

SUPERIOR CNC SIMULATION AND SERVICE

Boosting confidence with CNC simulation software.







## CNC machining is a high-pressure job.

Efficiency is everything in today's fast-paced machining economy, as manufacturers seek to optimise every inch of their production efforts.

This need to deliver parts faster than ever, without compromising on quality, accuracy and precision, puts machine operators under immense pressure.

Add the need to work with increasingly challenging materials and complex geometries to the mix, and you have a recipe for high-risk, high-cost errors every time you machine.

Naturally, this stress can significantly dent the confidence of machinists looking to produce the right part, to the right specification, every time.

## It doesn't have to be this way...

By taking advantage of a CNC simulation and optimisation software like Vericut, you can be confident every time you machine.



#### STEP 1:

## Verification

Vericut instils confidence in machinists long before they physically start machining.

That's because the first step is to verify your NC program.

This early but vital stage helps eliminate major program errors before the job gets underway, and wasted parts and material while machining.

Plus, it saves valuable time by mitigating the need for manual prove-outs - even on your first-time programs.

Vericut offers robust analysis tools to accurately measure and map the cut part, fixture or holder shape; it also verifies G-codes with ease, and supports all native CAM files.



#### Verification Benefits:

- Eliminate program errors.
- Reduce scrap and rework.
- Read and verify post-processed G-codes.
- Produce perfect programs without prove-outs.



#### STEP 2:

## Simulation

Once Vericut has successfully verified your NC program, it's onto the second, and perhaps most vital, step: simulating your CNC machine.

As machine operators know all too well, a single crash can devastate your production efforts: damaging your machine, destroying your tools, and delaying your entire schedule.

It goes without saying then, that avoiding any of these outcomes is of fundamental importance.

Vericut enables machinists to simulate their CNC machine before they hit the button to start cutting. The simulation behaves identically to your physical machine - a digital twin that mimics its every move and axis to provide machinists with a hyper-accurate rundown of events.

The simulation can detect collisions between portions of the machine, the tool, the part, and fixtures and holders, and also report back on any close calls so you can make suitable and safe adjustments.

This extra level of precaution and insight helps machinists start their CNC machines with the confidence that when cutting starts, it's right the first time.



### Simulation Benefits:

- · Detect collisions and close calls.
- Check machine capabilities.
- Improve process efficiency and engineer safety.
- The confidence to machine right every time.



#### STEP 3:

## Optimisation

With Vericut successfully verifying and simulating the job, confidence is completed with the third and final step: optimising feed rates.

An optimised CNC machine is an effective one - delivering repeatable and reliable results without fail.

Vericut enables machinists to get the most from their output thanks to additional optimisation capabilities.

Based on the cutting tool geometry, part and its material, and the NC-programed cutting conditions, Vericut can automatically determine the optimal, and most importantly, safe, feed rate for each individual cut.

This vastly improves cutter performance, resulting in significant cycle time savings, prolonged tool life, better-finished parts, and reduced material waste - making your machining most efficient and sustainable.



## Optimisation Benefits:

- · Boost cutting tool performance.
- · Remove manual feed adjustments.
- Increase tool life and sustainability.
- Make machines work to their fullest potential.

# Ready to boost your confidence?

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



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System requirements are subject to change.

See the Vericut website for the most up-to-date product information and system requirements.

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