www.gmpbearings.com

PUMP & INDUSTRIAL **BEARINGS** 













# EFFORTLESS MOTION WITH PRECISION ENGINEERING.



FOR PUMP APPLICATIONS



## GMP Pump & Industrial Bearings

With over 47 years of manufacturing experience, GMP Pump and Industrial Bearings are exported to nearly 60 countries and are trusted for critical applications by leading OEMs worldwide.

We specialize in manufacturing pump cutlass bearings of all sizes and types, catering to the needs of prominent OEMs, repair centers, and distributors. GMP bearings can be fully customized to meet client-specific requirements, ensuring flexibility in size, material, and

production volume.

GMP Industrial water-lubricated bearings are designed for use in vertical turbine pumps, including axial and diagonal flow pumps. They are integral in circulating water pumps, auxiliary refrigeration seawater pumps used in nuclear and thermal power plants, desalination plants, lift irrigation projects, municipal water systems, and wastewater treatment facilities.



## STANDARDS WITH SUPERIOR QUALITY AND TECHNICAL EXPERTISE

## Speciality Rubber Compounds

GMP engineers can develop industrial rubber compounds that are specially engineered to meet the performance requirements for your applications.

#### **Bond Strength**

Industry leading rubber to metal shell bond and rubber to composite shell bonding techniques developed by GMP ensure fails safe bonding of rubber-to-metal and rubber-to-composite. GMP bearings have industry leading bond strength of 235 PSI (16.5 Kg/sq. cm)

#### **Tight Tolerances**

GMP Industrial water lubricated bearings are custom machined to meet exact specifications of our clients for clearance and tolerance.

#### **Energy Saving**

GMP rubber bearings have very low coefficient of friction, when compared with any other bearings. The low coefficient of GMP bearings help in reducing friction and thus cut energy losses.



Trusted for quality. Setting Benchmark.



## Protect shaft and Sleeve Vibration Absorption

GMP proprietary rubber compound is more durable against friction when compared with other rigid thermoplastic bearings. Furthermore, GMP rubber bearings have higher ability to suppress vibrations from the shaft, enabling silent running of the pump.

### **Concentricity & Cylindricity**

Most manufacturers use centreless grinding techniques to finish the outside diameter but centreless grinding process does not take the inside diameter of the bearing into account, the centres of the outside diameter and inside diameter may not be the same.

GMP bearings are mounted on a mandrel and ground on a cylindrical grinder, thus achieving better concentricity as well as cylindricity to the full length of the bearing so that it is perfectly round, perfectly straight and has no taper, as compared to bearings turned on a lathe machine.





- Designed to carry high shaft loads with minimum deflection
- Specially formulated rubber lining with extremely low coefficient of friction
- Grooves designed to efficiently dissipate heat and flush away abrasives reducing damage to bearing and shaft/sleeve.
- Can withstand high shaft RPM
- Significantly reduces friction, wear, abrasion and noise
- Industry leading bearing concentricity
- Industry leading bond strength; between rubber and shell material.
- Resistant to, grease and most chemicals
- Non-polluting and environmentally friendly



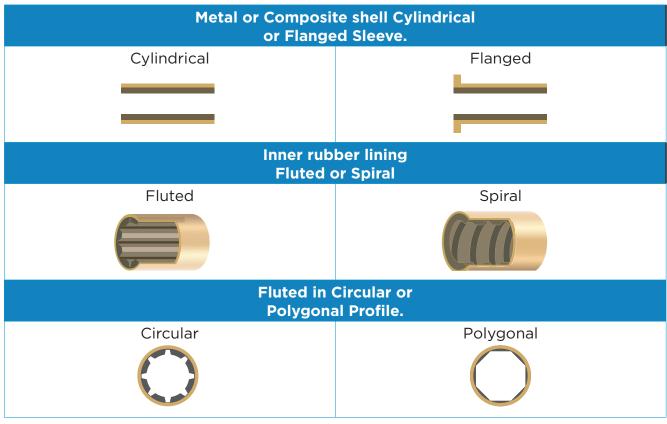
GMP Composite Cutlass Rubber Bearings offer all the benefits of our metal shelled bearings with added benefit of being light weight (1/3 the weight of metal bearings) and no galvanic corrosion due to its anti electrolytic properties.

GMP Composite Cutlass Rubber bearing are made of proprietary composite materials developed by our in house R&D team. The material is resistant to oil, grease and chemicals and match the temperature range of metal bearing materials to function at temperatures from 5°C to 70°C High temperature resistance and negligible swelling characteristics of GMP composite rubber bearings enable them to operate at a closer running clearance than other bearing materials.

The composite outer shell is kept flexible for better grip when pressed into the housing -Our shell material also has bearing properties, so even if the soft lining is worn out the shaft will not get damaged.

GMP Composite Cutlass Rubber Bearings are available in brown and black colours. GMP Flanged Composite Cutlass Rubber Bearings is available only in black.





Inner groove design can be done as per customer specifications.



#### • Shell materials in full or split:

- Brass (all grades)
- Stainless Steel (all grades)
- Bronze (all grades)
- Mild Steel
- Phenolic Brown (Non metallic)
- Phenolic Black (Non metallic)

#### • Inner lining materials:

- Nitrile rubber
- HNBR
- EPDM
- Neoprene rubber
- Natural rubber
- Viton
- · PTFE segments in NBR

<b>Rubber Properties</b>	GMP Specified
Density (Specific gravity)	1.25 ± 0.05
Hardness Shore A	65/70/75 shoreA
Tensile strength	(Min) 170 Kgf/cm2
Elongation	(Min) 300%
Youngs modulus	(Max) 220kg/cm2
Permanent Compression set	(Max) 20%
Bond strength	(Min) 250 PSI







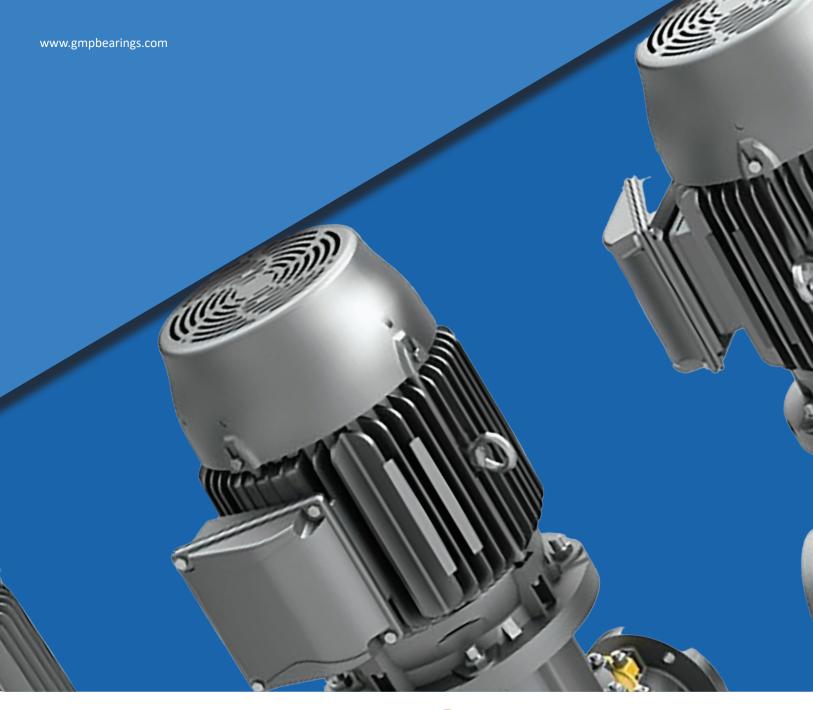
















#### **GENERAL METALS AND POLYMERS**

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