

Infrastructure & the Construction Industry and Its Effect on the Fastener Industry

Increasing demand for construction projects and governmental spending on infrastructure activities will improve the fastener industry market. By a quick glance around us, in any project you will encounter thousands of parts that should be used to join each other. Therefore, any new project has the potential for bringing a lot of work for the fastener industry; moreover, such kinds of projects usually encompass small parts to heavy objects that should connect with each other; consequently, a wide range of fasteners (in 2mm to 40mm, made of materials from stainless steel to plastic fasteners) can be used in these projects.

Take railway as an example:

- Each meter of railway track uses 15 different types of fasteners and,
- About 200 different types of fasteners are used in each meter of railway bridge (based on Modern Steel Railway Bridges book.)

Fasteners which are used on station constructions, wagons, locomotives, and other facilities are not included in the above numbers.

Or take airport as an example:

 Each square foot of airport uses 25-50 different types of fasteners.

Holistic Approach to India's Infrastructure Projects in 2021

In India, increasing investment in infrastructure activities will expand the fastener market. According to IBEF¹ organization statistics in India, the infrastructure sector is one of the key drivers for Indian fastener industry. This sector is propelling the overall development of Indian fastener industry. The infrastructure sector includes power, bridges, dams, roads, and urban infrastructure development.

In an overview, India is a developing country with political stability. In the fiscal year of 2021, infrastructure activities in India accounted for 13% of the total FDI inflow worth US\$ 81.72 billion.

In Union Budget 2021, Indian government has allocated US\$ 32.02 billion to improve the transport infrastructure. The 'National Infrastructure Pipeline (NIP)' has been expanded to 7,400 projects in 2021. In 2021, 217 National infrastructure projects have been completed in India and the value of these projects is 15.09 billion USD. Through the NIP, Indian government invested US\$ 1.4 trillion in infrastructure development as of July 2021, US\$ 750 billion among which was for railway infrastructure. India and Japan have joined hand in hand for infrastructure development in India's northeastern states and are also setting up an India-Japan Coordination Forum for Development of Northeast to undertake strategic infrastructure projects for the region.

A few of new infrastructure projects in India² are listed as below:

1. Sagarmala Project

The vision of the Sagarmala Programme is to reduce logistics cost for export and import and domestic trade with minimal infrastructure investment. As part of the Sagarmala Programme, more than 610 projects have been identified for implementation, during 2015-2035, across the areas of port modernization and new port development, port connectivity enhancement, port-linked industrialization, and coastal community development. As of 31 July, 2019, a total of 542 projects were under various stages of implementation, development, and completion.

2. Bharatmala Project (34,800 km of Roads to be Constructed)

Bharatmala Pariyojana is a new umbrella program for the highway sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors. Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads, and Green-field expressways.

3. Mumbai Trans Harbour Link (21.8km) Bridge)

Accordingly, the Mumbai Metropolitan Region Development Authority (MMRDA) has undertaken the implementation of the Mumbai Trans Harbour Link Project, connecting Sewri on Mumbai side to Chirle on Navi Mumbai side. This important link having a length of about 21.8 km is being implemented considering the importance of connectivity between the island city and the mainland.

4. Arunachal Pradesh on Rail Map

Naharlagun railway station is a railway station located in Papum Pare District of Arunachal Pradesh. It is about 15 kilometres (9.3 miles) to the state capital Itanagar. Projects about to be completed include the first rail connectivity projects in Meghalaya and Arunachal Pradesh, along with crucial gauge conversion between Rangpara and North Lakhimpur, which would connect Arunachal Pradesh to the rest of the country.

India's Fastener Trade Statistics

The above investments could bring a brilliant future for Indian fastener industry.

By looking at the table below, it depicts the data of India's imported fasteners. Now, if we eliminate the year 2020, due to the pandemic effect in the numbers, and compare the 2nd half year of 2019 with the 1st half year of 2021, the numbers have demonstrated the footprint of the infrastructure investments as below:

- The total quantity of imported fasteners from India's 5 main partners shows a 5.4% growth.
- The quantity of fasteners exported from Japan to India has been raised by 51.3% (the direct effect of their collaboration in Indian new infrastructure projects).

By considering the table below, in India's exported fastener data, we will eliminate the numbers of 2020 as the same assumption above.

By comparing the 2nd half year of 2019 with the 1st half year of 2021, the same as the imported sector numbers, the footprint of the infrastructure investments is demonstrated as below:

- The total quantity of fasteners exported from India to its 5 main partners shows a growth of about
- The quantity of fasteners U.S imported from India has expanded by 47.6% and the number to the UK has also expanded by 18.4%.
- The quantity of fasteners the Netherlands imported from India has dropped by 17.7% and the number to UAE has declined by about 19.6%.

To put it in a nutshell, India's national projects make a heaven for the fastener industry of the country in the future.

India's Fastener Import

Sources	2019-Q3	2019-Q4	2020-Q1	2020-Q2	2020-Q3	2020-Q4	2021-Q1	2021-Q2
China	23,580,905	24,764,039	24,031,538	18,202,683	12,106,857	18,339,245	24,681,548	23,286,441
S. Korea	4,921,978	4,606,728	5,506,363	1,223,257	4,117,438	8,410,838	5,838,468	5,172,769
Germany	2,501	2,226	2,483	962	1,750	2,643	3,266	2,750
Japan	2,490,971	1,903,497	2,764,658	1,244,577	1,190,047	2,960,851	3,290,435	3,356,550
USA	668,581	562,528	755,557	482,489	394,637	461,327	642,802	640,305
Total	31,664,936	31,839,018	33,060,599	21,153,968	17,810,729	30,174,904	34,456,519	32,458,815

India's Fastener Export

Note: Numbers are in Ko

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Destinations	2019-Q3	2019-Q4	2020-Q1	2020-Q2	2020-Q3	2020-Q4	2021-Q1	2021-Q2
USA	13,109,529	13,294,233	15,862,547	9,846,536	14,280,950	16,002,063	18,943,062	20,023,422
Germany	7,886	7,679	9,078	5,175	7,273	7,669	7,999	7,675
Netherlands	4,641,129	4,232,334	3,801,148	4,107,877	2,716,799	3,427,030	3,355,494	4,142,406
UK	5,897,707	5,988,647	6,653,831	2,624,975	4,093,549	5,030,477	7,476,981	6,595,982
UAE	6,961,741	6,535,430	6,420,220	7,062,030	8,007,907	4,732,208	5,034,594	5,812,475
Total	30,617,992	30,058,323	32,746,824	23,646,593	29,106,478	29,199,447	34,818,130	36,581,960

1. https://www.ibef.org/industry/infrastructure-sector-india.aspx

2. https://www.seminarsonly.com/tech/upcoming-projects-in-india-2019.php