

NC Program Optimization with FORCE-TURNING

REDUCES
MACHINING TIME BY
15-25%

Force-Turning Optimization

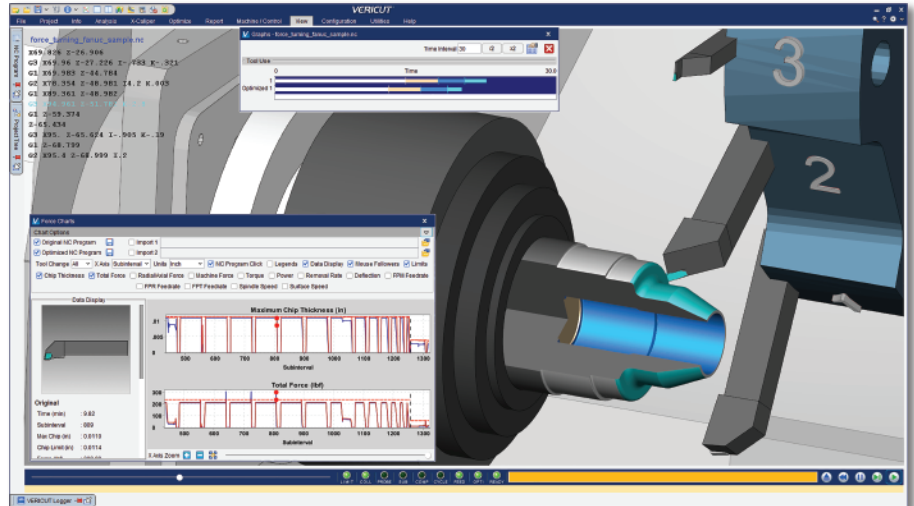
CGTech's VERICUT Force is a physics-based NC program optimization software module that analyzes and optimizes cutting conditions throughout NC program operations.

VERICUT Force makes the most effective NC program for the given material, cutting tool, and machining conditions. The results are significant time savings, and improved cutting tool and machine life.

Analyze

VERICUT Force allows NC programmers to quickly and easily visualize what is happening cut-by-cut in the NC program as the tool contacts the material. VERICUT Force lets you see underutilized cutting conditions, excessive forces, metal removal rates, power, torque, and tool deflections.

A single click provides a review of the NC program and a visual analysis in the graphic review window. This analysis provides a view of the machining before running the NC program on the actual machine. VERICUT Force provides the user with a proactive analysis of NC programs, making them right the first time.



Optimize

Optimization is not just about going faster. VERICUT Force makes optimizing NC programs fast and easy, using a balanced approach to calculate new program feed rates and tool positions. This minimizes time cutting in air, maximizes chip thickness, and simultaneously limits excessive cutting forces or spindle power requirements.

ALL NC programs, new or old, can be optimized with Force to run as efficiently and safely as possible. Force is also available on mill & mill-turn machines.

Why VERICUT Force?



Maximized Productivity & Savings



Any Tool, Any Material



Maximized Cutting Tool Performance



Any CAM System, Any NC Program

Right the first time. Every time.

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Materials

CGTech creates Force Material Files with on-machine testing, a Kistler dynamometer, data acquisition system, and Force Calibration software. CGTech's Force Material Catalog contains more than 100 materials.

P ISO P = Steels

M ISO M = Stainless steels

K ISO K = Cast irons

N ISO N = Non-ferrous materials

S ISO S = Heat resistant super alloys

H ISO H = Hardened materials

Pre Post-Processing Optimization with OCC

The VERICUT Force Optimized CAM Cuts (OCC) interface allows users to update and adjust toolpaths directly in their CAM systems. Optimized toolpath data is integrally part of the CAM operations. This creates the opportunity to generate an optimized NC program from VERICUT when post-processing.

Features

Optimize Control

Analyze or Optimize the part and material in the NC program

Force Charts

Charts with cut-by-cut data of resultant Forces, Power/Torque, Chip Thicknesses, Material Removal Rates, Tool Deflections, and Feedrates

Compare Files

Side-by-side comparisons of the original NC program with the Force optimized NC program

Savings Calculator

Force calculator shows time and revenue savings

Machining improvements are a balance between tool life and speed.
Force optimization lets you match your machining goals.

