

HISTORY OF SUBTRACTIVE MANUFACTURING

- Subtractive Manufacturing starts in the around 1300(BCE) with the records from the Egyptions.
- 18th-19th century The American revolution introduced steam powered machine tools
- 1940s Birth of the CNC
- Modern subtractive manufacturing started in the 1940s with the creation of numerical controle machines for material removal. It wasnt till the 1960s that computers started becoming the controlling mechanism.



1940s
Lathe

Companies Behind the Future of Subtractive Manufacturing

CNC Manufacturers

- DMG MORI
- Matsuura
- Haas Automation

Manufacturing and Prototyping

- Proto Labs
- Xometry
- Fictiv

Intergrated solution providers

- Nikon Advanced Manufacturing
- CNC Robotics
- Cead

Tooling and Softwear Support

- Koycera SGS Precision tools
- PTC

The field of Subtractive Manufacturing is projected to change over the next 10 years. The configuration of tools will change what is possible. This is possible using things like polycrystalline diamond tooling(PCD).PCD tools are harder, water resistant, and run 10 times faster than the tools of today. Using PCD along with trends like hybride manufacturing, autonomous systems, and a focus on High-Percision demans the future looks bright for subtractive manufacturing.