



HIGH PERFORMANCE BEARINGS FOR FLUID POWER

FLUID POWER / HYDRAULIC POWER

Numerous of critical applications depend on fluid power/hydraulic technology. Compressor or pump failure can lead to downtime, costly repairs, and unsatisfied customers. More and more stringent environmental regulations pose unique challenges to design engineers to minimize development costs and time and while simultaneously increasing durability of the components. GGB environmentally friendly bearing solutions can help extend service life and offer:

- excellent wear resistance
- high shock load capacity
- low friction properties reduce power loss even at low speed/high pressure conditions
- reduced noise and vibration
- controlled interfacial heat generation
- high temperature resistance to accommodate the continuous operation
- low weight and compact design

By partnering with you early in the design process, we can review your assemblies and make sure both the bearing and surrounding components are optimized for performance and cost-effectiveness. Partnering early in the design phase also increases your customers' satisfaction in regards of durability, power consumption, and reduction of CO₂ emissions.

Applications in which they are used include:

- scroll compressors
- reciprocating compressors
- compressor vanes
- refrigeration
- internal gear pumps and motors
- rotary compressors
- piston compressors
- air-conditioning
- heat pumps axial piston pumps

The GGB Advantage



LOWER SYSTEM COST

GGB bearings can help to 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.



LOW FRICTION, HIGH WEAR RESISTANCE

Low coefficients of friction eliminate the need for lubrication, while providing smooth operation, reducing wear and extending service life. Low friction also supports the elimination of the effects of stick-slip or "stiction" during startup.



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.



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.



CUSTOMER SUPPORT

GGB's flexible production platform and extensive supply network assure quick turnaround and timely deliveries. In addition, we offer local applications engineering and technical support.



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.

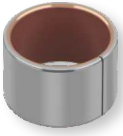
PUSHING BOUNDARIES TO CO-CREATE A HIGHER QUALITY OF LIFE

With our extensive global presence and deep expertise in various applications, our capabilities are pushing the boundaries. We strive to expand the horizons of what's achievable, encouraging customers from all industries to collaborate with us and foster innovation together.

Today, our products can be found everywhere – from scientific vessels at the bottom of the ocean to racecars speeding down the tarmac to the Curiosity rover exploring the surface of the Mars.

GGB PRODUCTS

The following products are particularly well suited for fluid power applications*. Contact your local Timken sales representative for bearing product selection and design assistance.



DTS10® hydrodynamic bearings:

- excellent wear resistance and low friction in lubricated hydraulic applications, designed to be machined on-site for tight tolerances
- excellent chemical resistance
- excellent fatigue strength, cavitation and low erosion resistance, good behavior in dry start-up conditions



DP4® self-lubricating bearings:

- suitable for dry operation, which eliminates the need for greases and oils
- resistant to high loads for extended operating life
- suitable for linear, oscillating, and rotating movements



DP10 low-friction bearings:

- very good performance in lubricated applications, especially in marginally lubricated applications
- good wear and low friction performance over a wide range of loads, speeds, and temperatures in dry running conditions
- suitable for linear, oscillating, and rotating movements



DP31 hydrodynamic bearings:

- excellent flow erosion and cavitation resistance
- excellent low friction and wear resistance performance in lubricated applications
- very good fatigue strength



www.ggbearings.com



Order-No. 11562

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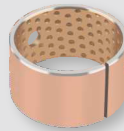
Hi-EX® hydrodynamic composite bearings:

- rated for high temperature use up to 250°C
- suitable for use with low viscosity fluids
- offer good wear resistance under thin film conditions



GAR-MAX® self-lubricating bearings:

- offer exceptional performance under heavy load and slow speed
- provide excellent resistance to shock, misalignment, chemicals, and contamination
- very good dry wear performance



AuGlide® machinable bimetal bearings:

- suitable for high loads and high temperatures
- offer excellent fatigue strength under dynamic and shock load conditions
- suitable for hydrodynamic operation



*Performance depends on different operating conditions.

