



# Pursuing Business Expansion Rooted in India with Total Gear Machining Solutions

*New Factory in Bengaluru to Enable Integrated Marketing and Servicing of Machine Tools and Cutting Tools*

In India, demand for motorcycles remains strong as the popular means of transport for the general public. The market is expected to continue growing, as is the rapidly expanding demand for gear cutting machines and gear cutting tools.

According to a projection by the United Nations Population Fund, India's population will surpass 1.4 billion in 2021, making it the world's most populous country. The sudden, remarkable economic growth since its economic liberalization in 1991 has made India's GDP the fourth largest in the world\*1 and stems from an increase in the young worker demographic, which is expected to continue for several more decades. Joining the IT industry in driving India's economic growth is the motorcycle and automobile industry. Used as basic transportation by the general public, motorcycles in particular make up approximately 76% of all automotive sales, with over 13 million sold each year. In 2020, the number of motorcycles produced annually is expected to exceed 30 million. At 4.7%, the rate of automobile ownership across all households is still low, but expectations for the huge potential market are such that the world's major auto manufacturers are beginning to set up production bases in India. Against this backdrop of a growing motorcycle and automobile market, demand is also expanding for the mother machine vital in manufacturing automotive components: the gear cutting machine.

\*1: GDP based on purchasing power parity (PPP) (IMF, 2011).

## Responding to Market Needs for High Precision and High Productivity: Gear Cutting Machines and Cutting Tools Take Top Market Share

MHI's entry in the Indian market came in 1972, through the provision of gear cutting tool technology to a major Indian high-precision cutting tool company, S.R.P. Tool. Later, sales of gear cutting machines increased as the

motorcycle and automobile industries grew in the first decade of the new millennium. Amid fierce price competition, MHI expanded its share thanks to its world-leading technology. In 2005, with the acquisition of S.R.P. Tool, MHI gained a foothold in Ranipet, Tamil Nadu, India, establishing the precision cutting tool manufacturing company Mitsubishi Heavy Industries India Precision Tools (MHI-IPT). Today, MHI holds the top domestic share in

India for both gear cutting machines\*2 and gear cutting tools.

India is generally a difficult market for foreign corporations to penetrate, but MHI managed to gain the top share in just a few years after its formal entry. This was possible because it entered the motorcycle and automobile market during a period of sudden growth, and managed to provide a stable supply of mother machines that could turn out highly productive and high-quality gear cutting machines. In addition, it partnered with the local agency Chrystec (formerly Voltas) to build a sales network covering the whole of India. MHI used two approaches to expand market share: a cost-performance structure effective against the competition from Europe, and a customer-oriented sales strategy with meticulous before- and after-sales service.

In 2002, MHI began doing business with Shivam Autotech, India's largest manufacturer of motorcycle gears and shafts. MHI provided gear cutting machines that could consistently mass-produce the high-precision gears Shivam Autotech required to meet customers' high demands. This was possible due to MHI's

lineup of gear cutting machines and gear cutting tools, capable of processing all types of gears, and by the company's comprehensive technology and vast store of expertise. In fact, when Shivam Autotech receives orders for gears from a major motorcycle manufacturer, MHI cooperates with the company from the process development stage in order to meet the strict requirements for cost and quality. In this way, MHI accurately fulfills the Indian market's needs for high precision and high productivity and is attracting support from all sides.

\*2: In import and new machine markets

Annual production capacity at new plant in Bengaluru expected to reach 100 units within two or three years and include such gear cutting machines as the GE15A shown here.

## New Factory to Offer Integrated Solutions for Gear Cutting Machine Tool Production

In the fall of 2012, MHI will launch a new undertaking: the establishment of a gear cutting machine manufacturing plant in Bengaluru, an area in the south where motorcycle and automobile manufacturers and gear component manufacturers are concentrated. In cooperation with MHI-IPT, the company will realize the domestic one-stop provision of a gear machining system, which provides the complete sequence of manufacturing, sales and maintenance service for machines and gear cutting tools. This will facilitate the provision of total gear machining solutions, including the development and customization of machining methods, as well as products and servicing. Handling both machines and tools, MHI is unmatched in the world. This move will put its unique advantages to work, and should further strengthen its selling capacity.

In addition, operation of the new factory will allow rapid response to customer demands. It also has significant advantages for customers, such as the ability to perform rupee-based business transactions not influenced by exchange rate fluctuations. Shivam Autotech and other Indian gear manufacturers are displaying great interest in the one-stop provision of this gear machining system.

In order to provide even closer support for customers, the new factory is slated to have a showroom, parts center and training center annexed. Before the facility begins operation, MHI is proactively moving forward with long-term employment opportunities, employee development by training locally hired employees in Japan, and other similar activities. As a company truly rooted in Indian society, MHI is expected to lead the gear cutting machine and gear cutting tool industry and to further expand its share in this fast-growing market.



## Neeraj Munjal

Managing Director  
Shivam Autotech Ltd.



## An Excellent Partner Able to Respond to Strict Demands

Shivam Autotech is India's largest manufacturer of motorcycle gears and shafts. Our two factories produce 140,000 gears each day for Hero MotoCorp Ltd., the world's largest motorcycle manufacturer. We began by machining gearblanks and later added finished gears and shaft manufacturing as well. Our relationship with MHI dates back to 2002, when we began gear cutting in response to customer demand. In order to meet strict requirements for high precision and consistent quality, we evaluated gear cutting machine tool manufacturers from all over the world. As a result of that review, we chose MHI's highly productive, high-quality gear cutting machines. MHI's machines are also compact: they require less space to operate, leading to a reduction in fixed costs. We were very satisfied with the first four machines we received, and it led us into an amicable relationship that has lasted ten years to date. At present, we have about 50 MHI products, from gear hobbing machines and gear shaping machines to gear shaving machines used in finishing. Currently, 70% of the gears purchased by our major customer are our products. I believe that high business achievement is itself proof of MHI's superior technical skills.

MHI has a deep store of knowledge regarding the machining of all sorts of gears, and the proven technical skill to apply that knowledge to machine tools. Earlier, we received an order from a major customer that was extremely difficult in terms of product cost and machining precision and consistency, and we were having a lot of trouble making a product that met the standards. When we went to MHI for advice, engineers here in India answered the call, created a gear machining process that met all our customer's requirements, and made it highly productive as well. In addition, the meticulous, prompt support service we get from MHI and Chrystec helps keep our factories operating safely. MHI is an excellent partner with an unerring understanding of our requirements.

The increase in motorcycle demand has been brought about by the growing population of young people and soaring oil prices. We will use this opportunity to grow, not only domestically, but internationally, into a global gear and shaft manufacturing company. For that reason too, I have high hopes that the good partnership between our companies will continue to develop, becoming an even more solid relationship.