OMIC
SUBTRACTIVE

CGTECH FORCE MILLTURN OPTIMIZATION

The machining industry continually aims to reduce cycle times by increasing the Material Removal Rate (MRR). Specialized CAM software, like VERICUT, helps minimize risks through simulations that prevent machine collisions. Additionally, software such as CGTech Force optimizes the process by recommending ways to reduce cycle times and increase tool life.

OMIC R&D demonstrated that by incorporating tool and workpiece material properties and their engagement parameters into CGTech Force, the maximum chip thickness can be optimized. By limiting the Total Cutting Force, we were able to create a safer and more efficient NC program.

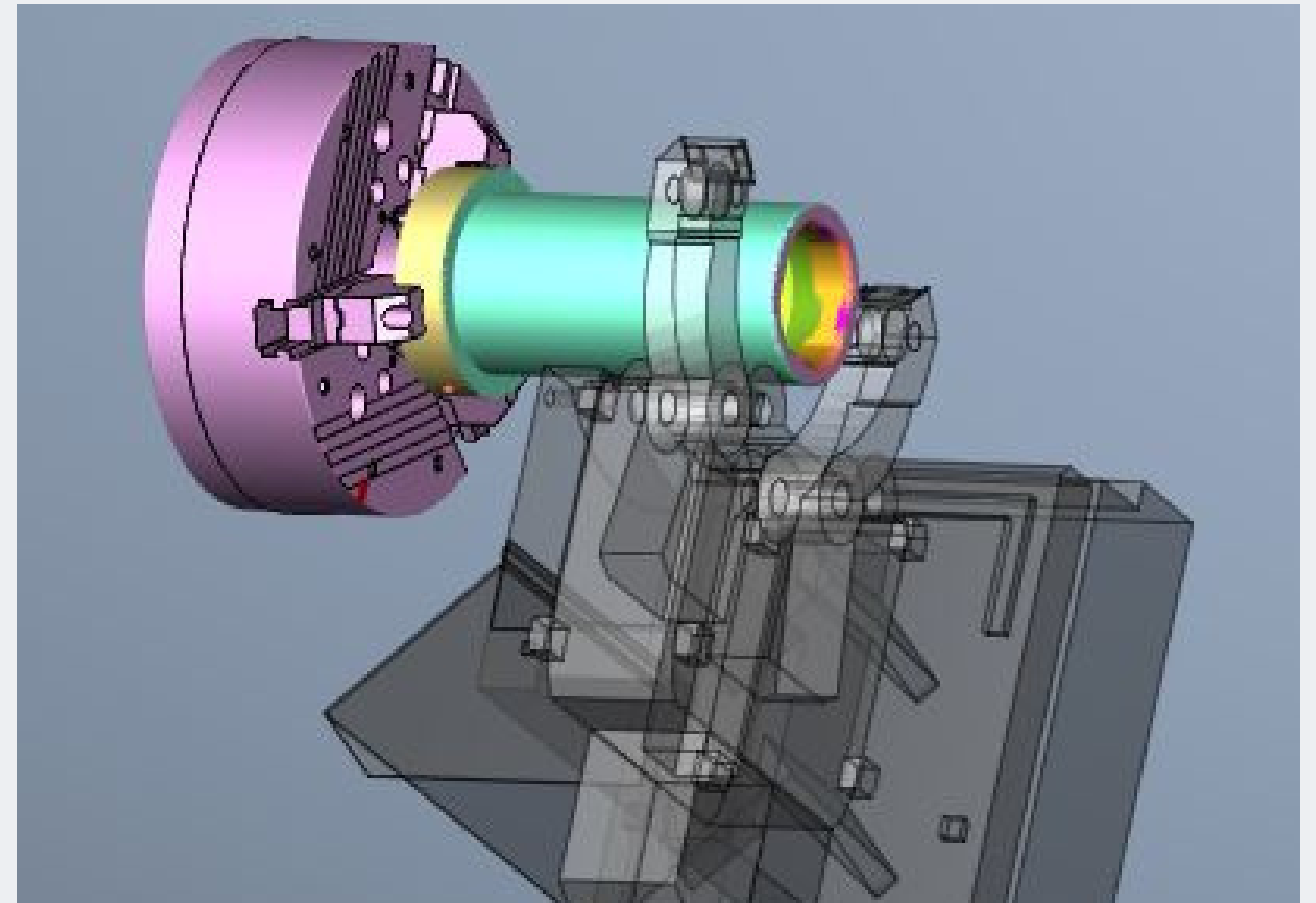This approach helps manufacturers make data-driven decisions to reduce machining cycle times and enhance safety.

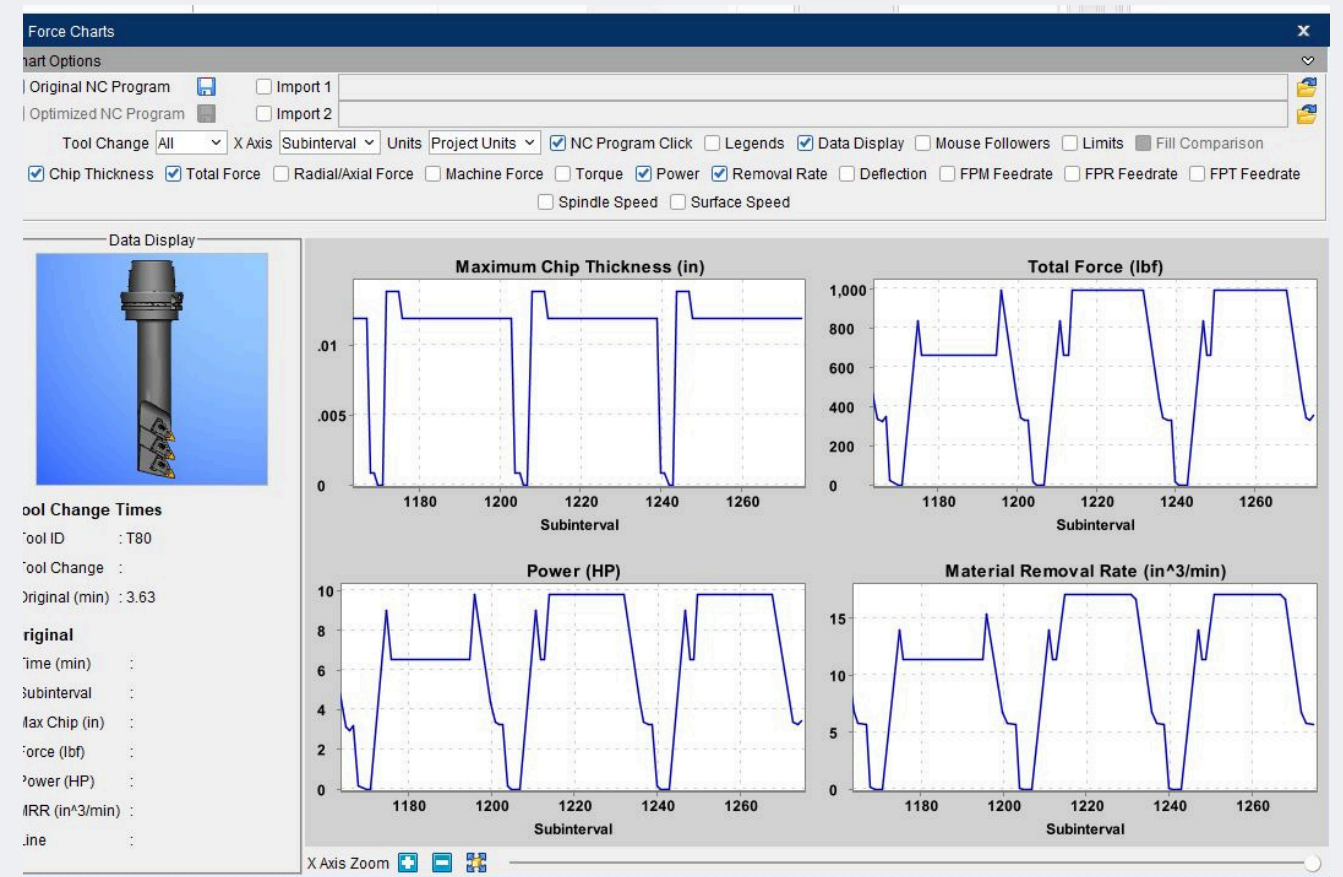

Fig 1 - Diagram of the finished part

Fig 2 -Analysis of the cutting tool

Research was conducted primarily by Josh Koch of OMIC R&D.

Industry participants include:
Kennametal
WFL
CGTech
Walter
IMS