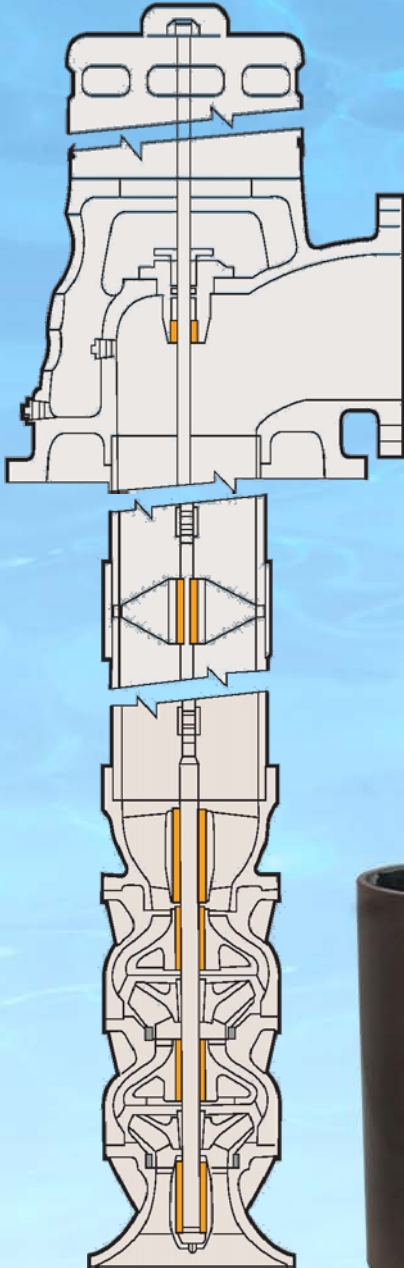




GMP

Since 1979

GENERAL METALS & POLYMERS



GMP Vertical Pump bearings

With over 35 years of vertical pump bearings manufacturing experience. We manufacture pump cutlass bearings in all sizes and types for leading OEM's, repair centres and distributors. GMP bearings are custom made to our clients requirements to accommodate any size, materials and volume.

GMP Industrial water lubricated bearings are used in Vertical turbine pumps including axial flow and diagonal flow Circulating water pump, auxiliary refrigerating seawater pump installed in nuclear power plants, thermal power plants, desalination plants and lift irrigation projects, city/town municipal water projects and waste water treatment plants.





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 failsafe 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.

Protect shaft and Sleeve

The inner groove design of GMP bearings combined with proprietary rubber compound creates a hydrodynamic lubricating film even at low shaft rpm. The grooves are designed for maximum lubricating water flow and dissipation of frictional heat. Abrasive grit is flushed out through these grooves, protecting the shaft/sleeve as well as the bearings from damage.

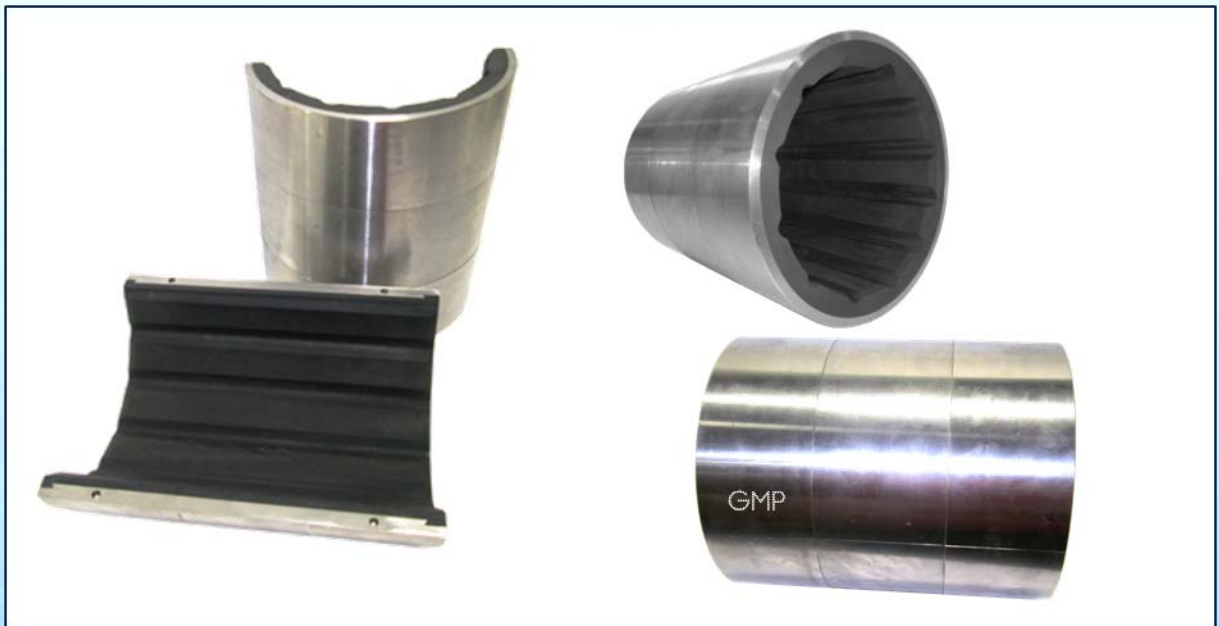
Vibration Absorption

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 and 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.



GMP Industrial Water Lubricated Bearings/Cutlass Rubber Bearings

- 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 (Phenolic) Cutlass Rubber Bearing

- 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.

GMP Range of Bearings

Cylindrical

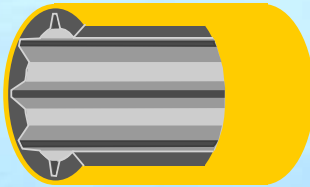


Metal or Composite shell
Cylindrical or Flanged Sleeve.

Flanged

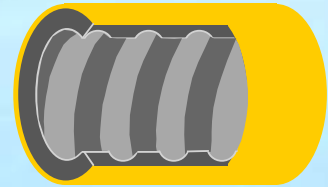


Fluted



Inner rubber lining Fluted or Spiral

Spiral



Circular



Fluted in Circular or Polygonal Profile.

Polygonal



Choice of shell materials:

- Brass (all grades)
- Stainless Steel (all grades)
- Bronze (all grades)
- Cast Iron
- Mild Steel
- Phenolic (Non metallic)

Choice of Inner lining materials:

- Nitrile rubber
- Neoprene rubber
- Natural rubber
- EPDM
- PTFE Graphite Filler
- PTFE Bronze Filler
- Carbon

Rubber Properties

GMP Specified

Density (Specific gravity)	1.25 ± 0.1
Hardness Shore A	65/70 shores A
Tensile strength	105 -172 Kgf/cm ²
Elongation	(Min) 150%
Young modules	(Max) 220kg/cm ²
Permanent Compression set	(Max) 20%
Co- efficient of thermal expansion	7x10 ⁴
Bond strength	5.25 to 16.5 Kg/sq. cm



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