



**Precision Bearing Solutions for  
Prototypes and Low Volume Production**





### Barden – The Super Precision Experts

The Barden Corporation leads the world in the design and manufacture of super precision bearings and bearing assemblies. We are a member of the multinational Schaeffler Group which specialises in bearing technology and precision products for applications in the aerospace, automotive and industrial plant industries.

Manufacturing facilities are located in the UK and the USA, where high quality and design innovation are of the utmost importance. Continual investment into production machinery and cleanrooms makes Barden facilities some of the finest of their kind in the world.

### Prototyping – from Vision to Reality

Specialist bearing applications demand a specialist solution, whether this is the optimisation of an existing design, or the creation of a truly unique bearing. With super precision bearing expertise spanning over six decades, the Barden service covers the full development cycle, from concept to production.

Barden engineers work closely with customers to determine high performance, cost-effective bearing designs before bringing these visions to life. State-of-the-art calculation tools are employed to bring a design as close to a viable solution as possible, while the creation of a prototype is used to further refine the design and identify potential risks to the process.

Our prototyping service offers the following benefits:

- **Process Efficiency.** The production of an initial prototype can help identify risks to the production process, quickly and before an expensive production run begins.
- **Problem Solving.** Where applications require unusual configurations or face functional problems, Barden will design a truly unique bearing while our prototyping process ensures it will work.
- **Cost-Effective.** Prototyping can identify areas where significant cost benefits can be factored in to the final design.
- **Performance Improvements.** Bearing performance can be optimised in the early design stages.

Using prototypes to meet all design, manufacturing and functional requirements, Barden is leading the way in innovation and precision that is tailored to our customer's requirements.

### Low Volume Production – A Flexible Approach

When it comes to bearings which are obsolete or contain unique and distinctive design features, obtaining volumes smaller than a few hundred is often a challenge. This can also apply to applications where only a small number of bearings are utilised during the equipment lifetime, such as in the aerospace, defence and nuclear industries. These applications may also demand increasingly specialist requirements, including full manufacturing traceability, quality and precision standards and a complete retention of records.

Barden's advanced machining capability and an emphasis on set-up time reduction enables us to specialise in low volume, customer dedicated production.

And when it comes to obsolete bearings Barden is able to manufacture to the same (or higher) quality standards as the original bearings and also supply in small batch sizes. Our design and prototype service can be used to further improve the functionality of obsolete bearings, before a small production run commences.

Barden's manufacturing operations are constantly being improved and bearings produced to the highest tolerance standards available in the industry today. ISO P4/P2 (ABEC7/9) tolerances are typical of all Barden bearings, while many features exceed ABEC9 requirements depending on the customer and application.

