

Automated and CE Certified Form Grinder Reduces Scrap Rates

incumbent process

- ❑ Legacy equipment did not meet current CE standards.
- ❑ The brittle shafts break in the grinder's feeder increasing scrap rates.

challenges

- ❑ Deliver an automated, turnkey process that can integrate with the customer's existing isostatic press to accurately handle and grind the parts.
- ❑ The process had to ensure the ceramic shafts would not chip or break due to the brittle consistency of pre-sintered ceramics.



solution – PG-9DHD Centerless Form Grinder

- ❑ In this application, the PG-9DHD Centerless Form Grinder is fully automated with a six-axis robot, inspection camera station, cleated conveyor, and gantry to reduce scrap rates and improve OEE.
- ❑ Maintains a tolerance of +/- 0.001", removing 0.040" (0.020" per side) of stock material.
- ❑ Grinds two ceramic shafts every six seconds, allowing it to keep up with the ceramic press.

benefits

- ❑ The six-axis robot senses and transfers six ceramic shafts at a time from the press onto a cleated conveyor.
- ❑ Prior to grinding, the ceramic shafts pass through a camera station to ensure the shafts are free of defects.
- ❑ The gantry head feeds and removes two ceramic shafts at a time from the grinding area maximizing OEE.
- ❑ This PG-9DHD was CE Certified and featured an enclosed robot station and grinding area for operator safety.
- ❑ Typical Glebar installations have one operator running three or more machines because of the reliability of the automation and grinder performance.
- ❑ Glebar machines can grind most hard to turn materials such as carbon fiber, fiberglass (including G10), Teflon, Santoprene, and polypropylene.