



The wind market is gaining momentum in India much like it has around the world (courtesy of Suzlon Wind Energy).

What Now? What Next?

ECONOMIC SLOWDOWN RAISES QUESTIONS FOR INDIAN GEAR MARKET

Matthew Jaster, Associate Editor

In 2006-2007, the industrial sector in India was praised for its manufacturing growth and global potential in Asia. Increased building capacity, technological advancements and a thriving domestic market predicted a bright future for India's industrial economy. A growing middle class meant more manufacturing projects resulting in a greater need for gears.

What a difference a couple of years make.

Today, the global economic slowdown is affecting Indian gear companies with varying degrees and consequences. The automobile industry

is in sharp decline, energy demands are constantly increasing and skilled workers are hard to find, let alone keep—struggles that mirror other manufacturing sectors around the world.

The focus on expansion has been silenced by companies simply trying to sustain business. It's not all doom and gloom, but 2009 appears to be far removed from the original expectations of the Indian manufacturing community.

Companies like Dee Kay Gears, Prakash Gears, Anil CNC & Gears and Mahindra Sar Transmission need to

address numerous problems to ensure future growth for India's industrial base. Plans include expanding the customer base, focusing on alternative energy markets, improving lead times and recruiting more experienced help.

Gurpal Sachdev, director of Dee Kay Gears in Mumbai, India, summed it up best when discussing the various challenges facing the Indian gear industry.

"Many improvements need to be made," Sachdev says, "but investing in power and infrastructure will be the key to India's success."

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In a January report by the Prime Minister's Economic Advisory Council entitled, "Review of the Economy 2008-2009," the growth forecast in India was trimmed to 7.1 percent in 2009 after posting a 9 percent growth rate between 2007-2008.

The estimated growth in manufacturing alone was 12.1 percent in 2006. As of January 2009, the number stands at just 4 percent. According to the Advisory Council, these numbers have dropped significantly due to the declining sales of automobiles and heavy machinery vehicles.

The massive decline in the automobile and industrial sectors were largely due to the rollback of mining, steel and cement projects and the sudden rise in interest rates, according to Sachdev at Dee Kay. Meanwhile, the agriculture, energy, machine tools and tractor industries have been steadily improving.

Prakash Gears, a manufacturer of spur, helical, bevel and worm gears located in the Coimbatore district in Tamil Nadu, India, has been manufacturing gears since 1984.

"We've had around a 20 percent decline in sales due to the economic slowdown," says S. Surulivel, a partner at Prakash. "Our plan is to expand our sales network to other countries as well as other industries like wind."

Improvements to CNC machines in India have given Prakash Gears the opportunity to prosper in the Indian gear industry. New machine technologies and a growing interest in the alternative energy market will help prepare the company for future business.

Unlike other gear companies, lead times have not been altered by the recent slowdown, according to Surulivel.

"We've been able to outsource some of our components and get things done in a quicker period of time since the economic slowdown," Surulivel says.

In other areas of the country, lead time is a growing concern.

"Lead time is so important right now and can affect the survival of anybody," says Kaushik Damani, head of business development at Mahindra

Sar Transmission Pvt. Ltd. "One must spend a good amount of effort to ensure improvements."

Founded in 1987, Mahindra Sar has been a manufacturer of gears and other transmission components in Rajkot, an engineering hub in India that boasts highly skilled workers and a labor-friendly environment.

Damani says the Indian gear industry needs to better prepare itself for economic downturns as fluctuating fuel and material costs have created plenty of confusion throughout the supply chain.

"The cost of materials has become a greater issue in 2009, and needs to be handled carefully and transparently," Damani says. "Our main concerns are cost fluctuations in steel and fuel, liquidity of inventory and sustainability."

"Material cost will always be a concern for us," Surulivel adds. "We always face the threat of China as an exporter who is always cheaper than us by 15 percent in overall cost. The raw material cost here compared to China is 15 percent more."

Anil CNC & Gears, a manufacturer of spur and helical gears, spiral and straight bevel gears, worm shafts and spline shafts, saw a minor drop in business due to economic inactivity, but it has recently begun to pick up.

"Our business was affected by 30 to 40 percent for a short period of time," says CEO B.K. Nataraju. "Since then, we've been participating in government tenders, getting subsidies, etc."

While the slowdown affected Indian companies differently, a common theme across the country is an emphasis on power requirements and the alternative energy market.

"We need to develop more generating plants to ensure adequate power, keeping in mind our target requirements for the next 20 years," Surulivel says.

Whether working in a rural or urban area, energy needs will greatly influence India's industrial capabilities in the future, notes Sachdev at Dee Kay.

"Energy costs are currently one of our greatest challenges. There is a tremendous shortage of power even in



Komatsu Ltd., a producer of large dump trucks for mining projects, has seen business increase since opening its second production base in India

developed cities like Delhi, Mumbai and Calcutta,” Sachdev says.

Along with retaining power, Sachdev sees a growing influence on business in the alternative energy market. As business in the automotive and special machine industries waned, many companies began to establish an emphasis in alternative energy, specifically wind.

“There is a global awareness to be less dependent on conventional energy means,” Sachdev says. “This is the future that is encouraged globally. We would like to get more involved in this market, but we need the knowhow.”

“This market is growing so fast,” Surulivel says. “Prakash Gears has only a small presence in wind, and we need to enter into the market much more.”

In order to make the most of the alternative energy marketplace, companies must take a closer look

at machine technology and get more support from the government.

“Machine improvements have been made,” Surulivel says, “but the country needs to become fully modernized by using CNC machines in almost all operations of gear making.”

Nataraju at Anil has not seen any new developments in gear technology in India, but believes improvements in the field of gear grinding would be beneficial. Damani at Mahindra Sar cites higher accuracy and upgrades in equipment in machining and special processes as highlights of the Indian gear industry.

Still, Damani believes many problems need to be addressed to protect the industry in the future. “The country itself needs to prepare to turn challenges into opportunities in this present situation of uncertainty,” Damani says.

Nataraju agrees that India needs to

take more responsibility on the home front during such hardships.

“The Indian government has to reduce the amount of importing and realize that Indians are capable of taking on all the various challenges here at home. This way, the manufacturing sector will sustain during the economic struggles,” Nataraju says.

Damani at Mahindra Sar adds, “The government needs to take steps to boost the domestic market as the export market is not going to improve in the short/medium term.”

Because its export business took some heat in 2008, companies like Mahindra Sar compensated these losses by acquiring new customers and new business in segments like agriculture, off-highway and wind applications.

Much like the United States, India is having a difficult time finding and

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keeping skilled workers to help serve these new business ventures—an issue affecting the global gear industry.

Due to the declination of the economy, Anil CNC was forced to cut down the workforce in other areas in order to keep its skilled workers on staff.

“Our biggest operational challenge is cost reduction,” Nataraju says. “By cutting down the employees (mainly unskilled), we have full utilization of the skills of existing employees, but there is always a great need for skilled help.”

Skilled labor is in high demand

in India regardless of the economic situation, but many companies can’t hire right now simply because they lack the spending power.

“We’ve cut production down by 20 percent, so we’re not hiring more workers,” Surulivel says.

Keeping the workers they have is another challenge. Workers that have the necessary skills and qualifications for highly skilled manufacturing positions can come and go as they please, moving around as demands increase. This has led to many career changes.

“Job jumping is a major concern,” Sachdev says.

It becomes even a greater challenge to build the most effective workforce when the numbers of engineering and manufacturing prospects just aren’t there.

“Because of the information and technology boom, many youngsters are choosing these fields over engineering in India,” Sachdev says. “This has created a tremendous shortage of the kind of skilled help we need.”

The World Education News and Reviews website (www.wes.org) posted a report on India’s educational troubles in the engineering sector in January 2007.

The report lists several factors on why engineering students as well as the educational system overall has had problems developing highly skilled workers:

- Too many institutions due to unregulated growth, especially in private sector.
- Educational institutions are proliferating in geographical pockets, leading to oversupply in some markets and shortages in others.
- There are not enough qualified faculty members, and not nearly enough doctorates coming through the system.
- Weak quality assurance structures, especially accreditation procedures.
- Lack of cooperation between industry and the classroom.
- High levels of unemployment and underemployment among engineering students.
- Graduate rate is far exceeding the economy’s growth rate.
- Colleges are not meeting the manpower skill requirements for many industries.
- Rising tuition fees at many private colleges.

Due to many of these factors, a company like Prakash Gears couldn’t get the skilled help it needed when resources were available.

“We’ve faced many problems in the availability of skilled labor at competitive cost of wages,” Surulivel says. “However, while there is a migration of skilled workers in our

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Tata Motors hopes to boost India's automotive market with its electric Ace platform of vehicles (courtesy of Tata Group).



Construction and highway projects in Mumbai are target growth areas for Indian manufacturers (courtesy of Asif Akbar).

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With question marks surrounding engineering and manufacturing education, financial accountability and government assistance to the industrial complex, India's challenges remain global. China, Europe and the United States are facing the same difficulties. The future of the global gear market will depend on saving resources, changing policies and stabilizing manufacturing and industrial segments around the world.

By most accounts, the global gear industry will survive these setbacks with alternative energy projects or new business models. When business is slow and the economy falters, many take the opportunity to look at innovations and benchmark new technologies. Now is as good a time as any to bolster R&D, look at lean and green technologies and reexamine business plans.

Most of the individuals participating in this article have begun to see some positive signs heading into the summer of 2009.

"The gear industry must not be so bad at the moment," Damani says. "We're not expecting any negative growth at Mahindra Sar."

Surulivel adds, "Business is good and steadily growing. There is still large potential throughout the world for India's gear industry."

For others, 2010 can't get here fast enough.

"It's difficult for us to sustain in 2009," Nataraju at Anil says. "It's a zero investment year."

Hoping to put the global economic slowdown behind them, gear companies wait to see what the future holds for industrial India. ⚙

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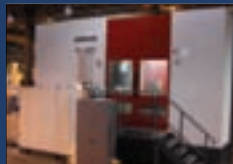
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