

INITIATING COVERAGE

TRIVENI TURBINE LIMITED

Imagine Innovate Inspire



December 2025

Research Analyst

Mohit Surana (NISM-202300189881) | **Mohd Haris** (NISM-202400161268)

Triveni Turbine Ltd. | Accumulate | TP: Rs 605**Driving the Decentralized Energy Wave**

We initiate coverage on Triveni Turbine Ltd. (TTL) with an Accumulate rating and a TP of Rs 605. The company offers a compelling investment case anchored by its dominant sub-30 MW steam-turbine franchise, deep aftermarket moat, and expanding global footprint. A broad end-market mix and resilient export pipeline temper cyclicity, while 1HFY26 softness is likely to normalize. Concurrently, TTL's investments in indigenous CO₂ heat pumps, MVR systems, and API drive turbines open complementary, high-growth adjacencies, strategically positioning the company to capture accelerating decarbonization-led industrial demand. We expect revenue/EBITDA/PAT to grow at 13% CAGR over FY25–28E.

▪ **Established Player with a Strong Moat in Aftermarket Services:** TTL has established a dominant position in industrial steam turbines with ~55% domestic market share (< 30 MW range) and ranks among the top two players globally, based on units sold. The company has seen strong growth in recent times due to the improving traction in the global thermal renewables sector which requires small capacity turbines. *Its moat lies in its ability to minimize turbine operation downtime for customers by providing strong after-market support*, which contributed 32% to the topline in FY25 and has grown at a 7-year CAGR of 19% versus product sales growth of 14%. Supported by two manufacturing plants, TTL benefits from a large installed base and proven reliability, enabling it to steadily capture a rising share of industrial clean-energy investments worldwide.

▪ **Diversified End-Markets Reduces Cyclicity:** Exports have been a major growth pillar for TTL, contributing 48% of revenue and 57% order book in FY25, supported by steady demand from the Middle East, Europe, Southeast Asia and Africa. The order book pipeline (1.1x book-to-bill) remains resilient, backed by broad-based demand across chemicals, cement, textiles, sugar-ethanol, refining and distributed power. 1HFY26 revenue declined 9% YoY as geopolitical disruptions deferred mechanical run tests by clients, but the situation is likely to normalize. TTL's expanding global presence and diversified product-service mix provide strong visibility while reducing reliance on domestic cycles.

▪ **New Product Launches Unlock New Complementary Growth Vectors:** TTL is actively investing in next-generation energy-transition technologies. In August 2025, it launched India's first indigenous CO₂ heat pump which further expands its reach into high-efficiency heating solutions intended for various industrial applications. Meanwhile, its entry into mechanical vapor recompression (MVR) and growing traction in API (American Petroleum Institute) drive turbines open new engineering and export-led revenue streams. Together, these initiatives create meaningful avenues for growth and position TTL to participate across multiple emerging decarbonization markets.

▪ **Valuation and view:** We believe TTL's strong balance sheet, cash-generative business model, technology investments, and global competitiveness combined with industry-leading returns (ROE/ROCE of 30%+) and a growing export franchise justify premium valuations. We value the stock at 40x and 30x, Sep-27E EPS and EBITDA, respectively, implying an average TP of Rs 605. **Key risks:** Slowdown in global industrial spending, geopolitical tensions, and slow new product adoption.

Target price	605	Key Data	
		Bloomberg Code	TRIV:IN
CMP	531	Curr Shares O/S (mn)	318
		Diluted O/S (mn)	318
Upside	14%	Mkt Cap (Rs bn/\$ mn)	169/1,930
Price Performance (%)		52 Wk H / L (Rs)	885/460
	1M 6M 1Yr	3M Average Volume	559,000
TRIV IN	-1% -11% -35%		
Nifty	0% 4% 6%		

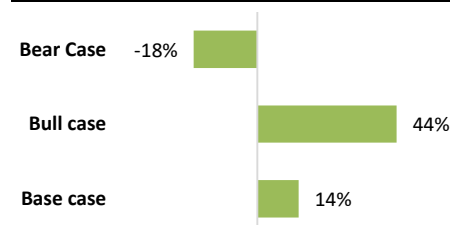
Shareholding pattern (%)				
	Dec 2025	Mar 2025	Jun 2025	Sep 2025
Promoter Group	55.8%	55.8%	55.8%	55.8%
DIs	10.9%	10.6%	12.2%	13.9%
FIs	28.3%	28.0%	25.4%	23.6%
Others	4.9%	5.5%	6.6%	6.7%

Source: BSE

Why should you read this report?

- Learn about Triveni's business model and strategy.
- Understand the turbine industry and the tailwinds in these segments
- How Triveni turbine stacks against global peers

Source: Company, MNCL Research

Target Price Range

Source: Company, MNCL Research

Mohit Suranamohit.surana@mnclgroup.com

NISM-202300189881

Mohd Harismohammed.haris@mnclgroup.com

NISM-20240016126x

Y/E; Rs mn	Revenue	YoY (%)	EBITDA	EBITDA Margin	PAT	YoY (%)	EPS	ROE	ROCE	P/E (x)	EV/EBITDA (x)
FY24	16,539	32.6%	3,188	19.3%	2,691	39.8%	8.5	31.3%	33.8%	63.3x	50.9x
FY25	20,058	21.3%	4,367	21.8%	3,572	32.7%	11.2	32.9%	36.4%	50.0x	38.7x
FY26E	21,663	8.00%	4,608	21.3%	3,772	5.2%	11.9	28.1%	30.9%	44.7x	34.5x
FY27E	24,912	15.0%	5,424	21.8%	4,356	15.5%	13.7	26.8%	30.3%	38.8x	28.6x
FY28E	28,649	15.0%	6,237	21.8%	5,169	18.7%	16.3	26.2%	28.8%	32.7x	24.4x

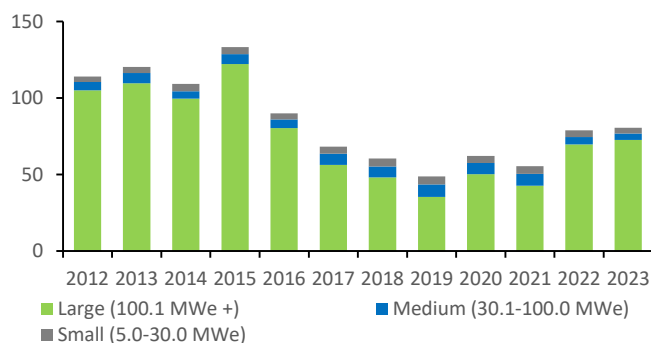
Source: Company, MNCL Research Estimates

Index

Investment Thesis in Charts.....	3
Triveni Turbines: A Steam Prime Movers Pure Play	4
Favorable Industry Dynamics and Aftermarket Moat	6
Drive Turbines to See Steady Growth	9
CO ₂ Heat Pumps and MVR – Geared to Benefit from the Decarbonization Trend	11
Localization + Strong Aftermarket Provides Strategic Differentiation for TTL vs Siemens	14
Focused Positioning Helps TTL Sidestep Direct Rivalry with BHEL	16
Prime Movers: Steady Growth, Expanding Applications	17
Steam Turbine Industry: Thermal Renewables Add Momentum to a Mature Market	18
Triveni Turbine – Company History and Promoter Group	22
Financial Analysis: Triveni Turbines	24
Valuation: Attractive Risk-Reward Profile	28
Financials.....	30

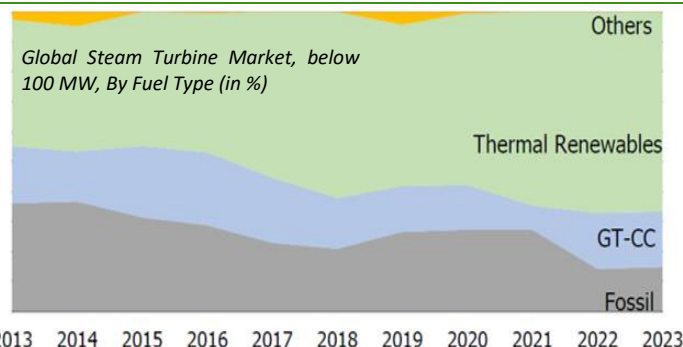
Investment Thesis in Charts

Exhibit 1: Secular recovery in steam turbines demand (GWe)



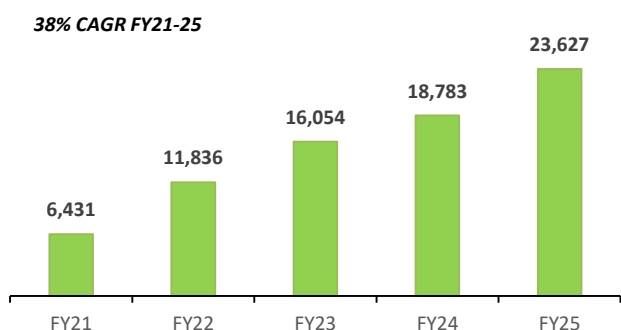
Source: McCoy Data, MNCL Research

Exhibit 2: Along with traction in thermal renewables...



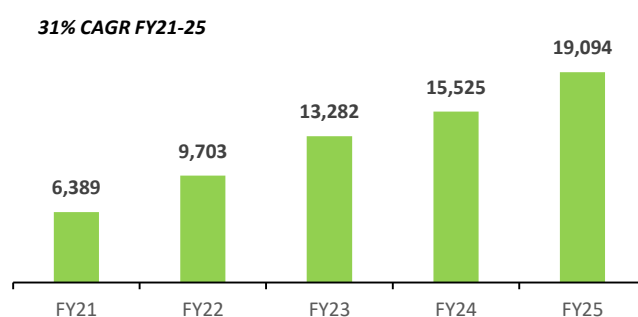
Source: McCoy Data, MNCL Research

Exhibit 3: ...Has led to rising order intakes (Rs mn)...



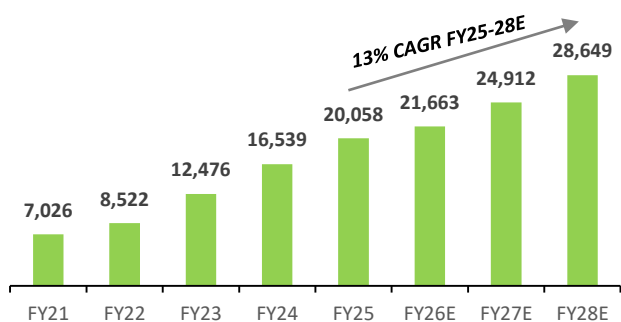
Source: Company, MNCL Research

Exhibit 4: ...And strong orderbook (Rs mn) for TTL



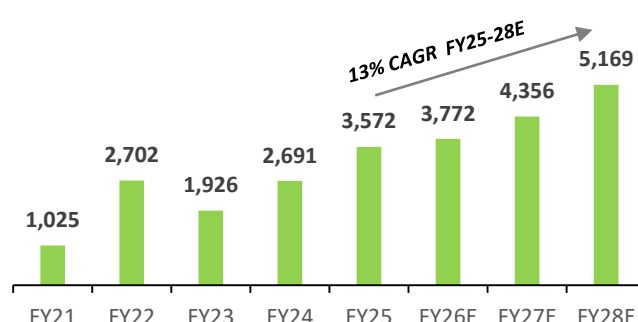
Source: Company, MNCL Research

Exhibit 5: We expect sales (Rs mn) growth and....



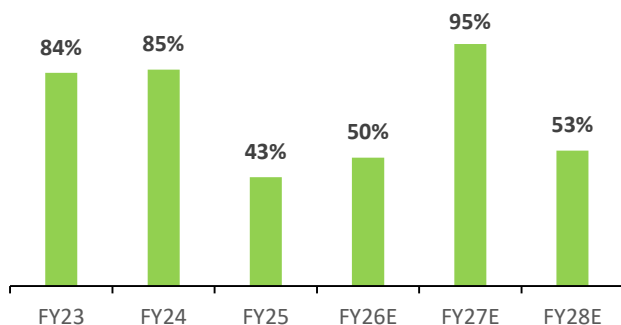
Source: Company, MNCL Research

Exhibit 6: PAT (Rs mn) growth to accelerate from FY27



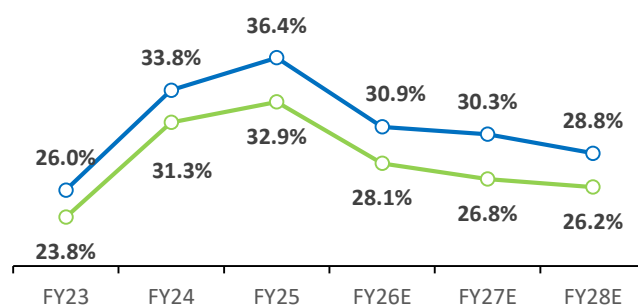
Source: Company, MNCL Research

Exhibit 7: Cash flow generation should also remain resilient



Source: Company, MNCL Research

Exhibit 8: Culminating in steady and attractive return ratios

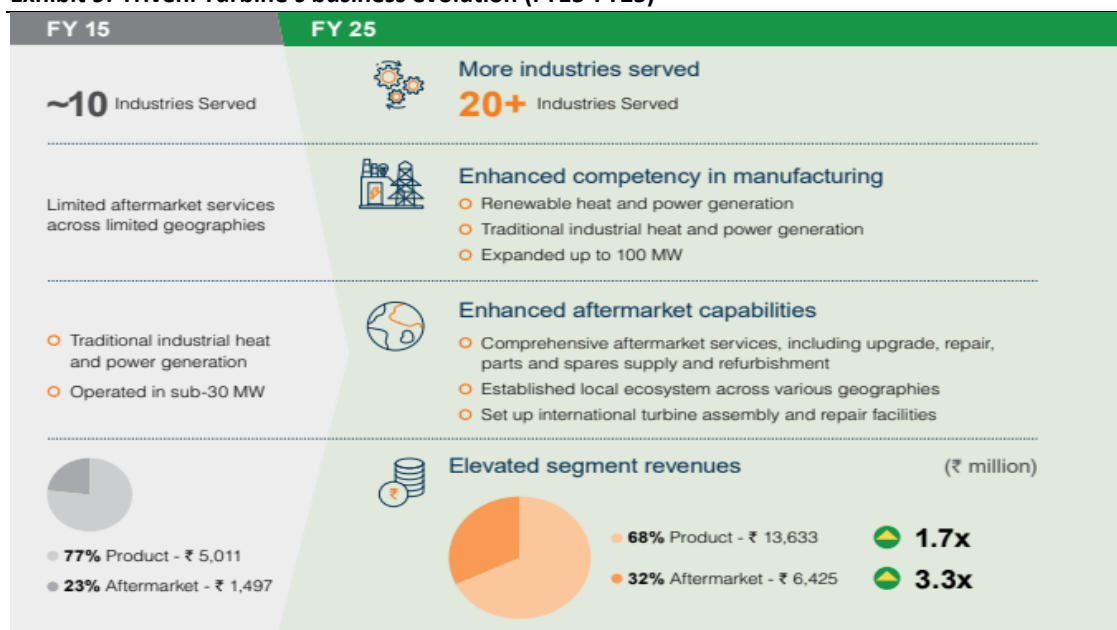


Source: Company, MNCL Research

Triveni Turbines: A Steam Prime Movers Pure Play

Business overview: Triveni Turbines is a specialist industrial turbomachinery and engineered-to-order steam-turbine company that supplies steam turbine generators up to 100 MW, API-compliant turbines (drive & power), aftermarket spares & services, and rotating-equipment refurbishments. In FY25, domestic/exports sales mix was 52%/48%. The company holds 2nd position in its addressable industrial steam-turbine market globally based on unit sales and a 53-55% market share in India.

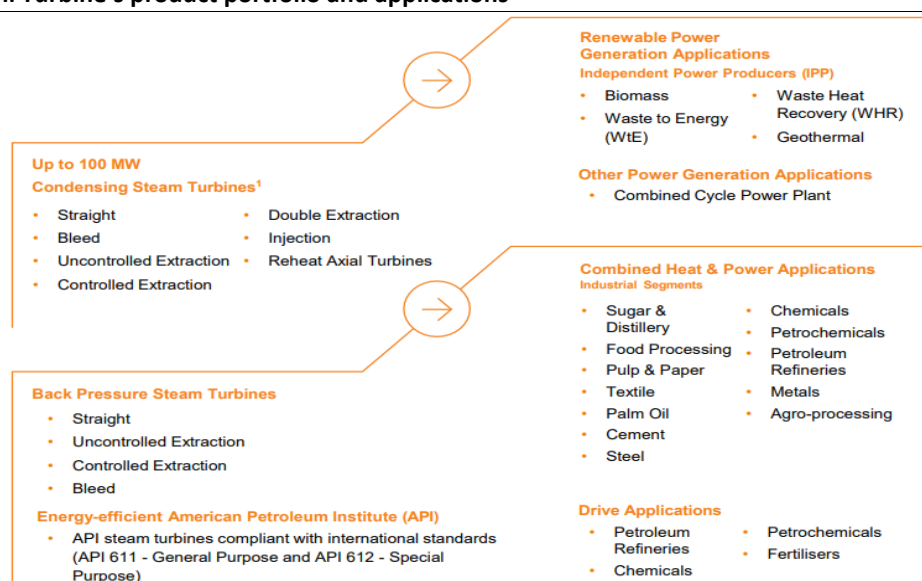
Exhibit 9: Triveni Turbine's business evolution (FY15-FY25)



Source: The Company, MNCL Research

Brief history: Triveni Turbines evolved from being part of a family-run sugar business into India's leading industrial steam turbine manufacturer, surmounting early challenges of global brand perception and market access by focusing on R&D, engineering talent, and global collaborations—including a JV with GE. Despite setbacks like the end of the GE partnership and a shrinking global steam turbine market, Triveni's strategic pivot to self-reliance, product innovation, and strong aftermarket and export focus drove substantial growth. This resulted in increased revenues, a significant rise in exports and aftermarket share, and a robust global footprint across 75+ countries. The company now positions itself as a cost-competitive, technology-driven player ready with strong aftermarket support to seize both domestic and international renewable energy and waste-heat recovery opportunities.

Exhibit 10: Triveni Turbine's product portfolio and applications



¹ Power generation capacity: Up to 100 MW; Steam Inlet Temperature: Up to 545°C; Steam Inlet Pressure: Up to 140 Bar(a)

Source: The Company, MNCL Research

Journey and evolution of Triveni Turbines: Triveni Turbines, under a technology license from Peter Brotherhood, UK, dispatched its first turbine from its Bengaluru facility in 1974 and evolved from a turbine supplier to a solution provider by 1979. After exporting its first combined heat and power turbine in 1983, Triveni expanded its capabilities through strategic joint ventures, including partnerships with General Electric and Alstom, enhancing its technology and global reach. Throughout the late 1980s and 1990s, the company steadily increased its product offerings and global footprint, serving diverse industries. In 2011, it demerged from Triveni Engineering & Industries to become an independent entity, focusing on scaling manufacturing, R&D, and expanding its aftermarket services. Today, Triveni Turbines is a leading global steam turbine manufacturer with a presence in over 80 countries, offering turbines up to 100 MW and generating revenues exceeding Rs20 bn in FY 2024-25, driven by innovation, tailwinds in industries it operates and expanding international footprint.

Exhibit 11: Triveni Turbine Timeline of Key Events

Period	Key Events / Milestones
1968	Manufactured and delivered the first steam turbine under license from Peter Brotherhood, UK.
1973-74	Established manufacturing unit at Bengaluru; dispatched the first steam turbine from the Peenya facility.
1979	Transitioned from being a turbine supplier to a complete steam turbine solutions provider.
1980	Built steam turbines for Indian Navy warships; commissioned the first Steam Turbine Generator (STG) for Combined Heat & Power (CHP) applications.
1981	Supplied the first aftermarket retrofit to the shipping industry — crude oil pump turbine gearset.
1983	Exported the first Steam Turbine Generator (STG) for Combined Heat & Power.
1990	Entered into a turbine packaging agreement with General Electric (GE).
1993	Formed a joint venture with GEC Alstom SA to strengthen technology capabilities.
1999	Established an in-house Research & Development (R&D) department.
2007	Expanded and modernized the manufacturing facility; commissioned the High-Speed Balancing Vacuum Tunnel — a critical quality infrastructure addition.
2008	Received the “Strong Commitment to Excel” award from CII–EXIM Bank.
2010	Formed GE Triveni Limited, a joint venture with GE for manufacturing steam turbines above 30 MWe.
2011	Demerged turbine business from Triveni Engineering to form Triveni Turbine Limited (TTL) as a standalone listed entity.
2013-15	Consolidated presence in export markets and focused on expanding after-market and service offerings
2017	Commissioned the second manufacturing facility at Sompura Industrial Area near Bengaluru.
2022	Acquired a 70% stake in TSE Engineering Pty. Ltd., South Africa, and expanded Sompura plant facilities to enhance global servicing capabilities.
2023	Achieved record production of steam turbines — highest in company history.
FY25	Reported revenue growth crossing Rs20 bn and with an all-time high orderbook

Source: Company, MNCL Research

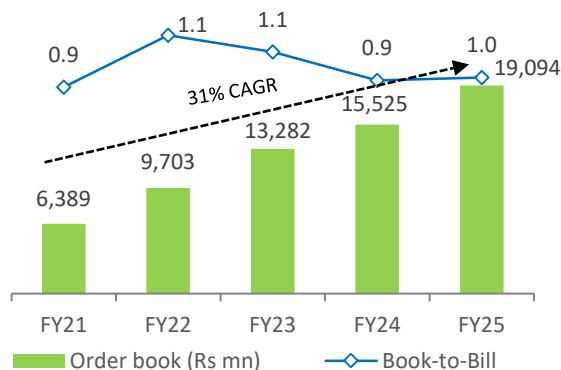
Favorable Industry Dynamics and Aftermarket Moat

TTL's addressable market includes its traditional industrial steam turbine business, a large recurring aftermarket opportunity, and nascent but potentially large CO₂ heat pumps and mechanical vapour recompression (MVR) market. The company is also executing a project order for India's first Long Duration Energy Storage (LDES) system, but this energy generation process is at a proof-of-concept stage. The company has a global footprint with export sales across Middle East, Europe, North America, SE Asia and Africa. End users of its products include sugar / distilleries, cement, steel, chemicals, waste heat recovery, waste-to-energy/biomass, paper, textiles and industrial power generation.

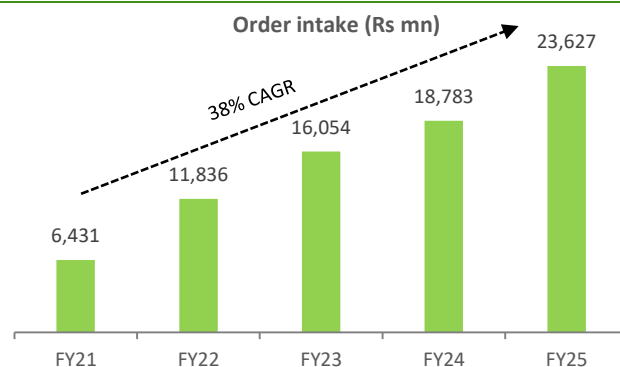
Decentralized renewables + waste-to-heat recovery & CHP: Industries seeking fuel efficiency and onsite power need packaged steam turbine solutions in TTL's size band. The company's ~48% export share in FY25 provides diversification and exposure to higher-margin geographies. Its steam turbine portfolio ranges from a few kW (API smaller units) up to 100 MW — this covers captive CHP, WtE, biomass, oil & gas drives and small central plants.

Solid orderbook growth: Triveni Turbine recorded order inflows of Rs 23.6 bn in FY25 (up 26% YoY) with a closing order book of Rs 19.1 bn (up 23% YoY), driven by large project wins across renewables, API, and the NTPC LDES order. The book-to-bill ratio stood at a healthy 1.0x, indicating steady execution and strong demand. Notably, the order book has grown at a 31% CAGR since FY21—tripling from Rs6.3 bn to Rs19 bn—while order inflows rose at a 29% CAGR, with the book-to-bill consistently in the 0.9–1.1x range, reflecting the growth across domestic and export markets.

Exhibit 12: Triveni Turbine's consolidated orderbook and order intakes (Rs mn)



Source: Company, MNCL Research



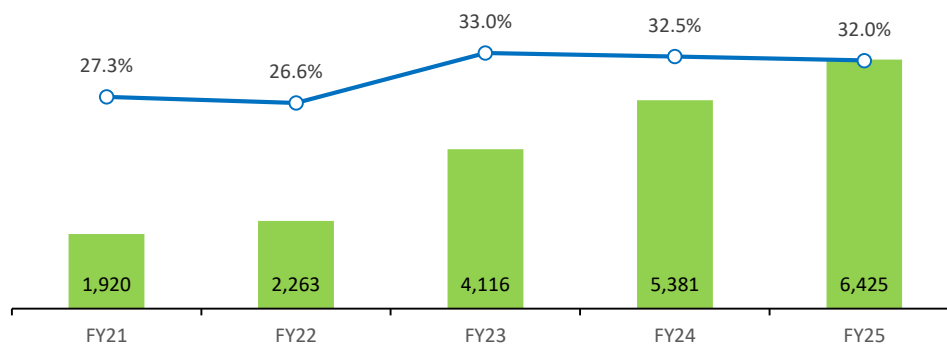
Source: Company, MNCL Research

With an expanding installed base and long equipment lifecycles, the company's aftermarket revenue has grown strongly at a 7-year CAGR of 19% versus products sale CAGR of 14%..

Aftermarket business segment has grown at a 7 year-CAGR of 19%: The company offers comprehensive lifecycle services including annual maintenance contracts, efficiency restoration, health checks, overhauls, refurbishment, reverse engineering and remote monitoring. Its capabilities span upgrades, repairs and parts for industrial and geothermal steam turbines up to 100 MW, gas turbines, turbopumps and control systems. It also undertakes O&M for gas engines, large utility and nuclear turbines, alternators, compressors and blowers, with competencies extending to compressors, generators and utility turbines up to 950 MW.

Installed fleet growth drives recurring spare & service revenues with higher margins and predictability. TTL's REFURB and multi-brand offerings capture this. Product breadth along with aftermarket gives TTL higher share of wallet over projects (equipment + lifecycle services). With an expanding installed base and long equipment lifecycles, the company's aftermarket revenue has grown strongly at a 7-year CAGR of 19% versus products sale CAGR of 14%. TTL's aggregate capacity of turbines installed is ~16 GW (6,000+ units), implying a meaningful serviceable installed market and aftermarket TAM.

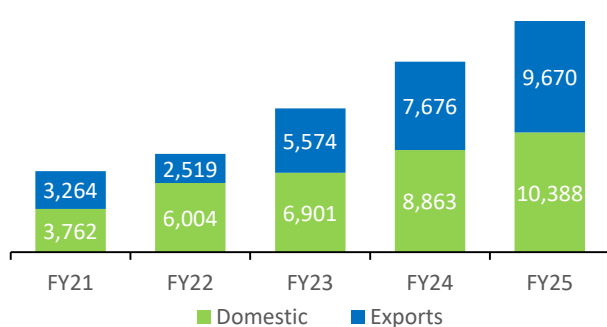
Exhibit 13: Triveni Turbine's aftermarket revenue and contribution (Rs mn)



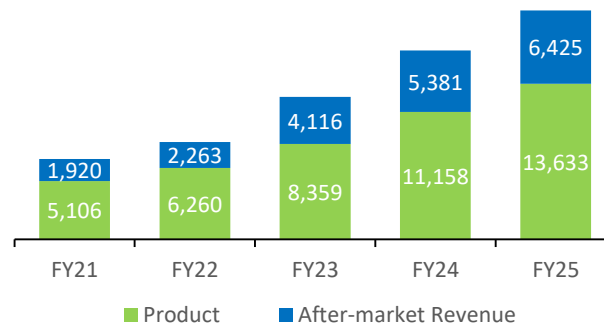
Source: The Company, MNCL Research

TTL's revenue growth accelerated while operating leverage and a favorable sales mix (higher product and export proportion) drove faster EBITDA/PBT growth. TTL's FY25 results (Revenue +21%, EBITDA +36% YoY, PBT +37% YoY, PAT +33% YoY in FY25) show a step-up in scale and margins — combination of higher-margin export/product mix and aftermarket growth. The balance sheet is conservative (large liquid investments, minimal debt), which materially de-risks execution for large projects and POC investments (LDES).

Exhibit 14: Triveni Turbine's Revenues by Market and Segment (Rs mn)



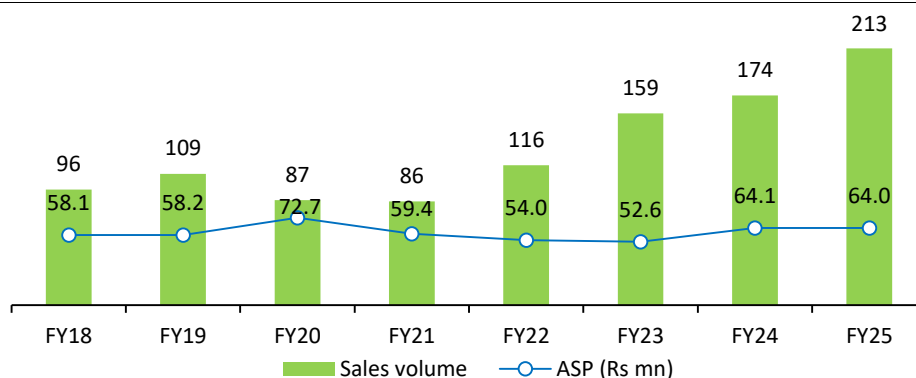
Source: Company, MNCL Research



Source: Company, MNCL Research

Unit realization has trended positively: Triveni Turbine's estimated ASP per turbine ranged Rs 54-58 mn over FY18-23 excluding FY20 when it reached Rs 72 mn possibly driven by a greater share of larger-capacity turbines in the sales mix. Internal estimates indicate a 22% YoY jump in ASPs in FY24 along with a 9% YoY jump in sales volume contributed to the 32% YoY increase in topline in FY24, and for FY25 the revenue growth was achieved almost entirely by volume growth. We believe, a favorable resolution of USA India tariff issues can give some room for TTL to further increase its realization considering global demand remains strong.

Exhibit 15: Sales Volume and ASP (estimated)



Source: The Company, MNCL Research

LDES a Mid-to-Long Term Optionality: CO₂-based long-duration energy storage approach aid in the development of a reliable alternative to fossil fuels for globally dispatchable baseload electricity by storing renewable energy for a longer time and release it very quickly in comparison to Li-ion storage. In charging mode, the CO₂ is drawn from an atmospheric gasholder, the Dome, compressed and then stored under pressure at ambient temperature in a high density supercritical or liquid state. When electricity needs to be generated, the CO₂ is evaporated and expanded into a turbine, and then returned to the atmospheric gasholder, ready for the next charging cycle.

From the cost point of view, this is also beneficial because the cost of this storage is about half of the lithium-ion batteries. By storing in the liquid phase at ambient temperature, Energy Dome's process significantly reduces the typical storage costs associated with CAES (Compressed Air Energy Storage) without having to deal with cryogenic temperatures associated with LAES (Liquid Air Energy Storage).

As renewables scale, long-duration energy storage (and hybrid solutions) create new demand for turbomachinery-based ESS. *TTL has an early mover position with a Proof of Concept (POC) order (NTPC-Kudgi; 160 MWh CO₂-based LDES awarded in Q4'25; order value Rs 2.9 bn).* Strong balance sheet enables TTL to invest in such projects and support working capital for large export EPCs. If CO₂-based LDES proves scalable, it could represent a multi-GW / multi-GWh new market over the next decade for turbomachinery suppliers. TTL's addressable share would depend on system architecture and whether they supply core turbomachinery + EPC.

Drive Turbines to See Steady Growth

Drive Turbines are part of Triveni Turbine mechanical drive portfolio and are steam-powered turbines used to run compressors, pumps, blowers, and other rotating equipment inside industrial plants. Instead of using separate electric motors, they utilize waste or process steam already available in the plant, improving overall efficiency and reducing energy costs. The API refers to the American Petroleum Institute, whose standards primarily API 611 for general-purpose turbines and API 612 for special-purpose, critical-duty turbines; ensure high reliability, safety, and performance for use in demanding industries such as oil & gas, gas processing, and fertilizers. TTL's revenue from sales of these turbines is presumably less than 10% but should see steady growth going forward.

Exhibit 16: API Drive Turbine categories

Product	MW range	Application
API 611 drive turbines	< 15 MW	Mechanical drives in petroleum/chemical/gas industry (pumps, compressors, fans)
API 612 drive turbines	< 100 MW	Special-purpose applications (petrochemical, special mechanical drives)

Source: MNCL Research

Exhibit 17: Single stage and Multistage API drive turbine



Source: Company, MNCL Research

The global API Steam Turbine market was valued at \$2.8 bn in 2024 and is expected to grow at a CAGR of 4.1% over 2024-31, per QY Research Inc.

API turbines outlook: Growth is supported by steady demand from oil & gas, petrochemical, chemical, and industrial power segments, driven by ongoing capacity additions, energy-efficiency upgrades, and the replacement of aging rotating equipment. API 611 general-purpose turbines continue to see healthy adoption for utility drives such as pumps, blowers, and smaller compressors, while API 612 special-purpose turbines remain critical for high-speed compressor applications in refining, LNG, fertilizers, and large petrochemical complexes. The market remains moderately consolidated, with Siemens, GE, Shanghai Electric, Dongfang, HTC, MAN, and Mitsubishi-Hitachi together accounting for ~56% share, supported by their strong engineering capabilities, large installed base, and long-term service relationships.

Exhibit 18: TAM for API steam/drive turbines



Source: Industry, MNCL Research

Triveni's entry into API drive turbines business: Triveni Turbines entered the drive turbine (API 611/612) segment in the early 2020s as part of its strategic diversification beyond power generation, targeting mechanical drive applications in the oil & gas and process industries. Initially a small portion of its portfolio, the segment gained momentum through approvals from major EPCs and oil companies, particularly in the Middle East. Management had also mentioned of a near doubling of API (drive and power) turbine orders in FY23, with continued growth in FY24–25. To support this, Triveni has invested in R&D, certifications, and global service hubs (e.g., Houston, South Africa). While still a minor revenue contributor, the drive turbine business is now an area of focus, with the company citing strong enquiry pipelines and aiming for higher market share post-2025.

Management estimates a near-term opportunity of a total 50–55 API turbines (roughly 1 GW of auxiliary capacity) in India, though this demand will materialize in a lumpy fashion as new thermal projects are commissioned.

Domestic demand to aid growth: Triveni Turbines is increasingly tapping into the domestic utility power drive turbine market, which is emerging as a meaningful new growth avenue. These turbines are not used for electricity generation but to drive critical auxiliary equipment inside utility power plants — most importantly boiler feed water pumps. Each utility project typically requires two such turbines in the 15–22 MW range, and the addressable market, historically dominated by BHEL and imports, is now becoming accessible to Triveni as it has secured approvals from major EPCs and developers including NTPC. With steady infrastructure growth in India and a visible pipeline of utility projects, Triveni is well positioned to scale in this segment, supported by its capability to supply high-specification API-grade drive turbines that meet stringent reliability and performance standards. This represents a strategic expansion beyond its traditional industrial turbine markets such as steel, sugar, and cement.

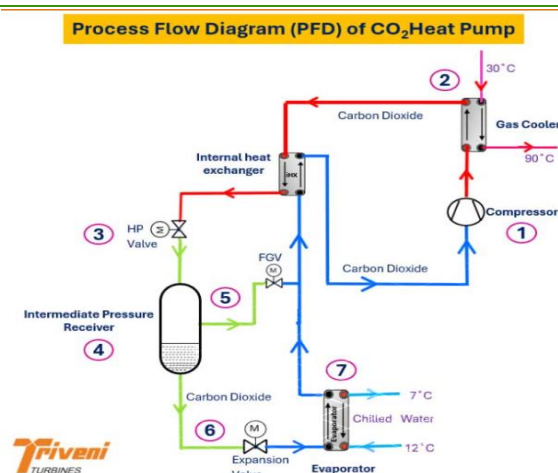
Growing traction in API drive turbines driven by global O&G capex: Beyond the domestic utility opportunity, Triveni is also seeing sustained demand for API-grade drive turbines from global O&G markets, particularly in the Middle East where brownfield expansions and energy-efficiency upgrades are underway. API 611/612 turbines offer higher margins and better realization/MW, and Triveni's growing track record in these categories has strengthened its credibility with global EPCs, enabling entry into more complex turbomachinery applications. While competition remains intense in the API 612 segment and order cycles are longer, Triveni remains optimistic given healthy export inquiries and repeat business potential. Domestic demand is primarily driven by utility drive turbines, whereas API 612 opportunities are largely export-led through oil refineries.

CO₂ Heat Pumps and MVR – Geared to Benefit from the Decarbonization Trend

CO₂ HEAT PUMPS – Strong growth potential

Mechanics: A CO₂ heat pump is a high-efficiency heating system that uses carbon dioxide as refrigerant to move heat rather than generate by burning fuel. Because CO₂ has a very low critical temperature (~31°C), the refrigerant is compressed to very high pressures and operates in a trans critical cycle, which is why the system needs robust, high-pressure components. When CO₂ is compressed, it becomes extremely hot, and this heat is transferred to water to produce hot water or even steam, often at temperatures much higher than conventional heat pumps can achieve; Triveni's system, for example, reaches about 126°C. After releasing heat, the CO₂ expands, cools, and absorbs heat again from ambient air or waste-heat sources, making the whole process far more energy-efficient than boilers or electric heaters.

Exhibit 19: Process Flow Diagram of a Co₂ heat pump



- 1 CO₂ is pressurized, increasing its temperature
- 2 High-pressure CO₂ flows through a gas cooler
- 3 A high-pressure valve lowers CO₂ pressure for the next stage
- 4 CO₂ splits into liquid and vapor in the intermediate pressure receiver
- 5 The vapor expands through a flash gas valve and returns to the compressor
- 6 Liquid CO₂ passes through an expansion valve, reducing pressure and temperature
- 7 CO₂ absorbs heat from the water in the evaporator, cooling it before the cycle repeats

Source: Company, MNCL Research

Source: Company, MNCL Research

Efficiency and decarbonization trend to drive demand for CO₂ heat pumps: CO₂ heat pumps are taking off because they provide a highly efficient, clean alternative to the fossil-fuel boilers and separate cooling systems still used across most industries. Delivering efficiency of around 6 COPs (coefficient of performance) even at high temperatures, they cut energy use by 3–5x while eliminating on-site emissions since they run on electricity. Using CO₂ as the refrigerant avoids the safety and environmental issues from other gases, and the same unit can supply both heat and cooling, replacing multiple pieces of equipment. Their high-pressure, compact design also results in robust, long-life industrial systems. Altogether, CO₂ heat pumps significantly reduce energy costs, carbon footprint, and system complexity compared to traditional boiler–chiller setups.

Exhibit 20: Co₂ heat pump comparison across major manufacturers

Company / Product	Triveni Turbine — CO ₂ Heat Pump	Mayekawa — EcoSirocco	Mayekawa — Unimo AWW (Water + Air Source)	Kobelco — SGH120 ("Steam Glow" heat pump)	Enex Technologies — GEOHEAT (R744 CO ₂)	Other Global Players / Example — Kobe Steel / Chubu Electric (SGH120)
Max Temperature	126 °C	120 °C	90 °C (hot water)	120 °C steam	90 °C (water)	120 °C steam
COP rating	6 (claimed)	~5.5 at lower temp, ~3.1 at ~120 °C (operating point)	< 7.4 (for some modes)	~3.5	COP ~4.5 (average)	COP ~3.2 (in their first commercial version)
Refrigerant type	CO ₂ (R-744)	CO ₂ (R-744)	CO ₂ (R-744)	R-245fa (not CO ₂)	CO ₂ (R-744)	R-245fa
Operating Conditions / Notes	Tested at Triveni's Bangalore test centre, designed for industrial steam heating.	Uses air or waste-heat source; tested for hot-air supply.	Dual source (air + water), flexible source switching.	Requires ~65°C waste-heat source.	Indoor, water-to-water, one-pass heating.	Designed for steam supply; uses waste heat

Source: MNCL Research

TTL has developed India's first high-performance CO₂ heat pump: Triveni Turbines has entered the industrial heating space by developing India's first indigenous high-temperature CO₂ heat pump, created in partnership with the Indian Institute of Science (IISc) to meet the country's demand for efficient, low-carbon process heat. Over the last few years, IISc customized the trans critical CO₂ cycle for Indian climatic conditions while Triveni invested in R&D and set up India's first industrial heat-pump test center in Peenya, Bengaluru, commissioned in mid-2025, where the jointly built prototype was validated as one of the world's first heat pumps capable of delivering 122-126°C in tropical conditions. In August 2025, Triveni launched the commercial system; engineered and manufactured in India with a COP of around 6, positioning it as a clean, efficient alternative to fossil-fuel-based industrial heating. The product is targeted at core industrial customers such as pharmaceuticals, food and beverages, chemicals, textiles, distilleries and pulp & paper, supporting applications like pasteurization, drying and distillation, and forms a key part of Triveni's strategy to expand into sustainable heating and power solutions.

CO₂ heat pumps was valued at USD 1.2 bn in 2024 and is estimated to grow to a 12.5% CAGR over 2024-33.

CO₂ Heat Pumps industry projected to grow strongly: The global market for CO₂ heat pumps is niche and forms a small portion with an estimated size of USD 1.2 bn in 2024 estimated to grow to USD 3.5 bn by 2033 at ~12.5 % CAGR, as per industry data. Key drivers include regulatory phase-outs of high-Global Warming Potential (GWP) refrigerants, rising energy and carbon costs, and the shift towards electrified heating powered by renewables. Leading equipment manufacturers such as Daikin Industries, Mitsubishi Electric Corporation and Sanden Holdings Corporation are already commercializing CO₂-cycle solutions making now a timely inflection point for CO₂ heat-pump adoption globally.

A Significant Addition to TTL's Product Offerings: Triveni's entry into CO₂ heat pumps marks a key step in diversifying its product portfolio into wider industrial heating solutions at a time when global regulations are pushing industries away from high-GWP refrigerants. As decarbonization pressure rises, CO₂ heat pumps offer a game-changing alternative to boilers and conventional heating equipment, delivering high-temperature output with far lower emissions and energy use. While these systems operate at very high pressures and require specialized high-grade components raising initial capex, the significantly lower operating energy cost makes lifecycle economics attractive. Triveni's indigenously developed 126°C, COP-6 CO₂ heat pump, validated at its new Bengaluru test center, gives it a best-in-class advantage.

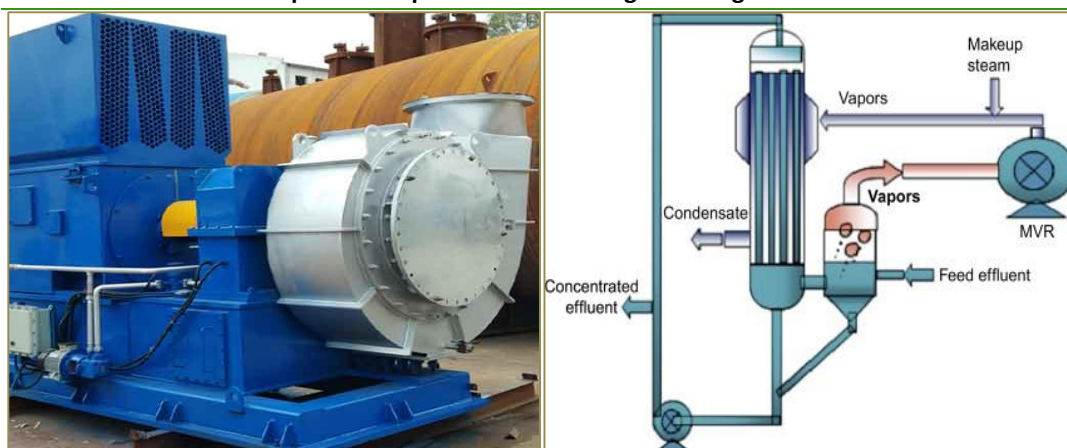
While near-term revenue contribution from CO₂ heat pumps may remain modest, we believe this technology meaningfully extends Triveni's medium to long-term export growth runway and positions the company to capture substantial value across food, pharma, chemicals and textiles as the shift toward clean industrial heating accelerates.

MVR – Penetration and adoption expected to increase significantly

The global MVR market is a USD 1.2 bn TAM, projected to grow at 6.4% annually.

Mechanical Vapor Recompression (MVR) uses an electric compressor to take low-pressure waste vapor, compress it to a higher temperature, and feed it back as the heat source, effectively recycling the vapor instead of requiring fresh steam. This simple closed-loop greatly cuts energy use; often 80–90% because the latent heat is reused rather than thrown away, giving MVR very high efficiency (COP 5–10) and large reductions in fuel and CO₂ emissions. MVR needs only one evaporator plus a compressor, making the system compact, clean, and cost-effective. In short, an MVR is an industrial heat-recovery device that turns waste vapor into usable heat, significantly lowering operating costs and environmental impact.

Exhibit 21: Mechanical Vapor Recompressor and working flow diagram



Source: Company, MNCL Research

MVR Market Outlook: The global MVR market is a USD 1–1.3 bn, projected to grow at 7% annually, with Asia-Pacific accounting for the largest share and India still at an early stage of adoption. This creates a sizeable TAM for TTL across sugar/ethanol, chemicals, food, pharma, textiles, refineries, and wastewater; industries with heavy evaporation loads and rising pressure to cut steam use and emissions. The competitive landscape is fragmented, with leading players like Howden, Piller, GEA, Alfa Laval, and SPX Flow together holding only about 19% of the market, leaving room for credible new entrants. With a strong installed turbine base, service ecosystem, and new heat-pump offerings, Triveni is well positioned to tap into this underpenetrated but growing segment.

Triveni's move towards a wider set of industrial solutions: Triveni's push into MVR technology suggests the company is positioning itself as a more diversified industrial solutions provider, extending beyond steam turbines into broader energy-efficient and decarbonization-focused technologies. MVR fits well in this direction as it recycles waste heat, supports thermal-renewable applications, and targets the same heat-intensive sectors where Triveni already has strong domain expertise. Combined with its turbines and emerging CO₂ heat pump solutions, MVR strengthens the company's presence in waste-heat-to-energy applications.

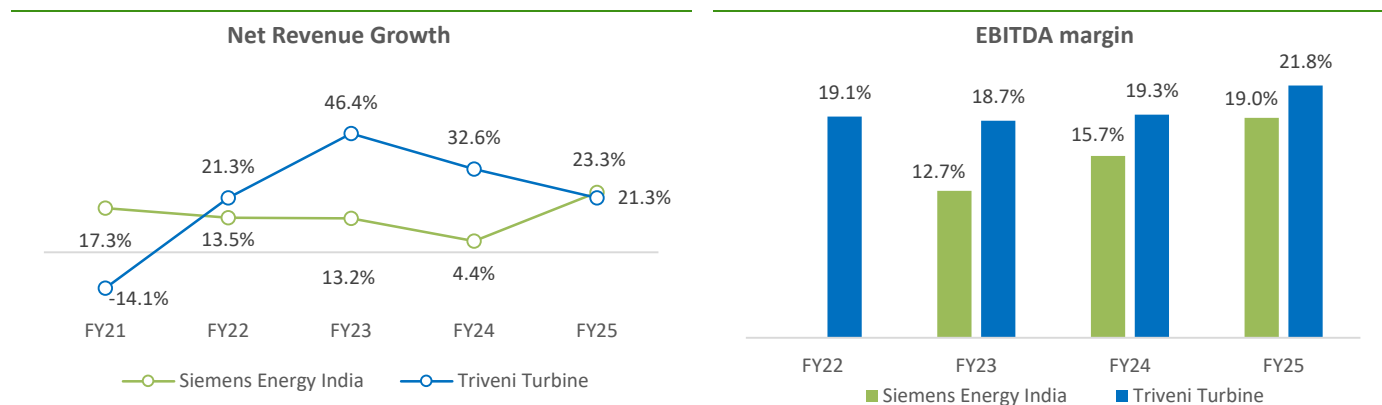
Triveni has already secured its first large MVR order (8–9 units for delivery in Q1 FY26), indicating healthy early traction. While near-term revenue impact will be modest, we expect MVR to become a meaningful growth contributor over time as adoption increases across target industries; chemicals, sugar/ethanol, food, pharma, textiles, and other evaporation-heavy industries.

Localization + Strong Aftermarket Provides Strategic Differentiation for TTL vs Siemens

Triveni Turbine Limited (TTL) operates two state-of-the-art manufacturing plants in Bengaluru — at Peenya Industrial Area and Sompura Industrial Area. The company designs and builds industrial backpressure and condensing steam turbines up to 100 MW, serving applications ranging from captive power and cogeneration to biomass, waste-to-energy, sugar, cement, steel, chemicals and more. Their facilities handle full manufacturing: from critical-component machining (rotors, blades, casings) and assembly to testing and refurbishment; enabling TTL to deliver custom, high-quality turbines for diverse industries.

By contrast, Siemens Energy India Ltd (formerly Siemens Ltd's Energy division) is a diversified energy-tech company covering both power generation (gas and steam turbines, associated generators and plant-control systems) and transmission equipment (switchgears, transformers, reactors, traction transformers, etc.). For supply of turbines to its customers, the company does a mix of import and local manufacturing (Vadodara) of the equipment and spare parts, with the mix seemingly more skewed towards imports.

Exhibit 22: Siemens Energy vs Triveni Turbine Growth and Margins



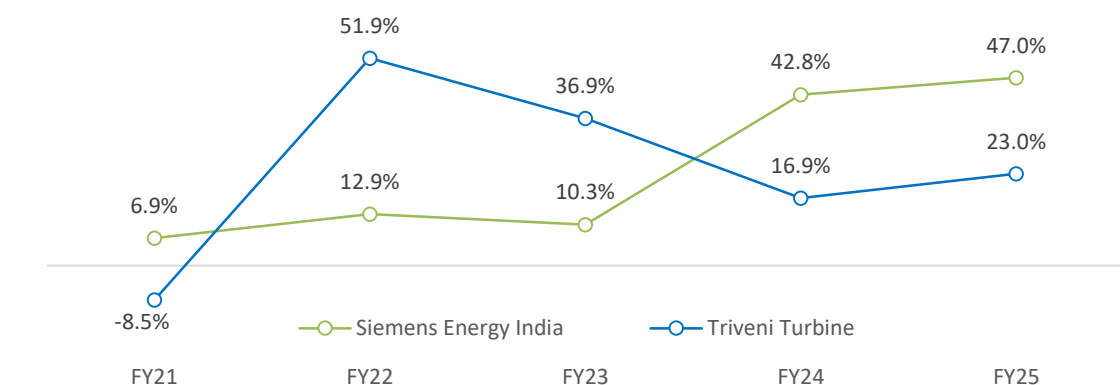
Source: Company, MNCL Research; Siemens FY end is September.

TTL's sales grew at a CAGR of 30% versus Siemens's Energy's 13% over FY21-25.

Siemens Energy India a larger player but TTL's average growth and profitability stronger: Over FY21–25, Triveni Turbines delivered significantly faster revenue growth compared to Siemens Energy. On a consolidated basis, TTL's sales rose from Rs 7,026 mn in FY2021 to Rs 16,539 mn in FY2024, and further to Rs 20,058 mn in FY2025, reflecting a CAGR of 30%. In contrast, Siemens Energy India's business grew from Rs 47,341 mn in FY2021 to Rs 78,267 mn (power generation segment 46%) in FY2025, representing a more moderate CAGR of around 13%. Siemens Energy's operating margins have expanded significantly since FY23, rising to 15.7% in FY24 and further to 19% in FY25 vs 12.7% in FY23. This improvement largely reflects higher utilization of existing manufacturing capacities and a favorable shift in product mix towards transmission equipment.

Triveni has also improved its profitability as it scaled, with EBITDA margins rising from about 19.1% in FY2023 to 21.8% in FY2025, and PAT margins improving from roughly 15.5% to 17.9%. This shows that its rapid top-line expansion has been accompanied by healthier margins, likely attributable to local manufacturing edge and a stronger aftermarket offering. Overall, Triveni's aggressive growth momentum driven particularly by exports stands in contrast to Siemens Energy India's steadier, lower-growth trajectory, which reflects its much larger base.

Siemens a beneficiary of exposure to T&D segment: While Triveni Turbines has experienced strong growth and favorable tailwinds in its sector, Siemens Energy India benefits from the ongoing expansion in India's transmission and distribution segment, with project awards of Rs 1.6 trillion in FY25 and sustained bidding activity expected over the next few years. Its scale, capabilities, and strong orderbook of Rs 162 bn position it well to capture large T&D opportunities, particularly in high-voltage and grid stability equipment, giving Siemens a clear advantage over Triveni in this segment.

Exhibit 23: Siemens Energy vs Triveni Turbine orderbook growth


Source: Company, MNCL Research

Siemens Energy's order book has expanded at a strong 27% CAGR over FY21–FY25, with momentum accelerating in FY24 and FY25. The order book for FY25 closed at Rs 162 bn, up 47% from Rs 110 bn in FY24, supported by strong tailwinds in the transmission and distribution segment. Similarly, Triveni Turbines has also witnessed robust growth, with its order book rising at a CAGR of 31.5% (over FY21-25), reaching Rs20.7 bn in Q2 FY26, up from Rs19.1 bn in FY25 and Rs15.5 bn in FY24. This growth is the reflection of increased export contribution and momentum in thermal renewables, and waste-to-heat energy solutions, underscoring Triveni's expanding global presence and diversified revenue base.

Triveni's Focus on Aftermarket is Strong: As evident from recent management commentaries and performance trends, Triveni has significantly increased its focus on the aftermarket segment, making strategic investments across major geographies such as the USA and South Africa. These initiatives are aimed at securing a higher volume of aftermarket orders, and Triveni's approach appears to be paying off, with the company achieving an 18.3% CAGR in aftermarket revenue over FY21–FY25. TTL claims faster and more responsive service for existing turbines compared to Siemens.

While Siemens continues to maintain a dominant market share in the overall turbine and power generation space, Triveni's positioning as a niche steam turbine specialist and its consistent push to diversify into other industrial solutions, including its aftermarket offerings, could enable it to deepen penetration in the steam turbine market and potentially gain a competitive edge in select segments.

Focused Positioning Helps TTL Sidestep Direct Rivalry with BHEL

Triveni and BHEL largely operate in different capacity bands; industrial sub-100 MW vs. utility-scale turbines, resulting in only limited direct competition

How Triveni Turbine differentiates itself vs BHEL: BHEL is a diversified, utility-scale power equipment major with capabilities across large thermal, nuclear, gas and hydro sets, supplying steam turbines and generators of up to ~1,000 MW for grid-scale and EPC power projects. Its portfolio is oriented toward high-capacity, centralized power generation, where standardization, scale and long-cycle project execution dominate. In contrast, Triveni Turbine operates as a focused specialist in the sub-100 MW industrial steam turbine segment, holding about 50–55% domestic share. The company concentrates on low-capacity, captive, co-generation, biomass, waste-to-energy and other renewable-linked applications across industries such as sugar, cement, steel and chemicals. Its emphasis on highly customized, engineering-to-order turbines and strong aftermarket support makes it the preferred choice for distributed and industrial power customers; segments where BHEL's much larger, utility-scale offerings are typically less suited.

Where BHEL would be in competition with Triveni: BHEL being a broad-based heavy-electrical and power-equipment firm tends to be involved in large thermal and utility-scale power-plant contracts involving boilers, large-capacity turbines, and turnkey power projects. While Triveni dominates the sub-100 MW market, the 30–100 MW and beyond range is largely tender-driven and led by BHEL. There can be overlap and competition in mid-sized industrial power or utility deals, especially where the project size or specifications push toward the higher side of Triveni's capabilities or if BHEL bids aggressively. Thus, for medium-to-large capacity steam-turbine contracts, especially those requiring tendering or involving large industrial/utility-scale boilers, turbines, and gensets, BHEL represents some competition to Triveni.

Exhibit 24: Triveni Turbine vs BHEL Business model

Factor	Triveni Turbine	BHEL
Core segment	Up to ~100 MW steam turbines in small/industrial/renewable-linked applications	Large-capacity turbines, boilers, full-scale utility & thermal power plant equipment
Market share (India, small-turbine segment)	Dominant with ~50–55% in sub-100 MW domestic steam turbine segment	Strong in larger-scale, tender-driven projects; leader in higher-capacity segment
Typical clients	Industrial plants; sugar, cement, steel, distilleries, co-gen, waste-to-energy, captive power, SMEs	Large utilities, thermal power plants, big industrials requiring high-capacity boilers/turbines/generators
Value proposition	Customised solutions, faster turnaround, strong after-market/service support, efficient small/medium turbines, cost-effective	Large-scale capabilities, established heavy-machinery track record, ability to execute large complex power-plant EPC contracts

Source: Company, MNCL Research

Prime Movers: Steady Growth, Expanding Applications

The global prime mover market was valued at \$104 bn in 2024 and is expected to grow at a CAGR of 4.5% over 2024-33.

A prime mover is a machine that converts various forms of energy—such as chemical, electrical, or fluid pressure—into mechanical energy to perform work. Common examples include steam turbines, gas turbines, internal combustion engines, and hydraulic motors. In the context of power generation, prime movers drive electric generators, transforming thermal, kinetic, or hydraulic energy into electrical energy.

The global prime mover market is experiencing significant growth, driven by advancements in manufacturing, power generation, and transportation. *This expansion is fueled by increased industrialization, urbanization, and the demand for efficient, sustainable energy solutions.* Emerging economies, particularly in Asia-Pacific, are contributing to this growth due to infrastructure development and industrialization.

Among the various types of prime movers, *steam turbines* and *gas turbines* are gaining prominence due to their efficiency and adaptability in power generation. This growth is attributed to the increasing demand for stable and reliable power sources, especially in regions with expanding industrial activities. Additionally, the rise of renewable energy sources has led to the development of advanced prime movers that can efficiently integrate with variable power inputs, ensuring grid stability and reliability.

Exhibit 25: Understand Prime Movers

Feature	Notes
Definition	Machines that convert energy from fuel, steam, water, or wind into mechanical energy.
Primary function	Produce mechanical power to drive other machinery, especially electric generators.
Energy input	Thermal, chemical, hydraulic, or kinetic energy (e.g., fuel, steam, water flow, wind).
Energy output	Mechanical energy (rotational or linear motion).
Examples	Steam turbines, gas turbines, gas/diesel engines, hydro turbines, wind turbines, API turbines
Industry drivers	Efficiency improvements, fuel flexibility, renewable integration, industrial demand.
Global market linkage	Growth in industrialization, infrastructure, and power generation

Source: MNCL Research

Exhibit 26: Turbines Comparison

Parameter	Steam Turbines	Gas Turbines	API Turbines
Primary function	Uses high-pressure steam to produce mechanical power	Uses hot gases from combustion of fuels (natural gas, liquid fuels)	Specialized steam turbines built to API standards
Key applications	Power plants, process industries, cogeneration	Power generation, aviation, oil & gas, industrial drives	Refineries, petrochemicals, critical process equipment
Typical Capacity Range	1 MW – 1,000+ MW	5 MW – 500+ MW	0.5 MW – 50 MW
Efficiency	High efficiency in large-scale power plants; lower in smaller units	High efficiency, especially in combined-cycle systems	Optimized for reliability rather than peak efficiency
Advantages	Can use various heat sources; long life; stable output	Fast start-up; high power-to-weight ratio; low emissions	Extremely reliable; built for harsh duty; high safety and durability
Start-up time	Slow	Fast	Slow–moderate
Response to load changes	Slow	Fast	Moderate
Maintenance requirement	Moderate	High (combustion section needs frequent overhaul)	Moderate but predictable; robust parts
Standards	No single dominant standard	Multiple OEM standards	Governed by API 611/612 rules
Best Suited For	Base-load power generation; Efficiency and large-scale output	High-power & fast-response applications	Critical industrial processes requiring reliability, ruggedness, continuous duty

Source: MNCL Research

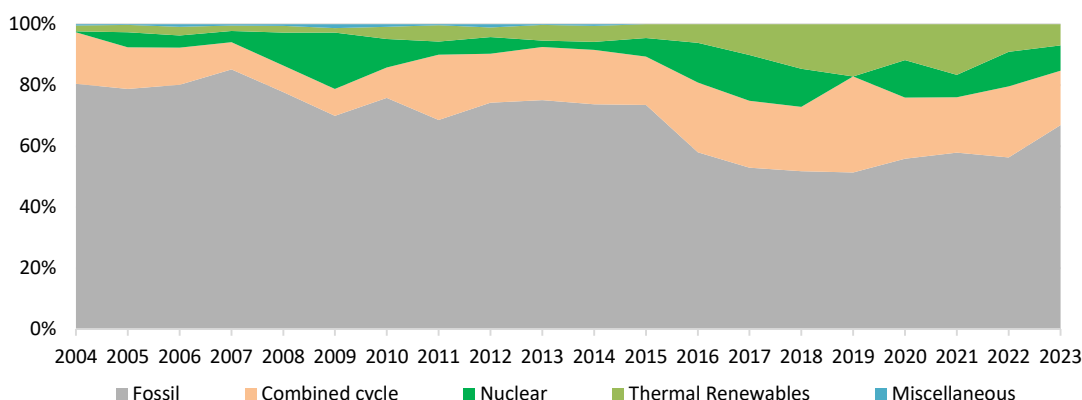
Steam Turbine Industry: Thermal Renewables Add Momentum to a Mature Market

Market research firms valued the global steam turbine market at USD 23.6 bn in 2024 and is projected to reach USD 30.5 bn by 2033, implied CAGR of 2.9%.

Steam turbine is a core technology for power generation in fossil fuel power plants, combined cycle plants, thermal renewable energy facilities (such as geothermal, biomass, waste-to-heat, and solar thermal), and nuclear power plants because they all produce a heat source that can be used to create steam to spin the turbine. These different power generation methods vary in their fuel source, but all rely on the fundamental principle of using steam to convert thermal energy into mechanical and then electrical energy.

Fossil Stronghold, Thermal Renewables Accelerating: Steam turbines delivered for fossil fuel-based power generation remain dominant (67% of the total capacity sold in 2023 versus 85% in 2007) though the share has come down over time mainly due to a ramp up in demand from other energy sources. Steam turbine demand from combined gas cycle and nuclear based power generation constituted 18% and 8% of total, respectively, in 2023, versus 9% and 4% in 2007. The strongest ramp-up in demand is observed in thermal renewables which has increased to 7% of total in 2023 versus 2% in 2007.

Exhibit 27: Steam Turbines Delivered Globally (based on aggregate output capacity in GWe)



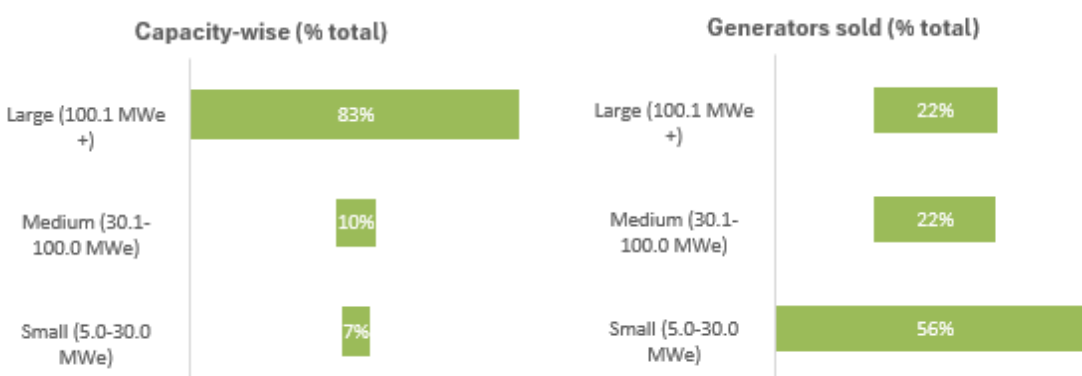
Source: McCoy Power Reports, MNCL Research

Big Turbines Rule Capacity, Small Turbines Rule Volumes: According to the McCoy Power Reports, the steam turbine markets can be divided into three unit-size segments:

- the small turbine market with turbine output of 5.0 MWe to 30.0 MWe,
- the medium turbine market with turbine output of 30.1 to 100.0 MWe, and
- the large turbine market with turbine output above 100 Mwe.

Notably, McCoy has not considered the below 5.0 MWe capacity turbines, which are mostly drive turbines, likely due to difficulty in accumulating data for the same. Data from market research firm indicates this market could be around 5-6% of the total turbine market.

Exhibit 28: Steam Turbines Delivered Globally (Based on Aggregate Output Capacity in GWe)



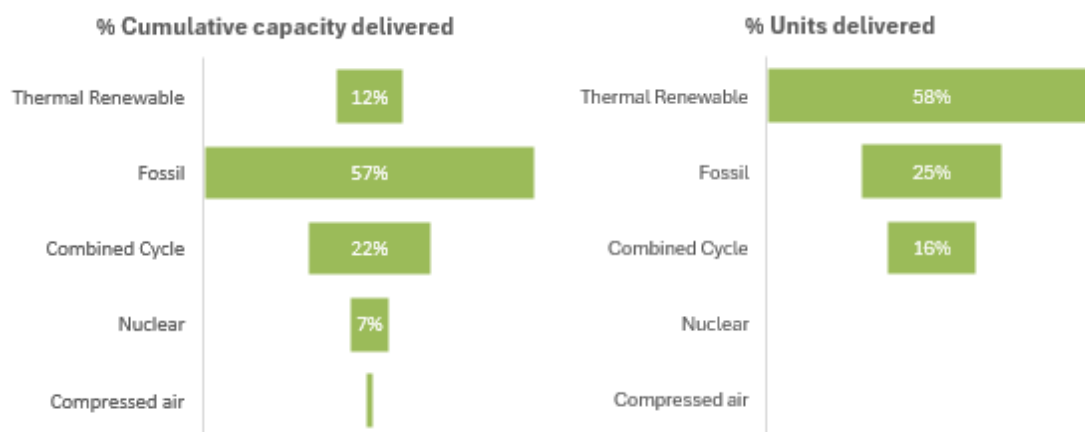
Source: McCoy Power Reports, MNCL Research

While small turbine sales far exceed medium and large turbines in terms of units sold, it is the other way round when the comparison is based on the accumulated output capacity sold.

Fossil fuel-based power plants require higher capacity turbines (around 260 MWe on average) whereas thermal renewables-based power plants require lower capacity turbines (around 25 MWe on average).

Thermal Renewables Drive Low-Capacity Turbines: Over 2018-23, around 3,382 steam turbines were supplied globally with a cumulative capacity of 386 GWe. As seen from the charts below, while Fossil was dominant in terms of cumulative capacity share, thermal renewables were dominant in terms of volumetric share, implying the latter require turbines of lower capacity versus other energy sources. Our calculations indicate average capacity per unit of 940 MWe for nuclear, 260 MWe for fossils, 150 MWe for combined cycle, and 25 MWe for thermal renewable-based power sources.

Exhibit 29: Steam Turbines Delivered Globally over 2018-23 (Based on Power Generation-Mode)



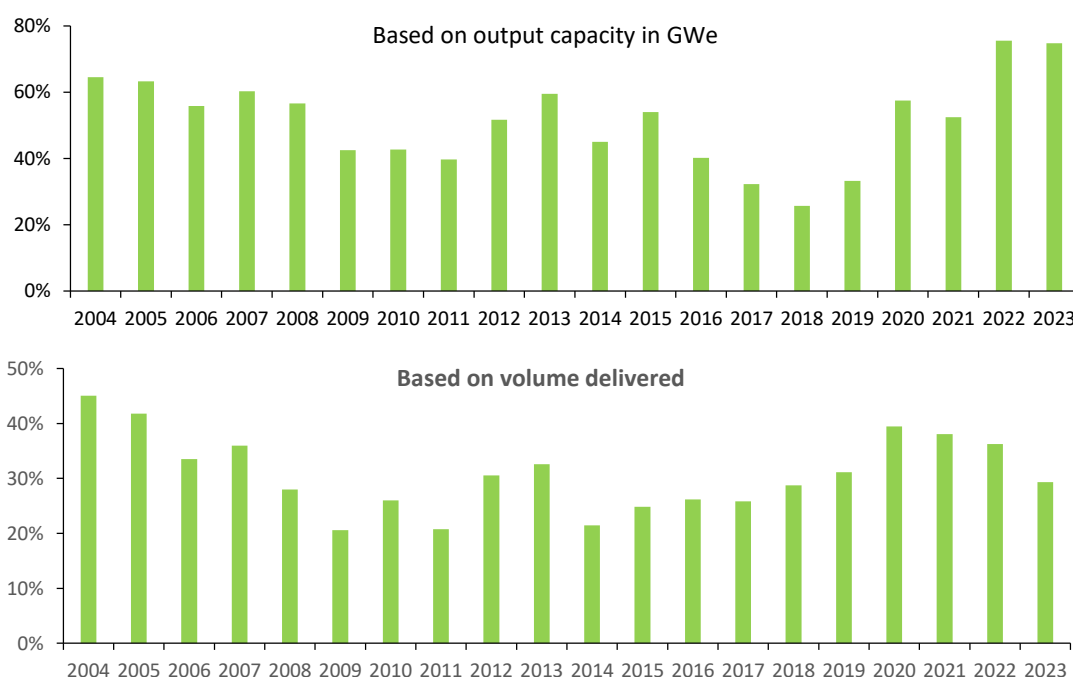
Source: McCoy Power Reports, MNCL Research

China Dominates the Manufacturing of Large Capacity Turbines: Large capacity turbines are increasingly concentrated in China. While China accounts for 75% of global steam turbine production when measured by total capacity, its share drops to just 29% in terms of units supplied. This indicates that Chinese manufacturers dominate the supply of very large turbines, which significantly inflate total installed capacity per unit. In contrast, smaller and medium-sized turbines—typically required for thermal renewables, CHP, and industrial applications—are more evenly supplied across global markets. The concentration of large turbine production in China reflects both the scale of its domestic projects, particularly coal, nuclear, and large industrial facilities, and the cost competitiveness of Chinese OEMs in the global market.

Exhibit 30: China's Market Share in Steam Turbines Manufactured Globally

China accounted for 75% of the market share in 2023 based on accumulated output capacity supplied.

The share is lower but still a decent 29% based on units delivered.



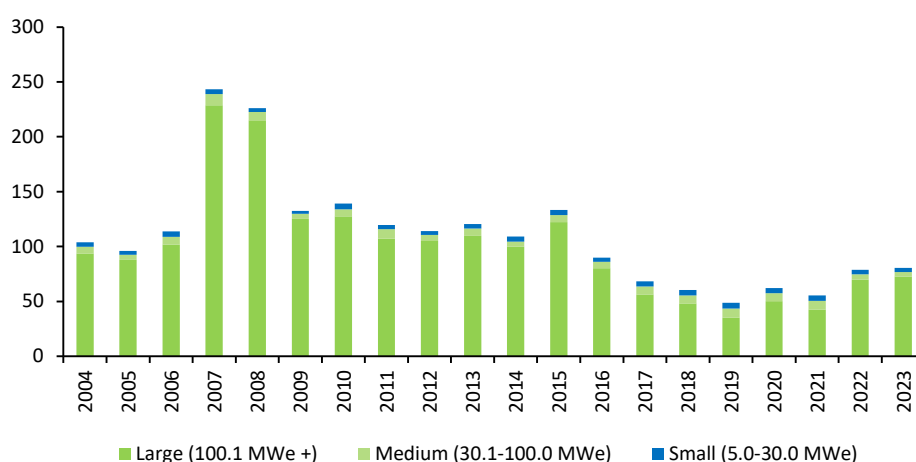
Source: McCoy Power Reports, MNCL Research

Market Rebounds, But Peak Levels Distant: In 2023, global sales of steam turbines above 5.0 MWe capacity stood at 80.6 GWe across 501 units, marking a 2% increase in installed capacity but an 11% decline in units sold YoY. This trend highlights two dynamics:

- Average turbine size is rising as demand shifts toward larger, more efficient units, especially in nuclear and fossil replacements.
- Volume growth remains constrained, reflecting slower new-build momentum globally, partially offset by niche growth in thermal renewables and industrial CHP.

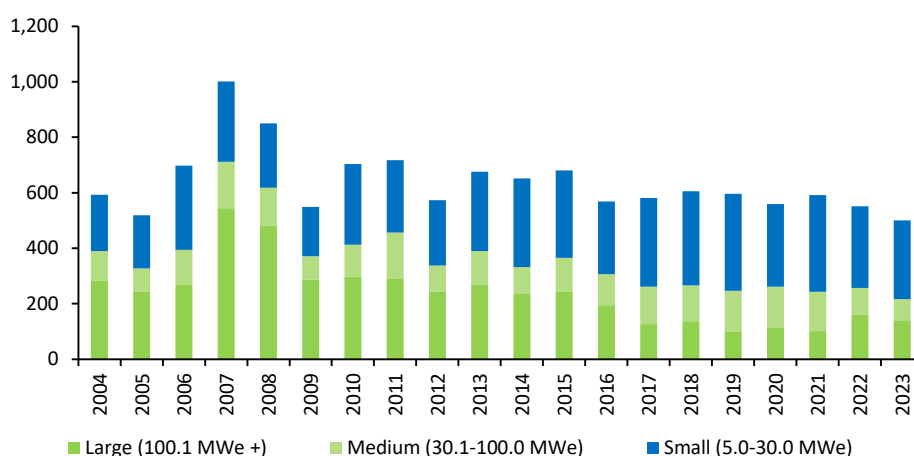
Importantly, while the market has recovered from the 2019 trough, sales volumes remain well below historical peaks. Specifically, 2023 capacity sales are still 42% lower than the 2009–2015 peak period, while unit sales trail by 30%. Compared to the 2007 high-water mark in unit volumes, the market is down by 67% in GWe and 50% in units, underscoring the structural downtrend. The recovery therefore appears gradual and capacity-led, with growth concentrated in select regions and applications rather than a broad global rebound.

Exhibit 31: Steam Turbine Delivered Globally (GWe)



Source: McCoy Power Reports, MNCL Research

Exhibit 32: Steam Turbine Units Delivered

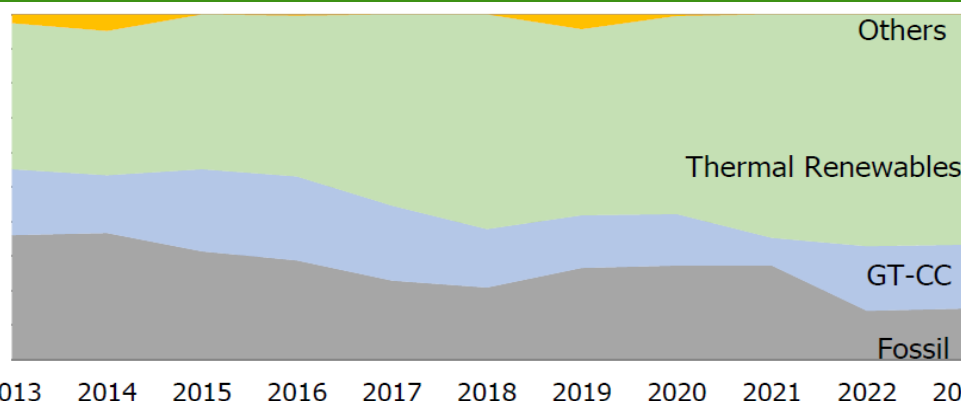


Source: McCoy Power Reports, MNCL Research

Modest growth outlook overall but small and mid-capacity steam turbines to outperform: The global steam turbine market is projected to grow modestly at ~2.5–3.5% CAGR through 2025–2030, with market size estimates ranging from USD 19–36 bn. Growth is strongest in Asia, driven by new thermal and industrial capacity, while Europe and North America focus on retrofits, efficiency upgrades, and biomass/CHP projects as coal plants retire. Key drivers include demand for reliable baseload, replacement of aging fleets, and integration with thermal renewables.

In the below 100 MWe segment, the fossil fuel-based demand for turbines has slowed down over the years while thermal renewables-based demand has gained prominence over the years.

Exhibit 33: Global Steam Turbine Market, below 100 MW, By Fuel Type (in %)



Source: McCoy Power Reports, Triveni Turbine, MNCL Research

Siemens Dominates Scale; Triveni and Regional Players Excel in Niche Segments: In 2023, Siemens Energy led in both units (136, 27.1%) and capacity (5,293 MWe, 39 MWe/unit), serving small- to medium-scale turbines. Triveni ranked second in units (72) but focused on smaller turbines (13 MWe/unit), mainly for thermal renewables. Chinese manufacturers collectively held ~30% of units, reflecting strong production scale. GE Vernova and Mitsubishi targeted high-capacity turbines (226 and 171 MWe/unit), while Doosan Škoda occupied the mid-capacity segment (75 MWe/unit). The market is diverse, with global leaders capturing volume and capacity, and specialized players dominating either large-scale or small-scale segments, aligned with fossil, nuclear, and renewable trends.

Exhibit 34: Major Players and their Market Share in 2023

Top 25 Technology Owners	Units	Market share	TOP 25 Manufacturers	Units	Market share
Siemens Energy	136	27.1%	Siemens Energy	136	27.1%
Triveni	72	14.4%	Triveni	72	14.4%
Dongfang Turbine WKS	34	6.8%	Dongfang Turbine WKS	34	6.8%
Harbin Turbine Co.	33	6.6%	Shanghai Turbine Co.	33	6.6%
Shanghai Turbine Co.	33	6.6%	Harbin Turbine Co.	33	6.6%
TGM Turbinas	18	3.6%	Nanjing Turbine Co.	17	3.4%
Nanjing Turbine Co.	17	3.4%	TGM Turbinas	16	3.2%
Mitsubishi Heavy Ind	16	3.2%	Mhi Compressor (Mco)	16	3.2%
Doosan Enerbility	15	3.0%	Hangzhou Turbine Co.	15	3.0%
Shin Nippon	15	3.0%	Shin Nippon	15	3.0%

Source: McCoy Power Reports, MNCL Research

Exhibit 35: Contracted Steam Turbine Capacity for Selected Companies in 2023

	MWe	Units	MWe/unit
Siemens Energy AG	5,293	135	39
Mitsubishi Heavy Industries	1,543	9	171
GE Vernova	1,356	6	226
Triveni Turbine	890	71	13
Doosan Škoda	748	10	75

Source: McCoy Power Reports, MNCL Research

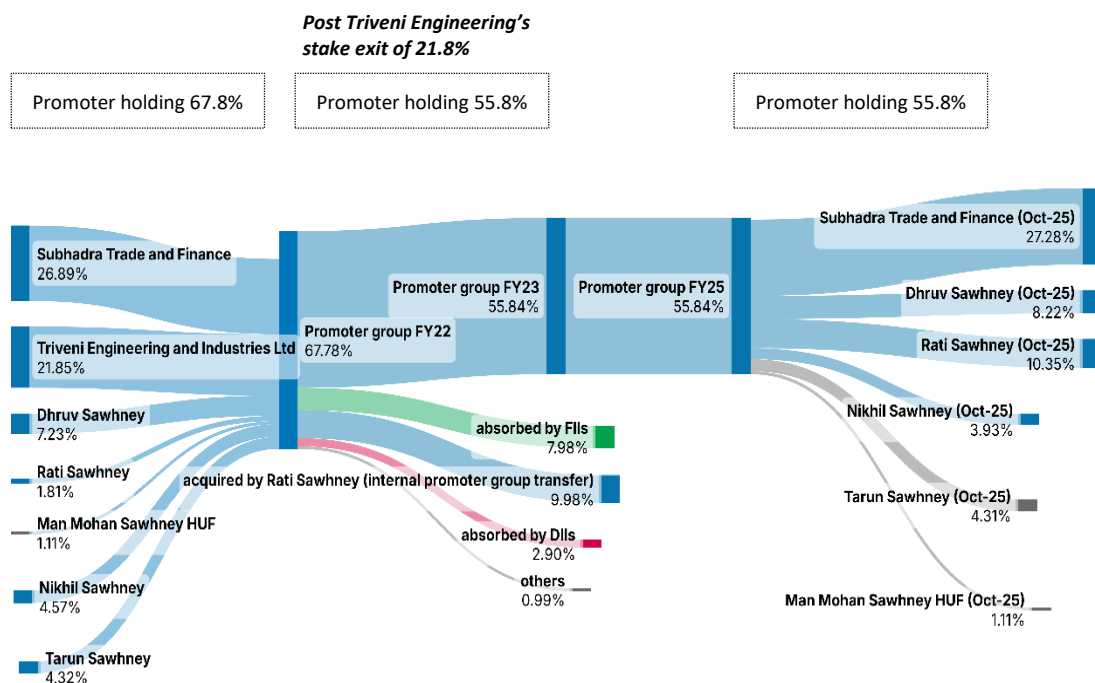
Triveni Turbine – Company History and Promoter Group

Company History and Demerger: Triveni Turbines originated as the steam turbine division of Triveni Engineering & Industries Ltd (TEIL), founded in 1932 by the Sawhney family as *The Ganga Sugar Corporation Limited* (renamed TEIL in 2000). The division delivered its first turbine in 1968 under a license from Peter Brotherhood, UK, and set up its Bengaluru facility by 1973–74. In a major strategic step, the steam turbine business was demerged from TEIL in April 2011 (effective October 2010) to form Triveni Turbine Limited, a separately listed, sector-focused entity. The demerger aimed to unlock shareholder value, streamline the group's structure, and provide dedicated management focus to the growing turbine business. Since then, Triveni Turbine has expanded manufacturing capacity with a second plant at Sompura (2017), enhanced its global footprint through a 2022 acquisition in South Africa, and emerged as a leading player in sub-100 MW high-efficiency turbines and aftermarket services worldwide.

Promoter Group and Leadership: The Sawhney family of Noida has led the business throughout. Dhruv M. Sawhney, Chairman & MD, oversees Triveni Turbines and the broader Triveni Group, while his sons Tarun and Nikhil Sawhney hold senior leadership roles in Triveni Engineering and Triveni Turbines, respectively. Dhruv Sawhney's wife, Mrs. Rati Sawhney, and family trusts such as Subhadra Trade & Finance are also named promoters, making Triveni Turbines a closely-held family enterprise leveraging the broader Triveni network

Promoter Shareholding and Changes: As of March 2025, the promoter group held 55.8% of *Triveni Turbine Limited's* equity shares, a level largely unchanged since the group restructuring in 2022. The most significant change in promoter ownership occurred in September 2022, when *Triveni Engineering & Industries Ltd. (TEIL)* — the erstwhile parent company — divested its entire 21.85% stake in *Triveni Turbine* through a block sale worth approximately Rs15.9 bn. This transaction reduced the overall promoter shareholding from about 67.8% to 55.9% and was part of a broader strategic initiative at the group level to monetize non-core assets and simplify the group structure.

Exhibit 36: Change in Promoter shareholding



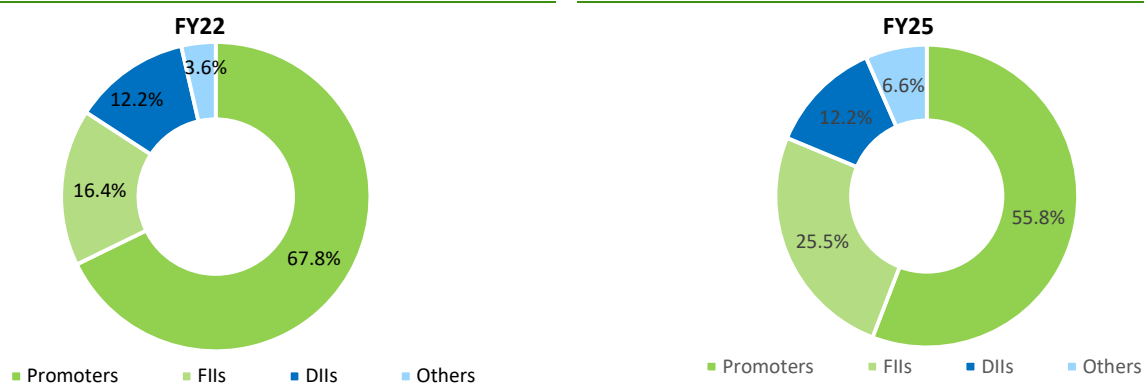
Source: Company, MNCL Research

Alongside this, there were internal promoter realignments, including a partial stake sale by Mr. Dhruv Sawhney, who sold around 7% in Triveni Engineering, and an increase in direct holdings by family members such as Rati Sawhney in Triveni Turbine. The TEIL stake was sold partly to marquee institutional investors, including sovereign wealth funds, and partly transferred internally within the promoter family.

While the overall promoter stake in Triveni Turbine declined by about 11.9%, these transactions reflected a long-term succession planning exercise, streamlining of promoter holdings, and creation of a more diversified investor base, rather than a reduction in promoter commitment to the business.

Since then, promoter ownership has remained stable at around 55.84% through June 2025. In October 2025, another internal restructuring took place wherein Rati Sawhney transferred her entire 26.6% stake in Subhadra Trade & Finance to the Nikhil Sawhney Trust, a succession planning step that consolidated family control without altering the overall promoter shareholding.

Exhibit 37: Robust institutional presence in Triveni Turbines



Source: Company, MNCL Research

Increased Institutional Shareholding: As of June 2025, Foreign Portfolio Investors (FPIs) held 25.45% and Domestic Institutional Investors (DIIs), mainly mutual funds, held 12.15%, together representing 37.6% of the company's shareholding. Institutions have maintained a strong presence in the company over the years. The most notable change came in FY23, after TEIL, the parent company divested its stake, with institutional ownership—driven largely by FIIs—rising from 28.63% in FY22 to 39.51%, indicating strong investor confidence in the company's governance and growth prospects broadening the shareholder base.

The share buyback: In FY23, Triveni Turbines conducted a Rs 1.9 bn tender buyback of 5.43 mn shares (1.68% of equity) at Rs 350 per share, reflecting strong cash flows and a robust market position. Executed at a premium to market price, the buyback attracted strong participation, signaling confidence in the company's prospects while slightly reducing total shares and optimizing capital structure. Promoter holdings remained largely unchanged. The move was supported by FY22's solid performance and exceptional gains, which had led to significant cash accumulation.

Promoter-led management to continue: With a promoter holding of ~56% and Mr. Nikhil Sawhney at the helm, the current management is expected to remain stable over the medium-to-long term. Past promoter dilutions have largely been part of group restructuring and internal succession planning, rather than a reduction in control. Given the active involvement of the Sawhney family across operations, the promoter-led management is likely to continue with no significant further dilutions or exits.

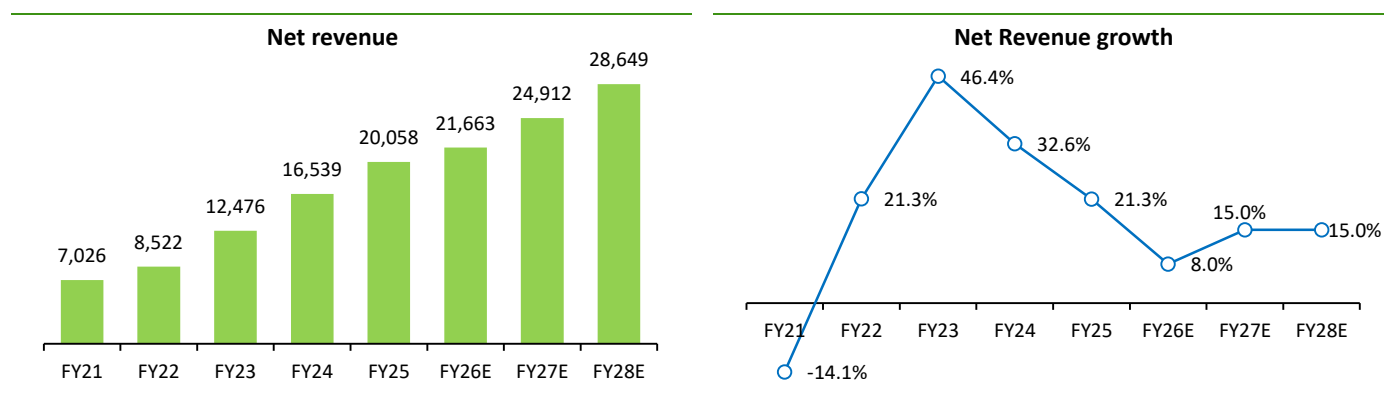
Financial Analysis: Triveni Turbines

Revenue growth

Triveni Turbine's consolidated revenue rose from Rs 7,026 mn in FY21 to a record Rs 20,058 mn in FY25, reflecting a strong 30% CAGR backed by consistent double-digit growth each year. This performance was driven by rising demand for process heat and power solutions, particularly in thermal renewables such as biomass, waste-to-energy, and waste heat recovery. The global transition toward cleaner energy sources accelerated growth in the sub-100 MW turbine segment, and together with Triveni's strategic expansion into high-potential export markets and steady execution, sustained the company's strong growth momentum through the period.

Triveni Turbine reported a weak Q1FY26, as geopolitical uncertainties prompted customers to adopt a cautious stance, resulting in the deferment of dispatches. Consequently, FY26 is expected to be a relatively modest year in terms of growth, with momentum likely to pick up as conditions stabilize. Over FY25–28E, we project revenue to grow at a 13% CAGR, with relatively slower growth in FY26 before growth accelerates from FY27 onward. Our estimates are supported by a healthy order backlog, rising export contribution, and Triveni's strong positioning in the sub-100 MW renewable turbine segment.

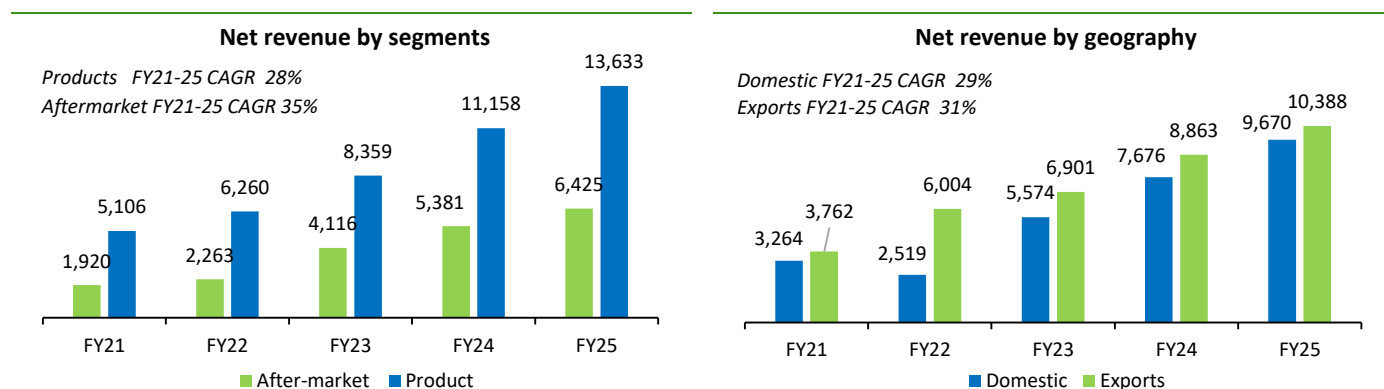
Exhibit 38: Triveni's solid sales growth trajectory (FY21–25)



Source: Company, MNCL Research

Triveni Turbine's product segment, focused on sub-100 MW industrial steam turbines, delivered strong growth from FY21 to FY25, with FY25 product sales rising 22% YoY to Rs 13.6 bn and aftermarket sales up 19% to Rs 6.4 bn. This performance reflects the company's leadership in OEM turbine manufacturing and comprehensive aftermarket solutions spanning refurbishment, maintenance, and upgrades. A diversified presence across refineries, chemicals, sugar, food processing, and renewable sectors helped sustain demand despite a global slowdown in the overall steam turbine market.

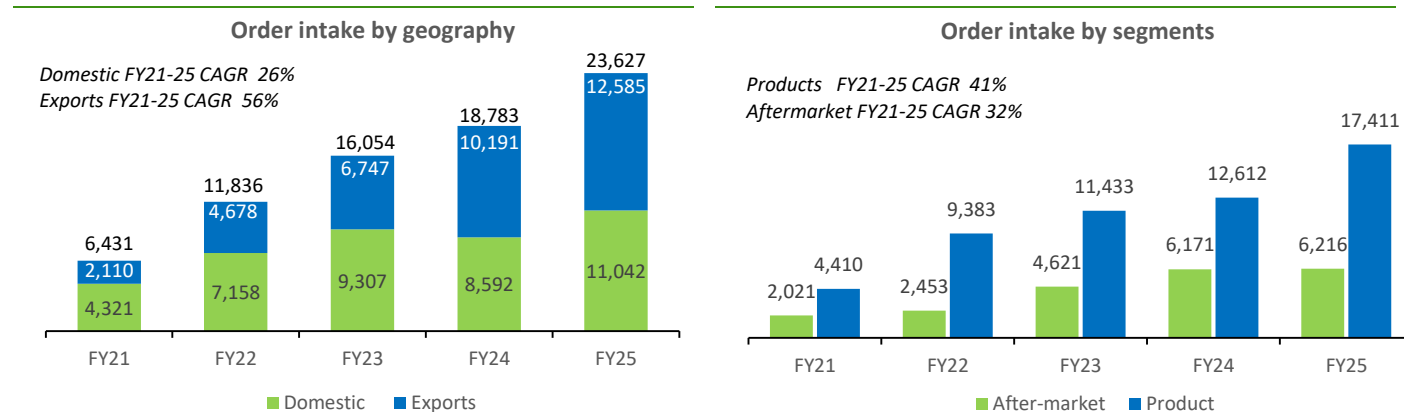
Exhibit 39: Revenue Contributions by Segment, Geography



Source: Company, MNCL Research

Order inflow: Triveni Turbine's order inflows have shown strong momentum since the pandemic. FY21 was a weak year, with bookings down ~19% YoY as customers deferred projects. However, activity rebounded sharply in FY22, with new orders surging to Rs 11.8 bn versus Rs 6.4 bn in FY21 — an 84% increase and the company's highest ever at the time, driven by large product wins in the renewable and industrial segments. Export orders rose an impressive 122% YoY in FY22. The growth trend continued, with FY23 bookings at Rs 16.1 bn, supported by broad-based demand. In FY24, Triveni recorded another all-time high of Rs 18.7 in order inflows, up 17% YoY, followed by a further 26% increase in FY25 to Rs 23.6 bn, led by 38% growth in product orders and diversification into new areas such as LDES.

Exhibit 40: Order Inflow by markets (Rs mn; LHS) and segments (Rs mn; RHS)

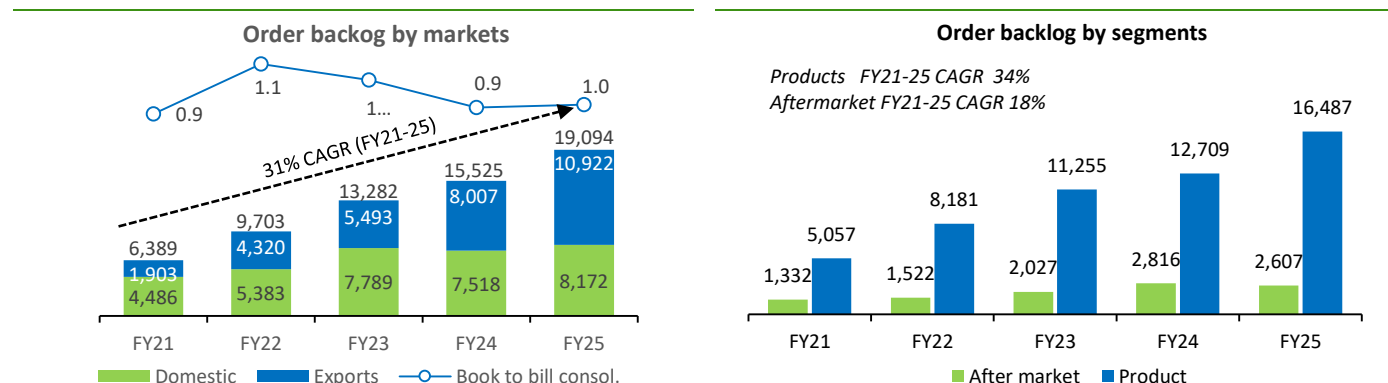


Source: Company, MNCL Research

Order backlog: Triveni Turbine's order backlog grew strongly from FY21 to FY25 growing at a CAGR of 31%, reaching a record Rs19.09 bn in FY25 (+23% YoY), driven by favorable industry tailwinds and rising demand for thermal renewables enabling the company to capitalize on emerging opportunities. Order bookings rose at a 38% CAGR, with FY25 intakes hitting Rs23.63 bn (+26% YoY). Exports accounted for Rs10.9 bn (57% of the backlog, +36% YoY), highlighting strong global presence. The company has maintained a book-to-bill ratio of 0.9–1.1 over the period reflecting healthy demand across domestic and international markets.

Triveni's robust order inflows have steadily strengthened its order book, providing multi-year revenue visibility. The consistent upward trajectory, supported by a diversified mix of product and aftermarket orders positions the company for sustained medium-term growth.

Exhibit 41: Order backlog by Segment and Order Type (Rs mn)

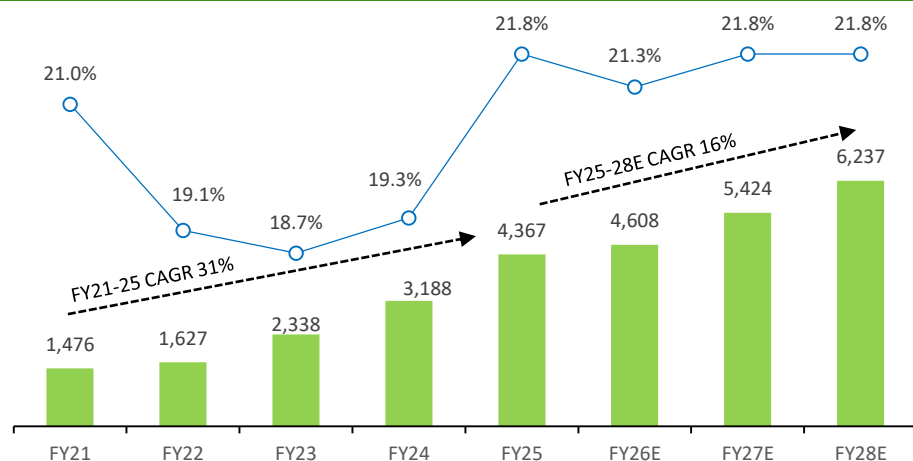


Source: Company, MNCL Research Estimates

EBITDA growth and EBITDA margins

Triveni Turbine's EBITDA grew at a robust 31% CAGR over FY21–FY25, rising from Rs1,476 mn to Rs4,367 mn, driven by higher sales volumes, and an improved export mix. EBITDA margins have remained within the 18–22% range during this period, despite a dip between FY22 and FY23 due to pricing pressures and higher operating expenses. Going forward, margins are expected to remain stable in the 21–22% range.

Exhibit 42: EBITDA growth and margins

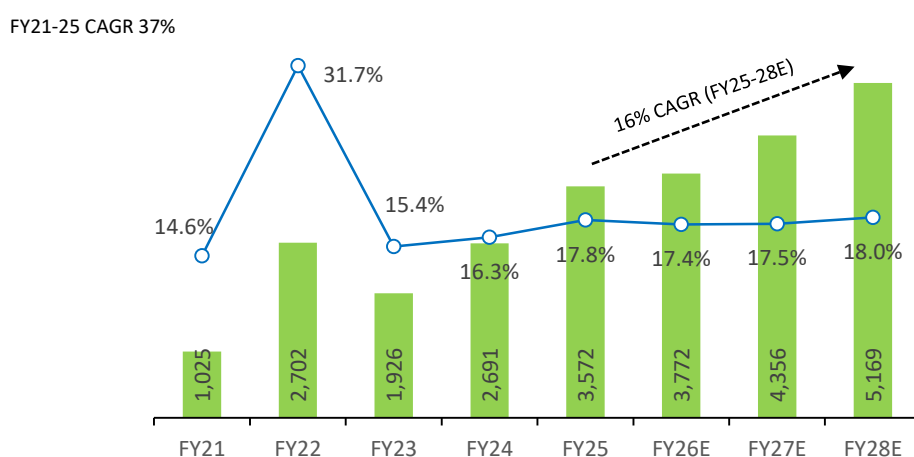


Source: Company, MNCL Research Estimates

PAT growth and PAT margin

PAT has exhibited a strong upward trajectory over the past few years. Following a dip in FY21, profitability recovered steadily. FY22 saw an outsized PAT due to exceptional gains from the litigation involving GE, while subsequent years reflected the underlying business performance. Excluding one-offs, PAT and net margins have consistently expanded, reaching the mid-to-high teens by FY24–FY25, driven by volume growth, higher EBITDA, and cost efficiencies. For FY25–FY28E, PAT margins are expected to stay in the range of 17–18%.

Exhibit 43: PAT margins to hold steady at 17–18%

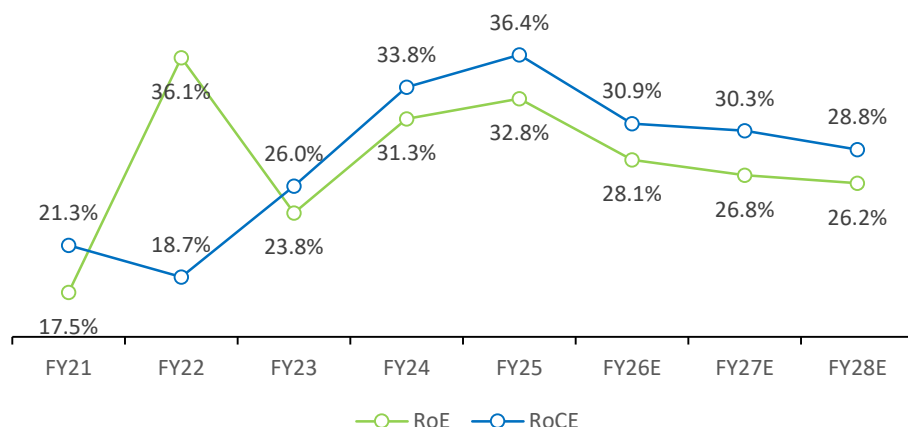


Source: Company, MNCL Research Estimates

Return ratios

Triveni Turbine's return ratios strengthened sharply from FY21 to FY25, with ROE rising from ~17.5% to 33% and ROCE improving from ~21% to above 35%. This improvement was driven by a strategic focus on high-margin exports, and aftermarket segments, leading to increased asset utilization. The uptick in FY24–FY25 reflects the growing contribution of aftermarket orders, while the unusually high ROE of 36% in FY22 was due to an exceptional litigation gain. With minimal debt and with a pickup in growth anticipated in FY27, return ratios are expected to remain resilient in the 27–30% range.

Exhibit 44: Return ratios to remain resilient



Source: Company, MNCL Research Estimates

Exhibit 45: Dupont Analysis

Y/E March	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
DuPont (%)								
PAT-to-sales	14.6%	31.7%	15.4%	16.3%	17.8%	17.4%	17.5%	18.0%
Sales-to-assets	0.7	0.64	0.93	1.00	0.99	1.00	0.91	0.93
Sales-to-gross fixed assets	2.0	2.3	3.1	3.8	4.0	3.2	3.5	3.7
Sales-to-net fixed assets	2.8	3.5	4.7	5.9	6.3	4.7	5.3	5.8
Assets-to-equity	1.5	1.56	1.76	1.72	1.66	1.47	1.53	1.42
ROE	17.5%	36.1%	23.8%	31.3%	32.8%	28.1%	26.8%	26.2%
ROCE	21.3%	18.7%	26.0%	33.8%	36.4%	30.9%	30.3%	28.8%

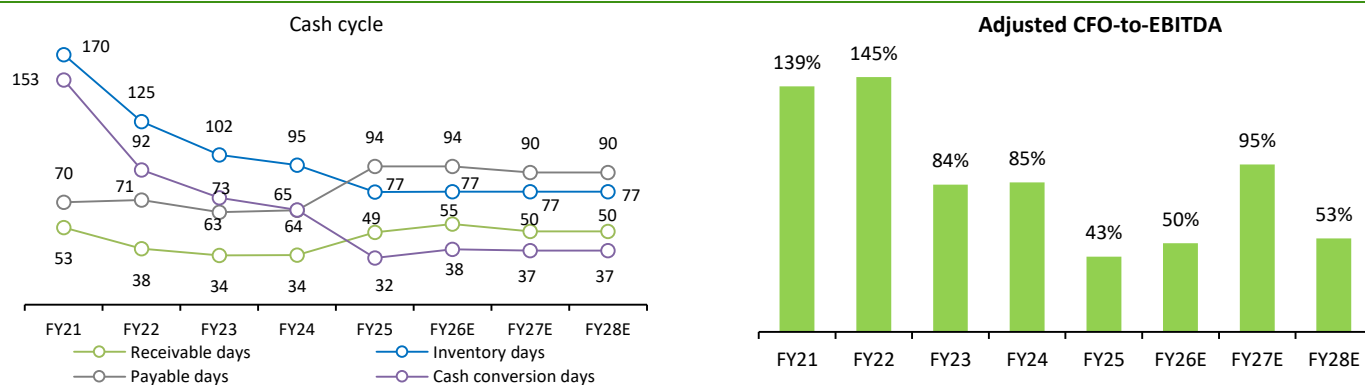
Source: Company, MNCL Research Estimates

Cash Flow

Receivable days saw an increase of up to 49 days in FY25 from 34 days in FY24, driven by higher pending order backlog and delayed dispatches, putting temporary pressure on the working capital. The company expects normalization in FY26; however, we anticipate slight further deterioration before the working capital cycle stabilizes from FY27 onward. For the forecast period we expect the overall cash conversion cycle to remain range bound at 90-94 days.

Triveni Turbine maintained strong cash generation over FY21–FY24, with CFO generally near or above EBITDA. Conversion peaked at ~145% in FY22, fueled by strong domestic demand during a high-growth phase, but declined to 43% in FY25 as a larger order book elongated working capital needs, putting pressure on the company's cash flow. Going forward EBITDA-to-CFO conversion is expected to remain healthy at ~67% on average for FY25–FY28E.

Exhibit 46: Cash conversion cycle and CFO-to-EBITDA conversion



Source: Company, MNCL Research Estimates

Valuation: Attractive Risk-Reward Profile

Triveni Turbine is well-positioned to ride strong structural tailwinds across decentralized power, thermal renewables, and industrial capex. Its order book has tripled since FY21 (31% CAGR through FY25), driven by a rising export mix and its foray into other adjacent technologies and aftermarket services. Market leadership in steam turbines, a widening global presence, and a high-margin engineering-led business model strengthen our constructive stance on Triveni and support our premium valuation thesis.

Our base case projects revenue, EBITDA, and PAT to grow at a CAGR of 13% over FY25–28E. We have assigned a 40x P/E and 30x EV/EBITDA multiple on Sept'27E EPS of Rs 15.0 and EBITDA of Rs 5,831 mn respectively, leading to an average target price of Rs 605.

Exhibit 47: Target price computation

Target price	Base case	Bull case	Bear Case
Average Target Price (Rs)	605	766	434
Implied upside (%)	14.1%	44.3%	-18.4%
P/E-based valuation			
Estimated EPS (Rs)	15.0	16.9	14.1
Attributed price-to-earnings (x)	40.0	45.0	30.0
Target price (INR)	599	759	424
Implied upside (%)	12.8%	42.9%	-20.1%
PAT margin	17.8%	18.4%	18.0%
EV/EBITDA-based valuation			
Estimated EBITDA (Rs mn)	5,831	6,632	5,447
Attributed EV/EBITDA (x)	30.8	34.7	23.1
Target price (INR)	612	774	443
Implied upside (%)	15.3%	45.7%	-16.6%
EBITDA margin	21.8%	22.8%	21.8%
Current share price (Rs)	531		
Shares outstanding (mn)	318		

Source: MNCL Research Estimates

Our valuation multiples are in line with cap good companies reporting ~20%+ revenue growth and 20%+ ROE/ROCE. Internal estimates suggest a ROE/ROCE potential of 25%+ over the forecast period.

Key risks: Slowdown in global industrial spending, geopolitical tensions, and slow new product adoption.

Exhibit 48: Peer selected financial ratios

Peers	Revenue CAGR	PAT CAGR	Debt-to-Equity	Net debt-TO- EBITDA	EBITDA Margin (%)	PAT Margin (%)
	FY25-28E	FY25-28E	FY25	FY25	FY25	FY25
Triveni Turbine	12.6%	13.1%	0.0x	-2.2x	21.8%	17.8%
Siemens Energy India	25.6%	36.8%	0.0x	NA	16.0%	11.3%
Doosan Skoda Power	24.4%	17.0%	NA	NA	13.5%	11.6%
GE Vernova Inc	11.4%	49.0%	0.1x	-4.6x	4.7%	4.4%
Siemens Energy AG	15.8%	51.6%	0.5x	-1.8x	4.1%	3.4%

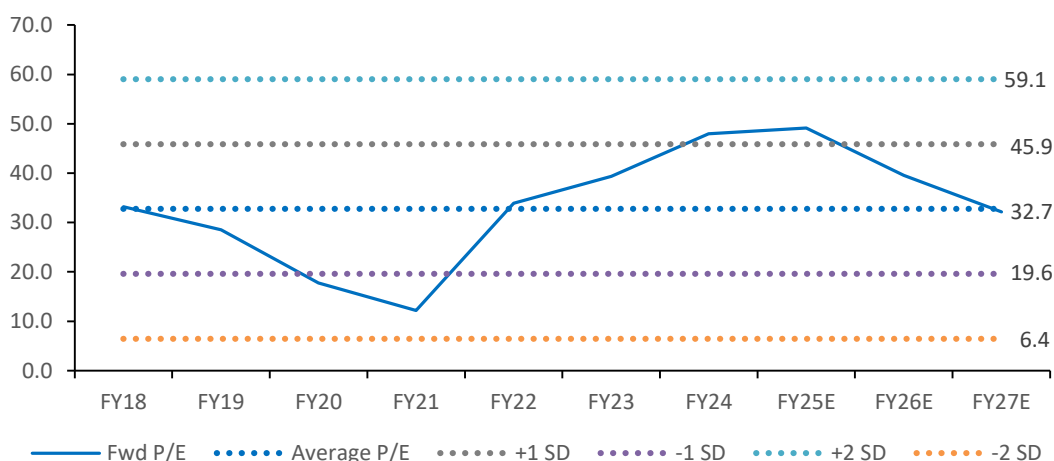
Source: MNCL Research Estimates

Exhibit 49: Peer Valuation

Peers	P/E				EV/EBITDA			
	FY25A	FY26E	FY27E	FY28E	FY25A	FY26E	FY27E	FY28E
Triveni Turbine	50.0	44.7	38.8	32.7	38.7	34.5	28.6	24.4
Siemens Energy India	NA	118.9x	85.8x	66.7x	NA	83.7x	62.3x	44.8x
Doosan Skoda Power	NA	22.0x	17.8x	14.3x	NA	16.2x	13.3x	10.9x
GE Vernova Inc	48.4x	79.4x	45.4x	31.4x	51.3x	46.2x	29.1x	20.1x
Siemens Energy AG	61.0x	33.6x	24.9x	19.4x	24.2x	15.7x	12.2x	9.8x

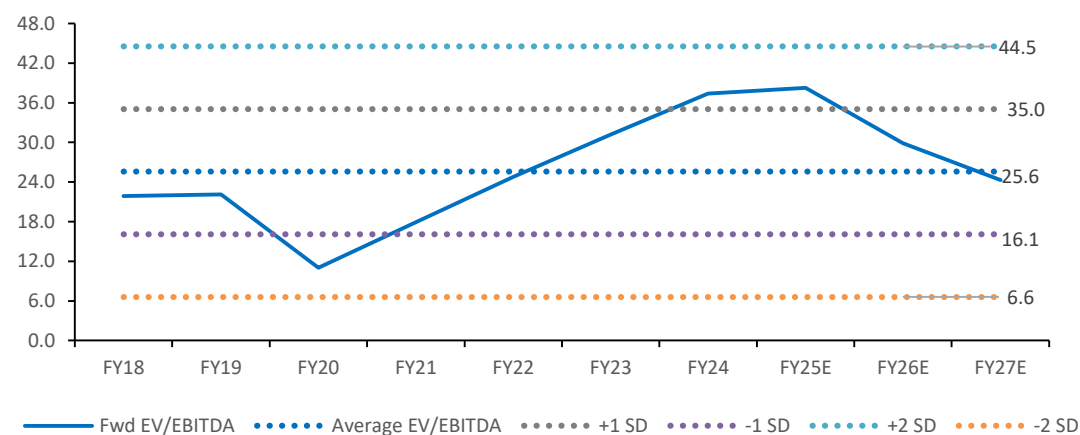
Source: MNCL Research Estimates

Exhibit 50: 1 year forward P/E chart



Source: Company, MNCL Research

Exhibit 51: 1 year forward EV/EBITDA chart – TTL



Source: Company, MNCL Research

Financials

Exhibit 52: Consolidated Income Statement

In Rs mn, except per share	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Net revenue	7,026	8,522	12,476	16,539	20,058	21,663	24,912	28,649
<i>YoY growth</i>	-14.1%	21.3%	46.4%	32.6%	21.3%	8.0%	15.0%	15.0%
Cost of goods sold	3,562	4,703	6,471	8,192	10,002	10,615	12,207	14,038
Gross profit	3,464	3,820	6,004	8,347	10,056	11,048	12,705	14,611
Gross margin	49.3%	44.8%	48.1%	50.5%	50.1%	51.0%	51.0%	51.0%
Employee expenses	870	1,029	1,285	1,613	2,033	2,491	2,740	3,151
Other operating expenses	1,118	1,164	2,381	3,547	3,656	3,949	4,541	5,222
EBITDA	1,476	1,627	2,338	3,188	4,367	4,608	5,424	6,237
EBITDA margin	21.0%	19.1%	18.7%	19.3%	21.8%	21.3%	21.8%	21.8%
Depreciation and amortization	202	203	199	208	263	284	327	376
Earnings before interest and taxes	1,274	1,424	2,139	2,980	4,104	4,324	5,097	5,862
EBIT margin	18.1%	16.7%	17.1%	18.0%	20.5%	20.0%	20.5%	20.5%
Non-operating income / expenses	47	2,224	416	597	782	815	837	1,180
Profit before taxes	1,321	3,648	2,555	3,578	4,886	5,139	5,934	7,041
Income taxes	296	946	626	883	1,300	1,367	1,578	1,873
<i>ETR</i>	22.4%	25.9%	24.5%	24.7%	26.6%	26.6%	26.6%	26.6%
Non-controlling interest	0	0	3	3	15	0	0	0
Profit after taxes	1,025	2,702	1,926	2,691	3,572	3,772	4,356	5,169
PAT margin	14.6%	31.7%	15.5%	16.3%	17.9%	17.4%	17.5%	18.0%
Per share (split adjusted)								
EPS	3.2	8.4	6.1	8.5	11.2	11.9	13.7	16.3
DPS	1.2	0.9	0.0	1.3	4.0	4.0	4.0	4.0
BVPS	19.7	26.5	23.9	30.2	38.3	46.2	55.9	68.2
Shares outstanding (mn), split adjusted	323.3	323.3	317.9	317.9	317.9	317.9	317.9	317.9

Source: Company, MNCL Research Estimates

Exhibit 53: Consolidated Quarterly Income Statement

In Rs mn, except per share	Q1FY24	Q2FY24	Q3FY24	Q4FY24	Q1FY25	Q2FY25	Q3FY25	Q4FY25	Q1FY26	Q2FY26
Net revenue	3,764	3,878	4,317	4,581	4,633	5,011	5,034	5,380	3,713	5,062
<i>YoY growth</i>					23.1%	29.2%	16.6%	17.4%	-19.9%	1.0%
Cost of goods sold	1,827	1,973	2,124	2,267	2,231	2,542	2,542	2,687	1,776	2,497
Gross profit	1,937	1,905	2,193	2,314	2,402	2,469	2,492	2,693	1,937	2,565
<i>Gross margin</i>	<i>51.5%</i>	<i>49.1%</i>	<i>50.8%</i>	<i>50.5%</i>	<i>51.8%</i>	<i>49.3%</i>	<i>49.5%</i>	<i>50.1%</i>	<i>52.2%</i>	<i>50.7%</i>
Employee expenses	406	398	401	409	479	517	520	517	548	531
Other operating expenses	823	763	954	1,007	967	838	879	972	653	888
EBITDA	709	744	838	898	956	1,114	1,093	1,204	736	1,146
<i>EBITDA margin</i>	<i>18.8%</i>	<i>19.2%</i>	<i>19.4%</i>	<i>19.6%</i>	<i>20.6%</i>	<i>22.2%</i>	<i>21.7%</i>	<i>22.4%</i>	<i>19.8%</i>	<i>22.6%</i>
Depreciation and amortization	49	51	55	52	62	61	65	75	77	80
EBIT	660	693	783	846	894	1,053	1,028	1,129	659	1,066
<i>EBIT margin</i>	<i>17.5%</i>	<i>17.9%</i>	<i>18.1%</i>	<i>18.5%</i>	<i>19.3%</i>	<i>21.0%</i>	<i>20.4%</i>	<i>21.0%</i>	<i>17.7%</i>	<i>21.1%</i>
Non-operating income / expenses	126	137	165	168	184	188	218	192	213	180
Profit before taxes	786	830	948	1,014	1,078	1,241	1,246	1,321	872	1,246
Income taxes	177	190	264	253	274	331	320	375	228	332
<i>ETR</i>	<i>22%</i>	<i>23%</i>	<i>28%</i>	<i>25%</i>	<i>25%</i>	<i>27%</i>	<i>26%</i>	<i>28%</i>	<i>26%</i>	<i>27%</i>
Non-controlling Interest	2	-2	1	2	4	1	2	7	-1	-2
Profit after taxes	608	642	683	759	800	909	924	939	645	916
<i>YoY growth</i>					31.7%	41.5%	35.4%	23.7%	-19.4%	0.8%
<i>PAT margin</i>	<i>16.1%</i>	<i>16.6%</i>	<i>15.8%</i>	<i>16.6%</i>	<i>17.3%</i>	<i>18.1%</i>	<i>18.4%</i>	<i>17.5%</i>	<i>17.4%</i>	<i>18.1%</i>
Per share (split adjusted)										
EPS	1.9	2.0	2.1	2.4	2.5	2.9	2.9	3.0	2.0	2.9
DPS	1.9	2.0	2.2	2.4	2.5	2.9	2.9	3.0	2.0	2.9
BVPS	n.a.	27.9	n.a.	30.2	n.a.	34.3	n.a.	38.3	n.a.	40.9
Par value	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Shares outstanding (mn)	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9	317.9

Source: Company, MNCL Research Estimates

Exhibit 54: Consolidated Balance Sheet

In Rs mn; FY-end March	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Cash and cash equivalents	3,844	7,586	6,713	8,581	9,873	10,027	14,179	16,747
Trade receivables	771	1,015	1,293	1,781	3,632	2,896	3,929	3,920
Inventories	1,596	1,617	2,000	2,263	1,948	2,530	2,620	3,303
Other short-term assets	386	438	462	691	1,128	1,197	1,336	1,496
Current assets, total	6,597	10,655	10,468	13,316	16,581	16,651	22,064	25,466
Long-term investments	0	80	70	250	0	0	0	0
Investment in JV	282	0	0	27	28	29	30	30
PPE including intangibles, net	2,489	2,432	2,658	2,794	3,196	4,562	4,733	4,931
Capital work-in-progress	0	33	54	14	193	193	193	193
Goodwill	0	37	35	34	36	36	36	36
other non-current assets	51	112	114	103	156	169	179	190
Total assets	9,418	13,348	13,399	16,537	20,190	21,639	27,235	30,846
Short-term leases	0	6	9	7	43	43	43	43
Trade payables	745	1,091	1,143	1,746	3,417	2,062	3,958	2,965
Other ST liabilities	2,183	3,555	4,468	4,934	4,005	4,294	4,880	5,554
Current liabilities, total	2,928	4,652	5,621	6,686	7,465	6,399	8,881	8,562
Long-term leases	20	15	28	24	348	348	348	348
Payable to employees	3	72	93	18	29	31	36	41
Deferred tax	51	35	44	89	0	0	0	0
Provisions for warranties	41	0	0	107	153	165	190	219
Total liabilities	3,043	4,774	5,785	6,923	7,995	6,944	9,455	9,170
Non-controlling Interest	0	8	10	15	31	0	0	0
Shareholders' equity	6,376	8,574	7,613	9,613	12,194	14,695	17,779	21,676
Total liabilities and equity	9,418	13,348	13,399	16,537	20,190	21,639	27,235	30,846

Source: Company, MNCL Research Estimates

Exhibit 55: Consolidated Cashflow Statement

CONSOLIDATED CASH FLOW STATEMENT								
In Rs mn; FY-end March	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Cash flow from operations	1,873	4,334	1,957	2,710	1,867	2,323	5,157	3,315
Cash flow from investing activities	8	-75	17	-98	488	-860	304	561
Cash flow from financing activities	-18	-746	-2,877	-764	-1,108	-1,309	-1,309	-1,309
FX and consolidation changes	3	229	30	20	44	0	0	0
Changes in cash	1,865	3,742	-873	1,868	1,292	154	4,152	2,568
Opening cash and cash equivalents	1,979	3,844	7,586	6,713	8,581	9,873	10,027	14,179
Ending cash equivalents balance	3,844	7,586	6,713	8,581	9,873	10,027	14,179	16,747

Source: Company, MNCL Research Estimates

Exhibit 56: Key Ratios

Y/E March	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Growth Ratio (%)								
Revenue	-14.1%	21.3%	46.4%	32.6%	21.3%	8.0%	15.0%	15.0%
EBITDA	-5.2%	10.2%	43.7%	36.4%	37.0%	5.5%	17.7%	15.0%
PAT	-15.9%	163.7%	-28.6%	39.7%	33.1%	5.2%	15.5%	18.7%
Margin Ratios (%)								
Gross profit	49.3%	44.8%	48.1%	50.5%	50.1%	51.0%	51.0%	51.0%
EBITDA	21.0%	19.1%	18.7%	19.3%	21.8%	21.3%	21.8%	21.8%
EBIT	18.1%	16.7%	17.1%	18.0%	20.5%	20.0%	20.5%	20.5%
PAT	14.6%	31.7%	15.5%	16.3%	17.9%	17.4%	17.5%	18.0%
DuPont (%)								
PAT-to-sales	14.6%	31.7%	15.5%	16.3%	17.9%	17.4%	17.5%	18.0%
Sales-to-assets	0.7	0.64	0.93	1.00	0.99	1.00	0.91	0.93
Sales-to-gross fixed assets	2.0	2.3	3.1	3.8	4.0	3.2	3.5	3.7
Sales-to-net fixed assets	2.8	3.5	4.7	5.9	6.3	4.7	5.3	5.8
Assets-to-equity	1.5	1.56	1.76	1.72	1.66	1.47	1.53	1.42
ROE	16.1%	31.5%	25.3%	28.0%	29.4%	25.7%	24.5%	23.8%
RoAE	17.5%	36.1%	23.8%	31.3%	32.9%	28.1%	26.8%	26.2%
RoAA	11.6%	23.7%	14.4%	18.0%	19.5%	18.0%	17.8%	17.8%
RoCE	21.3%	18.7%	26.0%	33.8%	36.4%	30.9%	30.3%	28.8%
RoIC	27.8%	47.7%	119.0%	157.2%	116.1%	65.3%	66.3%	72.0%
Turnover Ratios (days) *								
Receivable days	53	38	34	34	49	55	50	50
Inventory days	170	125	102	95	77	77	77	77
Payable days	70	71	63	64	94	94	90	90
Cash conversion days	153	92	73	65	32	38	37	37
Adjusted CFO-to-EBITDA	139%	145%	84%	85%	43%	50%	95%	53%
Solvency Ratios								
Net debt-to-equity	-60%	-88%	-88%	-89%	-78%	-66%	-78%	-75%
Debt-to-equity	0%	0%	0%	0%	3%	3%	2%	2%
Capex-to-net revenue	1.9%	1.8%	3.1%	1.9%	2.1%	7.6%	2.0%	2.0%
Accrual ratio	-9%	-8%	21%	5%	15%	13%	2%	11%
Per share (INR)								
EPS	3.2	8.4	6.1	8.5	11.3	11.9	13.7	16.3
DPS	1.2	0.9	0.0	1.3	4.0	4.0	4.0	4.0
BVPS	19.7	26.5	24.0	30.2	38.4	46.2	55.9	68.2
CEPS	5.8	13.4	6.2	8.5	5.9	7.3	16.2	10.4
Valuation (x)								
P/E	32.1	24.2	55.1	63.4	50.0	44.7	38.8	32.7
P/B	5.2	7.6	13.9	17.8	14.6	11.5	9.5	7.8
P/S	4.7	7.7	8.5	10.3	8.9	7.8	6.8	5.9
EV/EBITDA	19.7	35.6	42.5	50.9	38.7	34.5	28.6	24.4
Dividend								
Payout	38%	10%	0%	15%	35%	34%	29%	25%
Yield	1.2%	0.4%	0.0%	0.2%	0.7%	0.7%	0.7%	0.7%

Source: Company, MNCL Research estimates

Disclaimer: Research Disclaimer and Disclosure inter-alia as required under Securities and Exchange Board of India (Research Analysts) Regulations, 2014

About the Research Entity

Monarch Network Capital Limited (defined as “MNCL” or “Research Entity”) a company duly incorporated under the Companies Act, 1956 (CIN: L64990GJ1993PLC120014) having its registered office at Unit No. 803-804A, 8th Floor, X-Change Plaza, Block No. 53, Zone 5, Road- 5E, Gift City, Gandhinagar -382355, Gujarat is regulated by the Securities and Exchange Board of India (“SEBI”) and is engaged in the business of Stock Broking, Alternative Investment Funds, Portfolio Management Services, Merchant Banking, Research Analyst, Depository Participant, Mutual Fund Distribution, and other related activities.

General Disclaimer:

This Research Report (hereinafter called “Report”) has been prepared by MNCL in the capacity of a Research Analyst having SEBI Registration No. INH000000644 and Enlistment no. 5039 with BSE and distributed as per SEBI (Research Analysts) Regulations, 2014 and is meant solely for use by the recipient and is not for circulation. This report does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. The recommendations, if any, made herein are expression of views and/or opinions and should not be deemed or construed to be neither advice for the purpose of purchase or sale of any security, derivatives or any other security through MNCL nor any solicitation or offering of any investment /trading opportunity on behalf of the issuer(s) of the respective security (ies) referred to herein. These information / opinions / views are not meant to serve as a professional investment guide for the readers. No action is solicited based upon the information provided herein. Recipients of this Report should rely on information/data arising out of their own investigations. Readers are advised to seek independent professional advice and arrive at an informed trading/investment decision before executing any trades or making any investments. MNCL hereby declares that it has not defaulted with any Stock Exchange nor its activities were suspended by any Stock Exchange with whom it is registered in last five years. However, SEBI and Stock Exchanges had conducted their routine inspection and based on their observations have issued advice letters or levied minor penalty on MNCL for certain operational deviations in ordinary/routine course of business. MNCL has not been debarred from doing business by any Stock Exchange / SEBI or any other authorities; nor has its certificate of registration been cancelled by SEBI at any point of time.

The information contained herein is from publicly available data, internally developed data or other sources believed to be reliable by MNCL. This report is provided for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. The reader assumes the entire risk of any use made of this information. Each recipient of this report should make such investigation as it deems necessary to arrive at an independent evaluation of an investment in Securities referred to in this document (including the merits and risks involved), and should consult his own advisors to determine the merits and risks of such investment. The investment discussed or views expressed may not be suitable for all investors. This information is strictly confidential and is being furnished to you solely for your information. This information should not be reproduced or redistributed or passed on directly or indirectly in any form to any other person or published, copied, in whole or in part, for any purpose.

The information given in this report is as of the date of this report and there can be no assurance that future results or events will be consistent with this information. This information is subject to change without any prior notice. MNCL reserves the right to make modifications and alterations to this statement as may be required from time to time. MNCL or any of its associates / group companies, officers, employee’s and directors shall not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. MNCL is committed to providing independent and transparent recommendation to its clients. Neither MNCL nor any of its associates, group companies, directors, employees, agents or representatives shall be liable for any damages whether direct, indirect, special or consequential including loss of revenue or lost profits that may arise from or in connection with the use of the information. Past performance is not necessarily a guide to future performance. The disclosures of interest statements incorporated in this report are provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. The information provided in these reports remains, unless otherwise stated, the copyright of MNCL. All layout, design, original artwork, concepts and other Intellectual Properties, remains the property and copyright of MNCL and may not be used in any form or for any purpose whatsoever by any party without the express written permission of the copyright holders.

MNCL shall not be liable for any delay or any other interruption which may occur in presenting the data due to any reason including network (Internet) reasons or snags in the system, break down of the system or any other equipment, server breakdown, maintenance shutdown, breakdown of communication services or inability of the MNCL to present the data. In no event shall MNCL be liable for any damages, including without limitation direct or indirect, special, incidental, or consequential damages, losses or expenses arising in connection with the data presented by the MNCL through this report.

MNCL and its associates, officer, directors, and employees, research analyst (including relatives) worldwide may from time to time, have long or short positions in, and buy or sell the Securities, mentioned herein or be engaged in any other transaction involving such Securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the subject company/company(ies) discussed herein or act as advisor or lender/borrower to such company(ies) or have other potential/material conflict of interest with respect to any recommendation and related information and opinions at the time of publication of research report or at the time of public appearance. MNCL may have proprietary long/short position in the above mentioned scrip(s) and therefore should be considered as interested. The views provided herein are general in nature and do not consider risk appetite or investment objective of any particular investor; readers are requested to take independent professional advice before investing. This should not be construed as invitation or solicitation to do business with MNCL. Registration granted by SEBI and certification from NISM in no way guarantee performance of MNCL or provide any assurance of returns to investors and clients.

MNCL or its associates may have received compensation from the subject company in the past 12 months. MNCL or its associates may have managed or co-managed public offering of securities for the subject company in the past 12 months. MNCL or its associates may have received compensation for investment banking or merchant banking or brokerage services from the subject company in the past 12 months. MNCL or its associates may have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past 12 months. MNCL or its associates have not received any compensation or other benefits from the Subject Company or third party in connection with the research report. MNCL and/or its Group Companies, their Directors, affiliates and/or employees may have interests/ positions, financial or otherwise in the Securities/Currencies and other investment products mentioned in this report. A graph of daily closing prices of the securities is also available at www.nseindia.com.

The recommendations in the reports are based on 12-month horizon, unless otherwise specified. The investment ratings are on absolute positive/negative return basis. It is possible that due to volatile price fluctuation in the near to medium term, there could be a temporary mismatch to rating. For reasons of valuations/return/lack of clarity/event we may revisit rating at appropriate time. The stocks always carry the risk of being upgraded to buy or downgraded to a hold, reduce or sell. The opinions expressed in the reports are subject to change but we have no obligation to tell our clients when our opinions or recommendations change. The report is non-inclusive and do not consider all the information that the recipients may consider material to investments. The report is issued by MNCL without any liability/undertaking/commitment on the part of itself or any of its entities. MNCL, its directors, employees, and affiliates shall not be liable for direct, indirect, or consequential losses (including lost profits), Errors, omissions, or delays in data dissemination and decisions made based on these Materials. The Artificial Intelligence tools may have been used only to an extent of supporting tool. All the data/ information contained in the report has been independently verified by the Research Analyst.

Disclaimers in respect of jurisdiction: This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MNCL and associates, subsidiaries / group companies to any registration or licensing requirements within such jurisdiction. The distribution of this report in certain jurisdictions may be restricted by law, and persons in whose possession this report comes, should observe, any such restrictions

Statements of ownership and material conflicts of interest

Answers to the Best of the knowledge and belief of MNCL/ its Associates/ Research Analyst who is preparing this report:	Yes/No
whether the research analyst or research entity or his associate or his relative has any financial interest in the subject company and the nature of such financial interest;	No
whether the research analyst or research entity or its associates or relatives, have actual/beneficial ownership of one per cent. or more securities of the subject company, at the end of the month immediately preceding the date of publication of the research report or date of the public appearance;	No
whether the research analyst or research entity or his associate or his relative, has any other material conflict of interest at the time of publication of the research report or at the time of public appearance;	No
whether the research analyst has served as an officer, director or employee of the subject company;	No

Analyst Certification:

The analyst for this report certifies that all of the views expressed in this report accurately reflect his or her personal views about the subject company or companies and its or their securities, and no part of his or her compensation was, is or will be, directly or indirectly related to specific recommendations or views expressed in this report.

Investors are advised to refer to SEBI's investor education website (<https://investor.sebi.gov.in>) for guidance on understanding research reports and market risks.

Most Important Terms and Conditions (MITC)

[Forming part of the Terms and Conditions for providing research services]

1. These terms and conditions, and consent thereon are for the research services provided by the Research Analyst (RA) and RA cannot execute/carry out any trade (purchase/sell transaction) on behalf of, the client. Thus, the clients are advised not to permit RA to execute any trade on their behalf.

2. The fee charged by RA to the client will be subject to the maximum of amount prescribed by SEBI/ Research Analyst Administration and Supervisory Body (RAASB) from time to time (applicable only for Individual and HUF Clients).

Note:

2.1. The current fee limit is Rs 1,51,000/- per annum per family of client for all research services of the RA.

2.2. The fee limit does not include statutory charges.

2.3. The fee limits do not apply to a non-individual client / accredited investor.

3. RA may charge fees in advance if agreed by the client. Such advance shall not exceed the period stipulated by SEBI; presently it is one year. In case of pre-mature termination of the RA services by either the client or the RA, the client shall be entitled to seek refund of proportionate fees only for unexpired period.

4. Fees to RA may be paid by the client through any of the specified modes like cheque, online bank transfer, UPI, etc. Cash payment is not allowed. Optionally the client can make payments through Centralized Fee Collection Mechanism (CeFCoM) managed by BSE Limited (i.e. currently recognized RAASB).

5. The RA is required to abide by the applicable regulations/ circulars/ directions specified by SEBI and RAASB from time to time in relation to disclosure and mitigation of any actual or potential conflict of interest. The RA will endeavor to promptly inform the client of any conflict of interest that may affect the services being rendered to the client.

6. Any assured/guaranteed/fixed returns schemes or any other schemes of similar nature are prohibited by law. No scheme of this nature shall be offered to the client by the RA.

7. The RA cannot guarantee returns, profits, accuracy, or risk-free investments from the use of the RA's research services. All opinions, projections, estimates of the RA are based on the analysis of available data under certain assumptions as of the date of preparation/publication of research report.

8. Any investment made based on recommendations in research reports are subject to market risks, and recommendations do not provide any assurance of returns. There is no recourse to claim any losses incurred on the investments made based on the recommendations in the research report. Any reliance placed on the research report provided by the RA shall be as per the client's own judgement and assessment of the conclusions contained in the research report.

9. The SEBI registration, Enlistment with RAASB, and NISM certification do not guarantee the performance of the RA or assure any returns to the client.

10. For any grievances,

Step 1: the client should first contact the RA using the details on its website or following contact details:

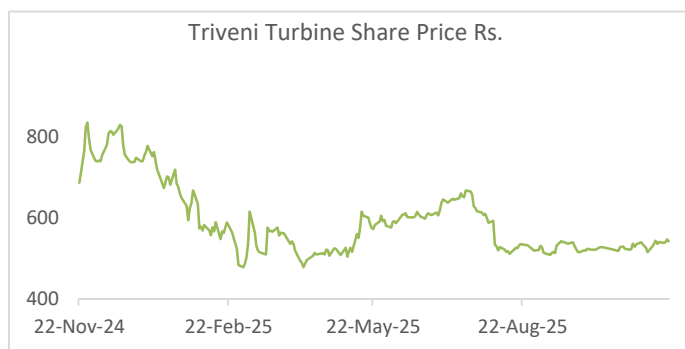
(RA to provide details as per 'Grievance Redressal / Escalation Matrix')

Step 2: If the resolution is unsatisfactory, the client can also lodge grievances through SEBI's SCORES platform at www.scores.sebi.gov.in

Step 3: The client may also consider the Online Dispute Resolution (ODR) through the Smart ODR portal at <https://smartodr.in>

11. Clients are required to keep contact details, including email id and mobile number/s updated with the RA at all times.

12. The RA shall never ask for the client's login credentials and OTPs for the client's Trading Account Demat Account and Bank Account. Never share such information with anyone including RA.



Additional Disclaimers

For U.S. persons only: The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

Research reports are intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a-6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor. In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, MNCL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo"). Transactions in securities discussed in this research report should be affected through Marco Polo or another U.S. registered broker dealer.

INVESTMENT IN SECURITIES MARKET ARE SUBJECT TO MARKET RISKS. READ ALL THE RELATED DOCUMENTS CAREFULLY BEFORE INVESTING.

Key to MNCL Investment Rankings

Buy: Upside by >15%, Accumulate: Upside by 5% to 15%, Hold: Downside/Upside by -5% to +5%, Reduce: Downside by 5% to 15%, Sell: Downside by >15%

Monarch Network Capital Ltd. (www.mnclgroup.com)

Office: - Unit No. 803-804A, 8th Floor, X-Change Plaza, Block No. 53, Zone 5, Road- 5E, Gift City, Gandhinagar -382355, Gujarat

MNCL operates under strict regulatory oversight and holds the following licenses and registrations:

Member (Member of NSE, BSE, MCX and NCDEX).

SEBI Registration No.: INZ000008037

Depository Participant (DP)

CDSL DP ID: 35000

NSDL-DP ID: IN303052

SEBI Registration No.: IN-DP-278-2016

Portfolio Manager SEBI Registration No.: INP000006059

Research Analyst SEBI Registration No. INH000000644

Research Analyst BSE Enlistment No. 5039

Merchant Banker SEBI Registration No. INM000011013

Alternative Investment Fund SEBI Registration No. IN/AIF3/20-21/0787

Mutual Fund Distributor AMFI REGN No. ARN-8812

Point of Presence for National Pension System. - 6092018

Website: www.mnclgroup.com

Investor Grievance Email ID: grievances@mnclgroup.com

Broking and Research Analyst Compliance Officer Details: Mr Nikhil Parikh

022-30641600; Email ID: compliance@mnclgroup.com

Monarch Network Capital Limited (CIN: L64990GJ1993PLC120014)

Registered Office:

Unit No. 803-804A, 8th Floor, X-Change Plaza, Block No. 53,
Zone 5, Road- 5E, Gift City, Gandhinagar -382355, Gujarat