE NC PROGRAMS FOR
DRILLING AND FASTENING.
VDAF Programming

- Tailor your NC programs to your specific auto-drilling and fastening needs.

- Fasteners housed under a tree dialog for easy organization.

- Supplementary add-on module.

Vericut Composite Applications

When manufacturing composites, two things are mission-critical: the overall strength and structure of your layered parts, and the preservation of your expensive composite fiber materials.

Vericut's pair of composite application software modules are designed to help you build your most precise, durable, and cost-effective composite components, well, ever.
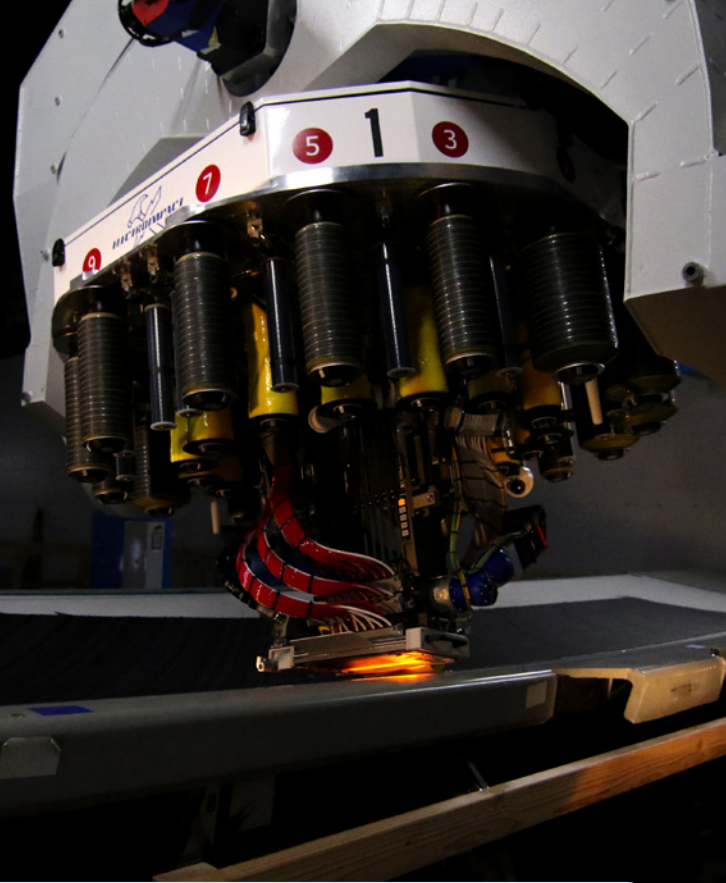
Composite Programming (VCP)

- Read a host of ply information, surface models, and geometries from an external CAD database.

- Create and customize unique geometries for all your composites.

- Generate layup paths that are tailored to your application.

Composite Simulation (VCS)

- Simulate ply layers with the utmost accuracy - even on composites with upwards of 500 individual fiber layers.

- Verify rollers, paths, and axes for precision cutting performance.

- Precisely measure and inspect additional material
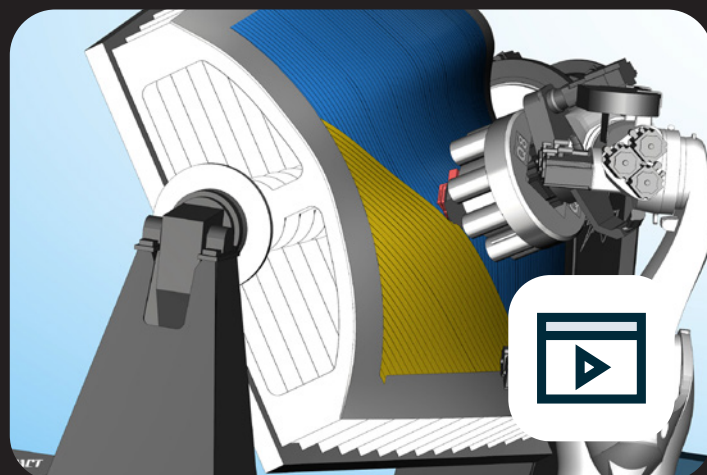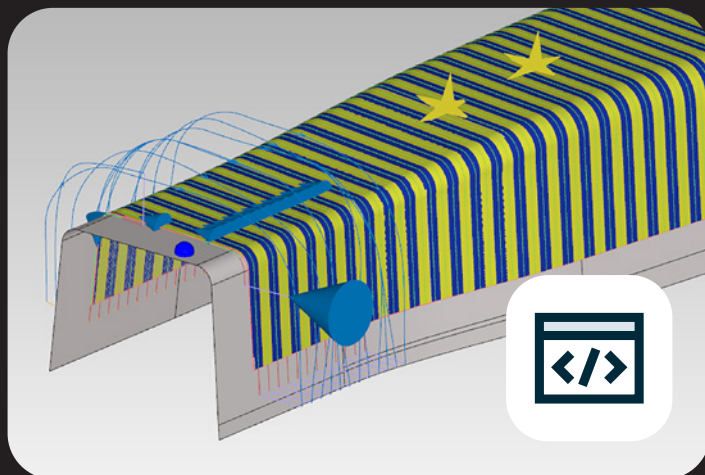
Icam Post-Processors

If you can't see what's happening inside your CNC machine, you risk damaging your tools, wasting parts and material, and worse, crashing your machine.

With Icam Post, manufacturers like you can always see what's ahead, and determine the best course of action for each toolpath.

Plus, Icam Post helps maximize the efficiency of your process by seamlessly integrating with your existing CAD systems and CNC machines - meaning less hassle, and more productivity.

SEE WHAT'S AHEAD AND TAKE THE BEST ROUTE FORWARD.
Icam Post

- The most advanced CNC post-processors, powered by Icam.

- Get a global picture of your part without intervening with the job.

- Detect errors and collisions before they happen.

- Link all tool paths with safety, efficiency, and precision.

- Access over 40 look-ahead tool optimizations for all your machining applications.

Ready to unleash machining efficiency?

Speak to our team today to request a free Vericut demonstration.

vericut.com

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