High precision bearings are subjected to strict controls, starting from an accurate material selection and verification.

RAW MATERIAL

The inner and outer rings and rolling elements are made of HIGH QUALITY bearing steel which guarantees excellent resistance to fatigue and wear.

HEAT TREATMENT

All our bearings are subjected to a particular heat treatment process aimed at minimizing the percentage of residual austenite, which is primarily responsible for changes in shape and size.

Furthermore, hardness tests are carried out through Vickers Micro-durometers as well as microgeometry checks at different stages.

GRINDING AND LAPPING

Grinding and lapping are performed on latest generation lines capable of achieving very high roughness and roundness levels.

ASSEMBLY PROCESS

During the assembly phase, an accurate check of radial clearance, contact angle and preload is carried out.

A rotation precision control (radial run-out / axial run-out) is performed by means of appropriate equipment.

Assembly takes place in a dust-free environment at controlled temperature and humidity. This process ensures bearing quality and precision.

Increasingly high speeds and loads require high rigidity and a low vibrational level. In Motion super precision bearings are 100% tested to guarantee operational precision.

Thanks to specific and modern equipment, we perform life tests.

Upon request, In Motion can perform specific checks following Customer's instructions.