

SCHAEFFLER

FAG



touching

lives

In the 21st century, science and technology have become synonymous with economic and human development. Both aim to improve growth and standards of living. At the same time we believe that technology must contribute to preserve environment, prevent degradation and support sustainability.

As India's leading manufacturers of Rolling Bearings, we find numerous opportunities to contribute to human progress. Bearings move the world, and are omnipresent in wide-ranging applications from ceiling fans to wind mills, motorcycles to mining, tractors to textile machines, and from paper to steel mills. In all these applications we believe FAG is making 'a qualitative difference' by partnering with OEMs and offering solutions that significantly enhance performance while maintaining ecological balance.

Modern day applications, be it mobility or machine tool are very demanding as customers look for high speed, high efficiency, high reliability, increasing load capacities and uncompromising standards of safety. At FAG, we realise our customers' expectations not only by producing excellent quality, but also by applying our keen engineering know-how.

Our 'Sector Approach' enables us to analyse trends and challenges of diverse sectors. Our Application Engineers are trained to see the 'Big Picture in Small Things'. So besides bringing in expertise in the bearing domain, our engineers also develop sub-system and system know-how and are capable of analysing, simulating, optimising interfaces and influences in bearing applications. We partner with our customers at an early stage of development, combine our application know-how with process and manufacturing expertise, and deliver a product that assures our customers of high efficiency, high safety and of course exceptional performance that brings smile and confidence to millions of end users day after day.

In the following pages, while we present and analyse financial performance, we also look at our Company's report in terms of its contribution to technological progress in different sectors.

We take you around various bearing applications to explain how there is a bit of FAG in every aspect of your life and how our engineers are working closely with business associates to make your world smarter, safer, better.

**Touching lives after-all
is the key purpose of technology at FAG !**



Highlights 2013

FAG is BHEL's Preferred Vendor

Bharat Heavy Electricals Limited (BHEL) awarded the coveted 'Best Vendor' Award 2012-2013 for products supplied and services rendered to their Oil Rigs Division based in Hyderabad.



Savli gets ISO 9001, ISO 14001 & OHSAS 18001 Certification

FAG's new Savli plant has set a technology benchmark. The plant was recently certified with ISO 9001, ISO 14001 and OHSAS 18001.



Kudos for the Quality Connoisseurs

Quality has always been a core competency. This year, FAG India received 13 Gold and Silver Kaizen / Quality circles awards from CII.



VIKAS

As VIKAS - our blue collar employee training module - entered third year of implementation, we revised and revamped the programme content to make it more robust and relevant to current business challenges. Participants of VIKAS initiative in 2013 are undergoing seven phases of comprehensive development to imbibe right set of skills and attitudes.



Scoring on Customer Satisfaction Index

Honda Motorcycle and Scooters India Pvt. Ltd. (HMSI) recognised FAG India for 'Valuable Support and Contribution' for their motorcycle project.



Recognised as Green Guardians

On the occasion of World Environment Day - 5th June, Hero Motocorp Limited recognised FAG India for its contribution to the 'Green Supply Chain' initiative.



Line Challenger

one of our core employees of FAG and Silver medals in organised by QCFI

Quality is No.1 priority at FAG. Our Line Challenger concept follows a focused approach wherein team members analyse current situation scientifically, address all concerns and implement comprehensive improvement plan. The idea is obviously to evaluate all our activities solely through 'customer's eyes.'



Creating a Wonderful World

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FAG initiated an innovative employee engagement activity - 'WEe Wonder FAG Children Club'. This club provides children of our employees an excellent platform to channelise positive ideas and share them with other kids from diverse backgrounds. The aim is to embed in them the values of collaboration, positive thinking and mutual respect.



Bridging the Generation Gap

Another employee engagement programme, 'Sanskar Setu' was launched with an aim of providing an emotional connect between the employees and their children thus, encouraging communication and mutual learning.



The Competence Advantage



A product is only as good as it functions. Quality is No.1 priority at FAG. We benefit from Schaeffler's global know-how as we constantly improve our products and processes. At the same time, we are developing strong local engineering capabilities in India. Beyond product expertise, our engineers are knowledgeable in domains such as application engineering, calculations, installation, condition monitoring to name a few. This cutting edge competence helps us find efficient solutions to our customers' problems, gives motion to some of the finest ideas our customers have and thus, provides FAG a strong competitive advantage in the market.



Mobility

Driving Efficiency

Megatrends have a transformative impact on the future of mobility. Economic growth in developing countries and urbanisation are driving multi-modal commuting. Trends towards individualism leads to ever increasing need for personal transportation. At the same time, intercity and intra-city mobility needs are pushing development of different concepts of public and shared transportation. Ever increasing pressure on climate change, emission control, depleting resources of fossil fuel and rising fuel prices are some of the challenges that our engineers constantly address while designing bearings for mobility products.

FAG has years of experience in developing bearings for two-wheelers, three-wheelers, passenger cars, commercial vehicles and railways. Our engineers know that our products have a direct bearing on the efficiency of any vehicle - personal or commercial. With our in-depth understanding of automotive systems, we constantly innovate to provide bearing solutions that enable high fuel efficiency, downsizing, emission control, friction reduction, driving comfort and greater safety.

So next time you are driving a bike or car, or taking a journey in the train, do remember FAG moves your world.

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Automotive

In passenger cars, our maintenance-free Wheel Bearing units provide safe and efficient performance. Besides proven Generation 1 Bearings for driven wheels, we also expanded production of Generation 2 and Generation 3 Wheel Bearings at our Vadodara plant. These bearings have integrated flanges, built-in ABS sensors, effective sealing and facilitate optimised mounting that eliminate adverse influences due to manual errors. With our innovative designs, we offer significant reduction in weight and thus, contribute to reduction in fuel usage.

Since their market introduction in 2012, FAG Generation 2 and Generation 3 Wheel Bearings have gained increasing confidence of our customers in terms of quality, reliability and energy efficiency. Besides Maruti Suzuki Ertiga, Swift and Eeco platforms, these innovative solutions will soon find their use in Maruti Suzuki's upcoming model X1, Mahindra Micro SUV and Tata Nano Diesel.



Motorcycles

Along with the need for high speed and high efficiency, motorcyclists also yearn for an overall comfortable driving experience. Our Sector Specialists understand these trends and use their expertise to design products that power the drivetrain of motorcycles to function - faster, smoother and better. Over and above reducing friction, we also reduce noise and drag while increasing sealing efficiency. With eye on fuel efficiency, we also design compact and light-weight solutions without compromising on product performance.

In co-operation with a global leader in two-wheelers, we successfully developed and implemented an optimised design of low friction Ball Bearings for two-wheeler engines. With a strong focus on providing optimum solutions for large and small motorcycles, we collaborated with our valued customers - from development stage and contributed in our small way to the successful launch and subsequent ramp up of models such as Honda Dream Yuga, Mahindra Centuro, Harley Davidson Street 750, TVS Jupiter and many others.

Our collaborative initiative with Schaeffler Group Companies - INA and LuK, helps us to leverage our collective innovation capabilities and offer comprehensive system solutions for modern motorcycles. At Schaeffler India Innovation Days, an event held in Pune in February 2013, we successfully exhibited a Concept Motorcycle comprising future ready, energy-efficient solutions for engine, transmission and chassis applications.



Agricultural and Off Highway equipment

Agriculture has the potential to yield high prosperity in India.

Growing demand of food grains, labour shortages and government subsidies are some of the factors encouraging farmers to opt for modern technologies that boost farm productivity.

At FAG, we are proud to have contributed to India's agriculture growth, in our own small way. Agricultural engineering involves a wide range of machines - Tractors, Power Tillers, Combine Harvesters, Rice Planters and so on. Even if these machines are different, the operating conditions are always harsh. Our Sector Specialists and designers are sensitive to the realities of the Indian rural terrain and accordingly engineer solutions which are robust, reliable, cost-effective and fuel-efficient.

By implementing our approach of development partnership with our customers, we have developed a number of efficient products for transmission and axle drives for our leading customers such as John Deere, Carraro, Mahindra and CNH.

Being part of country's green revolution is satisfying... isn't it?







“The spirit of Innovation and the will to succeed are two guiding factors at Schaeffler, globally. At FAG, our aim is to establish a culture that simulates, supports and sustains a high level of innovation.”

Harish Shah | Head - Technology

Construction Machinery

Construction industry has grown rapidly in the last decade. Large-scale infrastructure projects, urbanisation, housing boom and new applications such as irrigation are some of the factors driving the growth of construction. At the same time construction industry needs technology products and equipment to improve quality, meet timelines of project delivery, lower costs, improve productivity and address environment related concerns. All this augurs well for the extensive development of construction machinery market in India.

FAG is partnering with leading players in the industry like Wirtgen, JCB, Case, Schwing Stetter etc. With our vast portfolio of Ball Bearings, Cylindrical Roller Bearings, Tapered Roller Bearings and Spherical Roller Bearings, we are very well positioned to meet demand of this emerging sector.

Whether it is a highway or your home, FAG has some role in building both.



Power Transmission: E-Motors and Industrial Transmission

Low friction bearings help minimise power losses in industrial transmission. For high performance gearboxes, our X-life Bearings manufactured at Maneja and Savli plants offer higher load rating capabilities in minimum space.

Our engineers use advanced BEARINX® calculations for designing bearing arrangements in a multi-shaft system. During the year, our Application Engineers worked very closely with key accounts like Elecon and Siemens to optimise bearing arrangements in transmission at very early stage of project to ensure that principles of efficiency and optimisation are built into the transmission design.

Low friction Ball Bearings from our Savli plant have set new standards in quality and reduce noise substantially in Electric Motors. Due to their optimised internal construction, excellent geometrical and running accuracies, superior surface finish on raceways & rolling elements and efficient sealing, these bearings offer immense performance advantage to our customers at no extra cost. Low friction Ball Bearings are increasingly gaining customer preferences, as we target even higher utilisation of our Savli capabilities in the coming years.

So when, you switch on a washing machine and hear no noise, that is the proof of quiet efficiency of low friction Ball Bearings from FAG.




Railways

Railways has been a part of India since 1853. Greater connectivity between cities, towns and villages has led to growing demand for passenger traffic. Rail freight traffic has immense possibilities for growth. The growing success of metro rail projects opens up new opportunities.

Trends of high load, high speed and enhanced safety will increasingly influence developments in railways. With our long experience in rail business, in India and globally, FAG is well placed to support the Indian Railways in fulfilling needs of high performance products for wheel-sets and power train applications. In cooperation with global players in metro rail transportation, FAG is actively participating in metro rail projects.

Expansion of manufacturing capabilities at Savli plant will help us to drive the localisation initiative for bearings in rail application and thus remain on track with the Indian Railways.





Raw Material, Energy and Production Machinery

Fuelling Growth

Development of core sectors and infrastructure industries require corresponding advancement in Heavy Engineering Industries. Similarly availability and quality of power is critical to economic development of the country. For years FAG has been part of India's core sector development - supplying a vast range of products including large-size bearings.

With commissioning of large-size bearing plant at Savli we will contribute even more strongly to this development.

Be it steel, cement or paper, there is a little bit of role that FAG bearings play in bringing these core goods to the nation.