Indian Textile Machinery Sector: Emerging Opportunities

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Global Textile Machinery Shipments 2024

Global Textile Machinery Shipments in 2024: Mixed performance across categories; some segments saw growth while others declined.

- **Spinning Machinery**:
  - **Short-staple spindles shipments** decreased by ***-40%*** to **5.92 million units**; **Asia & Oceania received 90% of shipments** despite a ***-36%*** drop.
  - **Open-end rotors shipments** fell by ***-39%*** to **623,000 units**; **Asia & Oceania received 89% of shipments**, with **Vietnam** (+214%) and **Bangladesh** (+44%) **showing growth**.
  - **Long-staple spindles** shipments increased by ***+62%*** to **600,000 units**; Iran (40%), China (30%), and Vietnam (13%) were key destinations.
- **Texturing Machinery**:
  - **Single heater draw-texturing spindles** shipments rose by ***+95%*** to **84,000 units**; **Asia & Oceania dominated** with 98.5% of shipments.
  - **Double heater draw-texturing spindles** shipments grew by ***+80%*** to **960,000 units**; **China accounted for 95% of global shipments.**

Global Textile Machinery Shipments 2024

- **Circular & Flat Knitting Machinery**:
  - **Large circular knitting machines shipments** decreased by ***-15%*** to **28,000 units**; **China received 45% of shipments** despite a -42% drop.
  - **Electronic flat knitting machines shipments** increased by ***+16%*** to **135,000 units**; Asia & Oceania received 96% of shipments, with **China accounting for 82%.**
- **Weaving Machinery**:
  - **Shuttle-less looms shipments** increased by ***+32%*** to **226,000 units**; **Asia & Oceania received 97% of deliveries**, with **China leading growth across all loom categories**.
- **Finishing Machinery**:
  - **Fabrics continuous segment**: **Stenters shipments** increased by ***+22%*** to **2,230 units**; mixed results for other machines.
  - **Fabrics discontinuous segment**: **Jigger/beam dyeing shipments** dropped by ***-44%;*** air jet dyeing (+18%) and overflow dyeing (+5%) showed growth.

(source: ITMF Annual Report on machinery shipments)

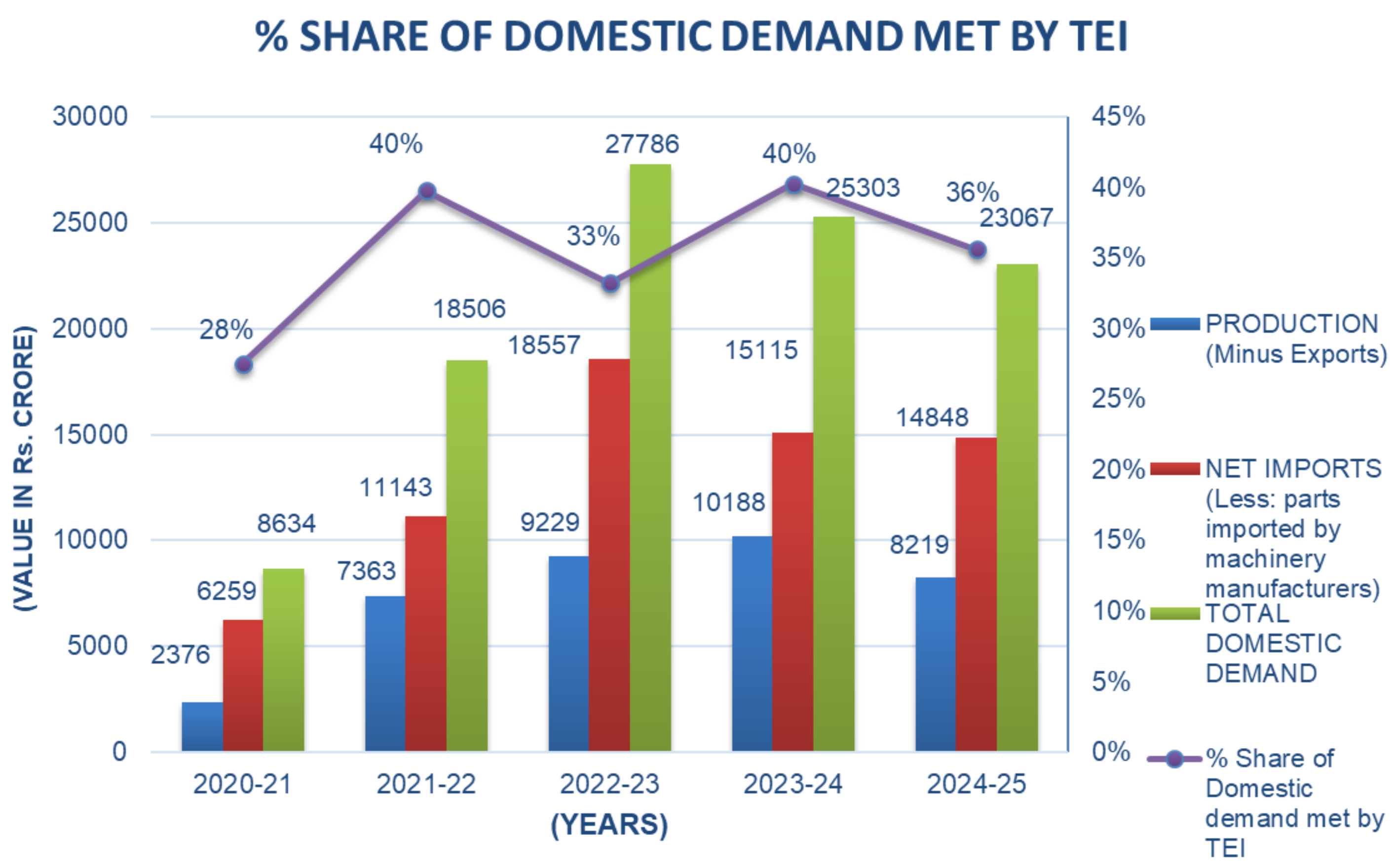
Indian Textile Engineering Industry (TEI) Overview

- **Important ancillary sector** - **Strong linkages with growth in the T&C sector**
- **Omnipresent in all industry segments- Fibre to garment** producing machinery
- About **1,000 units**, with about **300 producing complete machines** and the rest focusing on components. More than **3 lakh people are employed**. About **80% capacity** is in the **SME sector**
- **Meets 36% of domestic demand** with **Rs**. **8500 crore** supply. **Rs. 4500 crore exports**. About 80% capacity utilisation
- **Major Indian demand for textile machinery is still met through imports**
- Largely **self-sufficient in the Spinning Segment**, **with technologies comparable to the global suppliers**
- **Key challenges**: **high-end technology adoption**, **access to finance for SMEs**, and the **need for more robust R&D to meet global standards**
- **India is the 4th largest importer of textile machinery globally**, but **local production meets only a portion of the demand**, indicating **growth potential**.
- **Played a vital role in the modernisation of the Indian Textile Industry** over the last few decades

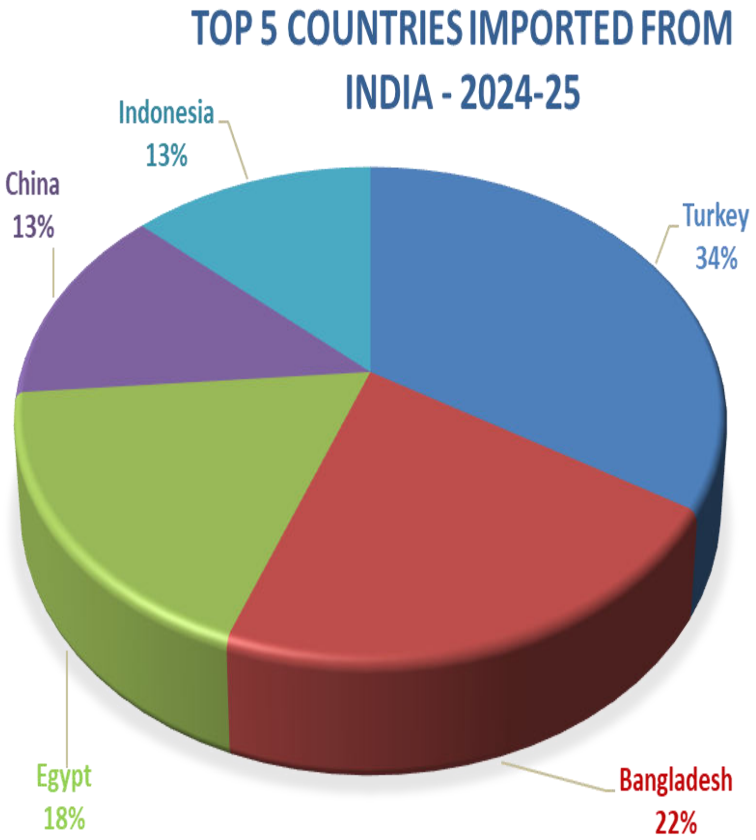
Textile Machinery Market: Demand & Supply Dynamics

- Total **Annual requirement of textile machinery**: Approx. **Rs. 23,500 crore** (Avg. of last 2 years)
- **Domestic supply** of the machinery **(36%):** Approx. **Rs. 8500 crore** (Avg. of last 2 years)
- **Imported machinery** supply **(64%):** Approx. Rs. **15,000 crore** (Avg. of last 2 years)
- **Importing countries**: **China (66% share of imports)**, **Germany, Italy, Switzerland, Austria, Japan, Korea, Taiwan, Turkey**
- **Domestic manufacturers dominate the Spinning Machinery segment**: LMW, Truetzschler India, Saurer India, Kirloskar-Toyota, Rieter India
- **Weaving Preparatory: Mostly the Indian companies dominate** (Prashant Gamatex, Rabatex, Jupiter)
- **Weaving Machinery**: Nearly 100% imported from China, Europe, and Japan
- **High-end processing machines are imported, while Stenters, Dry and Wet finishing are manufactured in India**

Indian Textile Engineering Industry's share in the domestic consumption (TMMA data*)



Textile Machinery Exports (2024-25)



Country	Flag	INR Crore
Turkey		₹ 554
Bangladesh		₹ 356
Egypt		₹ 295
China		₹ 217
Indonesia		₹ 214
Total (INR Crore)		**₹ 1,635**

51% of the total Exports go to 5 countries

(source: TMMA Report)

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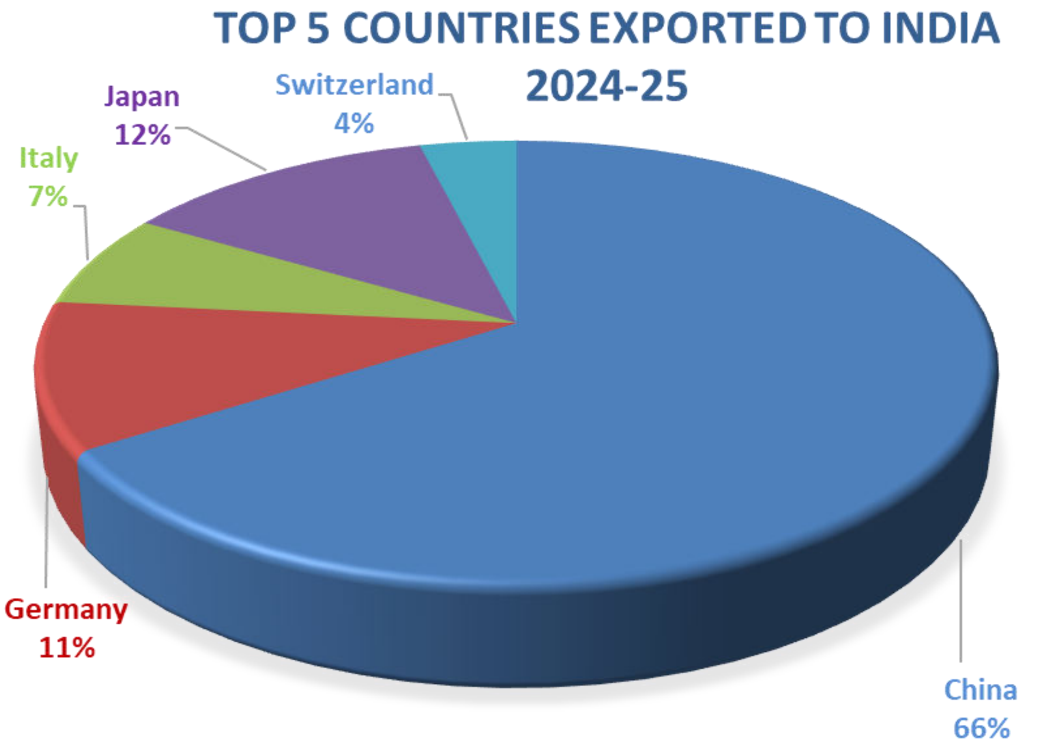

Country	Flag	Total (INR
China		₹ 9,471
Germany		₹ 1,550
Italy		₹ 997
Japan		₹ 1,814
Switzerland		₹ 555
Total (INR Crore)		**₹ 14,387**

87% of the total Imports from 5 countries.
China has the major share in Imports (66%)

(Source: TMMA Report)

Successful Indian Companies, JVs, Collaborations & FDIs (TMMA*)

SN	CATEGORY	100% Indian Companies	Joint Ventures	Tech. Collaboration	100% FDIs
1	SPINNING & ALLIED MACHINES	LMW, LCC, Perfect Engineering, Peass, Reshmi, Sieger	Truetzschler , KTTM (Toyota Japan), LMW (Tokyo Seimitsu Japan)	Perfect Engineering Co. (Magitech Italy)	Saurer, Rieter, Savio, Muratec (Sales & Service)
2	SYNTHETIC FILAMENT YARN MACHINES	Aalidhra, Himson, Bhagat	Perfect Engineering Co. (Bonino Italy)		Oerlikon, TMT Machinery (Sales & Service)
3	WEAVING & ALLIED MACHINES	Weavetech, Laxmi, Premier, Lifebond, Maxis, Peass, Jupiter, Spectrum, Dynamic	Rabatex (Karl Mayer Germany), Prashant Group (Rostoni Italy)		Karl Mayer, Jakob Muller, ITEMA, Picanol, Tsudakoma (Sales & Services)
4	PROCESSING MACHINES	Dhall, Palod Himson, Yamuna, Harish, InspirOn, Colorjet Group, EMS	Menzel India (Karl Menzel Germany), Bianco India (Bianco Italy), Dhall-Reisky	Yamuna-Bejimac	Kusters, Benninger (Sales & Services)
5	MISC.(SPINNING,WEAVING & PROCESSING,JUTE) MACHINES	Batliboi, ATE, Yamuna, Key Textile Accessories, Spectrum, InspirOn	Perfect Engineering Co. (Bonino Italy), Perfect Engineering Co. (Magitech Italy)		Oerlikon (Sales & Service)
6	TEXTILE TESTING & MEASURING INSTRUMENTS	Premier Evolvics, Mag Solvics, Paramount Instruments			Uster (Sales & Service)
7	HOSIERY/GARMENTING MACHINES/NEEDLES	Reshmi, Knitvel Needles, Pinco	GA Morgan Dynamics (Morgan Technica-Italy), Precision Rubber (Yamato Japan)		Groz Beckert, Singer India, Juki India, Brother Yamato(Sales & Service)
8	SPARES & ACCESSORIES	Inspiron, LCC, ICC,Elgi Teraspin,	Groz-Beckert		Bonfiglioli, Gates Unitta

Indian Textile Engineering Industry (TEI) - TECHNOLOGICAL CAPABILITIES (TMMA Report*)

Group I At Par with International Standard	Group II Marginal Technological Gap Exists	Group III Huge Technological Gap Exists
Ginning, Spinning (Standalone R&D by LMW, Aalidhra & Meera Industries underway) Auto-winders/ Airjet Spinning/ Open End Developed (Being Tested)	**Weaving** (HS Cam rapier loom developed & displayed at ITMA 2023 in Milan) Airjet & waterjet made (Being Tested)	**Spinning** Rotor, Synthetic (POY/FDY) Spinning, Fancy Doublers to be developed (Possibility for a JV/FDI)
Weaving Preparatory Globally competitive tech by Rabatex-Karl Mayer, Weavetech, Prashant, Meera	**Embroidery Machinery** (Indigenous Tech. Developed) Commercialization (Underway) JV for Multihead-Horizontal to be sought	**Knitting/ Garmenting Machinery** FDI/ JVs for Garments, home furnishing, Warp Knitting, Flat & Hi dia. Circular Knitting (Sewing machinery production started by Juki & Singer India. Upcoming JVs for fabric cutting)
Processing Machinery (World-class Stenters, Washing & Mercerizing, InspirOn, Yamuna, Kusters, Rotary Printing Machines by Stovec, Colorjet; Advanced R&D Underway)	**Processing Machinery** (Continuous processing range developed. Concept Paper for R&D and Tech. Acquisition underway), Sustainable & Circular Tech. (Search is On)	**Processing Machinery** Machines for Synthetic Dyeing to be developed
Testing Equipment (Standalone R&D by Premier & Magsolvics underway)	**Knitting Machinery** (Indigenous Tech. for HS Circular WEFT & Flat Knitting Developed) Commercialization to be done	**Technical Textiles & Non-Woven** Spunlace, Needle Punch, Special fibers, Braiding, Needle-punch, Multi-axial Looms, Net Knitting, etc. to be developed/ brought by FDI/ JVs based on market size needed
Jute Machinery (JV done with a Chinese company, DPR for Jute CEFC Submitted)	**Parts, Components & Accessories** (CEFC Surat Project ongoing)	
Advance R&D Proposed	**R&D Proposed/ Ongoing**	**Import, FDI/ JVs Proposed**

The segments dependent on machinery imports: Total Rs. 15,000 crore opportunity

- **SPINNING:** Auto-Coners (100% imported from Europe and Japan)
- **WEAVING:** Air-jet looms, Rapier looms, and Waterjet looms (Imported from Europe, Japan and China. A large portion of Air-jet and low-speed Rapier looms are imported from China, while Waterjet looms are nearly 100% imported from China)
- **KNITTING:** Circular knitting machines, Flat Knitting machines, Warp Knitting machines (From Europe, Japan, China, Singapore, Taiwan. Dominated by China)
- **EMBROIDERY:** Schiffli (From Europe)and Multi-head Embroidery (Mostly from China)
- **PROCESSING:** Some high-end technology machines & Synthetic processing machines (mainly from Europe, China, Taiwan and Korea)
- **GARMENTING**: Stitching, Sewing, Special Effects, Finishing, (Japan and China, but mostly dominated by China)
- **HOME TEXTILE MADE-UPS**: Mostly imported from Europe, Japan and China
- **SYNTHETIC MACHINERY**: Fibres & Filament production, Recycling (Europe, Japan and China)
- **TECHNICAL TEXTILES/NON-WOVENS**: Nearly 80%+ imported from Europe and China

Major imported machinery suppliers

- **Spinning Machines**: Truetzschler, Rieter, Saurer, Marzoli, Electro-jet, Murata
- **Weaving Machines**: Picanol, Itema, Dornier, Tsudakoma, Toyota, RIFA, Qingdao
- **Knitting Machines**: Maier &Cie, Fukuhara, Fukuhama, Pai Lung, Orizio, Santoni, Karl Mayer, Shima Seiki, Wellknit, Fujian & other Chinese manufacturers
- **Embroidery Machines**: Laser, Saurer, ZSK, Tajima, Barudan & many Chinese manufacturers
- **Processing machines**: Fong’s, Brazzoli, Unitech, Ilsung, Ehwa, Monforts, Bruckner, Thies, Osthoff, Zimmer, Stork, ColorService, Ferraro, Corino
- **Garmenting**: Juki, Brother, Jack, Typical, Zoje, Reachpeace, Pfaff, Tonello, VIET, Durkopp Adler
- **Home Textile**: Texpa, Schmale, Magetron, Vandewiele
- **Synthetic Machinery**: Oerlikon, Barmag, Vandewiele, TMT, Qingdao, Changzhou

Emerging Manufacturing Opportunity of Import Substitution: Rs. 15,000 crore gap

- **High Speed Waterjet Looms** (15,000 per year)
- **High-speed & Semi-high speed Air-jet Looms** (10,000 per year)
- **High speed & Semi-high speed Rapier Looms** (5,000 per year)
- **Auto-coners- Automatic Cone-Winding** (500 per year)
- **Circular Knitting machines** (2,500 per year)
- **Multi-head Embroidery machines** (2,500 per year)
- **Garmenting machinery** (2 lakh machines per year)

Key Growth Drivers

- **Growth of the textile industry** (USD 350 billion market size target for 2030)
- **Strong domestic machinery demand** (Rs. 23,500 crore annually)
- **Huge import substitution need** (Rs. 15,000 crore annually)
- **Favourable government policies** for the user industry (PLI, PM Mitra, Capital subsidy, State government schemes)
- **Huge modernisation backlog** in **Weaving** and **Processing**
- Advent of application of **Digitalisation & Automation**
- Growth in the **technical textile segment**
- Fast **adoption** of **new technologies and process innovations**
- Huge **Export potential**
- India's **strategic positioning** vis-à-vis European and Chinese manufacturers
- **Technical collaborations** and **joint ventures** for technology transfer

Favourable factors for local manufacturing

- **Competitive manufacturing Eco-system**: Skilled manpower, Engineering skills and availability of raw materials
- **Local foundries and component manufacturing** industry
- **Engineering skill-set & Manufacturing competitiveness**
- Strong **domestic demand**
- Scope for **developing an Engineering Ecosystem (cluster)** like Coimbatore and Ahmedabad **through dedicated Textile Machinery Parks**
- Opportunity for India to become a **global hub for textile machinery and components manufacturing**
- India is becoming an **attractive manufacturing destination** due to **increasing manufacturing costs in Europe** and the **appreciating Euro**, making machinery imports expensive
- India is very **well positioned between Europe and China** to offer **contemporary technology at an economical price**

Key Challenges

- Lack of domestic innovation and R&D
- High production cost due to smaller scales
- High cost of imports of components for machine building
- Fragmented supply chains
- Technology gap against global machinery in some segments
- Dominance of imported machinery in some segments
- Competition from second-hand machinery
- Ease of machinery import through various policies
- Fluctuating fortunes of the user industry
- Lack of incentives for investment in capacity building
- Falling under the Heavy Industries ministry and not under the Textile ministry

Recommendations

- Give **the status of priority industry**, as the growth of the textile sector depends on the textile machinery industry
- Promotion of **Textile Machinery and components manufacturing dedicated park** with a common facility centre
- Better **coordination between the Heavy Industries Ministry and the Textile Ministry**, as the fortunes of both industries are intertwined
- **Incentives/Tax breaks for local innovation and R&D initiatives**
- **Scheme** to **encourage investments in the manufacturing of import-substituting machinery and accessories**
- **Policy** to **attract European machinery manufacturers** to manufacture in India under collaboration or JVs
- Attract **Chinese manufacturers** to invest in manufacturing machines in India, **since 66% of imports are from China**


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देवता भी उनकी मदद नहीं कर सकते

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