

Manufacturing innovations in PDC bearing technology continues to deliver performance and reliability in down-hole drilling motors.

Company Background:

Glynn Technical Diamonds (GTD) established in 2012 with a manufacturing facility in Kilrush, Co Clare, Ireland.

GTD process and manufacture synthetic diamond solutions with a focus on research, development and innovation.

4 3/4" PDC Thrust Bearings For Turbo-drills

GTD have optimised the complete manufacturing process of the bearing sets to enhance the material and thermal properties of polycrystalline diamond compact (PDC) cutters. This new PDC bearing manufacturing technology has enabled drilling operators to increase down-hole turbine and motor performance and durability in challenging high pressure and high temperature drilling environments.

Advanced PDC bearings have been one of the most important developments in the increased usage of turbo-drill systems. High quality PDC cutters/inserts along with leading-edge manufacturing techniques provides outstanding resistance to compression loads, minimal frictional losses, under high temperatures.

GTD extensive research and constant innovation continues to help customers drill faster for longer periods of time without turbo-drill maintenance.

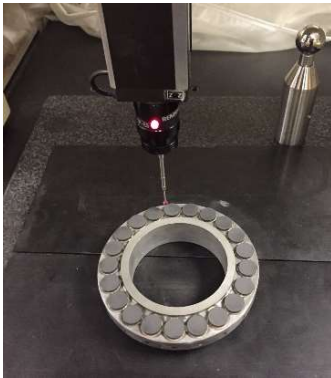


Figure 3 – CMM Measurement

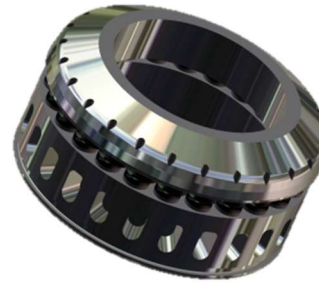


Figure 1 - 4 3/4" PDC Thrust Bearing



Figure 2 – Controlled Atmosphere Brazing

Turbo-drill:
4 3/4" Turbine

PDC Cutters:
GTD 1 Utility grade
R0808mm

Operating Temperature:
420 °C

Location:
Worldwide

Results:
Reduced cost and enhanced performance