

# ‘Indian machine tool industry doing well in terms of consumption and production’



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### With Covid behind us and manufacturing activities gathering momentum, what is the present status of the machine tool industry in India?

The Indian machine tool industry has been doing well in terms of consumption and production. The half-yearly results have been good, and the forthcoming quarters also look promising with good order bookings.

As per the World Machine Tool Survey by Gardner Intelligence 2021, India occupies 11th position in production and 8th position in consumption of machine tools globally in 2021. The country moved up by two ranks in the global machine tool producing nations list as against its ranking in 2020.

Indian machine tool production is estimated to have reached around Rs 9,307 crore, and consumption is estimated to have reached around Rs 15,791 crore. Production is estimated to have increased by around 40% year-on-year in 2021-

22 and consumption is estimated to have increased by around 30% year-on-year in 2021-22.

### What are the factors that are driving growth of the machine tool industry in India?

Auto sector is doing extremely well; the EV two-wheeler industry is also giving good business, especially in sheet metal forming. Demand from agriculture, consumer sector and general engineering are also driving machine tool industry business. Newer segments such as electronics and semiconductor and core segments like defence, aerospace and railways are also driving the industry growth. Thrust for infrastructure development by the government, various PLI schemes, and the Make in India initiative is also auguring well for industry business.

### The Automotive Sector is a major consumer of machine tools. How will the transition to EVs impact the industry?

Metal forming manufacturers are getting an uptick in their business. Auto industry is also getting good business in the two-wheeler segment and for three-wheeler carrier vehicles. When it comes to passenger vehicles, internal combustion engines (ICE) are still in good demand with less demand for

EVs, hence, machine tool industry business is not affected negatively. There is no adverse impact on heavy commercial vehicles and tractors. Also, the machine tool industry is diversifying into sunrise sectors such as agriculture machinery, construction equipment, aerospace, defence, furniture/woodworking, toys, etc., where government schemes are beneficial. IMTMA has formed special interest task forces whose members visited these sectors to obtain a deeper understanding of the opportunities for machine tools and the technologies to be adopted to serve them.

### What are the digitalisation trends impacting the new generation machine tools for smart manufacturing?

Digitalisation refers to process change being implemented in machine tool industry for smart manufacturing:

- a. Machines are sensorised so that they can capture information about various subsystems like power utilisation, noise, vibration, temperature, coolant level, and thermal behaviour.
- b. They have the capability to send data to a centralised server for further analysis.

- c. Future machine tools that are currently being built can communicate with other machines, equipment and devices.
- d. Machine tools are also embedded with network connectivity so that it can do remote monitoring and other updations.

Everything works well as one cohesive unit which merges well with smart manufacturing. Moving on, machines are being built for self-monitoring, and future machines can go a step forward in performing self-diagnostics which paves way for building self-correcting machines in future.

**SMEs are a big part of the manufacturing and supply chain of machine tools. Are they keeping pace with digitalisation?**

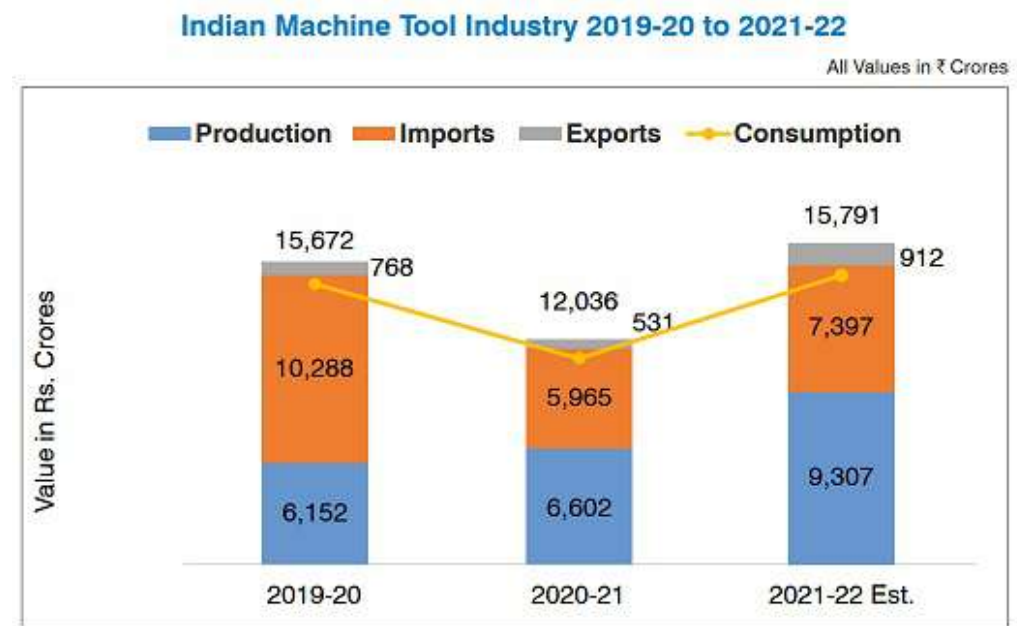
Software related design, simulation, modelling, inventory management, customer relation project management, etc., are being already adopted by SMEs. Hardware related developments which need investments are happening in phases since many of the industries are stuck with legacy machines. Larger companies are hand holding their supply chain units and helping and encouraging them to adopt digitalisation as a hub and spoke model. Some units are adopting a cluster approach for enabling digitalisation among SMEs.

**How is the emerging additive manufacturing ecosystem blending with conventional machine tools for hybrid machines?**

Metal additive manufacturing has started picking up pace in some of the sectors like space and



A view of a previous IMTEX event.



Domestic production, consumption and exports/imports.

aerospace, where parts are complex and light weighted. The strength of additive manufacturing lies in small batch production and some of the parts meeting conformal cooling, difficult to machine components, remanufacturing of parts, etc., where it is finding requirements. Industry knows the benefit of additive manufacturing and it is exploring the adaptability and usage of additive manufacturing innovatively. Both additive manufacturing and hybrid ones have different advantages and are used depending on the application. All find their own uses, all exist, and there is no one solution.

**India remains a net importer of machine tools even as it exports. How is IMTMA approaching this issue?**

Domestic consumption is met through production and imports. Our domestic production is more than imports for the past two years as seen from the graph. Indigenisation/localisation of imported machines, design and development of globally competitive machine tools and enhancing exports are the steps being taken by the Indian machine tool industry to further its business. Most of the imports are project-based ones, examples the PLI ones, SEZ, etc.

IMTMA is supporting the export efforts of its members through various initiatives such as group participation in overseas fairs, trade missions, etc. IMTMA has established an 'Export Development Cell' to promote and boost exports. For this purpose, the association has formed a group of companies who are interested in exporting to the overseas markets. Objectives of the IMTMA Export Development Cell:

- i. Bring together export oriented MTMs to work together as a cohesive group.
- ii. Gather information, analyse the information, and disseminate the information on target markets through Country reports, Market news, etc.
- iii. Facilitate international presence through interactions between buyers and sellers.
- iv. Network through EEPC and leverage on its support to promote the 'Made-in- India' brand image.
- v. Facilitate joint participation and send delegations to trade fairs in target markets.