LDK® High/Low Temperature Bearing Units

For applications that require bearing units to be used at a higher or lower temperature range than our standard models,LDK offers several options. The standard operating temperature is -20˚C~+120˚C. LDK offers product and solutions for application with maximum high temperature to 200˚C and low temperature to -40˚C. Main features are as follows.

High/Low Temperature grease

- Soap/Fluoride based, maximum operating temperatures of the grease at 200°C.
- Synthetic polyurea grease,low operating temperatures of the grease at -40°C.

Internal Clearance

In the manufacturing of ball bearings, it's a standard practice for LDK assemble its rings and balls with a specified internal clearance. In the case of high-temperature inserts, internal clearance is even more important in compensating for thermal expansion of bearings, shafts, and housings. LDK uses an internal clearance standard of C4 on all of its high temp inserts.Fow low temperature inserts,C0 is recommended.

Silicon Rubber Seals

Most standard units are supplied with a nitrile rubber seal. Nitrile rubber is an excellent seal at temperatures ranging from 0-100°C.Soon after that temperature, nitrile rubber starts to breakdown, leaving no sealing element to retain high temperature lubrication. Silicon seals have excellent high temperature stability, exceptional high temperature sticking, resistance to aging, ozone, sunlight and outstanding water repellence. The use of Silicone seals insures that the high temperature lube stays where it belongs, in the bearings! Upon request,flurorine rubber is also available for constant high temperature working environment.

Special fit and alignment torque for high temp

Bearings and housings are individually matched to achieve an approperiate fit for high temp application. A unique set of tolerances ensure ease of alignment .