

**Disclaimer**

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**Machine Tools Sector in India**

Machine tools contribute to the overall manufacturing output and play a vital role in a country's industrial development. The machine tools sector is well established in India with the domestic industry is capable of producing a wide range of tools. Historically, the country has been a net importer of machine tools. Large investments in the manufacturing sector coupled with Government support in terms of conducive fiscal and trade policies as well as promoting research & development, skill development will ensure faster growth of the domestic machine tools industry.

**Industry structure**

- There are close to 1000 units in India manufacturing machine tools, accessories, sub-systems and parts
- Around 70% of the industry turnover is accounted for by around 20 large companies and the rest by small and medium enterprises
- Major hubs for the manufacture of machine tools include,
  - ✓ Mumbai & Pune (Maharashtra)
  - ✓ Ludhiana, Batala, Jalandar (Punjab)
  - ✓ Bangalore and Mysore (Karnataka)
  - ✓ Coimbatore and Chennai (Tamil Nadu)
  - ✓ Ahmedabad, Baroda, Rajkot, Jamnagar and Surendranagar (Gujarat).
- Rudrapur, Jaipur and parts of Eastern India are some of the emerging centres for the manufacture of machine tools

**Machine tools type**

- Machine tools are broadly categorised as metal cutting tools and metal forming tools. Based on the technology machine tools are classified as Computer Numerical Control (CNC) and conventional machine tools.
- Metal cutting tools account for about 88% of the total machine tools production
- Technology wise, Computer Numerical Control (CNC) machines tools account for 82% of the machine tool production

**Machine tools classification**

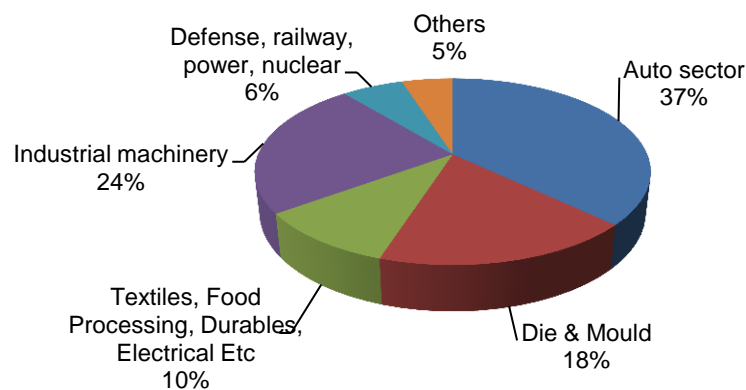
| Machine tool type | Machine tools  |
|-------------------|--|
| Metal cutting     | Electrical discharge, lathes, vertical machining centre, horizontal machining, milling machine, drilling machine, cylindrical grinder, surface grinder, tool & cutter grinder, boring and boring-milling machines, gear cutting machines |
| Metal forming     | Presses, bending/folding/straightening, shearing machine, punching & notching  |

Source: Department of Heavy Engineering, Govt

**Machine tools market**

- India accounted for around 2.6% of the total global demand for machine tools in 2012-13
- The demand for of machine tools in India reached INR 113 billion in 2012-13, growing annually at around 16% since 2009-10
- The domestic production accounts for only 33% of the demand and the remaining 77% is met through imports

**Machine tools market by end use sectors (%), 2012-13**



Source: Indian Machine Tools Manufacturers' Association

- Automobile sector, die and mould, industrial machinery are the key end user sectors of machine tools in India. Defence, power and railways are the other end user sectors
- High-speed machining, near-dry machining, machining with minimum lubrication are some of the latest trend in the machine tools sector

### Trade

- Imports of machine tools in India stood at INR 76 billion in 2012-13
- Machine tools are imported from Spain, Switzerland Japan, Germany, Italy, South Korea, China and USA

### Key players

#### Machine tools: Products and key players

| Machine tools                   | Companies   |
|---------------------------------|---|
| CNC Lathes                      | ACE Designers, HMT, Heavy Engineering Corporation , Bharat Fritz Werner Ltd., Gedee Weiler Pvt. Ltd, Miven Machine Tools Ltd  |
| Machining centers               | LMW , HMT, Jyoti, Askar Microns Pvt Ltd, Premier Ltd, Heavy Engineering Corporation , Bharat Fritz Werner Ltd., TAL Manufacturing Solutions Ltd., Anil Machines, Accurate Machine Tools   |
| Presses                         | Isgec Heavy Engineering Ltd, Hindustan Hydraulics, Electro Pneumatics & Hydraulics (India) Pvt, Bemco Hydraulics, Hind Hydraulics & Engineers, Singhal Power Presses  |
| Grinding machines               | Parishudh Machines Pvt. Ltd, HMT, Bosch India Ltd, Pmt Machines Ltd., Heavy Engineering Corporation, Champkraft Machine Tools, Macpower CNC Machines Pvt. Ltd, Acumac Machine tools Pvt Ltd   |
| SPM ( Special Purpose Machines) | Kishan Industries, HMT, Premier Ltd, Lokesh machine tools, Godrej (Tooling Division ) , Electronica ( EMTL), TAL Manufacturing Solutions Ltd., Batliboi Ltd, Hind Hydraulics & Engineers, Accurate Machine Tools                            |
| Surface Grinders                | Praga Tools Ltd., Alex Machine tools, HMT   |
| Turning & Boring machines       | HMT Ltd, Premier Ltd, Heavy Engineering Corporation, TAL Manufacturing Solutions Ltd., Batliboi Ltd, Galaxy Machinery Pvt Ltd., Macpower CNC Machines Pvt Ltd, Marshal Machine Pvt Ltd, Abhijat Equipments Pvt. Ltd, Accurate Machine Tools |
| Bending machines                | ElectroPneumatics & Hydraulics (India) Pvt., Himalaya Machinery Pvt. Ltd.   |
| Gear Cutting machines           | Premier Ltd.  |

Source: Department of Heavy Engineering, India

### **Recent Developments**

- Kyocera CTC Precision Tools Pvt. Ltd is setting up machine tools manufacturing facility in Gamharia in Saraikela Kharsawan district of Jharkhand with a capacity of 500,000 units per annum. Construction is scheduled to be completed by August 2015
- Starrag India Pvt. Ltd., a subsidiary of Starrag Group Holding of Switzerland has set up its first manufacturing plant in Bangalore's aero park in February 2013
- The Government Tools Room & Training Centre signed an MOU with Siemens to provide machine tools training to industries in November 2013. Siemens will assist in setting up CNC Technology Centre

### **Profile of select players**

#### **ACE Designers**

ACE Designers is a part of ACE Micromatic Group based in Bangalore. The company is the leading manufacturer of CNC lathes and also manufactures chuckers and special ring turning machines. Manufacturing facility is located in Bangalore. In 2013, the installed capacity of ACE Micromatic stood at around 4,200 turning machines, 1,200 milling machines and 360 grinding machines per annum. ACE Designers exports products to Europe, USA, South America, UK, Middle East, China, South East Asia, Japan and Australia.

#### **Bharat Fritz Werner**

Bharat Fritz Werner (BFW), incorporated in 1961, is a leading manufacturer of machine tools in India. BFW has planned an investment of INR 3.5 billion during 2011-16 for its expansion in India including setting up a green field manufacturing facility in Hosur for manufacturing machine tool spindles as well as brownfield developments in its existing facilities. BFW has a captive foundry in Hosur with an installed capacity of 7,200 tonnes of castings per annum.

#### **Bosch India**

The industrial equipment division of Bosch India is a noted manufacturer of machine tools and is based out of Bangalore. The division was established in 1954 to cater to the captive requirements of the company and started commercial sale in 1985. The facility has well equipped mechanical and electrical capabilities and manufactures a range of metal cutting machines and finishing machines. The division has manufacturing license from companies such as M/s Gehringer for honing machine, M/s Witzig & Frank for Turmat, M/s Supfina for super finishing machines and M/s Junker for Grinding machines.

**Godrej Tooling**

Godrej Tooling, established in 1935, is a business unit of Godrej & Boyce Mfg. Co. Ltd. The company manufactures a range of machinery and equipment including press tools and special purpose metal cutting machines. Godrej Tooling Division is based out Mumbai and caters mainly to automotive and aerospace sectors.

**Lakshmi Machine Works**

Lakshmi Machine Works (LMW) based in Coimbatore, Tamil Nadu was established in 1962 and is a noted manufacturer of textile machinery. The company has a well established machine tool division with its manufacturing facility located in Arasur near Coimbatore. LMW has manufacturing tie-ups with M/s. Mikron of Switzerland for manufacturing of CNC universal boring and milling machines for tool room.

**TAL**

TAL Manufacturing Solutions Ltd is a wholly owned subsidiary of TATA Motors Ltd and is headquartered in Pune. TAL has manufacturing alliances with M/s. Heller of Germany and M/s. Maus of Italy. TAL has state of art manufacturing facilities located in Pune and Nagpur.