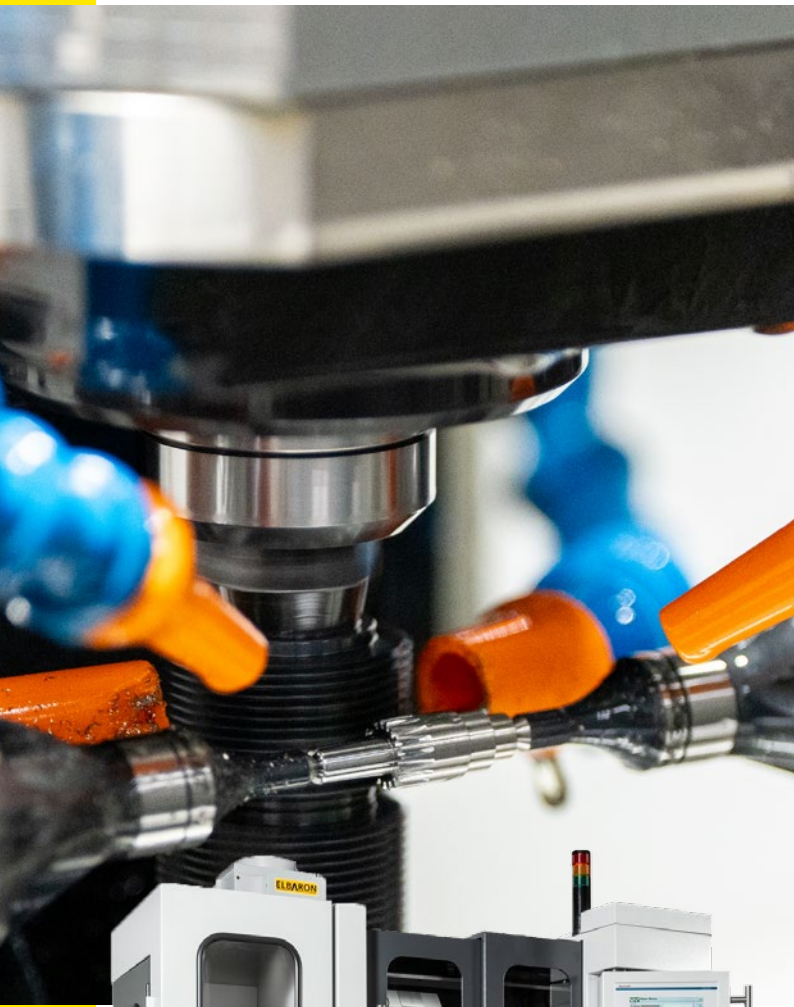


LEVELING UP PRECISION GEAR MANUFACTURING WITH APG



MZ 1000 D-Drive

25 DP
Max Pitch Rating

15,000
RPM Hob

8
CNC Axes

CASE STUDY

INTRO

American Precision Gear (APG), an industry leader in fine-pitch, high-precision gears for aerospace, defense, and medical applications, partnered with Helios Gear Products to install the MZ 1000 D-Drive CNC gear hobbing machine. This investment has elevated their production capabilities, drastically cut cycle times, and reinforced APG's commitment to precision and exceptional quality.

OVERVIEW

To keep pace with demand and uphold their exacting quality standards, APG integrated the MZ 1000 D-Drive into their operations. The machine has delivered immediate benefits: reducing cycle times from minutes to seconds and enabling lights-out production for extended shifts. Its advanced automation and rigid workholding have streamlined processes and enabled APG to maintain micron-level tolerances—achieving AGMA quality levels of 12 and higher.

COMMON APPLICATIONS

- Fine-pitch gears and shafts
- High-precision components for aerospace, defense, and medical industries

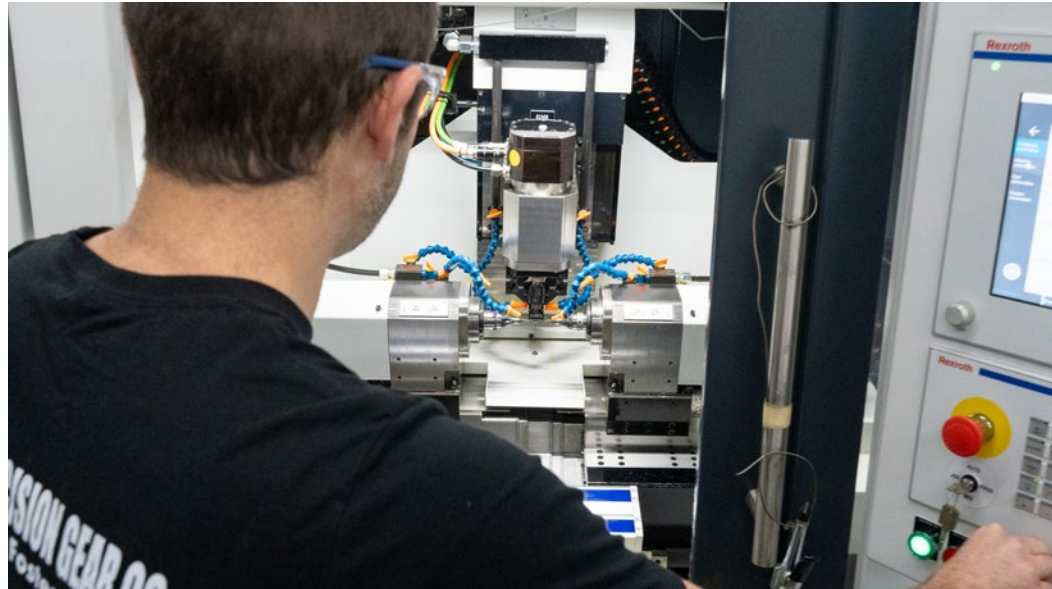
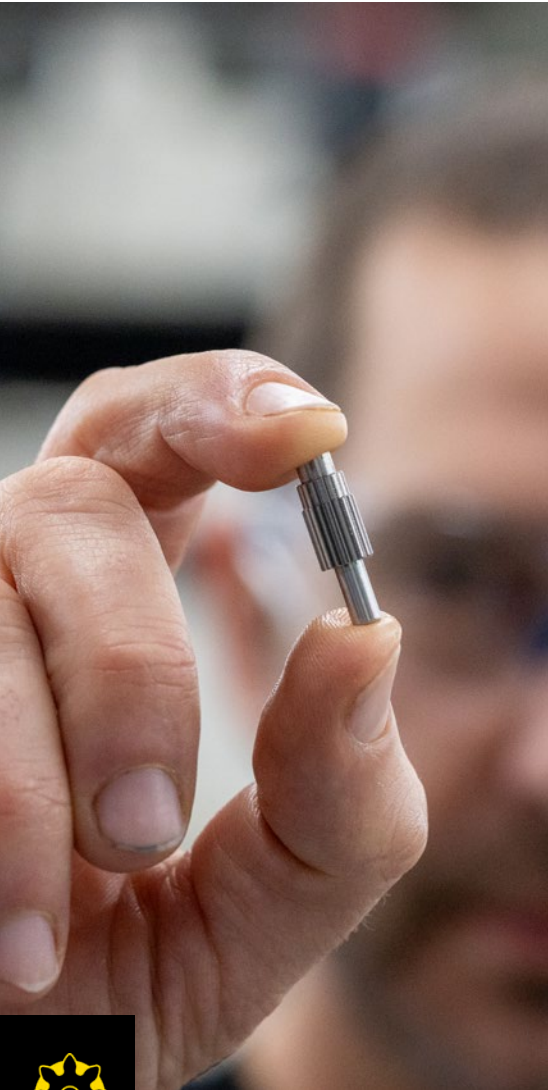
CUSTOMER FEEDBACK

With improved tool life by 200–300% and up to 90% reduction in deburring, the MZ 1000 D-Drive has not only boosted throughput but also freed up skilled operators for higher-value tasks. These improvements continue to position APG as a trusted partner for high-precision gear manufacturing in the most demanding industries.



Some of our parts are so demanding — AGMA 12 and above, with near-zero tolerance on test radius — that they were incredibly challenging to produce at scale. The MZ 1000 D-Drive completely transformed that. It holds tolerances down to a micron with remarkable consistency, making even our toughest jobs not only possible, but now the easiest jobs in the building.

JARROD MCCLENDON, AMERICAN PRECISION GEAR



CONTACT
(847) 931-4121
635 Schneider Drive
South Elgin, Illinois 60177

HELIOSGEARPRODUCTS.COM
sales@heliosgearproducts.com

