



Custom Bearing Manufacturing

Complete Bearing Manufacturing

NES's design engineering and manufacturing capabilities provides customers with custom designed bearings without long lead times. Our knowledge and expertise allows us to analyze your application conditions and develop an advanced product that will meet or exceed your needs.



NES's unique manufacturing concepts and attention to application demand issues has resulted in solutions for bearing applications from satellite actuation systems, nuclear reactors and aircraft engines to cryogenic pumps and drilling rigs.

Bearing Types

NES manufactures deep groove ball bearings, angular contact ball bearings, double row self-aligning ball bearings, needle roller bearings and cylindrical roller bearings to custom print requirements.

Bearing Materials

NES uses a wide range of bearing materials to achieve success in your application. Typical ring materials include 52100, M50, Pyrowear 675, N360, XD15NW, 440C, and AMS 5898. Rolling element material varies from 52100, 440C, Silicon Nitride (ceramic), and M50. Precision machined cages of Bronze, Steel, silver plated bronze or steel, Nylon 6/6, PEEK, Vespel, Torlon, and Phenolic.



Bearing Modification

NES maximizes existing resources to reduce custom bearing cost and lead-time by utilizing high quality off-the-shelf bearing products as a starting point for modification. When off-the-shelf bearing products do not meet application requirements, NES will modify the product through design and remanufacturing of specific components or characteristics to enhance the capabilities of the bearing.

Precision Modifications include ceramic hybrids, specialty cages, duplexing of ACBB & DGBB, precision spacers for tapered roller bearings, radial clearance changes, anti-rotation holes/grooves/slots, non-standard bore sizes, tapered bore 1:12, oil holes and grooves, special width requirements, and seal/shield additions. Simple modifications include snap ring grooving, regressing, seal/ shield replacements, and special marking.