Initiating Coverage
13th Jan 2025

MTAR Technologies Ltd

Fuelling India's energy, aerospace, and defence future.

CMP: INR 1,676

Rating: BUY

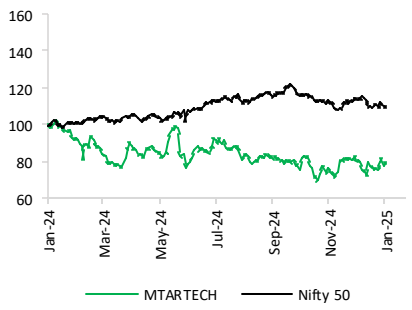
TP: INR 2,921

Stock Info	
BSE	543270
NSE	MTARTECH
Bloomberg	MTARTECH:IN
Reuters	MTAR.NS
Sector	Aerospace & Defence
Face Value (INR)	10
Equity Cap (INR Mn)	307.6
Mkt Cap (INR Mn)	51,552
52w H/L (INR)	2,249 / 1495
Avg Yearly Volume (in 000')	265.4

Shareholding Pattern % *(As on Sept, 2024)*	
Promoters	36.42
FII	7.81
DII	17.28
Public & Others	38.49

Stock Performance (%)	3m	6m	12m
MTAR Technologies	-2.0	-13.9	-21.5
Nifty 50	-5.3	-2.6	10.1

MTAR Vs Nifty 50



MTAR Technologies, established in 1969, is a leading precision engineering company in India, catering to critical sectors such as nuclear power, aerospace, defence, and clean energy. With over five decades of expertise, MTAR has developed a diversified product portfolio, supplying complex, built-to-print precision systems that meet the specialized needs of its customers, including the Department of Atomic Energy and ISRO. The company's state-of-the-art facilities and commitment to quality have made it a trusted partner in executing mission-critical projects, enabling long-standing relationships with both Indian and international clients.

Investment Rationale

Positioning for expansion in the nuclear power sector: MTAR Technologies has been a significant contributor to India's civil nuclear power sector since 1969, specializing in indigenizing technologies for CANDU reactors. The company has developed expertise in both nuclear and turbine islands, offering over 15 complex products for the nuclear island alone. With the Indian government's plan to construct 40 new reactors, MTAR is poised for substantial growth. They anticipate orders worth INR 5,000 Mn from the KAIGA 5 and 6 reactors, plus additional orders for reactor refurbishment in H2FY25. Currently holding an order book of INR 1,400 Mn in the civil nuclear power sector, they aim to execute INR 620 Mn in FY25E and projects executing INR 6,000 Mn over the next 4-5 years. The company expects to maintain an average annual execution rate of INR 1,200 Mn starting next year. With potential orders of INR 15,000 to 20,000 Mn over the next 6-7 years from upcoming reactor projects, the company is well-positioned for further future expansion in the nuclear power sector.

Leading supplier in the Fuel Cell industry with strong growth potential: MTAR has established itself as a key player in the fuel cell sector, particularly in solid oxide fuel cells (SOFC) for Bloom Energy. The company supplies hot boxes for two versions, Yuma and Santa Cruz, with the latter being 30% more efficient and now the primary focus. Despite experiencing a significant product transition that led to deferred shipments last year, MTAR expects to supply around 3,300 Santa Cruz units this year. The company's portfolio extends to power units for electrolyzers, sheet metal assemblies, and enclosures. MTAR executed approximately INR 3,400-3,500 Mn in the clean energy segment last year and projects 10-15% YoY growth for FY25E. While Bloom Energy remains their primary client, MTAR is exploring opportunities with other fuel cell companies. With no exclusive agreement limiting their clientele, MTAR has the capacity to produce 10,000 hot boxes for Bloom Energy and can expand to accommodate other clients as well.

Specialized provider in high-margin Defence sector: MTAR operates in niche areas of the defence sector, focusing on specialized systems and subsystems for critical military programs. The company's portfolio includes aero structures for missile programs, magnesium gearboxes for HAL's helicopter projects, and previously supplied actuators for the Light Combat Aircraft program. With projected revenues of INR 400 Mn for FY25E and an anticipated growth rate for order book of 15-20% YoY, MTAR's defence segment shows promising expansion. The company's strategic positioning is further strengthened by recent developments, such as being declared the lowest bidder for high-margin scramjet engines, potentially leading to future production orders. Their overall strategy in defence focuses on scramjet engines, wing kit assemblies, maintaining good margins, with an average operating margin of around 25% in this segment.

Financial Overview

Particular (INR mn)	FY23	FY24	FY25E	FY26E	FY27E
Revenue	5,738	5,808	7,042	8,623	10,859
EBITDA	1,540	1,127	1,534	2,086	2,864
EBITDA Margin (%)	26.8%	19.4%	21.8%	24.2%	26.4%
PAT	1,034	561	815	1,217	1,797
PAT Margin (%)	18.0%	9.7%	11.6%	14.1%	16.5%
EPS (INR)	33.6	18.2	26.5	39.6	58.4

Source: Company reports, Arihant Capital Research

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Growing presence in Hydel to drive future growth: MTAR has been steadily expanding its footprint in the hydel power sector, a crucial component of its clean energy segment. The company's success in this area is evident from its execution of INR 200 Mn worth of orders in FY24, serving major clients like GE Power and Voith Hydro. Building on these established relationships, MTAR aims to double its revenues in this segment to ~INR 450 Mn in FY25E. The company's new fabrication vertical, which became fully operational in FY24, is instrumental in fulfilling hydel power orders, with projections of executing INR 600-700 Mn from this vertical in FY26E. As MTAR continues to enhance its capabilities and broaden its customer base in the hydel power sector, this segment is poised to become a significant growth engine for the company's future expansion.

Ambitious growth plans for Space vertical: MTAR serves both ISRO and MNCs. Since producing its first Vikas engine for ISRO in 1989, MTAR has expanded its portfolio to include cryogenic upper stage systems, electro-pneumatic modules, and critical structures for various space missions. The company's products are integral to ISRO's PSLV and GSLV programs. MTAR's space sector revenue has shown notable growth, with plans to more than double its order execution from INR 400-450 Mn in FY24 to INR 800-1,000 Mn in FY25E, split between ISRO (41.67%) and MNC Aerospace clients (58.33%). The development of a new semi-cryogenic engine for ISRO, enhancing GSLV capacity from 4 to 6 tons, showcases MTAR's innovative capabilities. Projected annual growth rate is around 15-20% for ISRO-related work and 45-50% annual growth rate for MNCs. Overall cumulative growth in the space vertical is expected to be ~20-25% YoY which positions the company for substantial expansion in this high-tech sector over the next 3-4 years.

Rapid expansion and bright future in Aerospace: MTAR entered the aerospace industry in 2018. Starting with small orders to build credibility, the company has quickly expanded its customer base to include major OEMs like GKN Aerospace, Thales, and Collins Aerospace. A landmark long-term contract with Israel Aerospace Industries, valued at up to USD 120 Mn, underscores MTAR's growing prominence. The company's aerospace vertical has shown impressive growth, with plans to execute INR 600 Mn of MNC orders in FY25E, up from INR 80 Mn in first articles last year. MTAR projects a robust 45-50% YoY growth rate in this sector over the next five years, with the execution of orders expected to start contributing significantly from FY27E onwards. This growth is supported by MTAR's comprehensive manufacturing capabilities and ongoing capacity expansion, including a new dedicated aerospace unit set to be operational by December 2024. With a diverse product portfolio ranging from ammunition boxes to aero structures, and the ability to handle advanced manufacturing processes in-house, the company is set for continued growth in the aerospace sector.

Diverse and expanding revenue stream from Products and Others: MTAR's product division is a versatile contributor to the company's growth strategy, serving multiple sectors including civil nuclear power, space, and defence. The division's diverse portfolio includes specialized products like water-lubricated bearings, ball screws, and roller screws, catering to both established and emerging markets. Their most recent success is the development of ASP assemblies for Bloom Energy in the clean energy sector, which generated substantial revenue in its first year. The product division is poised for impressive growth in its projected near-doubling of revenue from INR 700 Mn in FY24 to an expected INR 1,300 Mn in FY25E. MTAR has also collaborated with Medha servodrives in the locomotive sector, expect a regular business of around INR 800 Mn over the next 2 years. With a projected annual growth rate of 35-40% and ambitious targets for the coming years, including a significant contribution to MTAR's overall revenue goal of ~INR 9,000 Mn in FY26E, the product division is poised to become a key driver of MTAR's exponential growth and diversification strategy.

New Oil & Gas vertical: MTAR is entered the oil & gas sector; executing first articles and expecting revenue of INR 1,500 Mn in 1-2 years, once 1st articles are executed. The company sees strong long-term potential in this vertical, potentially rivalling its clean energy business in size. Plans to invest INR 400-450 Mn to establish dedicated manufacturing capabilities for oil & gas products.

Outlook and Valuation: MTAR Technologies is targeting revenues of INR 9,000 Mn by FY26E. In the nuclear power segment, MTAR anticipates INR 15,000-20,000 Mn in orders over the next 6-7 years, with an execution target of INR 620-670 Mn in FY25E. The clean energy vertical, led by its partnership with Bloom Energy, is expected to grow 10-15% this year, building on FY25E revenues of INR 3,800-4,000 Mn. The defence segment, with FY25E revenue projections of INR 250 Mn, focuses on high-margin products like scramjet engines. We expect exponential growth (CAGR: 51% over next 3 years) in space. The company is also expanding in hydel power (FY25E target: INR 450 Mn) and entered the oil & gas sector with first article execution. With a strong order pipeline and strategic investments, MTAR is well-positioned for sustained financial growth. ISRO has launched successfully on SpaDeX program by 30th Dec 2024. MTAR Technologies has supplied subsystems to SpaDeX and it shows MTAR capabilities and creates business opportunities going forward. We remain optimistic about the company's prospects and foresee significant growth opportunities. We expect MTAR's revenue, EBITDA, and PAT to grow at a CAGR of 23.2%, 36.5%, and 47.4%, respectively, over FY24-27E. At CMP of INR 1,676 per share, We have a "BUY" rating at a TP of INR 2,921 per share; valued at a PE multiple of 50x and its FY27E EPS of INR 58.4; an upside of 74.3%

About company

MTAR Technologies, established in 1969, is a prominent precision engineering company specializing in complex assemblies, precision machining, and maintaining high production standards. It caters to critical sectors such as **Aerospace, Defence, Nuclear Power, Clean Energy, and Space**. The company was founded by Mr. PR Reddy, Mr. KSN Reddy, and Mr. PJ Reddy to address the technical and engineering requirements of the Indian government during the post-embargo period. MTAR has an export facility along with 7 manufacturing units located within a 4km radius in Hyderabad. The company also provides import substitutes, including ball screws, water-lubricated bearings, roller screws, electro-mechanical actuation systems, and ASP assemblies, which are utilized in various sectors.

Exhibit 1: Segment overview

Business segments	Clean Energy- Civil Nuclear Power	Clean Energy- Fuel Cell, Hydel & Others	Space	Defence	Products & Others
Revenue mix % (FY24)	10.7	60.5	6.7	3.4	18.7
Revenue mix % (H1FY25)	4.1	60.4	10.5	2.6	22.4
Orderbook mix % (as on 30th Sep 2024)	14.7	54.1	16.8	8.4	6.0
Revenue CAGR % (FY19-FY24)	20.9	25.5	6.0	20.7	60.7

Source: Arihant Research, Company Filings

MTAR Technologies operates seven manufacturing facilities in Hyderabad, including an Export Oriented Unit (EOU), with an additional **facility at Pashamaylaram set to be operational by FY25E** to meet growing **Aerospace demand**. MTAR has expanded capacities using internal accruals, allowing for cost-efficient investments. Additionally, the in-house design and production of special-purpose machines have resulted in significant cost savings.

Exhibit 2: Advanced manufacturing facilities offering end-to-end product development

Plant	Products Manufactured	Sectors catered to	Facilities offered
Unit 1	Complex nuclear assemblies manufacturing such as fuelling machine head, top hatch beam, bridge and column and defence equipment, among others	Clean Energy- Civil Nuclear Power, Defence	Design, Advanced computerized numerical control ("CNC") machining and quality control
Unit 2	Liquid propulsion engines such as Vikas engine, Cryogenic engines, Semi Cryo engine, electro pneumatic modules for use in Polar Satellite Launch vehicle ("PSLV") and Geosynchronous Satellite Launch Vehicle ("GSLV") and satellite valves	Space	Advanced CNC machining, assembly, specialised fabrication, quality control and testing
Unit 3	High Volume nuclear assemblies including coolant channel assemblies, products such as Ball Screws, Water Lubricated Bearings, Roller Screws and other nuclear site orders	Clean Energy- Civil Nuclear Power, Defence	Advanced CNC machining and quality control
EOU	SOFC & Hydrogen units, electrolysers, ASP assemblies for Clean Energy, high precision equipment to Aerospace MNCs	Clean Energy- Fuel Cells & MNC Aerospace	Advanced CNC machining, assembly, special processes, and quality control
Unit 4	A supporting unit and undertakes rough machining	-	Rough machining
Unit 5	A supporting unit and undertakes surface and heat treatment	-	Surface treatment, heat treatment and special processes
Unit 6- Adibatla	Sheet metal components and enclosures for Clean Energy- Fuel cells; critical structures for Clean Energy- Hydel & Waste to Energy sectors Electronics Manufacturing Systems- Cable Harnessing Assemblies	Clean Energy- Fuel Cells, Hydel and others	Advanced Machining, Fabrication, Integration, Cable Harnessing Assembly
Unit 7	Assemblies and Structures for Aerospace	Aerospace	Advanced Machining, Assembly and integration

Exhibit 3: Business overview

Business segments	Clean Energy- Civil Nuclear Power	Clean Energy- Fuel Cell, Hydel & Others	Space	Defence	Products & Others
Products	Fueling machine head, grid plate, FM bridge & column, coolant channel assemblies, drive mechanisms, fuel locator assembly, sealing & shielding doors, calandria vault top hatch cover beam, control plug, water lubricated bearings	SOFC and hydrogen units, electrolyser units, sheet metal assemblies, and enclosures- Fuel cells. Stator and Rotor assemblies, Specialised fabricated structures such as draft tube, spiral casing - Wind energy	Electro-pneumatic modules, Cryogenic upper stage assemblies (LOX turbo pump, LH2 turbo pump, Injector head and Gas generator), Ball screws, Grid fin structures, Semi Cryo engine. MNC Aerospace- Weldment structures, high precision components, Aerostructures	Helicopter housing, Magnesium gear box, Dalia actuators- LCA Tejas, Aerostructures- Wing kit assemblies	Specialized components like water-lubricated bearings, electro-mechanical actuators, valves, ball screws, roller screws, ASP assemblies
Application	Applied in nuclear power plants and reactor control mechanisms. Ensure structural integrity and safe functioning.	Used in clean energy production, storage, and transportation, with applications in green hydrogen generation and fuel cells. key components in wind turbines, converting wind energy into electricity	Used in launch vehicles and propulsion systems for space missions. Critical for manufacturing advanced aircraft and spacecraft.	Applied in defence aviation, crucial for aircraft control and structural integrity in combat scenarios.	Used in various high-precision industries such as aerospace, defence, and energy.
Key customers	NPCIL, DAE, BARC, IGCAR	Bloom Energy, Voith, Regen Power, GE Hydro, Andritz Hydro, Hitachi, Fluence Energy	ISRO, Collins Aerospace, GKN Aerospace, IAI, Vikram Sarabhai Space Centre	DRDO, Rafael, Elbit Systems, HAL, Tata, BDL	Thales, Medha Servo Drives, Worldwide Oil Machine
Key market	India	US and South Korea	India and Israel	India and Israel	India

Source: Arihant Research, Company Filings

Expansion into Oil and Gas segment

MTAR aims to diversify by entering the Oil & Gas segment and is engaged in discussions with reputed MNCs in this sector. Many MNCs are interested in moving their supply chains from Europe to India. MTAR is capitalizing on this trend and has initiated discussions with reputed customers in the Oil & Gas sector.

Potential customers: MTAR is in ongoing talks with leading companies and significant orders are expected from these potential partnerships in the coming quarters.

Investment Rationale

Leading supplier in the Fuel Cell industry with strong growth potential

- MTAR supplies **Solid Oxide Fuel Cells (SOFC) components including Cathode and anode assemblies and, reaction chambers** for converting chemical energy into electrical energy.
- The company is a critical supplier for **Bloom Energy**, focusing on **SOFC**. The primary product supplied is the **Hot Box**, with MTAR producing **1,808 units of hot boxes** in H1FY25. Similar execution is expected in H2FY25E leading to ~30% growth (~3,300 units) in Hot Box production for full year FY25E as compared to FY24 where **2,752 units of Hot Boxes were** dispatched across product lines such as Yuma, Santa Cruz, and Santa Cruz Block 2. The company has currently transitioned from the **Yuma model** to the **Santa Cruz model**, which is **30% more efficient**. This transition caused delays in shipments in FY24, deferring INR 1,500-2,000 Mn of revenue, but the execution has now normalized.
- The company manufactured and delivered **98 electrolyzer units** designed for producing green hydrogen through water electrolysis in FY24 and has so far dispatched 36 units in H1FY25. Strong orders for electroylzers are anticipated from Bloom Energy with the company starting an electrolyzer vertical from FY26E.

Bloom Energy collaboration

- Bloom Energy is the primary client for MTAR's Fuel Cells business and a significant driver of growth in this vertical. Their orders are typically for **one-year execution timelines**. Bloom Energy reported an 11% YoY growth in revenues in CY23, with a backlog exceeding USD 12 Bn—a 21% increase YoY. This indicates strong underlying demand for SOFC units.
- The company expects further growth driven by Bloom Energy's **500 MW volume agreement with SK ecoplant** and its expansion into international markets, including Korea. With the current Bloom Energy projections, MTAR has visibility on consistent revenue growth for the next 12-24 months.
- Bloom Energy has forecasted **4,000-4,500 units** of hot box production for CY25E, up from an earlier projection of 3,000 units, indicating **~20% revenue growth** in FY26E for this vertical.
- MTAR is not only supplying hotbox units but also **sheet metal assemblies and enclosures** for Bloom Energy, diversifying revenue sources within the partnership.
- **In order to mitigate risks of Bloom Energy being a major revenue contributor,** MTAR is exploring partnerships with other players for Proton Exchange Membrane (PEM) electrolyzers. The company has no exclusivity agreements with Bloom Energy, enabling opportunities to diversify its customer base. However, no other client has yet reached Bloom's scale of operations.
- MTAR has the capacity to produce **10,000 hotbox units annually**, allowing flexibility to meet Bloom Energy's future demand or onboard additional clients.
- The company aims to achieve complete integration for Bloom Energy, allowing it to export fuel cells directly to other countries from its facilities.
- MTAR aligns its growth in the Fuel Cells segment with Bloom Energy's performance, projecting a **~15% annual growth rate** for the vertical.

Exhibit 4: Fuel cells vertical insights

Metric	FY24A	H1FY25A	FY25E
Revenue from Clean energy- Fuel Cells, Hydel & others (INR Mn)	3,511	1,924	3,800-4,000
Hot boxes delivered	2,752 units	1,808 units	~3,300 units
Closing order book (INR Mn)	5,362.9	5,097.6	~6,000
Electrolyzers delivered	98 units	36 units	TBD (dependent on Bloom orders)

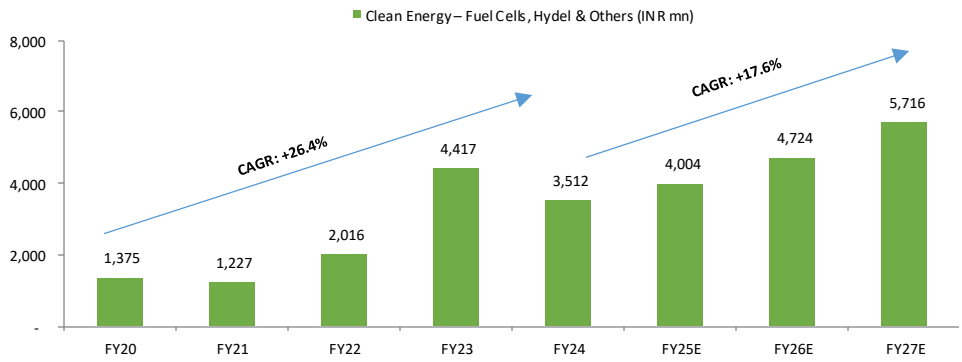
Source: Arihant Research, Company Filings

Investment Rationale

Growing presence in Hydel to drive future growth

- The Hydel Power segment is part of MTAR's diversified offerings in the clean energy space, alongside sectors like fuel cells and waste-to-energy.
- India is witnessing a significant expansion in hydropower capacity, targeting an increase from **42 GW to 67 GW** by 2031-32, representing a **59.5% increase** over the next decade.
- MTAR's hydel power customers include **Voith Hydro**, **Andritz Hydro**, and **GE Power**, which are major global players in hydropower engineering and infrastructure.
- The company delivered orders worth INR 200 Mn in FY24 from this segment. Hydel Power is expected to contribute **INR 450 Mn in FY25E**, with an upward trajectory for FY26 and beyond, driven by growing order inflows and enhanced operational capacity.
- MTAR has focused on supplying **specialized fabricated structures** critical for hydropower projects, such as:
  - **Spiral Casings**: Used for efficient water flow in turbines.
  - **Draft Tubes**: Essential for energy recovery in turbines.
  - **Rotor and Stator Assemblies**: Vital for converting mechanical energy to electrical energy in hydropower plants.
- The company leverages its advanced fabrication facilities to serve hydropower projects, enabling it to cater to the demand for critical components with precision engineering. MTAR projects continued growth in this segment, fueled by increasing investments in hydropower infrastructure and its expanded fabrication capabilities.
- The Hydel Power segment is part of MTAR's strategy to diversify its clean energy portfolio, ensuring a balanced revenue mix and leveraging opportunities in renewable energy expansion.
- By supporting hydropower projects, MTAR aligns itself with global and national goals for sustainable and renewable energy development.

Exhibit 5: Clean Energy- Fuel Cell, Hydel & Others is expected to grow at a CAGR of 17.9% over the period of FY24-27E.



Source: Arihant Research, Company Filings

Exhibit 6: Order book timeline

Particular (INR mn)	FY22	FY23	FY24	Q1FY25	Q2FY25
Clean Energy- Civil Nuclear Power	1,628	1,935	1,464	1,467	1,385
Clean Energy- Fuel Cell, Hydel & Others	2,965	6,873	4,630	4,686	5,098
Space	1,797	1,314	1,382	1,636	1,583
Defence	0	504	549	617	791
Products & Others	97	1,103	393	528	565

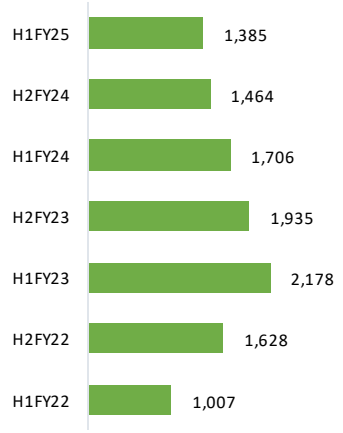
Source: Arihant Research, Company Filings

Investment Rationale

Positioning for expansion in the nuclear power sector

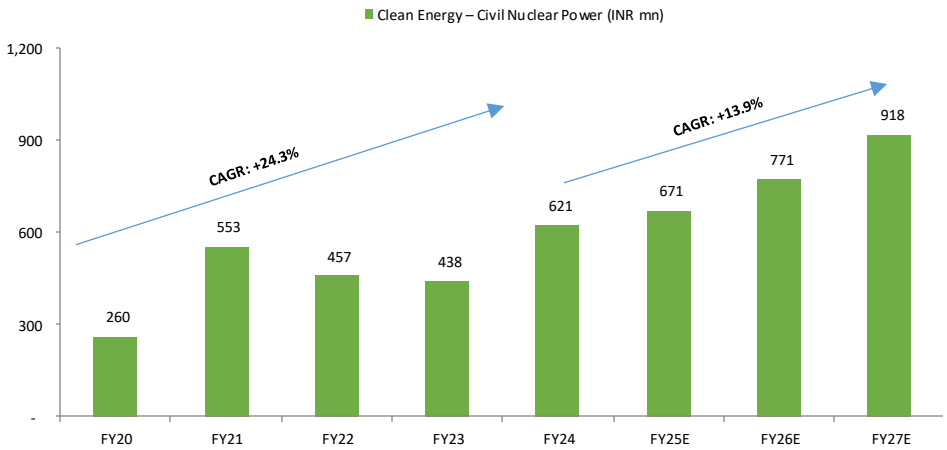
- MTAR Technologies has been a critical contributor to India's nuclear power sector. The company plays a vital role in supporting the country's clean energy goals through its collaboration with the Department of Atomic Energy and Nuclear Power Corporation of India Limited (NPCIL).
- MTAR Technologies is engaged in the **civil nuclear power sector**, working on projects for **nuclear island systems** and turbine islands.
- The company is executing critical projects like **Fueling Machine Bridge (FMB)** and **Fuel Transfer Systems (FTS)** for nuclear power plants.
- MTAR Technologies specializes in providing complex systems comprising over **700 components** for nuclear applications.
- The company expects to deliver ~**INR 600-700 Mn of orders** in the nuclear power segment in FY25E on a cumulative basis. This sector is expected to witness **40-45% growth in FY26E**, supported by robust demand and a strong order pipeline.
- Orders worth **INR 5,000 Mn** are anticipated from the Kaiga 5 and 6 reactors in H2FY25. We project the overall order book in this segment to reach ~INR 6,000 Mn in FY25 due to ongoing and new reactor projects. Refurbishment of aging reactors is expected to bring orders worth **INR 1,000 Mn** annually over the next few years.
- The government has approved the construction of **14 reactors on fleet mode**. Two reactors (Kaiga 5 & 6) of **700 MW each** have already been contracted to a private entity, offering great opportunities for the company. The broader plan includes 10 additional reactors, with a total order potential of **INR 15-20 Bn** for MTAR Technologies over the next few years.

Exhibit 7: Nuclear power order book (INR Mn)



Source: Arihant Research, Company Filings

Exhibit 8: Clean Energy – Civil Nuclear Power is expected to grow at a CAGR of 13.9% over the period of FY24-27E.



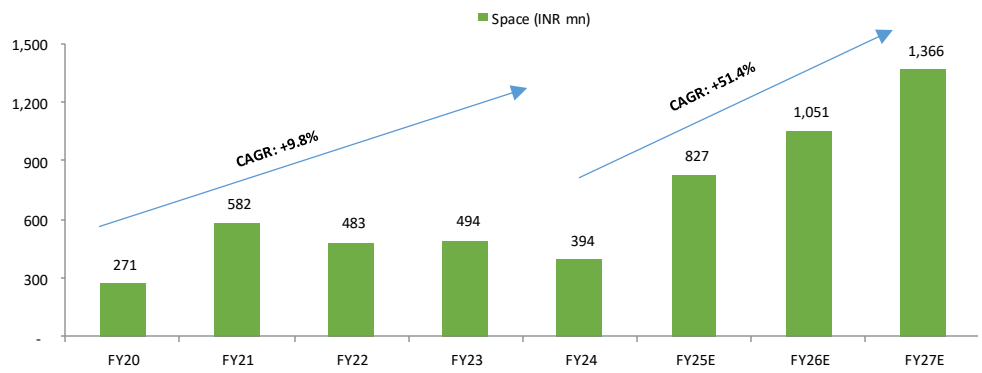
- We expect nuclear power revenues to remain stable in FY25E and ramp up significantly in FY26E as Kaiga 5 & 6 projects gain momentum.
- The company's long-standing relationships with NPCIL and other stakeholders provide a competitive edge in securing future contracts.
- The **Indian government's nuclear expansion plans**, including setting up new reactors, are expected to drive future growth for the company. Orders for refurbishments and new reactor projects provide long-term visibility for the segment.

Investment Rationale

Ambitious growth plans for Space vertical and rapid expansion in Aerospace

- MTAR Technologies supplies critical systems and subsystems to ISRO for space missions, including Liquid Propulsion Engines (e.g., Vikas Engine), Cryogenic Upper Stage Assemblies (including LOX Turbo Pump, LH2 Turbo Pump, Injector Head, and Gas Generator), and Electro-Pneumatic Modules.
- The company has also started working on new products like **Grid Fin Structures** for Gaganyaan, India's first human spaceflight mission and development of **Semi-Cryogenic Engines** aimed at enhancing the payload capacity of the GSLV from 4 tons to 6 tons.
- MTAR has been a long-standing partner of ISRO, supplying critical systems for PSLV and GSLV programs. Major contributions include supplying products for landmark missions such as **Chandrayaan-3** and **Aditya L1**.
- Beyond ISRO, MTAR has entered into long-term agreements with global aerospace giants, including:
    - **Israel Aerospace Industries (IAI):** Signed a long-term contract for delivering mission-critical assemblies over the next 15 years, valued between USD 90-120 Mn.
    - **Thales Group:** Established a partnership for strategic projects in the aerospace sector.
    - **GKN Aerospace:** Discussions are underway for potential contracts.
- The company is actively engaging with multiple aerospace MNCs for additional projects.
- The segment witnessed a slight decline compared to previous years due to delays in project execution, particularly with the Semi-Cryogenic Engine program.
- MTAR is setting up a dedicated aerospace vertical in Hyderabad, scheduled to be operational by Jan-25. This facility will house advanced machining, assembly, integration, and surface treatment capabilities under one roof. The new unit will enhance MTAR's production efficiency and capacity to cater to increasing global demand.
- Development of new products such as thrust chambers, light alloy structures, and motor casings will further expand its portfolio.
- The government's push for "Atmanirbhar Bharat" (self-reliant India) and initiatives to increase private-sector involvement in space exploration are expected to create additional revenue streams.
- We have projected space segment to grow at a **~51.4% CAGR** over the next 2-3 years (FY24-27E) due to strong demand from ISRO and increasing contributions from the MNC aerospace vertical.
- We anticipate the order execution in space vertical to double in FY25E to over INR 800-1,000 Mn from INR 394 Mn in FY24, will an expected closing order book of INR 1,200 Mn.

Exhibit 9: Space revenue is expected to grow at a CAGR of 51.4% over the period of FY24-27E.



Source: Arihant Research, Company Filings

Investment Rationale

Specialized provider in high-margin Defence sector

- MTAR Technologies, as a provider of precision-engineered systems for the defence sector, focusing on niche areas with high-margin potential. The company caters to leading organizations such as DRDO, HAL, and other key Indian and international defence players.
- MTAR supplies critical products to **missile programs, aerostructures, and helicopter programs** for the defense sector.
- The company has delivered these products for flagship projects, including the LCA Tejas, where it supplied 5-ton and 10-ton actuators.
- Key contributions include **Aero structures** for various missile programs, **Magnesium gearboxes** for HAL (Hindustan Aeronautics Limited) helicopter programs, **Scramjet engine combustors** based on air-breathing technology, and **Wing-kit assemblies**, airframes, and structural components for prestigious defence projects.
- The company has been focusing on the development and execution of First Articles for products like electro-mechanical actuators and roller screws, the latter being a complete import substitute.
- Roller Screws are designed to replace imports from Sweden, with significant demand from both defence and space programs.
- MTAR has completed the development of electro-mechanical actuators and executed INR 13 Mn worth of orders in FY24.
- The development of roller screws has reached certification stages, with batch production set to follow, opening significant market opportunities.
- The company is working on valves, heaters, and aero structures to support defence requirements. MTAR's defence strategy is closely aligned with India's push for **indigenization of defense technologies** and import substitution, positioning the company as a key supplier in the sector.
- The defence segment generated **INR 86 Mn in revenue** during H1FY25. Developmental orders for **scramjet engines combustors** worth **INR 150 Mn** were secured.
- We anticipate a significant increase in defence order inflows as its products, like **Scramjet engines, Wing kit assemblies, Valves and Roller Screws**, move into batch production. The company is also exploring export opportunities, ensuring scalability in this vertical over the next 2-3 years.
- MTAR plans to expand its presence in the global defence market by collaborating with multinational OEMs. We expect the defence vertical order book to grow at a rate of **15-20%,** with stable revenue projections for FY25, driven by both ongoing and new projects in FY25.

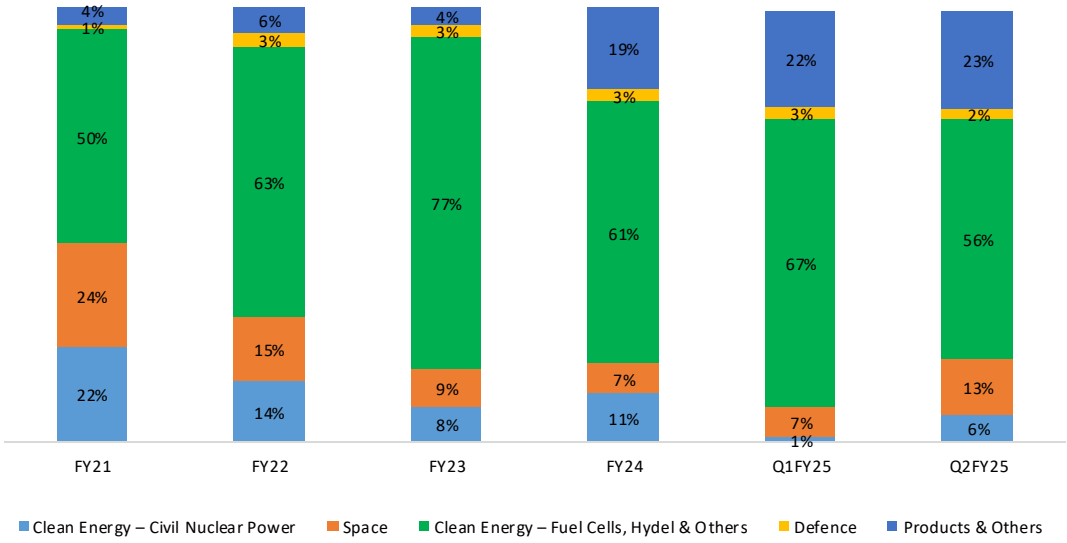
Diverse and expanding revenue stream from Products and Others, and new Oil and Gas vertical

- MTAR Technologies' Products and Others segment includes diverse offerings, such as:
  - **Ball screws, roller screws**, and **water-lubricated bearings** for various applications.
  - Development of advanced assemblies like **ASP assemblies** for clean energy clients, such as Bloom Energy.
- The company's products address crucial needs across sectors, including defence, nuclear power, and clean energy.
- ASP assemblies, specifically in the Clean Energy domain, contributed approximately INR 800 Mn in revenue during FY24.

Investment Rationale

- The company has completed the first articles for roller screws, positioning them as a 100% import substitute. Development work on valves for Space and Defence sectors is progressing, with execution of the first article orders for naval applications.
- The company executed **INR 710 Mn** worth of orders during H1FY25 in this segment.
- We expect the segment to generate over **INR 1,300 Mn** in revenue by the end of FY25E, a growth rate of over **30%**.

Exhibit 10: Increasing share in revenue of Products and Others vertical



Source: Arihant Research, Company Filings

Ventures into Oil and Gas vertical with strong growth prospect

- MTAR is entering the Oil & Gas sector as a part of its diversification strategy. The company has initiated discussions with reputed MNCs; signalling its intent to become a key supplier in this domain.
- The company is working on **first-article prototypes** for global oil and gas clients.
- MTAR has received initial orders for first-article prototypes and the qualification is expected to be done by end FY25 or beginning FY26. Concurrently, the company is engaging with clients to finalize pricing and agreements for batch production.
- MTAR anticipates achieving **INR 2,000-2,400 Mn** over the 2-3 years progressively from the oil and gas segment once full production begins.
- Volume production is likely to commence in **H2FY26E**, with full-scale revenues expected by **FY27E**.
- MTAR is building a **dedicated oil and gas production line** in Hyderabad to cater to the segment's requirements. The facility aims to support scalability, ensuring efficient delivery of batch production orders.
- With substantial global demand for energy solutions, we see significant opportunities for MTAR in providing precision-engineered products for drilling, production, and intervention segments within the Oil & Gas industry.
- Both the Products and Others segment and the Oil and Gas vertical exemplify MTAR's strategy of diversification and innovation.
- These verticals are positioned as significant growth engines, contributing meaningfully to MTAR's goal of **INR 9,000 Mn in revenue by FY26E**, while enhancing its product portfolio and market reach.

Outlook and Valuation: MTAR Technologies is targeting a 20% growth in revenue and order executions worth INR 9,000 Mn in FY26E. This target includes contributions from various sectors, including clean energy, space, aerospace, defence, and products. The company is projecting revenue of ~INR 7,000-7,250 Mn for FY25E, up from INR 5,808 Mn in FY24 (~25% growth) and plans to invest around INR 800 Mn in capex each year. The company expects to maintain ~21-22% EBITDA margin in FY25E, with a target to increase this margin to 24% by next year. By FY27E, MTAR aims to bounce back to operating margins of 26-28%, depending on the establishment and streamlining of newer verticals. The company is also focusing on increasing domestic growth, aiming to double their growth in the domestic sector over the next 2-3 years, though this may not significantly alter the export-to-domestic mix due to strong growth in exports. While working capital remains high at 252 days, they aim to reduce this to 220 days in FY25E. **The company's focus on high-tech, precision manufacturing in critical sectors like nuclear, space, and clean energy, combined with its growing order book and expansion into new areas like oil & gas, suggest a positive outlook. We believe the company has the potential to achieve an EBITDA of INR 2,864 Mn by FY27E. However, its long-term success hinges on its ability to manage working capital, execute large orders, and effectively scale new verticals, which are essential for achieving its growth aspirations. We remain optimistic about the company's prospects and foresee significant growth opportunities. ISRO has launched successfully on SpaDeX program by 30th Dec 2024. MTAR Technologies has supplied systems and subsystems to SpaDeX and it shows MTAR capabilities and creates business opportunities going forward. We remain optimistic about the company's prospects and foresee significant growth opportunities. We expect MTAR's revenue, EBITDA, and PAT to grow at a CAGR of 23.2%, 36.5%, and 47.4%, respectively, over FY24-27E. At CMP of INR 1,676 per share, We have a "BUY" rating at a TP of INR 2,921 per share; valued at a PE multiple of 50x and its FY27E EPS of INR 58.4; an upside of 74.3%.**

Quarterly snapshot

Exhibit 11: Q2FY25 Quarterly Performance (Consolidated)

Quarterly Results					
Consolidated (INR Mn)	**Q2FY25**	**Q1FY25**	**Q2FY24**	**QoQ**	**YoY**
Net Sales	**1,901.92**	**1,282.60**	**1,668.37**	**48.3%**	**14.0%**
Material Cost	882.15	696.27	801.01	26.7%	10.1%
Change in Inventory	116.76	-27.64	107.17	-522.4%	8.9%
Gross Profit	**903.01**	**613.97**	**760.19**	**47.1%**	**18.8%**
Gross Margin %	**47%**	**48%**	**46%**	**-39.03bps**	**191.40bps**
Employees benefits expense	298.89	280.18	234.18	6.7%	27.6%
Other Expenses	235.89	167.72	165.04	40.6%	42.9%
EBITDA	**368.23**	**166.07**	**360.97**	**121.7%**	**2.0%**
EBITDA margin %	**19.36%**	**12.95%**	**21.64%**	**641.30bps**	**-227.51bps**
Depreciation	77.78	61.39	57.85	26.7%	34.5%
EBIT	**290.45**	**104.68**	**303.12**	**177.5%**	**-4.2%**
EBIT Margin %	**15.27%**	**8.16%**	**18.17%**	**710.99bps**	**-289.72bps**
[b] Other income	14.45	5.26	8.45	174.7%	71.0%
[f] Finance costs	51.78	47.88	54.71	8.1%	-5.4%
PBT	253.12	62.06	256.86	307.9%	-1.5%
Reported PAT	**-871.8**	**-434.3**	**-701.2**	**100.7%**	**24.3%**
Tax-Total	65.39	17.78	52.27	267.8%	25.1%
Tax Rate (%) - Total	0.27	0.27	0.20	0.0%	32.7%
Reported Net Profit	**187.73**	**44.28**	**204.59**	**324.0%**	**-8.2%**
PAT Margin %	**9.87%**	**3.45%**	**12.26%**	**641.82bps**	**-239.23bps**
Reported EPS (INR)	6.10	1.44	8.91	324.0%	-31.5%

	Q2FY25	Q1FY25	Q2FY24	QoQ(bps)	YoY(bps)
RMC/Sales (%)	52.52	52.13	54.44	39.03	-191.40
Employee exp/Sales (%)	15.72	21.84	14.04	-612.95	167.87
Other exp/Sales (%)	12.40	13.08	9.89	-67.38	251.04

Source: Arihant Research, Company Filings

MTAR Technologies Ltd Q2FY25 Concall KTAs

MTAR had a good Q2 with a 48% QoQ increase in revenue and a 122% rise in EBITDA. The company is optimistic about continued growth, particularly in aerospace, clean energy, and defense, with a projected 20% revenue growth for FY26. New product launches and operational improvements are driving higher margins, and there's a focus on reducing reliance on Bloom Energy while expanding production capacity. Debt was reduced by INR 160mn, and the company aims to improve cash flow and reduce working capital days by FY25.

Strong quarter with 48% QoQ increase in revenue and 122% QoQ increase in EBITDA. H2 to be stronger. overall revenue guidance for the year at INR 7250mn and 21% EBITDA by end of FY25.

Sequential improvement in margins as company ramp ups production of new products and aerospace and clean energy. Lot of new products added over the past 2 years like sheet assembly, etc. will generate substantial revenues now.

They are making efforts on maximising order inflow in specialised areas in aerospace, defense engine subsystems. They expect to deliver a robust growth in clean energy and MNC aerospace verticals because of the product portfolio they have developed over the past two years.

clean energy- INR 1920mn of order executed in H1. They have dispatched 1,808 units of hotbox units and 36 units of electrolysers.

Closing order book for Bloom stands at INR 4930mn. They are optimistic about growth in FY26 as Bloom gave an indication of 4k units in CY25(vs 3k units initially projected) and foresee a 20% growth in revenues in this vertical.

Space segment substantial growth in line with projections. INR 170mn of orders delivered with INR 450mn to be delivered in H2. Next 3-4 years revenue growth to be ~45%.

Delivered around INR 160mn of orders to ISRO in first half and they project around INR 250mn of execution in H2. ISRO projected to grow at 20% on YoY basis due to the strong industry tailwinds.

Defense- revenue of INR 86mn with annual execution to be around INR 200mn.

Phenomenal growth in products with INR 710mn execution in H1 and estimation of INR 1400mn on products on annual basis by end of FY25. This segment to grow by 30% over coming quarters.

Financials: Revenue of INR 1920mn(+48.3%QoQ). EBITDA improved significantly at INR 368mn (+121.7%QoQ). PBT at INR 253mn (+307%QoQ). PAT at INR 188mn(324%QoQ).

YoY basis RFO increased 14%, EBITDA by 2% YoY while PBT fell by 1.5%.

Operational improvements to lead EBITDA margins to improve.

INR 160mn debt reduction to INR 1264mn. Cashflow from operations at INR 180mn with a goal of surpassing FY24 cashflow of INR 574mn by FY25. 247 days net working capital days and reduce it below 220 by FY25.

FY26- 20% revenue growth with improved EBITDA margins.
Bloom energies- 3000 units initially, increased projection to 4000 units for next year.

Sequential improvements in margins expected. They are also looking at expanding management bandwidth. Lot of outsourcing which the co. is currently doing, to be moved in-house.

They are establishing new exclusive aerospace facility by December this year. Conscious effort being taken to reduce dependence on Bloom energies.

Story in charts

Exhibit 12: Revenue growth is driven by strong execution across clean energy, space, and defence segments, supported by strong order inflows and new product development

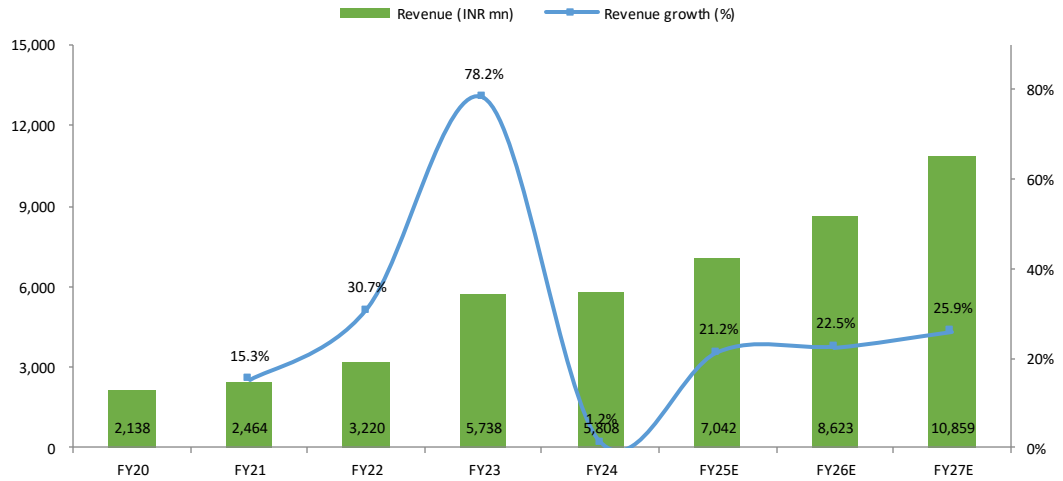


Exhibit 13: EBITDA growth is fueled by higher operating leverage from increased revenues, cost optimization through reduced outsourcing, and efficiency improvements in production processes

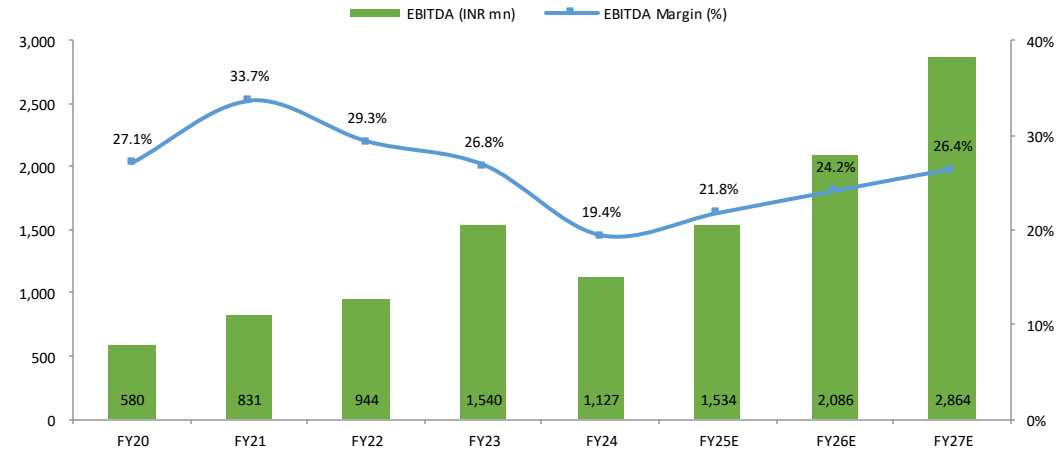
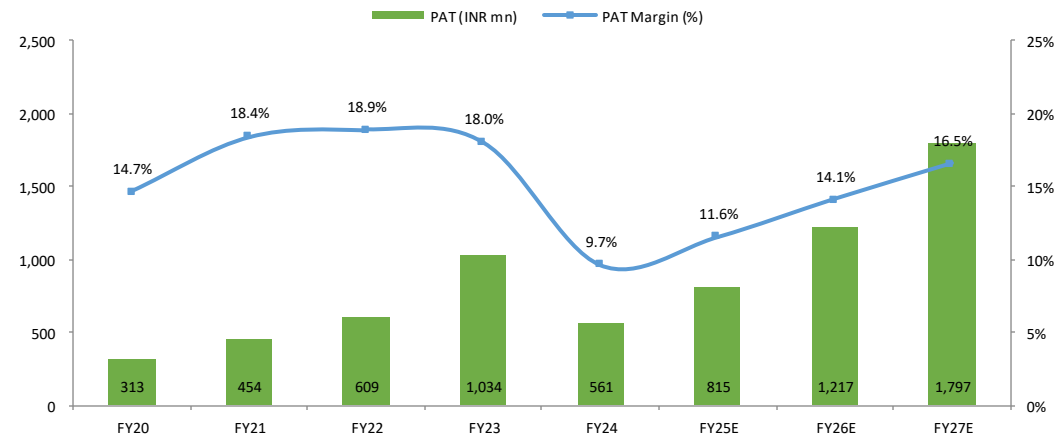


Exhibit 14: Net profit growth is driven by increased margins, lower financing costs due to debt reduction, and a favourable product mix with contributions from high-margin segments like aerospace and defence



Source: Arihant Research, Company Filings

Story in charts

Exhibit 15: ROCE is improving due to increasing contributions from high-margin verticals

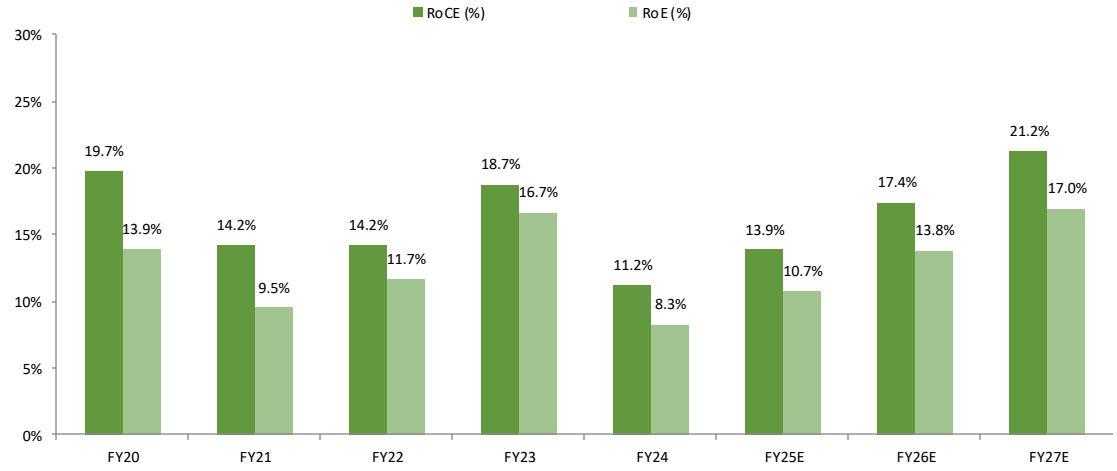


Exhibit 16: Working capital days are reducing as a result of optimized inventory management, faster execution cycles, and improved receivables collection processes.

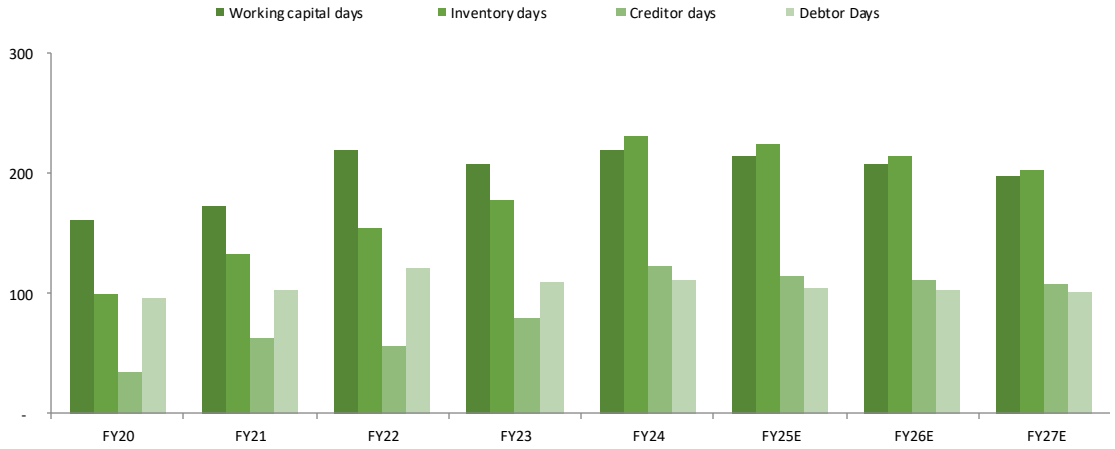
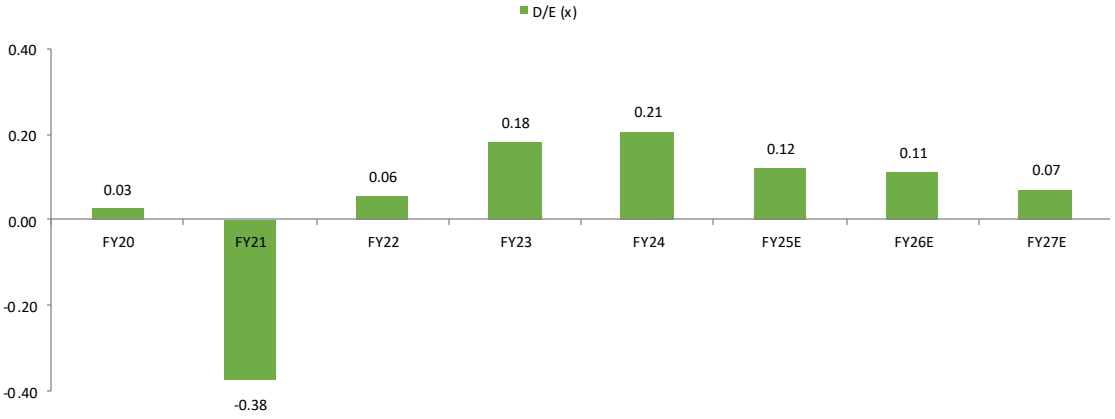


Exhibit 17: The Net debt-to-equity ratio is declining due to steady debt repayments and improved cash flows generated from operational growth.



Source: Arihant Research, Company Filings

Industry overview

Clean energy- Civil Nuclear Power

- India considers nuclear power a clean, environmentally friendly, and sustainable source of electricity that provides round-the-clock availability and ensures long-term energy security.
- The Indian government is actively expanding nuclear power capacity to enhance energy security and promote sustainable development.
- India's nuclear infrastructure includes **23 operational reactors** with a combined capacity of **7.4 GWe (19 PHWRs and 4 LWRs) and 8 reactors** under construction, adding 6.0 GWe.
- Recent achievements include the addition **of two 700 MW indigenously designed** PHWRs at Kakrapar Atomic Power Project (Units 3 & 4) and the core loading of the first **indigenous 500 MWe Fast Breeder Reactor**, marking a key milestone in the second stage of India's nuclear program.
- Administrative approval has been granted **for 14 reactors with a combined capacity of 9.8 GWe** to strengthen the domestic nuclear supply chain under the 'Atmanirbhar Bharat' initiative. A private firm has **secured a INR 125 bn contract for the Kaiga 5 & 6 reactors (700 MWe each),** while tenders for most of the Gorakhpur 1 & 2 reactors have been floated, and those for the remaining 10 reactors are pending.
- The Jaitapur site in Maharashtra received 'in-principle' approval to establish six European Pressurised Reactors in collaboration with France, with **a total capacity of 9.9 GWe,** making it the world's largest nuclear power plant upon completion.
- India is exploring the development of Small Modular Reactors with a **220 MWe capacity and aims to involve** the private sector to expand nuclear capacity, establish SMR partnerships, and advance nuclear energy research. Experts point out that SMRs offer advantages such as lower capital costs and modular construction compared to large conventional reactors.

Exhibit 18: Increase in India's nuclear capacity, for 2021-2030P

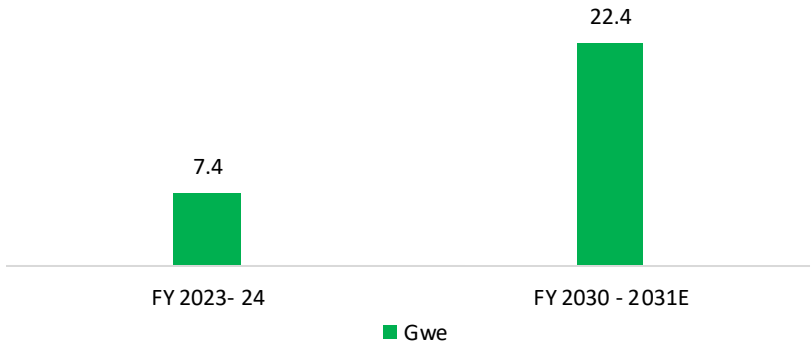
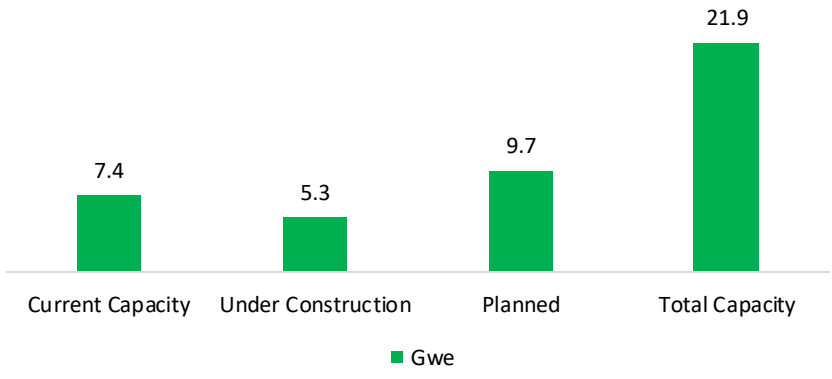


Exhibit 19: Increase in nuclear capacity in India



Source: NPCIL, World Nuclear Association, CRISIL Research

Opportunity for MTAR in Nuclear sector

- MTAR supplies **20-25% of the equipment for a 700 MWe PHWR nuclear plant** and provides 15 different products to the nuclear island, supporting the entire core of the facility.
- MTAR manufactures specialized products like fuel machining heads, bridges, columns, and coolant channel assemblies, which are used in both new Pressurized Heavy Water Reactors (PHWRs) and the refurbishment of existing reactors, positioning the company to tap into the growing civil nuclear power market.
- MTAR expects **approximately INR 5,000 Mn in orders from the Kaiga 5 & 6 reactors and anticipates INR 15-20 bn in orders over the next 6-7 years** for the remaining 10 fleet reactors, which have yet to see tenders.
- As most operational reactors approach their critical lifespan, **MTAR expects INR 500-600 Mn in refurbishment orders every alternate year and INR 100-200 Mn** annually from maintenance orders.

Exhibit 20: Reactor market

New-build market (INR Bn)	Overall capital cost (INR Bn)	Equipment cost (INR Bn)
Operational reactors	110-120	22-28
Under-construction reactors	680-720	130-170
Planned expansion (medium to long term)	1,760-1,860	350-435

Source: NPCIL, World Nuclear Association, CRISIL Research

Fuel Cell Industry

- The global fuel cell market is projected to reach **USD 25.10 Bn by 2031, growing at a CAGR of 27.1% from 2024 to 2031,** driven by rising demand for clean, efficient energy solutions and a greater focus on reducing carbon footprints.
- Fuel cells convert chemical energy from fuels such as hydrogen, methanol, or natural gas into electrical energy. They are used in consumer electronics, military equipment, medical devices, and portable power generators, providing a sustainable and eco-friendly alternative to traditional batteries and internal combustion engines.
- Advancements in solid oxide fuel cells and proton exchange membrane fuel cells have enhanced efficiency, durability, and cost-effectiveness. SOFCs, which operate at high temperatures without expensive catalysts, are the fastest-growing segment, especially in stationary applications.
- Governments worldwide are investing significantly in research and development to promote fuel cell adoption and transition to sustainable energy systems. Businesses are also embracing fuel cells to achieve sustainability goals and comply with environmental regulations.
- The Asia-Pacific region is expected to lead the fuel cell market, driven by rapid industrialization, urbanization, and clean energy adoption in China, Japan, and South Korea. Government initiatives and investments are boosting demand in sectors such as electronics, automotive, and telecommunications.
- North America is projected to be the fastest-growing region, driven by strong R&D investments in Canada and the United States, which lead in developing advanced fuel cell technologies.
- Key market drivers in Asia-Pacific include high electricity demand, reduced reliance on fossil fuels, and favourable regulations. Significant government support and investments in fuel cell technology have boosted market share, particularly in South Korea, China, and Japan.

Industry overview

Market Opportunity for Bloom Energy

- Bloom Energy reported an **11% YoY revenue growth in CY 2023, reaching USD 1.33 Bn, while its backlog grew by 21% to exceed USD 12 Bn**. The company forecasts an 18% annual revenue growth from 2024 to 2026, significantly outpacing the 8% growth forecast for the US electrical industry.
- Bloom Energy targets **a 30–35% CAGR from 2020 to 2030,** driven by hydrogen fuel cells and international expansion. The total addressable opportunity for hydrogen **fuel cells is estimated at USD 300 Bn, with the broader clean energy and international markets valued at over USD 2 trillion**.
- Bloom Energy has extended its agreement with SK Group, South Korea, until 2027, including a **500 MW deployment (250 MW recommitment and 250 MW new** commitment). This deal is expected to generate **USD 1.5 Bn in product revenues and USD 3 Bn in service revenues over 20 years**. Since 2018, 400 MW has already been deployed under this partnership.
- South Korea's 2019 Hydrogen Economy Roadmap targets 15,000 MW of stationary fuel cells by 2040, offering immense opportunities. Public-private partnerships are accelerating the adoption of hydrogen-based solutions.
- Bloom Energy expects SOFCs to be competitive with traditional grid power in all US states, with current competition in 12 states.
- Solid Oxide Fuel Cells (SOFCs) is highest among peers and provide uninterrupted 24/7 power with a proven track record of no outages.
- SOFCs produce no SOx or NOx emissions.
- While the Solid Oxide Electrolyzers technology is still under commercialization, it holds strong potential for market dominance due to its higher efficiency.

Exhibit 21: Fuel Cells Industry Growth (INR Bn)

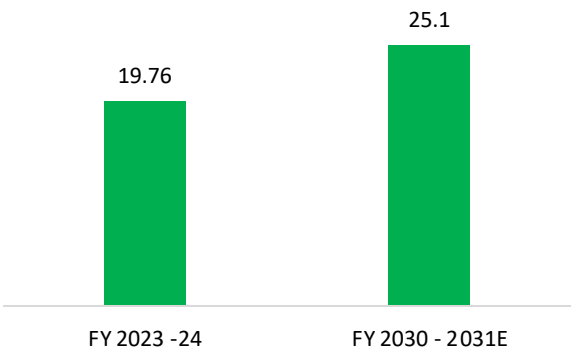
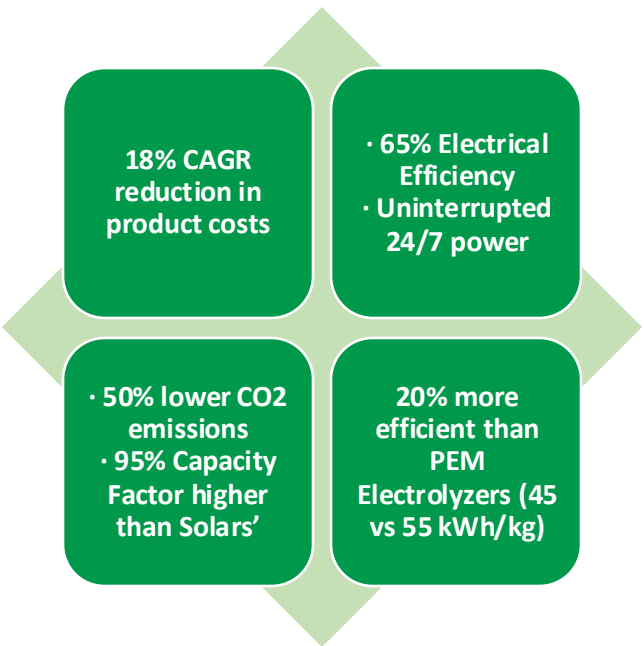


Exhibit 22: Key Metrics of SOFCs



Industry overview

Opportunity for MTAR in Fuel cells

- MTAR is a major supplier for Bloom Energy, providing components such as power units, sheet metal assemblies, and enclosures for Solid Oxide Fuel Cells (SOFCs). Additionally, MTAR is the sole supplier of electrolyser units for Bloom Energy.
- MTAR has maintained a long-term relationship with **Bloom Energy for over 12 years, consistently achieving 100% compliance. The company caters to 50%–60% of Bloom Energy's typical hotbox requirements.**
- MTAR has been expanding its wallet share with Bloom Energy by supplying additional products such as sheet metal, enclosures, and ASP assemblies. **In FY 2024, MTAR delivered INR 800 Mn worth of ASP assemblies, a product developed in FY23 and has executed INR 3.3 Bn in orders for power units**, sheet metal assemblies, and enclosures.
- MTAR has indigenized several off-the-shelf items for the hotbox, such as bellows, fins, and forklift bases, helping reduce costs and protect margins.
- MTAR's growth is expected to align with Bloom Energy's expansion, benefiting from the increasing demand for fuel cells. The company is also in discussions to supply products for a firm manufacturing PEM electrolysers, further expanding its footprint in the electrolyser market.

Exhibit 23: Key Metrics of SOFCs

Fuel cell type	Operating temperature	Typical stack size	Electrical efficiency (%)	Major technology deployment players
Alkaline fuel cell	90-120°C	1–100 kW	60%	AFC Energy
Direct methanol fuel cell	30-130 °C	25-5 kW	40%	SFC Energy
Phosphoric acid fuel cell	150–200°C	5–400 kW, 100 kW module (liquid PAFC)	40%	Doosan Corporation
Molten carbonate fuel cell	600–700°C	300 kW –3 MW, 300 kW module	50%	Fuel Cell Energy
Solid acid fuel cell	220-280°C	10W - 10kW	-	SAFCell Inc

Clean Energy - Battery Storage Systems

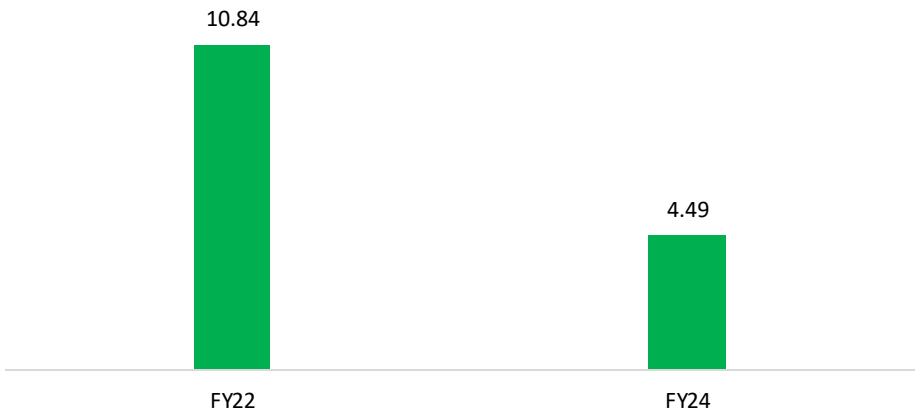
- The market for energy storage systems (ESS) has grown significantly in recent years, driven by the increasing integration of renewable energy sources **like solar PV and wind power into the grid.** Batteries, being the **most scalable form of grid-scale storage**, are essential for increasing the share of renewable energy in the overall power mix.
- Achieving carbon neutrality requires the large-scale deployment of variable renewable energy sources, such as solar and wind, alongside a significant increase in electricity demand due to electrification across sectors. As electricity grids rely more on intermittent renewable energy, energy storage becomes critical to manage supply disruptions.
- There is growing potential for both battery-based and non-battery storage solutions across various applications, **offering significant growth opportunities for market players.** Efficient energy storage solutions are gaining momentum, signaling a transformative shift in the power industry.
- The tariff for BESS projects has significantly decreased, reflecting the decline in battery prices. In August 2022, the tariff for the **first SECI tender was INR 10.84 lakh/MW/month, but by March 2024, it had fallen INR 4.49 lakh/MW/month** in a Gujarat tender, demonstrating the increasing competitiveness and affordability of energy storage projects.

Industry overview

Opportunity for MTAR in Battery Storage Systems

- MTAR has concluded discussions with **Fluence Energy, a company specializing in battery storage systems, to supply enclosures for their batteries.** Although Fluence Energy has not yet secured an order for Battery Storage Systems in India, it is **collaborating with Indian manufacturers to address the local market.**
- Custom duties on imported batteries in India make battery exports less competitive, prompting Fluence to collaborate with local manufacturers. This creates significant revenue potential for MTAR, should the deal with Fluence Energy materialize.
- MTAR has also initiated talks **with Enervenue, a company specializing in Hydrogen Storage Systems.**
- MTAR plans to significantly expand its **storage systems vertical over the next five years as part of its growth strategy in the sector.**

Exhibit 24: BESS Tariff (INR)



Source: industry, Economic Times

Clean Energy - Hydel, Wind Energy & Others

- Hydropower currently generates more electricity than all other renewable energy sources combined and is expected to remain the largest source **of renewable electricity into the 2030s.** It will continue to play a critical role in decarbonizing the power system.
- India views hydropower as a key renewable energy source in its transition away from coal and to manage fluctuations from intermittent solar and wind energy. **Currently, 15 GW of hydropower projec**ts are under construction in the country.
- India aims to increase its hydropower capacity **from 42 GW to 67 GW by 2031-32, marking an over 50% rise.** This expansion will significantly contribute to the country's renewable energy capacity and accelerate the adoption of renewables.

Opportunity for MTAR in the Hydropower Sector

- MTAR is currently serving major players like **Andritz**, **Voith**, and **GE Power** by supplying **complex fabricated products** such as **draft tubes**, **spiral casings**, and other components essential for hydropower projects.
- Strong future demand is expected in the **hydropower sector over the next decade.** Customers in this sector are likely to release more orders for **MTAR once the current orders are successfully executed.**

Industry overview

Space

- ISRO's achievements include the first-ever soft **landing of Chandrayaan-3 on the Moon in 2023, the successful launch of Aditya-L1,** India's solar observatory, and the ongoing development of the Gaganyaan mission for crewed spaceflight, expected by 2024.
- The Indian space economy, **valued at USD 8.4 bn currently, is expected to grow to USD 44 bn by 2033. India holds a 2% share** of the global space economy, including exports contributing USD 11 Bn.
- ISRO's future goals include interplanetary missions to Venus and Mars, as well as the development of reusable launch vehicles and human spaceflight capabilities.
- The Indian government is encouraging private sector involvement in space activities through **the creation of IN-SPACe, which facilitates private participation in space projects**. Key opportunities include **developing launch vehicles, satellites, and launching rockets developed by private players.**
- The Indian space industry has significant entry barriers due to the need for advanced technological capabilities, skilled workforce, manufacturing expertise, and state-of-the-art facilities.
- The space industry supplier ecosystem has few major players, each operating in niche, monopolistic segments of precision equipment manufacturing.
- New startups are entering the launch vehicle space, driven by the commercialization of space rocket engines, cryogenic engine subsystems, and electro-pneumatic modules. These are used in key missions like **Chandrayaan 3** and **Aditya L1**.

Opportunities for MTAR in Space segment

- The rising number of launches due to the success of ISRO's commercial missions will bring more orders to MTAR.
- MTAR aims to increase its wallet share by manufacturing additional components such as motor casings, light alloy structures, and thrust chambers, supported by its new sheet metal facility.

Exhibit 25: Indian space equipment market (INR Bn) by type, for FY17-FY25P

Segment	CAGR (FY17-FY21)	CAGR (FY21-FY25P)
Satellite	-7.5%	6.0– 7.0%
Launch systems	-26.5%	10.0 – 11.0%

Source: ISRO, CRISIL Research

Industry overview

MNC Aerospace

- The Indian government's focus on self-reliance is attracting global aerospace firms to look at Indian manufacturers as potential supply chain partners.
- Companies like **Boeing** and **Airbus** have been in India for over seven decades, supporting the development of indigenous aerospace and defense capabilities.
- Global aerospace firms are now viewing India as an alternative to China for manufacturing, particularly as part of the **"Make in India"** initiative.
- The growth of India's aviation industry is creating opportunities for local sourcing, skilling, and service support, all of which are crucial for companies looking to expand their operations in India.
- With India **producing 1.5 Mn engineers annually**, the country offers a massive talent pool, making it an attractive destination for aerospace multinational corporations (MNCs) to establish their R&D and manufacturing bases.

Opportunities for MTAR in MNC Aerospace

- MTAR expects **45%-50% growth from its MNC Aerospace vertical over the next 5 years,** following the completion of first article execution and transitioning to volume production.

Defence

- The Indian government aims to strengthen the defence sector by focusing on domestic production, with targets by 2028-29 to **triple annual defence production to INR 3 lakh Cr and double defence exports to INR 50,000 Cr.**
- In FY24, India's defence production amounted to **Rs 74,739 crore, a decrease from FY23's INR 1.09 lakh Cr.** The private sector's contribution increased to 22% of total production in FY24, up from 19% in FY23. The defence budget **for FY24-25 is INR 6.21 lakh Cr, reflecting a 4.72% increase from FY23.**
- India is focusing on strategic partnerships with foreign OEMs to expedite technology transfer and modernization. The emphasis is on indigenisation to reduce reliance on foreign suppliers, particularly in light of geopolitical tensions. Policy support includes liberalising procurement for startups and easing payment terms to foster innovation.
- The Ministry of Defence aims to achieve a **INR 1.75 lakh crore turnover in aerospace and defence manufacturing by 2025.** The private sector's role is growing, with expectations to account for over 50% of India's defence production in the next decade. Additionally, the government plans to allocate **75% of the capital acquisition budget for local procurement.**

Exhibit 26: Product portfolio

MTAR's portfolio spans crucial industries, ensuring that the company remains resilient against sector-specific downturns. The company has consistently leveraged its expertise in precision engineering to cater to mission-critical sectors, ensuring a strong position in the global market.

Clean Energy - Civil Nuclear Power

Fuelling Machine Head

MTAR has supplied Fuel Machining Heads for 220 MW and 700 MW civilian nuclear reactors. These systems are used for loading and unloading fuel bundles in the reactor core and require the manufacture and assembly of over 600 components.

Drive Mechanisms

The **Adjustor Rod Mechanism** and **Shut-Off Rod Drive Mechanism** are critical components in nuclear reactors. These mechanisms play a key role in regulating reactor operations and ensuring safe shutdowns during both normal and undesirable operating conditions.

Calandria Vault Top Hatch Cover Beams and Deck Plate Assembly

The Calandria Vault (CV) top hatch cover beam forms the roof of the CV, stiffened with heavy-density concrete to reduce gamma radiation emerging from the water in the CV above the Calandria. Along with deck plates, these beams minimize radiation exposure and support the reactor shutdown and control systems.

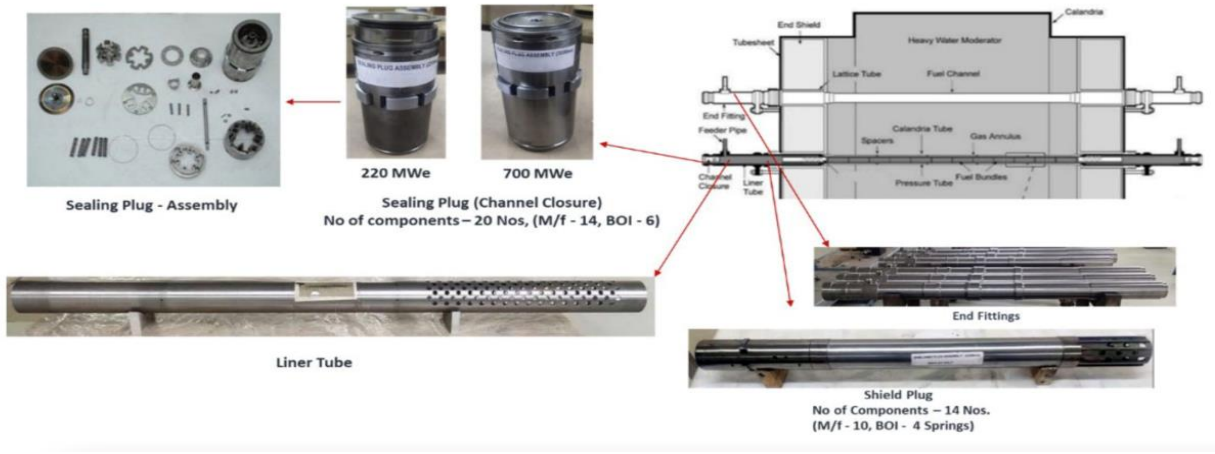
Bridge & Column Assemblies

MTAR has supplied Bridge and Column structures, measuring 12 meters in width and 15 meters in height, for civilian nuclear reactors. These are used to move the Fuel Machining Head horizontally and vertically, enabling the loading and unloading of nuclear fuel bundles. The manufacturing process requires a high degree of precision, ensuring a perpendicularity tolerance of just 1 mm between the two column structures.

Product portfolio

Clean Energy - Civil Nuclear Power

Coolant Channel Assemblies



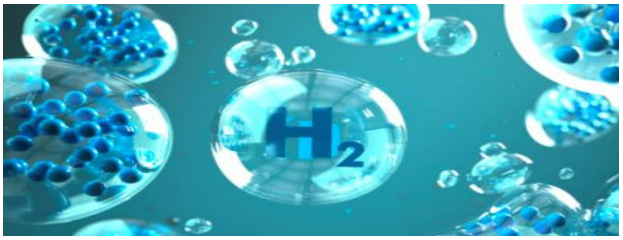
MTAR manufactures critical coolant channel assemblies for civilian nuclear reactors, consisting of components such as sealing plugs, shielding plugs, liner tubes, and end fittings. These assemblies, integral to the reactor core, involve the precise assembly of a large number of components.

Clean Energy - Fuel Cell, Hydel & Others

SOFC and hydrogen units

Power units, including models like Yuma (50 kW), Santa Cruz (65 kW), and Santa Cruz Block 2, used for stationary clean energy generation. Specialized units for green hydrogen production through electrolysis.

Electrolyzers



Devices for producing hydrogen from water using renewable electricity, enabling a transition to green energy. Electrolyzers aid in green hydrogen production, contributing to the decarbonization of industrial processes.

Stator Assemblies- Wind Energy

Rotor Assemblies- Wind Energy

Components for hydroelectric turbines, converting kinetic energy from water flow into electrical energy.

Product portfolio

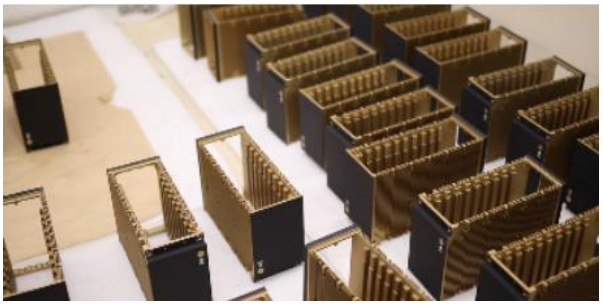
Space and MNC Aerospace

Products Supplied to ISRO

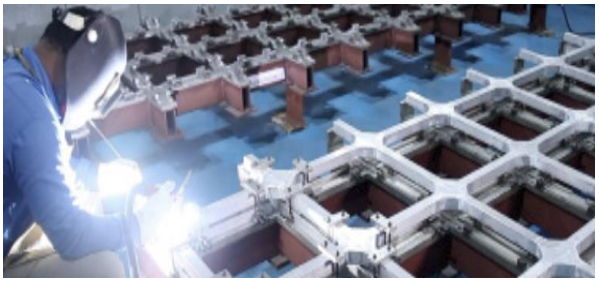
Grid Fin Structures for Gaganyaan, India's first human flight mission

Semi Cryo Engine - Enhances payload capacity of GSLV from 4 tonnes to 6 tonnes

High Precision Components and Aero Structures for global OEMs



Weldment Structures supporting aviation projects



Product portfolio

Defence

Helicopter Housing

Dalia Actuators- LCA Tejas

Aerostructures- Wing Kit Assemblies

Magnesium Gear Box

Products and others

Electro-Mechanical Actuators
Electro-mechanical actuators are used in Space and Defense sectors.

Valves
Developed for space and defence applications. Executed First Article orders for valves for the Navy.

Roller Screws
Completed the development of First Articles.

ASP Assemblies
Develops ASP assemblies, specialised product for Clean Energy - Fuel Cells sector

Risks and Concerns

General Risks

- MTAR's operations and performance could be adversely affected by changes in global and domestic economic conditions, including inflation, exchange rates, and interest rate fluctuations.
- The company's exposure to critical sectors like nuclear power, space, and defence involves inherent risks such as regulatory changes, geopolitical tensions, and government policy fluctuations.
- The company relies on specialized raw materials, a majority of which are imported. Any disruptions in the supply chain or price volatility in raw materials could impact margins and operational timelines.
- MTAR's business involves executing highly complex and precision-engineered projects. Delays in project timelines or quality issues could lead to cost overruns or loss of customer confidence.
- The sectors MTAR operates in require continual investment in advanced technologies. Failure to stay updated with technological advancements could affect the company's competitiveness.
- A significant portion of MTAR's revenue comes from a few key customers, particularly in the clean energy and fuel cell sectors. This dependence poses a risk if there are issues with these customers.

Financial Risks

- MTAR operates in a capital-intensive industry with high working capital requirements. Delays in customer payments or extended project timelines could stress cash flows.
- With substantial exports and reliance on imported raw materials, MTAR is exposed to risks from currency fluctuations, which may impact profitability. The development of new business verticals, such as oil and gas, involves higher upfront investments, which may pressure EBITDA margins in the short term.
- Operating in strategic sectors like nuclear power and defence necessitates strict adherence to regulations. Any non-compliance could lead to penalties or loss of business opportunities.
- International collaborations in aerospace and defence could be impacted by geopolitical tensions, sanctions, or export restrictions.

Market Risks

- The precision engineering industry is witnessing increased competition from domestic and global players. Competitors with cost advantages or advanced technologies could pose threats.
- The company's reliance on emerging sectors like clean energy and aerospace exposes it to risks from changes in industry dynamics or reduced demand for certain products.

Mitigation Strategies

- MTAR is actively diversifying its customer base and product portfolio to mitigate risks from customer or sector concentration.
- The company is implementing shop floor automation and reducing production cycle times to enhance operational efficiency and maintain competitive pricing.
- Continued investment in cutting-edge technologies and in-house capabilities helps MTAR maintain its leadership position in niche precision engineering.
- Expanding into new geographies and sectors like oil and gas minimizes risks from dependence on limited markets.

Management Team

Personnel	Designation	Description
P. Srinivas Reddy	Managing Director	P. Srinivas Reddy brings decades of experience in the precision engineering industry, particularly in sectors such as defense, aerospace, clean energy, and nuclear technology.
A. Praveen Kumar Reddy	Executive Director	A. Praveen Kumar Reddy, currently has over 22 years of experience with the company. He has held various roles across departments such as operations, supply chain, and business development.
M. Anushman Reddy	Executive Director	M. Anushman Reddy has around nine years of experience in the manufacturing sector. At MTAR, he oversees the exports division, contributing to the company's strategic expansion in global markets.
Gunneswara Rao Pusarla	Chief Financial Officer	Gunneswara Rao Pusarla has over 24 years of experience in finance, covering areas like strategic planning, profit & loss management, fundraising, financial accounting, and overseeing the establishment of new projects.
Arun Kumar Ojha	Chief Commercial Officer	Arun Kumar oversees business development and manages the multinational supply chain. With over 25 years of experience, Ojha has built his career in global supply chain management, manufacturing, and EPC
Raja Sheker Bollampally	Chief Operations Officer	Raja Sheker Bollampally overseess daily operational activities. He brings with him over 23 years of experience in operations management, including roles focused on enhancing efficiency and optimizing manufacturing processes.

Source: Company reports, Arihant Capital Research

Key Financials

Income statement (INR mn)

Year End-March	FY23	FY24	FY25E	FY26E	FY27E
Gross Sales	5,738	5,808	7,042	8,623	10,859
Net Sales	5,738	5,808	7,042	8,623	10,859
YoY (%)	*78.2%*	*1.2%*	*21.2%*	*22.5%*	*25.9%*
Adjusted COGS	**2,695**	**3,024**	**3,552**	**4,252**	**5,203**
YoY (%)	*131.8%*	*12.2%*	*17.5%*	*19.7%*	*22.4%*
Employee expenses	935	970	1,156	1,326	1,624
YoY (%)	*32.1%*	*3.7%*	*19.2%*	*14.7%*	*22.5%*
Manufacturing & Other Expenses	568	687	800	960	1,169
YoY (%)	*40.0%*	*21.0%*	*16.4%*	*20.0%*	*21.8%*
Total Expenditure	**4,198**	**4,681**	**5,508**	**6,537**	**7,996**
YoY (%)	*63.1%*	*-26.8%*	*36.1%*	*36.0%*	*37.3%*
EBITDA	**1,540**	**1,127**	**1,534**	**2,086**	**2,864**
YoY (%)	63.1%	-26.8%	36.1%	36.0%	37.3%
EBITDA Margin (%)	**26.8%**	**19.4%**	**21.8%**	**24.2%**	**26.4%**
Depreciation	187	232	320	360	389
% of Gross Block	*4.9%*	*5.1%*	*6.1%*	*6.1%*	*5.8%*
EBIT	**1,353**	**895**	**1,214**	**1,726**	**2,475**
EBIT Margin (%)	*23.6%*	*15.4%*	*17.2%*	*20.0%*	*22.8%*
Interest Expenses	146	223	171	154	139
Non-operating/ Other income	195	58	70	95	119
PBT	**1,402**	**730**	**1,113**	**1,667**	**2,455**
Tax-Total	368	169	299	450	659
Adj. Net Profit	**1,034**	**561**	**815**	**1,217**	**1,797**
Reported Profit	**1,034**	**561**	**815**	**1,217**	**1,797**
PAT Margin	*18.0%*	*9.7%*	*11.6%*	*14.1%*	*16.5%*
Adj EPS	33.6	18.2	26.5	39.6	58.4

Source: Company reports, Arihant Capital Research

Balance sheet

Year-end March (INR mn)	FY23	FY24	FY25E	FY26E	FY27E
Sources of Funds					
Equity Share Capital	308	308	308	308	308
Reserves & Surplus/ Other Equity	5,894	6,456	7,270	8,487	10,284
Networth	**6,201**	**6,763**	**7,578**	**8,794**	**10,591**
Unsecured Loans/ Borrowings/ Lease Liabilities	1,434	1,909	1,803	1,623	1,460
Other Liabilities	239	265	294	327	363
Total Liabilities	**10,633**	**10,077**	**12,186**	**13,608**	**15,792**
Total Funds Employed	**20,250**	**18,918**	**23,204**	**26,104**	**30,513**
Application of Funds					
Net Fixed Assets	**2,910**	**3,405**	**3,779**	**4,136**	**4,469**
Capital WIP	644	729	521	492	489
Investments/ Notes/ Fair value measurement	0	0	0	0	0
Current assets	**6,967**	**5,648**	**7,481**	**8,474**	**10,196**
Inventory	3,866	3,476	4,320	5,072	6,033
Days	177	231	224	215	203
Debtors	2,084	1,466	2,012	2,429	3,016
Days	110	112	104	103	101
Other Current Assets	382	112	146	189	246
Cash and Cash equivalent	312	508	892	639	712
Current Liabilities/Provisions	**3,416**	**2,078**	**3,440**	**3,701**	**4,130**
Creditors / Trade Payables	2,182	714	1,985	2,209	2,634
Days	79	123	114	111	107
Liabilities	559	392	491	619	704
Net Current Assets	**3,551**	**3,570**	**4,040**	**4,773**	**6,067**
Total Assets	**10,633**	**10,077**	**12,186**	**13,608**	**15,792**
Total Capital Employed	**7,082**	**6,506**	**8,145**	**8,836**	**9,725**

Source: Company reports, Arihant Capital Research

Key Financials

Cash Flow Statement

Year End-March (INR mn)	FY23	FY24	FY25E	FY26E	FY27E
Profit before tax	**1,034**	**561**	**815**	**1,217**	**1,797**
Adjustments: Add					
Depreciation and amortisation	187	232	320	360	389
Interest adjustment	-49	165	101	59	19
Change in assets and liabilities	**1,172**	**958**	**1,235**	**1,636**	**2,205**
Inventories	-2,162	389	-844	-752	-961
Trade receivables	-724	618	-546	-417	-587
Trade payables	1,612	-1,468	1,271	224	425
Other Liabilities and provisions	192	116	93	39	5
Other Assets	-153	232	-59	-77	-100
Taxes	150	-103	-87	-74	-101
Net cash from operating activities	**86**	**742**	**1,063**	**578**	**886**
Capex and others	-1,338	-812	-485	-689	-720
Net Sale/(Purchase) of investments	543	333	70	95	119
Others	0	-52	-4	-4	-4
Net cash (used) in investing activities	**-795**	**-531**	**-419**	**-598**	**-605**
Interest expense	382	-15	-261	-233	-208
Dividend paid	-185	0	0	0	0
Other financing activities	-30	1	0	0	0
Net cash (used) in financing activities	**352**	**-15**	**-261**	**-233**	**-208**
Closing Balance	**312**	**508**	**892**	**639**	**712**

Source: Company reports, Arihant Capital Research

Key Ratios

Year-end March	FY23	FY24	FY25E	FY26E	FY27E
Solvency Ratios					
Debt / Equity	0.2	0.3	0.2	0.2	0.1
Net Debt / Equity	0.2	0.2	0.1	0.1	0.1
Debt / EBITDA	0.9	1.7	1.2	0.8	0.5
Current Ratio	0.7	1.2	0.6	0.5	0.3
DuPont Analysis					
Sales/Assets	0.5	0.6	0.6	0.6	0.7
Assets/Equity	1.7	1.5	1.6	1.5	1.5
RoE	16.7%	8.3%	10.7%	13.8%	17.0%
Per share ratios					
Reported EPS	33.6	18.2	26.5	39.6	58.4
Dividend per share	0.0	0.0	0.0	0.0	0.0
BV per share	201.6	219.9	246.4	285.9	344.3
Cash per Share	4.0	12.8	22.4	16.0	17.9
Revenue per Share	186.5	188.8	228.9	280.3	353.0
Profitability ratios					
Net Profit Margin (PAT/Net sales)	18.9%	18.0%	9.7%	11.6%	14.1%
Gross Profit / Net Sales	53.0%	47.9%	49.6%	50.7%	52.1%
EBITDA / Net Sales	26.8%	19.4%	21.8%	24.2%	26.4%
EBIT / Net Sales	23.6%	15.4%	17.2%	20.0%	22.8%
ROCE (%)	18.7%	11.2%	13.9%	17.4%	21.2%
Activity ratios					
Inventory Days	177	231	224	215	203
Debtor Days	110	112	104	103	101
Creditor Days	79	123	114	111	107
Leverage ratios					
Interest coverage	9.3	4.0	7.1	11.2	17.8
Debt / Asset	0.1	0.2	0.1	0.1	0.1
Valuation ratios					
EV / EBITDA	34.2	47.0	34.2	25.2	18.3
PE (x)	49.8	91.9	63.3	42.4	28.7

Source: Company reports, Arihant Capital Research

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Stock Rating Scale	Absolute Return
BUY	>20%
ACCUMULATE	12% to 20%
HOLD	5% to 12%
NEUTRAL	-5% to 5%
REDUCE	-5% to -12%
SELL	<-12%

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