

## OVERVIEW

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# Holding the industry together

**F**asteners literally hold industry together. Fasteners are very important as each component or machinery or vehicle needs these to hold it together. Like a chain is said to be as strong as its weakest link, a missing fastener may not be missed at once but is quite capable of leading to disastrous consequences. This is especially true in the age of modular systems and assembly operations where a product is put together by components manufactured at hundreds of different locations.

Fasteners come in thousands of varieties, each with specific purpose, made in different metals, ferrous and non-ferrous, and now even of engineering plastics. Screws, nuts, bolts, rivets, retaining rings, pipe plugs, pins, panel fasteners, clinch studs, bolts, bits and anchors are some of the common fasteners used in industry. However, there are constant innovations in the fastener industry in the quest for better and effective solution. Snap fasteners or smart fasteners are among the examples of new generation fasteners.

An industry needs different types of fasteners. An airplane's requirement for fasteners is different from fasteners used in automobiles or marine craft. Fasteners can

also be classified according to the material that is used for manufacturing them.

### What is the industry size?

The fastener industry is composed of two segments – high tensile and mild steel fasteners. The market size of the fastener industry in India is around US\$ 350 million. High tensile fasteners, produced by the organized sector, account for 70 per cent of the market. The mild steel fasteners, mainly produced by the unorganized sector contribute to the remaining 30 per cent of the market.

Fasteners are used in almost all engineering and chemical industries. Automobile industry accounts for 75 per cent of the total demand of this industry followed by consumer durables and railways. With the automotive industry witnessing a significant growth rate along with increasing global demand, the future of the Indian fastener industry is very promising.

Fastener manufacturing is not as simple as it may seem. The process is intricate and requires two main items: high working capital and plenty of tools. No less than 30 tools are necessary to manufacture just one fastener. New fastener manufacturers have to invest

heavily in tools, which result in higher start-up costs. It may also be mentioned that there are various design specifications in assemblies, particularly in the automobile sector. Hence, fastener producers maintain a large inventory that caters to a diverse clientele.

Some of the premier fastener manufacturers in India include Sundram Fasteners, Swastik Fasteners, Precision Industrial Fasteners, Sterling Tools, V.C. Group, Conex Metals, Avdel (India), GKW, Titanium Tantalum, Agarwal Fasteners, Hilti India, LPS Borsad and Scovill Fasteners.

### Some snapshots

Sterling Tools, a major manufacturer of fasteners in the country, finds the opportunities for growth in demand for high-tensile fasteners encouraging. The annual demand for these fasteners in the organised sector is upwards of Rs 700 crore. Much of the growth in demand for fasteners is attributed to the automobile industry, the largest end-user, which was as high as 17 per cent in 2002-03. The growth rate of the fastener industry is pegged at 10-15 per cent annually.

Sundram Fasteners, the largest manufacturer and exporter of high-tensile fasteners, with over 70 per cent market share, is riding gung-ho on the growth in the automobile sector. The company has improved its market share with all its major customers, particularly in the automobile sector.



Besides automobile industry, the demand for industrial fasteners also emanates from other important sectors like railway locomotives, construction, general engineering, textile machinery and even computer hardware.

### Challenges before the industry

Today, fastener manufacturers are facing a lot of challenges. While the brief is always simple, to make a good fastener which lasts long and can be fixed/removed easily, the development process is not so. On top of that there are certain restrictions and specifications that need to be followed by the manufacturers.

This adds to the difficulties in the manufacturing process. The lack of standardization across user industries is also a challenge.





The Indian fastener industry has a low level of standardization since most auto manufacturers, given their distinct foreign collaborations, have different design specifications for their assemblies. A fastener producer, then, has to maintain a large inventory to cater to various clients.

**What does the export scenario look?**

Although exports of industrial fasteners have good prospects, they are stymied by the high cost of raw material, lack of proper standardization and low productivity. Companies like Sterling Tools and Sundram Fasteners are upbeat, though. For instance, Sundram Fasteners exports grew by 17.5 per cent to Rs 96 crore as against Rs 81 crore earlier. The company is focusing keenly on the export market.

**Outlook**

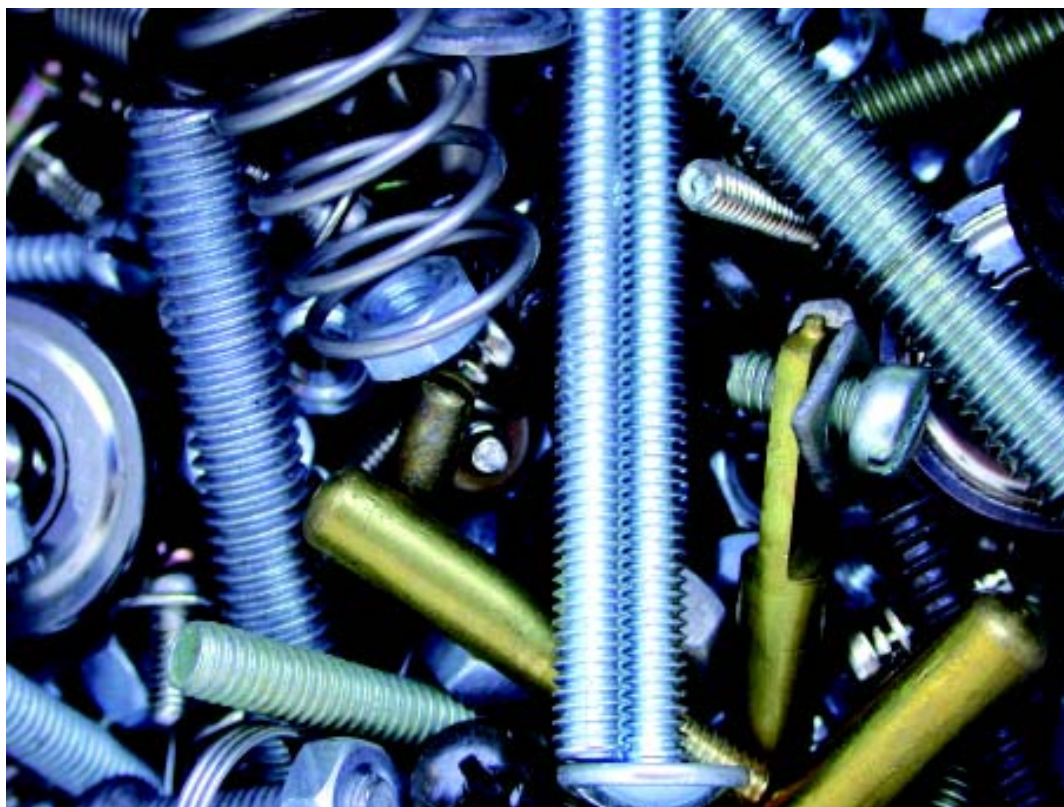
The automobile sector, particularly the commercial vehicle segment, is likely to drive the growth in the fasteners industry. Companies are launching new products to boost sales and stay ahead of the competition. The increase in price of steel, the raw material for manufacturing high-tensile fasteners, could, however, put margins under pressure. Nonetheless, the demand for fasteners is expected to increase in the coming years.

The global demand for industrial fasteners is fast increasing. It is projected to increase at the rate of more than 5 per cent annually. There will be a demand of \$66 billion worth of fasteners in 2012. The demand for fasteners is particularly high in countries like the US, Canada, Japan and most of Western Europe.

The end-use sector is somewhat constrained by the use of new materials and manufacturing methods.

**Global demand to grow 4.8 per cent yearly through 2012**

Global demand for industrial fasteners is projected to increase at the rate of 4.8 per cent annually to US\$ 66 billion in 2012. The demand for fasteners was US\$ 52 billion in 2000. It had grown nearly 9 per cent annually since 2002. Although part of this growth is inflationary in nature, especially since 2005, real gains in demand have been fuelled by increases in world economic growth, increased fixed investment activity and greater manufacturing production. Although future market gains will be somewhat constrained by the use of new materials and manufacturing methods that reduce the numbers of fasteners required, global gains in motor vehicle production and greater demand for aerospace grade fasteners required for aircraft will contribute to growth.



### The net exporters are Asia-Pacific region and West Europe

Although many countries engage in the production of fasteners, few are net exporters. For example, the US is a major global supplier of high end fastener products, but is a net importer of fasteners overall. Countries in the Asia/Pacific region are the largest net exporters of fasteners to the rest of the world, followed by Western Europe. Taiwan, Japan and China lead the Asia/Pacific region and the world in net fastener exports. Germany (whose net export position matched China's in 2007), Italy and Switzerland contribute the most to Western Europe's position as a net exporter. China will soon overtake Japan as the world's second-largest net exporting country, after Taiwan.

### Emerging Economies to Outpace Developed World

Growing manufacturing economies and increases in fixed investment among the world's emerging economies will bring more rapid growth in fastener demand in these regions relative to the world's more mature, industrialized nations. Consequently, fastener demand growth in the Asia/Pacific, Africa/Middle East, Eastern Europe and Latin America will outpace demand growth in the US, Japan and Western Europe. China is expected to show the greatest gains in fastener demand of

any other country, and is expected to become the world's second largest market for fasteners, after the US, before 2012. Market growth will also be strong in India, Thailand, Taiwan and Russia. Sales growth will be stimulated by favorable economic conditions and higher income levels leading to a rise in manufacturing activity and consumer expenditures for durable goods. Although countries with emerging economies will be the fastest growing markets for fasteners, the more developed economies - such as the US, Canada, Japan and most of Western Europe - will remain the most intensive users of fastening products, reflecting the advanced industrial and technological nature of their economies.

### Motor Vehicles Still Most Important End-use Sector

Consumption of industrial fasteners by the world's original equipment manufacturers (OEMs) represented 84 per cent of total global fastener demand, with maintenance, repair and overhaul (MRO) applications accounting for the balance. Among OEMs, motor vehicle manufacturers consume the most fasteners, accounting for 35 per cent of global demand in 2007. Electrical & electronic equipment and industrial machinery are also important OEM markets. Additionally, demand for aerospace-grade fasteners is expected to grow at a healthy pace, approaching US\$ 5 billion in 2012.

