





ABOUT US

VIMAL BEARING. is one of the leading bearing companies in India that manufactures and exports Automotive and Industrial bearings as per international standard specifications. VIMAL stands with courage, knowledge and an eye to innovation to produce technologically advanced bearings that reach perfection when it comes to seamless performance.

We offer a wide array of Bearings, namely Taper Roller Bearings, Wheel End Hub Units, Spherical Roller Bearings, Cylindrical Roller Bearings, Deep Groove Ball Bearings, King Pin Bearings & Thrust Bearings for reputed names such as Mercedes-Benz, Volvo, Scania, SAF, DAF, MAN, Renault, Iveco, Hino, Navistar, Kenworth, Freightliner, Fiat trucks, Bed Ford, Zetor, John Deere, Massey Ferguson for overseas markets.

The bearings are required in several industries, such as Automobiles, Agriculture Marine, Industrial Movers and Heavy Earthmoving Industry. Since its inception in 1993, it has been manufacturing, supplying and exporting a plethora of bearings. Meeting high level of excellence and international standard specifications, these bearings effectively used in manufacturing of automobiles, agricultural, Industrial, power motors, appliances and a host of other applications. Efficiency never takes a back seat whether radial or thrust loads and even with high speed rotation. This certainly becomes one of the core strengths of the VIMAL.

We had a very humble beginning, but today we have 2 cutting-edge manufacturing units consisting high-tech machinery at RAJKOT. This advanced infrastructure is spread across 5000 sq. mtr. with the construction in area of 50,000 sq. ft. We have a significant capacity to manufacture 1.5 million bearings per annum.

Vimal Bearing is an ISO 9001:2015 certified organization and we manufacture our products under the brand name of 'VEC Bearings' & 'VPB Bearings'

WHY YOU SHOULD PREFER

VIMAL'S

PRODUCTS?

- MATERIAL : IMPORTED SAE 52100 / 100 CR6
- INDUCTION FORGING : TO MAINTAIN PERFECT CHEMICAL COMPOSITION
- SPHERODIZIDE ANNEALING : TO MAINTAIN PERFECT MICROSTRUCTURE
- CNC MACHINING : TO MAINTAIN PERFECT DIMENSIONS
- HARDNESS : FOR BEARING RINGS – 59 HRC TO 63 HRC
FOR ROLLERS – 62 HRC TO 64 HRC
- GRINDING TOLERANCE :
 - 2 POINT - Below 5 microns
 - 3 POINT – Below 3 Microns
 - Ovality - Below 2 Microns
 - Roundness - Below 3 Microns
 - Roughness – Below 0.16 Microns
 - Squareness – Below 5 Microns
 - Face & Lip Parallelism – Below 5 Microns
 - Eccentricity – Below 5 Microns
 - Raceway Profile – Positive Crowning +7 / +12
- ROLLERS : EVERY ROLLER IS BEING SORTED UNDER 2 MICRONS
- VIBRATION & NOISE TESTING : WE ENSURE MINIMUM VIBRATION & LOW NOISE AT HIGH RPM
- VISUAL TESTING : EACH RINGS & ROLLERS ARE VISUALLY CHECKED BEFORE ASSEMBLING TO ACHIEVE ZERO DEFECT PRODUCT.
- PACKAGING : WE SUPPLY PRODUCTS UNDER PRIVATELY REGISTERED BRANDS WITH BEST QUALITY PACKAGING.



MANUFACTURING PROCESS

FORGING

Vimal Bearing use high quality Bearing Steel SAE 52100 / 100CR6 or Equivalent(Modified) Prime Steel of International Acceptability for manufacturing Bearing Rings.

Standard	GRADE	C	Mn	P	S	Si	Ni	Cr	Cu	Mo
ASTM A295	52100	0.93-1.05	0.25-0.45	0.025	0.015	0.15-0.35	0.25	1.35-1.60	0.30	0.10
DIN 17230	100Cr6/1.3505	0.90-1.05	0.25-0.45	0.030	0.025	0.15-0.35	0.30	1.35-1.65	0.30	-
JIS G4805	SUJ2	0.95-1.10	0.50	0.025	0.025	0.15-0.35	-	1.30-1.60	-	-
Bs970	535A99/EN31	0.95-1.10	0.40-0.70	-	-	0.15-0.35	-	1.20-1.60	-	-

Chemical Composition as Per Standard



SPHEROIDIZE ANNEALING

Forged Bearing Rings undergoes Spheroidize Annealing Process which improves Ductility and toughness with reduced Hardness and Strength to produce a definite Microstructure.

CNC MACHINING

After Spheroidize Annealing the Bearing Rings are sent for CNC turning process. Each Rings undergoes Dimensional & Visual Checking.



HEAT TREATMENT PROCESS

One of the Important Step for creating a highly durable & Long lasting Bearings is Heat Treatment Process. Our Heat treatment process consist of Hardening, Super Cooling and tempering which gives stabilized ring structure and increase the life span of bearings.

MANUFACTURING PROCESS

GRINDING

Grinding is the most important process of bearings. To achieve Accurate Dimensions in grinding process, Vimal's fully automatic machines are capable of manufacturing superior quality bearings under highly qualified engineer's team. Vimal's manufacturing unit is equipped with world's best machinery to make world class quality products.



SUPER FINISHING

After Grinding Rings undergoes Super finish process on CNC Super Finish Machine which ensures best Roughness Values. We Control Roughness Values below 0.16 microns for Raceways & Rollers.

INSPECTION

Before assembling bearings, Each and every rings are checked visually and Size of all rings are checked by our engineers in our Inspection room. Only after passing the quality test, components are taken for assembling.



ASSEMBLY & PACKAGING

Our Assembly & packing department is fully automatic with a capacity of packing 5000 pieces per day. We ensure Export Oriented Packaging that Do not Damage the Products.

QUALITY CONTROL LABORATORY

HARDNESS

Each & Every Bearing Ring Hardness are checked before Grinding Process. Hardness is Checked in Digital Hardness Testing Machine which Ensure Exact Hardness Values i.e 58 HRC to 64 Hrc



ROUGHNESS

We have latest Version of MARSURF from MAHR GERMANY to Measure Surface Roughness. It Evaluates parameters like Form Geometry & Surface Finish of Components. This Control helps for Improving the Quality and Product performance in the Field.



ROUNDNESS

MAHRFORM – MAHR GERMANY GMBH. This Equipment is Used for Checking the roundness, Squareness, Concentricity, Coaxiality & Parallelism of Bearing Components which ensures running accuracy for Long Life Bearings.



CONTOUR

MAHR CONTOUR MEASURING MACHINE is Used to Measure Each and every Dimensions of Bearing Components. Dimensions like Grooves, Radius, Chamfers, Surface Degree Etc.

PRODUCTS

TAPER ROLLER BEARING

This type of bearing is composed of an inner ring, outer ring, and tapered rolling elements. Thanks to the geometry of their design, tapered roller bearings can withstand combined loads (axial and radial). In addition, this design allows rolling movement without the rollers slipping off the tracks of the outer and inner rings.

The contact angle of the tapered roller bearings on the rolling tracks is variable, which in each case offsets the application axial and radial loading ratio; at a larger angle, a greater ability to withstand axial loads.

VIMAL has a wide range of tapered roller bearings consisting of detachable elements that make them easily adjustable in applications.

The most popular applications for this bearing type are:

- Wheel hubs for light, industrial, and agricultural vehicles
- Transmissions (gearboxes and differentials)
- Machine tool spindles



WHEEL END HUB

VIMAL's Wheel end hub bearings are preset bearings, composed of two inner rings housed in one Outer Ring.

They are maintenance-free bearings that are greased for life, and because of their precise axial clearance, compact design, and the use of high quality grease, these bearings ensure optimal bearing performance at high loads.

With our wheel end hub bearings, quick and easy replacement in heavy vehicle wheel hubs is ensured.

WHEEL END KITS

Vimal's wheel end kit are an advanced replacement solution, consisting of a set of two preset bearings, INBOARD and OUTBOARD, high precision for all types of industrial vehicle applications.

Vimal's wheel end kits are previously greased units with high quality grease that guarantees their use in the most challenging conditions.



WHEEL END MODULES

Vimal's wheel end module is an integrated bearing in the hub of the industrial vehicle.

They are made of two preset bearings, perfectly aligned and lubricated for life. Thanks to integration, this type of bearing ensures optimum performance and easy assembly through a complete replacement of the set.

PRODUCTS

SPHERICAL ROLLER BEARING

VIMAL's Spherical roller bearings are non-separable double-row radial bearings, with barrel shaped rollers.

- Excellent alignment compensation
- Suitable for large radial loads
- Low to medium speed ratings
- Series: 21300, 22200, 22300, 23000, 23100, 23200, 23900, 24000, 24100
- Application examples:
 - heavy machinery (e.g. construction and mining machines)
 - rolling mills
 - gear boxes



CYLINDRICAL ROLLER BEARING

Vimal's Cylindrical roller bearings have the following key features:

- Single-row (design variants N, NJ, NU and NUP)
- Suitable for high radial loads
- High speed ratings
- Simple mounting due to the possibility to fit inner and outer rings separately
- Application examples:
 - industrial gearboxes
 - mechanical presses
 - electrical motors
 - pumps and compressors
 - traction motors and axle boxes for railway vehicles
 - steel mills

DEEP GROOVE BALL BEARING

Vimal's Deep groove ball bearings are the simplest yet the most popular bearing:

- Suitable for very high rotating speeds
- Well suited for medium high radial and axial loads in one or both directions
- Various seals and grease variants available for different operating conditions
- Numerous clearance and tolerance classes available for different operating conditions
- Series: 600, 6000, 6200, 6300, 6400, 1600; Thin-ring: 61800, 61900
- Application examples:
 - electrical motors
 - general machinery
 - industrial gearboxes
 - pumps
 - agricultural machinery



NEEDLE ROLLER BEARING

Vimal's needle roller bearings are bearings with cylindrical rollers that are small in diameter relative to their length. The modified roller/raceway profile prevents stress peaks to extend bearing service life.

Vimal supplies needle roller bearings in many different designs, series and in a wide range of sizes, which makes them appropriate for a wide variety of operating conditions and applications.



CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited

certifies that

VIMAL AUTO INDUSTRIES

Survey No. 197, Plot No. 2, Plasma Road, B/h Sarovar Spintex, NH 27,
G.I.D.C., Veraval (Shapar), Dist. Rajkot - 360 024, Gujarat, INDIA

has implemented a Quality Management System

in accordance with **ISO 9001:2015**

For Scope of

**Manufacture, Supply and Export of
Roller Bearings, Ball Bearings and Wheel end Hub Unit**

The certificate is valid From **2019-06-18** until **2022-06-17**

Subject to successful completion of annual periodic audits

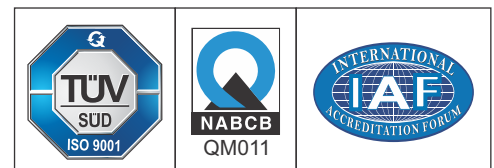
The present status of this Certificate can be obtained on www.tuv-sud.in

Further clarifications regarding the scope of this certificate may be obtained by consulting the certification body

Certificate Registration No. **99 100 19969**

Date of Initial certification : **2019-06-18**

Certification Body
of TÜV SÜD South Asia Private Limited, **Mumbai**
Member of TÜV SÜD Group



APPLICATION



OUR BRANDS





+91 94288 92829 | +91 90166 55293

vimalbearing@gmail.com

www.vimalbearings.com

Unit-1 : Survey No. 197, Plot No. 2, Plasma Road, Beside Sarovar Spintex, NH-27, Veraval-Shapar 360027.

Unit-2 : Survey No 30, Plot No 4, Near Kalariya Forge, Ganga Gate, Veraval-Shapar 360027.



SCAN ME