



## The GGB Advantage

Reduce downtime and improve equipment performance

### IMPROVED PERFORMANCE AND SERVICE LIFE

Superior wear resistance and high shock load capacity provide extended bearing service life and improved reliability. Additionally, excellent low friction properties reduce power losses for improved equipment performance.

### MAINTENANCE-FREE

GGB bearings are self-lubricating, making them ideal for applications requiring long bearing life without continuous maintenance, as well as operating conditions with inadequate or no lubrication.

### LOWER SYSTEM COST

GGB bearings reduce shaft costs by eliminating the need for hardening and machining grease paths. Their compact, one-piece construction provides space and weight savings and simplifies assembly.

### PRODUCT AVAILABILITY AND TECHNICAL SUPPORT

GGB bearings are available in standard dimensions, and our global production and supply network assure high quality bearings and on-time deliveries. In addition local application engineers provide comprehensive technical support.

### ENVIRONMENTAL

Greaseless, lead-free GGB bearings comply with increasingly stringent environmental regulations such as the EU RoHS directive restricting the use of hazardous substances in electrical and electronic equipment.

## Your Complete Bearing Solutions Provider

GGB offers comprehensive selection of plain bearing solutions to meet the world's most demanding bearing needs. We manufacture Metal-Polymer Bearings, Engineered Plastics Bearings, Fiber Reinforced Composite Bearings, Metal and Bimetal Bearings, in addition to a range of supporting assemblies, bushing blocks and thrust plates. Industries served include:

- Aerospace
- Automotive
- Energy
- Fluid Power
- Industrial
- Primary Metals
- Construction/Agriculture
- Recreation

### GLOBAL FOOTPRINT

GGB has manufacturing, sales, service and support locations around the globe. This vast network of resources and expertise enables us to respond promptly to your bearing needs wherever you do business.

### GGB North America

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The Global Leader in High Performance Bearing Solutions



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## High Performance Bearing Solutions for Air Conditioning and Refrigeration Compressors

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# High Performance Bearings for Compressors

GGB manufactures a wide range of plain bearing solutions for air-conditioning, refrigeration and heat pump compressor systems, serving the industrial, domestic commercial and automotive markets.

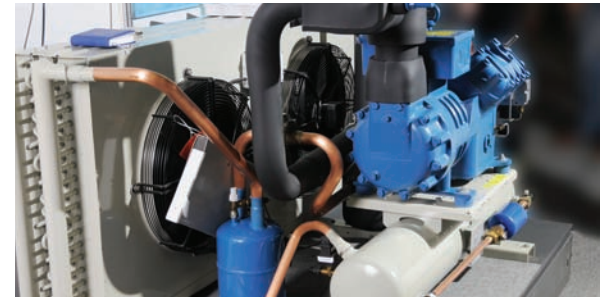
GGB bimetallic and metal-polymer lead-free bearings offer superior tribological performance in



different compressor types and designs, including scroll, piston, rotary and reciprocating compressors.

The low friction properties of PTFE-based metal-polymer products significantly improve a compressor's Coefficient of Performance (COP). These low friction properties are equally beneficial in the start-up phase, during which oil lubrication is often poor. The superior wear and fatigue resistance characteristics of GGB bushings further contribute to reliable system performance and extend compressor life.

Available in different shapes (cylindrical bushes, thrust washers, half-bearings and customized designs) and with features such as oil grooves, holes and notches, GGB bearings offer exceptional efficiency in a wide range of speeds (fixed or



variable) and loads. With their unique structure, GGB bearings are compatible with all common refrigerants and oil lubricants used in A/C and refrigeration systems. They also accommodate misalignment and can be burnished or machined after assembly to achieve reduced clearances.

## GGB Products

### GGB Metal-Polymer PTFE Based Materials

The low friction properties of GGB PTFE based metal-polymer bearings make them ideally suited to compressor applications. The choice of bearing depends on the type of application and the operating conditions and environment of the system. The products below comply with EU ELV, RoHS and WEEE regulations.

#### DP4™ / DP4-B

DP4 / DP4-B offer excellent wear resistance under unidirectional loads in dry and oil lubricated environments. The metal-polymer bearing structure allows the bearings to be burnished after assembly for improved bearing precision and reduced operating clearances, enabling better compressor efficiency and less noise.

#### DP10

DP10 self-lubricating bearings provide good dry friction and wear performance over a wide range of operating conditions. DP10 offers excellent hydro-fatigue performance and is recommended in lubricated conditions with oscillating and rotating loads.

#### DTS10®

DTS10® offers excellent wear resistance and low friction in lubricated hydraulic applications. A minimum overlay thickness of 0.1 mm permits, under carefully controlled conditions, machining of the assembled bore for improved dimensional tolerance and reduced geometric defects, while retaining a thin layer of PTFE sliding surface. The DTS10® also offers excellent chemical resistance, fatigue strength, cavitation and flow erosion resistance, and good behavior in dry start-up conditions.

#### DP31

was specifically developed for lubricated applications. Its distinctive formulation confers excellent resistance to wear, cavitation erosion and fatigue.

### GGB Bimetallic Materials

Designed for inter-changeability, the GGB bimetallic bearing materials are a lead-free alternative to the well-known lead-bronze bimetallic bearings. The products below comply with EU ELV, RoHS and WEEE regulations.

#### GGB-SZ

GGB-SZ plain bearings consist of a tin-bismuth-bronze sliding layer sintered onto a steel backing. This construction provides high load capacity, particularly high specific loads with low-frequency, oscillating motions.

#### GGB-BT20™

GGB-BT20™ plain bearings consist of an aluminium-tin sliding layer sintered onto a steel backing. This construction provides good running characteristics and moderate load capacity.

For additional market/product offerings, go to [ggbearings.com](http://ggbearings.com)