

AIA Engineering Ltd (AIAE)

Initiating Coverage

Rating: BUY (TP: ₹ 5,106)



AIA Engineering Ltd (AIAE)

Riding on conversion opportunity in high-chrome Media

We initiate coverage on AIA Engineering Ltd with a “BUY” recommendation and a target price of Rs 5,106/- per share. AIAE currently trades at 31X its EV/EBITDA Multiple. The company holds a strong position in a duopoly market, thereby commanding a premium. We value the firm by applying a 28X EV/EBITDA multiple to the EBITDA for year ended FY26E. We estimate value at Rs 5,106 per share. Our recommendation is primarily based on: 1) High chrome media offers opportunities for growth. 2) Mill Liners to enhances AIAE's value proposition. 3) Technical collaborations provide designing expertise.

High chrome media offers opportunities for growth: A Major growth driver for Company is the huge conversion opportunity available in the Mining Industry. The addressable market opportunity is around 2 million to 2.5 million tonnes of annual consumption for the three ores on which the Company is focussed upon, i.e. Gold, Copper and Iron Ore. The level of penetration of High Chrome Grinding Media is less than 15%, which offers a significant opportunity for growth through conversion from Forged Grinding Media to High chrome grinding media

Mill Liners to enhances AIAE's value proposition: Along with High chrome grinding media, the commissioning of a dedicated mill liner plant has enhanced AIAE's value proposition materially. Its solutions are now superior to peers in terms of lower wear rates, better through-puts, savings in capital and operating costs and improved ore recovery in down process. Similar to the market share dominance achieved by AIAE in the cement industry, it is poised to attain a similar leading market share in mining industry worldwide.

Technical collaborations provide designing expertise: The company has a technical collaboration with US-based EE Milling Solutions (EEMS), which has expertise in re-designing mill internals to optimize efficiency & output of grinding equipment. It also acquired Mining & Product Services (MPS) Australia in October, 2023, which specializes in design & optimization of mill liners for the mining industry. These collaborations will enable AIAE to increase throughput and recovery rates and generate better cost optimisation for its customers.

Valuation & outlook

We value AIA Engineering Ltd using the EV/EBITDA multiple, given the capital intensive nature of the business. AIAE currently trades at 31x its EV/EBITDA Multiple. The company holds a strong position in a duopoly market, thereby commanding a premium. Revenue/EBITDA/PAT have recorded a CAGR of 19%/20%/27% from FY21 to FY24. We are confident that EBITDA/PAT Margins will remain intact at 29%/24% in FY25E and FY26E, despite challenges in export due to the ongoing red sea crisis. We value the firm by assigning a 28X EV/EBITDA multiple to the EBITDA for year ended FY26E. We estimate value at Rs 5,106/- per share.

Key risks to our estimates are: Anti-dumping duties imposed by foreign countries, Prolonged supply chain disruption.

YE March	FY2021	FY2022	FY2023	FY2024	FY2025E	FY2026E
Net Revenues	30,537	37,228	51,433	51,352	50,932	58,945
EBITDA	6,552	7,209	12,406	13,338	14,901	17,383
EBITDAM (%)	21	19	24	26	29	29
Profit Before Tax	7,296	7,861	13,664	13,338	16,081	18,745
PAT	5,657	6,244	10,608	9,827	12,233	14,259
Minority Interest	(4)	(1)	6	(14)	-	-
Adj. PAT	5,661	6,245	10,603	11,414	12,233	14,259
PAT Margins (%)	19	17	21	22	24	24
EPS	60	66	112	121	128	151

Source: Company, ACMIIL Research

BUY

Target: ₹ 5,106/-

Key Data

Bloomberg code:	AIAE
Target price (₹)	5,106
CMP (₹)	4,386
Upside/ (Downside)	16%
Rating:	BUY
Shares outstanding (mn):	94.3
Mcap (Rs mn):	4,11,171
52-week H/L (Rs):	4,950/3,340

Price Performance (%)

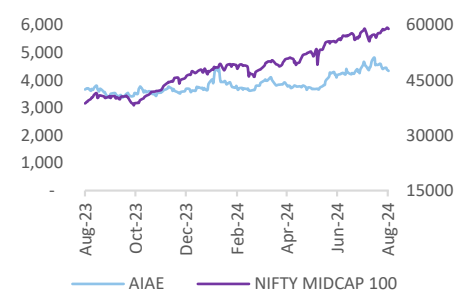
1 month	(4.6)
3 months	16.0
12 months	26.8

Shareholding Pattern (%)

	Dec'23	Mar'24	Jun'24
Promoter	58.5	58.5	58.5
FII's	17.7	18.2	18.3
DII's	21.0	20.6	20.5
Public/other	2.9	2.8	2.8
Pledge	-	-	-

Sources: BSE

Price performance: AIAE vs Nifty Midcap 100



Sources: NSE

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AIA Engineering Ltd (AIAE:IN)

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AIA Engineering Ltd (AIAE:IN)

Company Overview

AIA Engineering Ltd (AIAE) was originally incorporated in 1978 as Ahmedabad Induction Alloys Pvt. Ltd by Mr. Bhadresh K. Shah. Its business was manufacturing of wear parts for Cement and Power. It was on in 1985, that it began producing high chromium liners, level control diaphragms, and other diaphragms. In 1991, Ahmedabad Induction Alloys Pvt. Ltd was amalgamated as AIA Engineering Ltd, a distinguished entity having expertise in the design, development, manufacturing, installation and servicing of high chromium wear, corrosion, and abrasion resistant castings. In 2003, AIA Engineering Ltd. Incorporated Vega ME as a wholly-owned subsidiary Vega Industries.

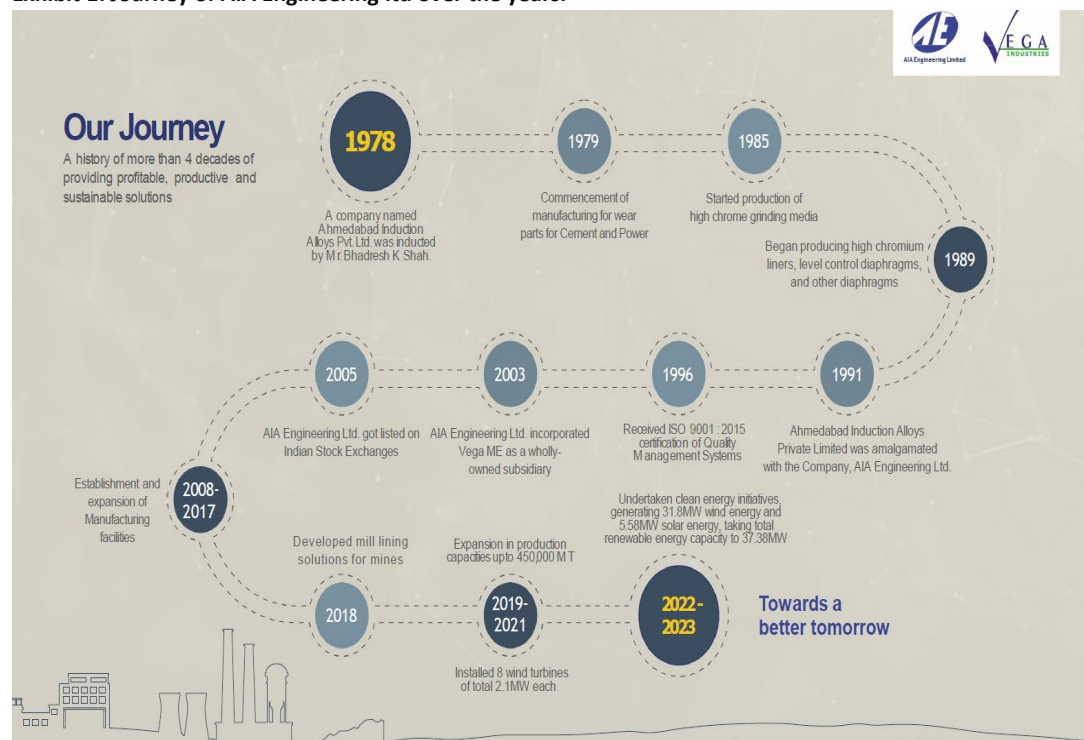
Today, AIA Engineering Ltd has earned its reputation as a reliable partner in the engineering industry, with an unwavering focus on precision in execution and maximizing cost efficiency.

AIA Engineering Ltd designs, manufactures and markets a wide range of consumable wear parts (Mill Internals) which are used in the process of crushing and grinding in Cement, Mining industries. AIAE partners with customers in these industries, process optimization journey, helping them improve operational parameters. It employs casting process for the manufacturing of these products.

In India, they service thermal power plants by offering similar solutions for grinding/crushing of coal/lignite used in the Boilers. In the Mining industry the level of penetration of High chrome wear parts (mainly High Chrome Grinding Media and Mill Liners) is around 25%, thereby leaving a considerable growth opportunity for conversion of the mines from the use of conventional wear parts (mainly Forged Grinding Media) into their High Chrome Grinding Media. AIA key focus at present is the Global Mining Industry with specific focus on Copper, Gold and Iron ore across all geographies where these metals are mined.

AIA Engineering Ltd operates in a duopoly market, with a significant market share across the globe

Exhibit 1: Journey of AIA Engineering Ltd over the years.



Source: Company

AIA Engineering Ltd (AIAE:IN)

Company Overview

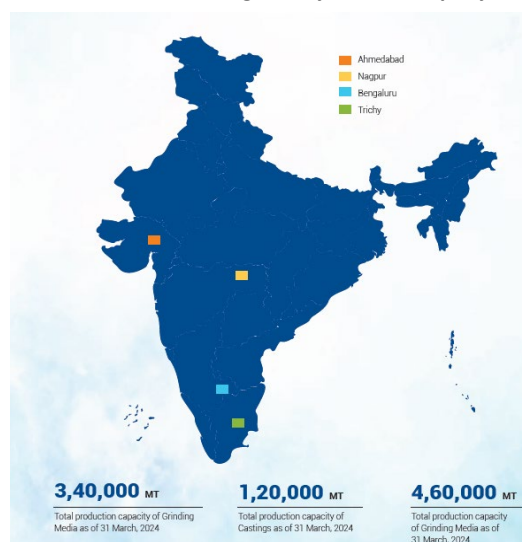
AIAE has manufacturing plants located at Ahmedabad, Nagpur, Bengaluru and Trichy with total installed capacity of 4,96,000 MT at the end of Q1FY25. The company has recently commissioned liners, with a capacity of 50,000 MT, while another greenfield plant of 80,000 MT grinding media is scheduled for commissioning by end of FY25. Post the installation of the plant, the enhanced total capacity of AIAE will increase to 5,20,000 MT, from the existing capacity of 4,40,000 MT. This shall enable AIAE enhance its sales volume in the coming years.

Exports contributed to around 72% of the total revenue in FY24

While all the products are manufactured domestically, most of the revenue which the company generates is from the international markets. Exports contributed to around 72% of the total revenue in FY24. AIAE offers its products and customer support globally through its wholly-owned subsidiary Vega Industries (Middle East) FZC, which in turn has many step-down subsidiaries in various geographies.

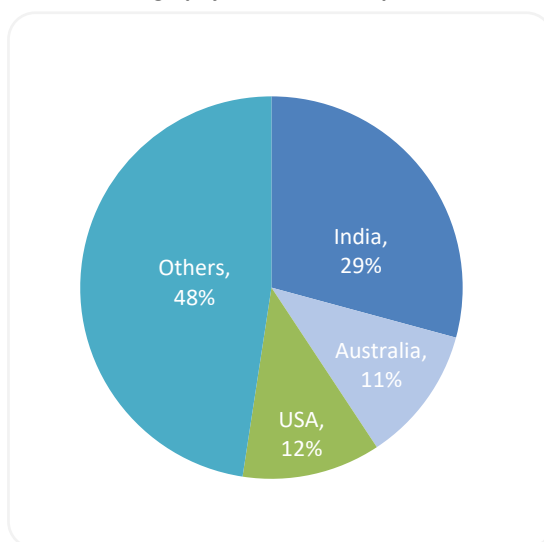
The specialisation of AIA Engineering Ltd, lies in the company's ability in execution and precision. In order to achieve this, AIAE usually engages with a customer over a period of 18 months to 36 months. The solutions provided tend to vary, basis the requirements and the industry it caters to. AIAE focuses on strategic solutions, with the goal to develop a site by performing trials and establishing optimal chrome grade for that set of operating conditions.

Exhibit 2: Manufacturing facility of the company



Source: Company, ACMIIL Research

Exhibit 3: Geography wise Revenue split in FY24



Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Product Portfolio

Manufacturer of a wide range of consumable wear parts for the cement and Mining industry

Special grades of High chrome balls are selected basis the application. Physical properties are designed to resist impact

The solutions offered by AIA Engineering Ltd are tailored according to the industry it serves, namely; Cement, Mining and Quarry. In India, AIAE extends its services to the Thermal Industry.

1) High Chromium Cast Grinding Media:

Grinding Media plays a critical role in the Ball Mill operations as it is the only Mill Internal contributing to energy / specific power consumption. AIA Engineering Ltd./ Vega Industries is globally the largest producer of High Chromium Grinding media. As a pioneer in this field AIAE adds value to this product with its decades of experience and expertise. It has dedicated high pressure molding lines for higher and lower size Grinding Media, resulting in the required soundness of the products.

Big balls, ranging from 100 mm to 60 mm, are essentially used in the first chamber of the mills for crushing the feed material. These balls impart potential energy for crushing and are thus required to possess a combination of wear and impact resistance.

Big balls are manufactured on horizontal molding lines, ensuring good internal soundness, minimum inclusions, and good as-cast metallurgical structure.

AIA Engineering Ltd. / Vega Industries have special grades suiting various applications. Physical properties are meticulously designed to resist impact wear. High chromium balls are eco friendly grades for reduction in Chromium hazards.

Perfect metallurgical controls which ensures optimum combination of hardness, retained austenite (RA) and microstructure finished balls are subjected to rigorous test mill run.

Vega is in technical partnership with mining companies globally to solve challenges faced by them. AIA Engineering Ltd offers solutions from grinding process to down-stream process optimization.

Vega Industries is globally the largest manufacturer of high quality wear resistant parts and is ISO 9001:2015 certified.

Features:

- Optimum metallurgy.
- High hardness across cross-section.
- Wide range of alloys.
- Higher pressure molding systems.

Exhibit 4: Grinding media Alloys

Alloy Grade	%C	%Cr	Hardness	Application
Vega Tough	VT18 VFx VEGAPlus	2.0 - 3.5	12--22	Crushing
Vega Hard	VH12 VH15 VSx	2.5 - 3.5	10--21	Grinding
Vega Hard	VH27	2.5 - 3.0	25 - 28	Specific applications

Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Product Portfolio

2) Mill Liners

Mill internal design plays an important role in production efficiency. They not only protect the mill shell but also transfer the energy from the mill shell to the rotating charge of grinding media. The internal castings contribute up-to 5% of the Ball Mill operating cost while the remaining 95% is from consumption of energy.

AIA Engineering products follow the golden triangle philosophy of Design, Metallurgy and Application for tailor-made solutions based on multiple parameters such as feed characteristics, product specification and operating conditions, thereby resulting in:

- Improved operating life and mill availability.
- Savings in power consumptions to the tune of 5% – 10%.
- Savings in operations and maintenance costs.
- Ease in installation with bolted and semi boltless configuration.

Mill Liners are further categorised into three different types namely: First Chamber, Mono Chamber and Tube Mill Diaphragms.

Exhibit 5: Types of Mill Liners

Step and Wave	Double Wave Liner	Universal VEGA Liner
Continuous lifting action suitable for soft to medium operating conditions	Higher crushing efficiency and reduced specific power consumption	Varying combination liner profile available for same chamber
Reduced slippage of ball charge	Suitable for medium to hard feed conditions	Reduces inventory cost due to mill interchangeability
Easy installation	Reduced dead zone with expanded ball charge	Light weight, easy handling, faster installation
Higher mill availability with reduced maintenance in semi boltless / boltless configurations	Uniform throughput through out the life time	

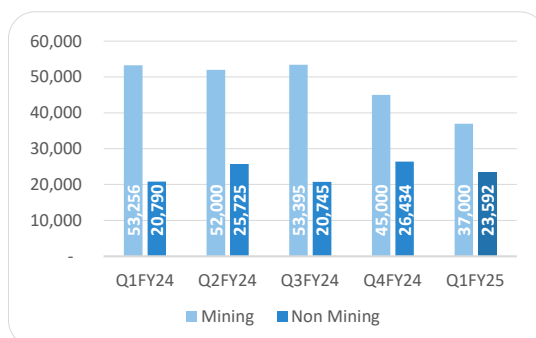
Source: Company

Pivotal role in India's cement industry as world's 2nd largest supplier.

Volume from Mining Industry have reduced in Q4FY24 and Q1FY25.

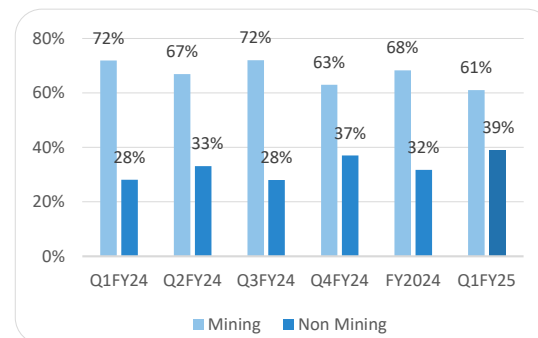
As a percentage of total, volumes from Non-mining have risen in Q4FY24 and Q1FY25.

Exhibit 6: Mining Vs Non- Mining (Volume in MT)



Source: Company, ACMIIL Research

Exhibit 7: Revenue mix from Q1FY24 to Q1FY25



Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Commodity Pricing

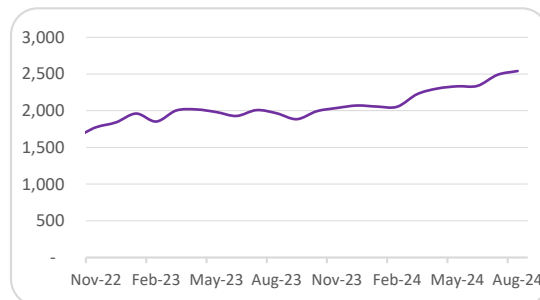
The past couple of years has been eventful, starting with supply-chain disruptions in the aftermath of the pandemic, the Russia-Ukraine war that triggered a global energy and food crisis, and a considerable surge in inflation, followed by a globally synchronized monetary policy tightening.

The middle east continues to be at precipice on account of scrimmage between Israel and Hamas. This has further interrupted trade in Red Sea, leading to uncertainties and rising costs to sea borne trade. The world is still not close to being normalised with fear still occupying minds of decision makers.

Prices of major commodities, including metals have showed erratic movements though the year and soared to even higher prices vs those witnessed during the Pandemic.

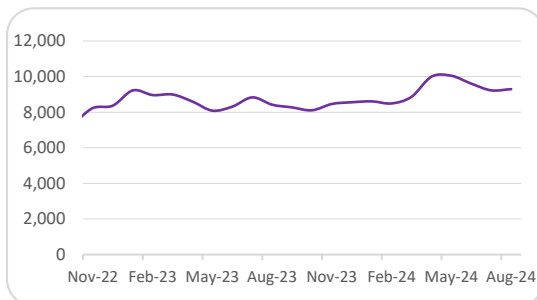
Prices of Iron ore, copper and gold have remained stable in Q1FY25.

Exhibit 8: Gold Price Movement (USD).



Source: Company, ACMIIL Research

Exhibit 9: Copper Price Movement (USD).



Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Cement: Industry Overview

The cement industry globally is expected to grow at a CAGR of 5.1%.

AIA Engineering Ltd (AIAE) services the Global Cement and Mining Industries. Thus, the financial performance of AIA Engineering is depend on the performance of both these industries.

Cement Industry:

Global Cement Market Trends:

Market Growth: The global cement market is expected to grow from \$340 billion in 2022 to \$482 billion by 2029, at a CAGR of 5.1%. This growth is driven by rising population, increasing demand for residential construction, and infrastructure investments.

Regional Performance: While the global market is growing, the rate of growth is slower outside specific high growth regions. The cement industry globally is projected to see flat to low growth overall, with a significant focus on High chrome consumable wear parts.

Cement Industry in India:

Cement sales in India have seen a consistent growth rate of 9.7% YoY from FY14 to FY24

Market Size and Growth: India's cement industry is expected to grow from ~4 billion tones in FY24 to 7 billion tones by FY32, with a CAGR of 6.53%. This is higher than the global average and indicates a strong domestic demand driven by infrastructure and residential projects.

Financial Performance: Cement sales in India have seen a consistent growth rate of 9.7% YoY from FY14 to FY24, driven largely by infrastructure investment and mass residential projects.

Government and Private Investment: The Indian government's emphasis on building highways and infrastructure, coupled with private investment in capacity expansion, is expected to sustain high growth in cement demand.

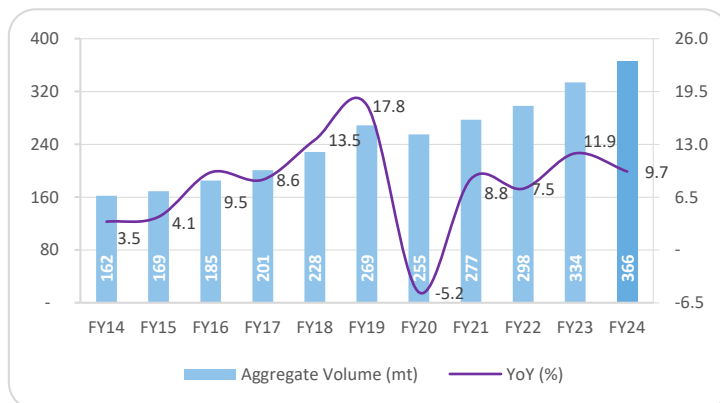
Opportunities and Challenges:

Market Opportunity: The opportunity for cement-related products is estimated between 3 lakhs to 3.25 lakhs tons per year. If we exclude China (as market continues to remain inaccessible) , the opportunity ranges from 1.8 lakh tons to 2.2 lakh tons per year.

Wear Parts Demand: The cement industry's demand for high-chrome wear parts is increasing, particularly in India and East Asia. However, compared to mining, the absolute consumption of these wear parts is lower, leading to only marginal increases in volumes for suppliers like AIAE.

Summary: While the global cement industry shows steady growth, India stands out with its rapid expansion and significant infrastructure investment. For companies like AIAE, this presents opportunities for growth, particularly in wear parts, though the relative scale compared to other sectors like mining may be smaller. In India, AIAE has almost captured the entire market, hence scope for growth remains negligible.

Exhibit 10: Domestic market: Aggregate volume growth over the years.



Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Mining- Industry Overview

Copper consumption is expected to grow manifold in the coming years

Globally, the Mining Industry is growing at the rate of around 3% to 4% per year since FY2020, and has remained largely unaffected from the disruptive factors which impacted other economies as fallout of the geopolitical tensions, particularly considering the fact that mining Industry is concentrated in certain regions like North America, Latin America, Australia, Africa, Far East, China and CIS countries and has a very little presence in Europe.

Copper and Gold have continued to remain extremely bullish, whereas Iron ore, the base metal has witnessed mild yet steady growth trend. Copper consumption is expected to grow manifold in the coming years, given the increased focus in the Global markets on Environmental Protection and sustainability.

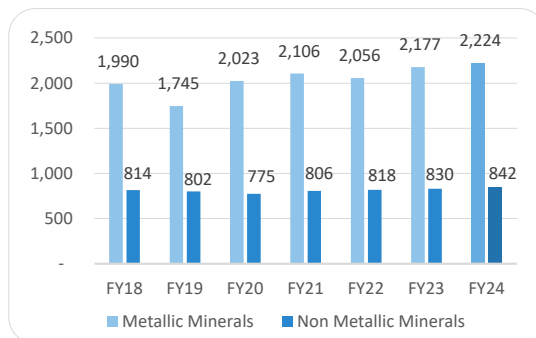
Note: The Miner processing industry typically grows 300-400 bps faster than the growth witnessed by the underlying commodity due to de-gradation of ores leading to declining yields.

India is a global force in the metals and mining sector, as India is the second largest producer of steel in the world. In FY23, exports of finished steel stood at 6.72 million Ton's.

Over the years, India has seen a strong growth in the metals and mining sector. The Gross Value Added (GVA) from mining and quarrying in FY23 stood at \$ 38 billion, with mineral production standing at ~ \$15 billion. Aluminum, Iron ore, Copper and Gold continue to witness increase in production due to rising in domestic demand. Growing infrastructure investment, sustainable growth in the automotive industry and increase in power consumption are key drivers for growth within this sector. Metals such as Aluminum and copper shall witness multifold increase in production due to its usability across a wide spectrum of industries. We continue to believe that not only base metals, but also precious metals will see increased demand in the coming years. The South Asian monsoon, a key driver of Indian rural buying during the wedding and festival season in Q1FY25, has progressed well with rainfall above the long term average which should continue to support demand.

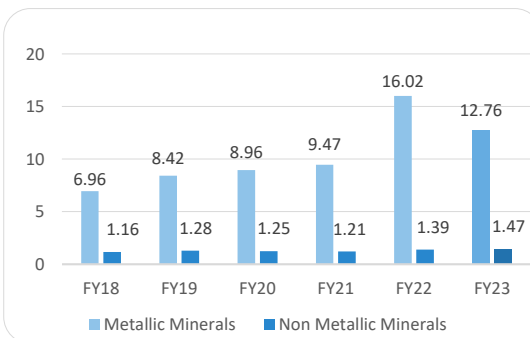
Growing infrastructure investment shall promote increased production of Metals

Exhibit 11: Global Production of metallic and non-metallic minerals (Billion Kg)



Source: Company, ACMIIL Research

Exhibit 12: Domestic production of metallic and non-metallic minerals (US\$ Billion)



Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Rising demand for HCMIs from cement production facilities and power plants is estimated to drive sales

Total market size for grinding media stands at \$ 4.5 billion

Total market size for Mill Liners stands at 1,800 (\$ Mn)

High Chrome Mill Internals

Global high chrome mill internals (HCMIs) market size was \$1.45 billion in FY2023 and is projected to touch \$ 3.23 billion by the end of FY2032, i.e. a CAGR of 9.3% during the forecast period. Rising demand for HCMIs from cement production facilities and power plants is estimated to drive sales. Emergence of several construction processes and increasing government incentives is expected to govern its adoption.

Demand for Chrome material will get a boost from evolving consumer preferences and adoption of advanced housing facilities. HCMIs produce excellent materials that are free of impurities, which, in turn, increases its demand from the construction industry. Higher investments in the construction of green buildings are expected to boost the product's demand. The demand for the material will also be influenced by increasing population in developing countries and adoption of the product in several mining sectors - which would enhance the extraction process and reduce time and resource consumption.

As HCMIs possess excellent strength and complete the extraction process with efficiency, increasing demand for steel, aluminium, and other materials from industries is projected to propel the demand for the product dramatically. Further, its longer shelf-life and excellent properties prevent damages and improve safety during extraction processes.

Asia Pacific is expected to dominate the high chrome mill internals (HCMIs) market because of its increasing demand from the construction sector, along with rapid urbanization, increasing population, and infrastructure development. The emergence of several cement manufacturers and significant investments in the creation of renewable energy will help scale up demand for this material.

Exhibit 13: Market dynamics for grinding media.

Market assessment	Cement	Mining
Total market volume (MT)	0.3	3
Total market size (\$ Mn)	450	4000
Focus market for AIAE (MT)	0.3	2.5
Target product segment for AIAE	High chrome	High chrome
Penetration levels of target segments	95%	20-25%
Growth opportunity	Low	Strong

Source: Company

Exhibit 14: Market dynamics for Mill Liners.

Market assessment	Mining	Comment
Total market size (USD Mn)	1800	Rubber, Metallic and Composite
Target product segment (AIAE)	Metallic Liners	Solution for SAG mills
Target market size (AIAE)	0.3 MT	FY24 sales: ~ 25,000 MT
Target market size (AIAE)	US\$ 900mn	
Growth opportunity	High	Due to very low market share

Source: Company

AIA Engineering Ltd (AIAE:IN)

Business Strength

Customized and engineered nature of product

AIAE is India's largest and world's second largest manufacturer of impact, abrasion and wear resistant, High Chrome Mill Internals (HCMI). Its products include: grinding media/grinding balls, mill liners and other mill internals for use in the grinding and crushing mills. AIA Engineering Ltd operates in a niche market, with a specific target audience and target industry. Cement, Mining and Thermal (only in India) are the sectors to which the company caters.

Since the ores of even the same commodity vary significantly from one site to another the metallurgy of the consumables needs to be customised for each site and each ore. Their design needs to be optimised to improve the efficiency of grinding, reduce power consumption and improve the flow of materials through the mill. The design of mill liners needs to be optimised to have the right amount of lift of grinding media in the mill and to ensure that the drop/impact of the media is on the ore and not on the liner. If the grinding media do not drop on the ore then the efficiency of grinding is compromised.

Dominance in cement industry; emphasis on increasing penetration in mining industry.

Over the decades, AIAE has developed technical expertise in metallurgy, grinding applications and component design for tube and vertical mills used in the cement sector. AIAE has achieved a dominant 95-97% market share in India and 30-35% market share worldwide (ex-China) in the cement sector. Over the years, cement sector has matured and attained full penetration of high chrome media owing to its various benefits.

The mining sector is still in the process of gradually transitioning from conventional forged media to high chrome media. The current penetration of high chrome media is only ~ 20%, This offers strong and prolonged growth potential as:

- Consumption volumes of grinding media is 10x in mining compared to cement.
- In Mining, cost saving for a customer is significantly higher as cost of wear parts is 8- 10% of total production cost as compared to 2% in the cement industry.

Customer base largely remains sticky

Mining sites do not tend to easily switch to a substitute supplier due to the high cost of initial planning involved, lead time required for approvals, degree of certainty of the products of an established supplier, high cost of downtime of a site, and relatively lower percentage cost of components in the total operating costs of a mineral processing site. It takes up to 18 months to become an approved supplier once approved by a customer and these approvals do not have an expiry period. Hence, acquisition of new customers is challenging. However, once customers are acquired, they are more likely to continue to be associated with AIAE over a longer period of time.

Play on OPEX Cycle

Manufacturers of grinding media, mill liners and other consumables primarily cater to the after-market spends of a mineral processing unit. The life of these consumables typically varies from 6 months to 2 years based on the hardness of the ore to be refined. After-market spend is typically three times the upfront capex spend over the lifecycle of a mill, and is a recurring cost for miners.

Achieved dominance in the cement sector in India with 97% market share

Consumption volumes of grinding media is 10x in mining compared to cement.

Under manufacturing segment, textile has the highest share, followed by Infrastructure.

AIA Engineering Ltd (AIAE:IN)

Mining industry stands to gain as the demand for Copper, Iron Ore and Gold is expected to increase.

Metals are mined in the LATAM region, hence demand for products offered by AIAE is usually skewed to those regions.

Volumes shall revive in Q2FY25 as AIA tackles challenges faced in the Red Sea.

Opportunity in the Mining Industry

Major growth driver for Company continues to be the huge conversion opportunity available in the mining industry.

Copper and gold mine processing sites are key consumers

Customers for AIA Engineering are copper and gold mine processing sites. Since the mined material is substantially abrasive; the yield per ton of ore mined in these two segments is dropping due to mineral degradation and excess mining in the past. Mill liners typically last between 6 months and 2 years, depending on the hardness of the ore to be refined. The life of grinding media depends upon the volume of impact and abrasion of the media.

Demand is primarily driven by LATAM countries

Demand for High Chrome Grinding Media and Mill Liners is primarily driven by LATAM countries. These countries account for 40% of global copper production and 8% of global gold production, largely due to the presence of large copper and iron ore mines in the region. China accounts for ~ 10%. Demand of mill consumables like grinding media and liners is higher in replacement against newly installed grinding machine. The ratio is expected to be about 70% to 80% from replacement and 20% - 30% from new installed machines.

The Global grinding media market is estimated to stand at \$4 billion

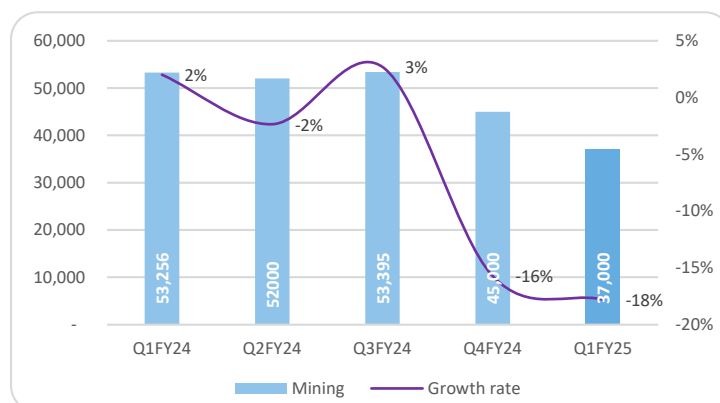
The global grinding media market is valued at \$4 billion, with an annual volume generation of 3 million MT. Gold, copper, and iron ore (target market for AIAE) are key contributors, accounting for around 2.5 million MT of demand for grinding media. With its superior quality product, AIAE has converted about 20% of the Total Addressable Market (TAM) to high-chrome grinding media. The high chrome grinding media market is a duopoly market, dominated largely by Magotteaux and AIAE. With more than 80% of the market available, there is substantial room for further conversions. The ability to convert potential customers to key customers over time remains a growth opportunity for AIA Engineering Ltd.

The global mill liner market is estimated to stand at \$1.8 billion

The Global Mill Liner market is valued close to \$1.8 billion and is largely driven by ore beneficiation in gold and copper globally, along with iron ore in Brazil and China. The market is Oligopolistic in nature with the top 5 producers, namely Metso- Outotec, Me Elecmetal, Bradken, PT Growth and Tega Industries, accounting for 50% market share. Of the total market of \$1.8 billion, AIAE addresses the Metallic liner market for large diameter SAG mills, valued at ~ \$900 million. AIAE is manufacturing and supplying Metal Liners on unique patented Mill Liner design licensed by the Company as well its own proprietary designs, which helps the Company in offering multiple advantages including improved throughputs and reduced power costs. The combined manufacturing capacity for Mill Liners stands at 80000 MT, including the newly commissioned plant facility with capacity of 50,000 MT.

Despite the fall in total sales volume in the mining industry over the past five quarters, AIAE remains highly optimistic about the long-term growth prospects.

Exhibit 15: Total Sales Volume in Mining Industry (MT)



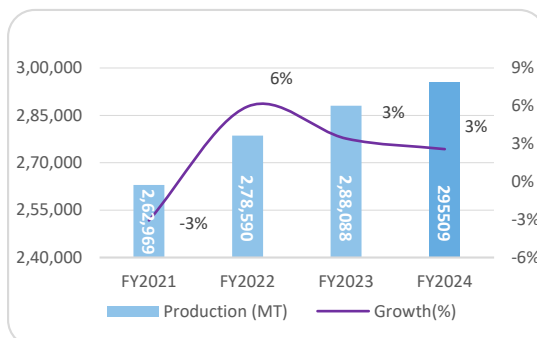
Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Story in Charts

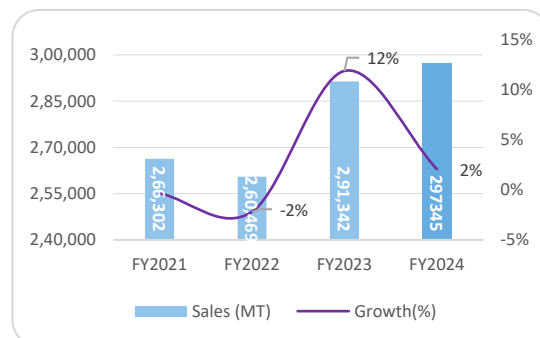
Production and sales volume have remained stable from FY21 to FY24

Exhibit 16: Production Volume (MT)



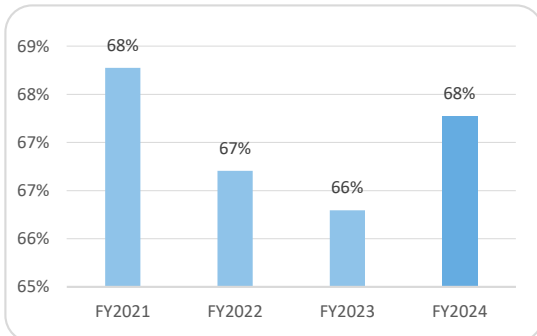
Source: Company, ACMIIL Research

Exhibit 17: Sales Volume (MT)



Source: Company, ACMIIL Research

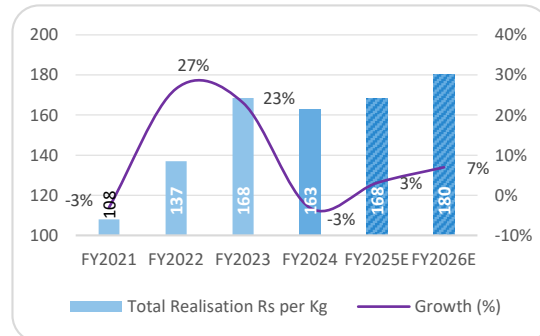
Exhibit 18: Peak capacity utilisation from FY21 to FY24.



Source: Company, ACMIIL Research

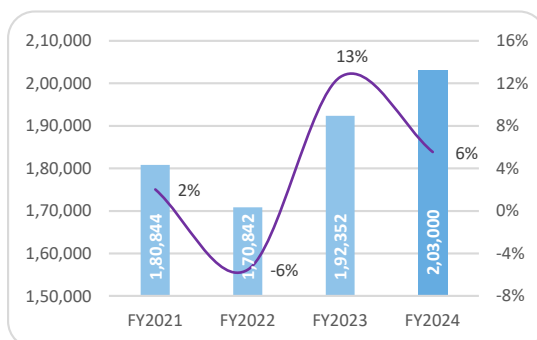
Peak capacity utilisation of 68%, with higher realisation per Kg, from FY21 to FY24.

Exhibit 19: Realisation (per Kg)



Source: Company, ACMIIL Research

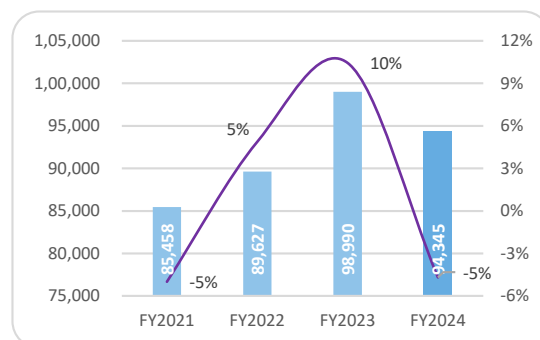
Exhibit 21: Total Volume from Mining Industry from FY21- FY24



Source: Company, ACMIIL Research

Mining industry had higher volumes as compared to Non-mining industry, from FY21 to FY24.

Exhibit 20: Total Volume- Non Mining Industry from FY21- FY24

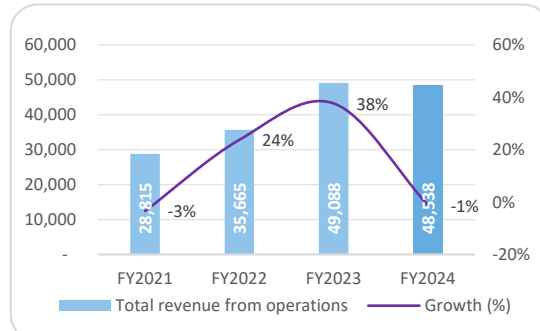


Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

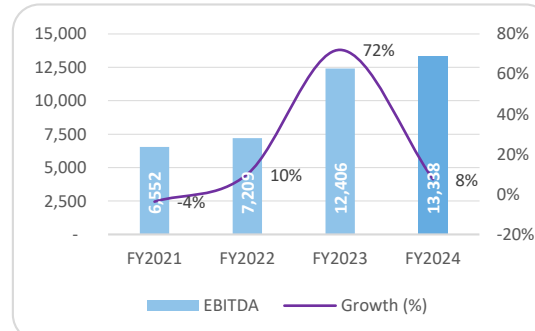
Story in Charts

Exhibit 22: Revenue growth at a CAGR of 31% from FY21-FY24



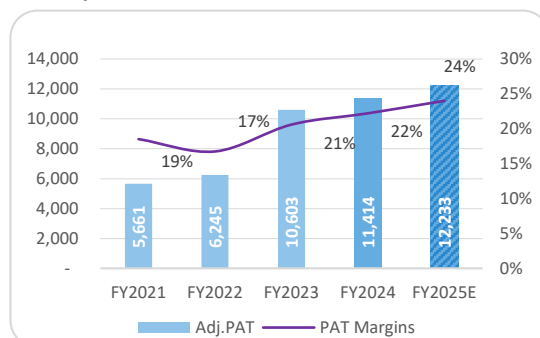
Source: Company, ACMIIL Research

Exhibit 23: EBITDA growth at a CAGR of 38% from FY21-FY24



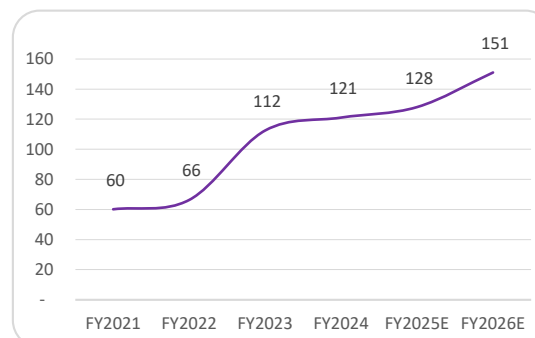
Source: Company, ACMIIL Research

Exhibit 24: PAT/PAT margins remain stable with a positive bias



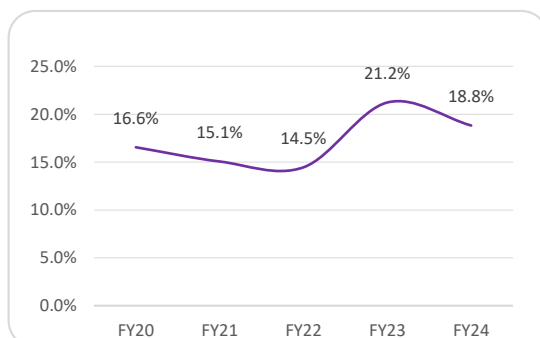
Source: Company, ACMIIL Research

Exhibit 25: EPS- CAGR of 20% from FY21 to FY26E



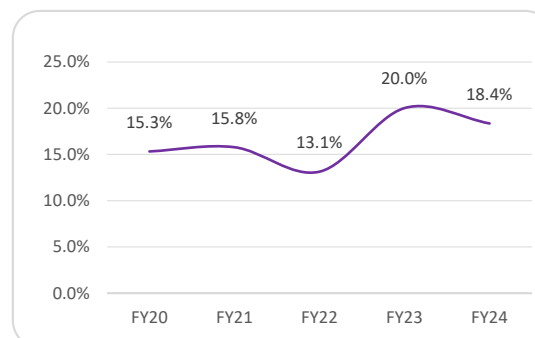
Source: Company, ACMIIL Research

Exhibit 26: ROE for FY24 stood at 18.83%.



Source: Company, ACMIIL Research

Exhibit 27: ROCE declined marginally in FY24



Source: Company, ACMIIL Research

Annualised Revenue/
EBITDA growth of 31%/38%
from FY21 to FY24.

Margins have shown good
consistency over the years
reflecting ability to pass on
variations in raw material
and freight costs.

ROE and ROCE declined
marginally in to 18.8% and
18.4% respectively, in FY24.

AIA Engineering Ltd (AIAE:IN)

Peer Comparison

AIA Engineering Limited (AIAE) is a dominant player in High Chrome Mill Internals (HCMI), a Global Duopoly. Its immediate direct competitor is Magotteux Ltd, listed in Santiago, Chile. As there is no domestic competitors, we have considered companies with the Castings & Forgings industry as our closet comparable peer. In the casting and forging industry, Ramakrishna forging, Bharat Forge and Happy forging are the closest competitors, given the Market capitalisation and the industries they cater to.

Across most parameters, AIAE has performed better than its closest competitors.

Peer Comparison

Company	EBITDA Margins	ROE	P/E Ratio	P/B Ratio	EV/EBITDA
Bharat Forge	17.0	11.6	76.4	10.3	27.4
AIA Engineering	27.6	17.6	36.4	6.2	25.7
CIE Automotive	15.1	9.1	27.1	3.6	14.6
Ramakrishna Forging	21.0	18.8	50.5	6.5	30.7
Happy Forgings	28.0	20.5	45.9	6.9	27.8
Kennametal India	15.6	15.1	68.6	9.5	37.4
Rolex Rings	21.6	26.6	37.9	7.4	28.7
Median	21.0	17.2	45.9	6.9	27.8

Source: Company, ACMIIL Research

- Companies within this industry trade at a median EV/EBITDA of 28X. AIA Engineering Ltd has performed better than its peers in FY24, with EBITDA margins and ROE of 28% and 18% respectively as compared to the Industry Median of 21% and 17% .
- AIA Engineering Ltd trades below the median P/E multiple and P/BV multiple of the industry.
- AIA Engineering operates in a niche market and has created a space of its own. We are confident that the company will continue to grow in FY25E and FY26E with EBITDA/PAT margins remaining intact.

AIA Engineering Ltd (AIAE:IN)

Q1FY25- Con call Highlights

Business Highlights:

- Approximately 4,000 MT of volumes were deferred from Q1 to Q2 due to invoicing delays.
- Around 3,000 MT of volume could not be shipped because of container shortages, particularly affecting the Americas region.
- Non-mining volumes were shifted due to cyclical work patterns
- Higher revenue in Q1 was driven by an increased share of casting, which has higher prices.
- The working capital cycle has lengthened due to seasonality and increased stock levels.
- Business uncertainty from a customer perspective is due to container shortages and volatile pricing, affecting the conversion of forged media to high chrome media.
- Net cash stands at ₹ 35 billion, which will be adjusted for dividend payouts and buybacks.
- Capex for FY25 includes ₹ 350 million for captive power, ₹ 650 million for mill liners, and ₹ 1.5 billion the first phase of grinding media expansion.
- Freight costs from India to Latin America have increased multifold (4X), and availability of container remains a challenge. (Likely to affect many companies). This has resulted in increase in shipping time from ~ 30 days to greater than two months.
- AIAE operates on a cost-plus model, so increased freight costs are fully passed through.
- There is uncertainty whether targeted volume growth of 30,000 MT can be achieved in FY25E. The management believes it will have more clarity in Q2FY25E.
- The logistics problem is more severe than initially anticipated, prompting a serious evaluation of various long-term solutions, with warehousing being a potential but not guaranteed solution.
- While supply to existing customers remains stable, converting new customers to high chrome media remains challenging.
- Attempts to delist its subsidiary, Welcast, were unsuccessful. Sourcing from Welcast will continue but at lower levels until the company finds an alternative solution. Hence, volumes from Welcast will be maintained at minimal levels.

Capacity Expansion:

AIA Engineering Ltd has undertaken a brownfield expansion at its GIDC Kerala factories with an estimated capital investment of ₹ 650 million. This expansion will create facilities for the production of specialty lightweight metal, composite mill rubber and composite liners, increasing its capacity by 20,000 MT/ year. The new facilities will support the existing metal lining business and create additional opportunities in the rubber/composite liner sector for certain mills. The brownfield expansion is anticipated to be completed by the end of Q3FY25.

Total Volume impact of
7,000 MT in Q1FY25

The management is uncertain
if AIAE can achieve its target
volume growth of 30,000 MT
in FY25.

New conversions are
challenging. However, existing
customer base remains stable

AIA Engineering Ltd (AIAE:IN)

Q1FY25- Con call Highlights

Grinding Media

- There are no new updates on the USA litigation, and supply continues as usual.
- The investigation in Canada has concluded, while the USA investigation is ongoing.
- Significant opportunities exist in copper, gold, and iron ore sectors.
- AIAE is active in all major gold and iron ore mines, with a goal to increase its presence across the globe.
- In copper, AIAE has a smaller market share but is working to expand its presence in large copper mines.
- Switching to AIAE's comprehensive solutions can offer customers wear parts savings of 20% to 40%. Including power savings and throughput improvements, a copper customer could save between \$2 Mn- \$3 Mn on the lower end and up to \$ 150 Mn on the higher end.
- In Brazil, the duty on imports (ADD + CVD) has decreased from 11.8% to 6.5% due to the termination of ADD, presenting a volume opportunity of 20,000 MT from existing clients.

Cement industry: The global market is 300,000 MT, with 180,000 MT outside of China. AIAE holds a 33-35% global market share and 95% in India, selling approximately 80,000 MT annually. The entire global market is now high chrome, with AIAE operating in over 125 countries.

Mining industry: The market across copper and gold is 2 million MT, with 25% converted to high chrome. AIAE is present in more than 25 countries, focusing on North America, Latin America, Africa, CIS, and Far East regions such as the Philippines, and is engaged with over 100 mining sites globally.

Mill Liners

- Offering both rubber and composite mill liners is crucial for AIAE to be perceived as a comprehensive solution provider for both SAG and ball mills.
- AIAE's products are uniquely designed to enhance efficiency, reduce costs, and improve throughput, with competitors unable to provide directly comparable solutions.
- Rubber and composite liners are developed in-house, with over 6-8 customer trials already completed.
- The rubber composite mill liner market is projected to exceed 100,000 MT, while the total mill liner market, including metallic types, is 300,000 MT.
- All mill liner volumes are allocated to the mining segment.
- The GIDC Ahmedabad plant, which is expanding to include rubber and composite liner production, already has melting capacity. This expansion is expected to be completed by December 2024.

Conclusion: AIA Engineering operates in a Niche market, and offers specialized solutions to companies within the cement and the Mining Industry. Despite of global challenges, we believe that AIA Engineering has performed fairly well. Margins in Q1FY25 were higher as compared to Q1FY24 and Q4FY24. This instills confidence, that the company has the capabilities to handle adverse situation's.

Anti dumping duties terminated in Brazil in Q1FY25.

Focus on expanding customer base across the world in the mining industry

Adding rubber composite liners to its existing product line.

AIA Engineering Ltd (AIAE:IN)

Valuation and View

EV/EBITDA methodology: We value AIA Engineering Ltd using the EV/EBITDA multiple, given the capital intensive nature of the business. AIAE currently trades at 31X its EV/EBITDA Multiple. The company holds a strong position in a duopoly market, thereby commanding a premium. Revenue/EBITDA/PAT have recorded a CAGR of 19%/20%/27% from FY21 to FY24. We are confident that EBITDA/PAT Margins will remain intact at 29%/24% in FY25E and FY26E, despite challenges in export due to the ongoing red sea crisis. We value the firm by assigning a 28X EV/EBITDA multiple to the EBITDA for year ended FY26E. We estimate value at Rs 5,106/- per share.

Valuation Table

Valuation	FY26E
EBITDA	17,383
EV/EBITDA multiple	28
Target EV (₹ Mn)	4,86,725
Gross Debt	4,506
Cash	9,634
Target Value of Equity (₹ Mn)	4,85,785
Value per share	5,106
CMP	4,333
Potential upside (%)	16

Sources: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Financials

Income Statement

YE March	FY21	FY22	FY23	FY24	FY25E	FY26E
Total revenue	28,815	35,665	49,088	48,538	50,932	58,945
Expenses						
Cost of material consumed	11,426	14,711	20,658	20,727	21,911	25,936
Employee benefits expense	1,335	1,394	1,519	1,714	2,297	2,658
Other expenses	9,501	12,351	14,504	12,760	11,823	12,968
EBITDA	6,552	7,209	12,406	13,338	14,901	17,383
Depreciation	935	873	887	957	1,031	1,110
EBIT	5,617	6,337	11,519	12,380	13,886	16,273
Finance Costs	43	39	201	284	255	255
Other Income	1,722	1,563	2,345	2,814	2,449	2,835
Profit before tax	7,296	7,861	13,664	14,910	16,081	18,852
Tax expense	1,639	1,617	3,055	3,510	3,848	4,512
PAT	5,657	6,244	10,608	11,400	12,233	14,341
Minority Interest	(4)	(1)	6	(14)		
Adjusted PAT	5,661	6,245	10,603	11,414	12,233	14,341
EPS	60	66	112	121	128	152

Source: Company, ACMIIL Research

Key Ratios

YE March	FY21	FY22	FY23	FY24	FY25E	FY26E
ROA (%)	12	12	16	15	14	14
ROE (%)	15	14	21	19	18	16
ROCE (%)	16	13	20	18	17	18
Asset Turnover Ratio (%)	75	82	87	73	64	59
Book Value (₹)	451	505	604	707	967	1,108
P/E (x)	72	65	38	36	34	29
P/BV (x)	10	9	7	6	5	4

Source: Company, ACMIIL Research

Cash flows

YE March (%)	FY21	FY22	FY23	FY24	FY25E	FY26E
Cash flows from Operations	6,791	(393)	8,677	9,027	10,521	12,372
Free Cash Flow	14,025	(1,648)	6,730	6,920	9,621	11,472
Cash flows from Investing	(3,106)	999	(12,083)	(8,185)	(3,900)	(3,900)
Cash flows from Financing	(4,288)	(2,675)	3,950	(2,110)	(2,122)	(2,120)
Cash and Cash Equivalents	13,954	5,061	8,060	5,536	9,634	15,039

Source: Company, ACMIIL Research

Balance Sheet

YE March	FY21	FY22	FY23	FY24	FY25E	FY26E
ASSETS						
Property, plant and equipment	7,525	7,309	9,453	10,352	10,738	11,154
Right of use assets	360	364	344	519	519	519
Capital work-in-progress	1,609	2,102	1,074	922	967	1,119
Goodwill	46	46	46	46	46	46
Total non-current assets	12,990	13,989	13,187	14,966	15,602	16,659
Inventories	7,548	12,260	12,180	12,047	14,791	17,118
Investments	5,514	10,549	22,535	29,766	32,743	36,017
Trade receivables	6,385	8,001	8,608	8,803	9,349	10,820
Cash and cash equivalents	13,954	5,061	8,060	5,536	9,634	15,039
Total Current Assets	34,592	37,267	53,125	59,986	70,081	82,558
LIABILITIES						
Borrowings	-	13	-	-		
Lease liabilities	58	34	30	34	34	34
Provisions	77	145	131	171	187	216
Total Non-Current Liabilities	605	569	559	786	830	956
Borrowings	1,845	16	4,960	4,546	4,506	4,466
Lease Liabilities	27	36	36	31	31	31
Trade payables	1,658	1,967	2,614	1,786	1,390	2,080
Other financial liabilities	227	243	239	273	273	267
Provisions	152	65	81	72	72	81
Total Current Liabilities	4,446	3,052	8,755	7,486	7,049	7,699
Equity	42,531	47,634	56,998	66,680	77,803	90,563

Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Corporate Governance

Key Managerial Personnel (KMP)

- **Mr. Rajendra S. Shah-Chairman:** Mr. Rajendra Shah, an engineering Graduate in Mechanics, brings his years of experience in entrepreneurship, finance and administration, coupled with entrepreneurial insights to AIA Engineering leadership. Mr. Shah is also the Chairman and Whole-Time Director of Harsha Engineers International Limited, a Bearing Cage producer.
- **Mr. Bhadresh Shah:** Managing Director & Promoter: Mr. Bhadresh Shah, an alumnus of IIT Kanpur, is the founder of AIA Engineering. With strong technical knowledge and immense experience in the fields of production, finance, and technical administration, Mr. Shah focuses on process improvements, new product development, quality, and adherence to international manufacturing standards. His commitment to innovation and quality has made AIA Engineering Ltd. and Vega Industries a world renowned brand today.
- **Mr. Sanjay S. Majmudar:** Independent Director: Mr. Sanjay Majmudar, a Chartered Accountant and Company Secretary, is adept in corporate law and has worked in areas of direct tax law, financial advisory services, debt syndication, project finance, international structures and taxation planning, and mergers and acquisitions.
- **Mr. Dileep C. Choksi:** Independent Director: Mr. Dileep Choksi, a Chartered Accountant and Cost Accountant by profession, is proficient in matters of finance, cost accounting and law. With extensive experience, he specializes in tax planning and structuring, completing collaborations and joint ventures, corporate restructuring and tax impact analysis.
- **Mr. Rajan Ramkrishna Harivallabhdas:** Independent Director: Mr. Rajan Harivallabhdas, Master of Business Administration from USA, has a strong expertise in the administration of textile, engineering and chemical industries. Having helmed multiple companies owned by Ambica Group, he brings his management, financial and marketing experience to the board.
- **Mr. Yashwant M. Patel Whole-Time Director:** Mr. Yashwant M Patel, being a Graduate in Science with Chemistry, in his capacities as a whole-time director at AIA Engineering, brings his extensive and diverse experience in production, administration, human resources, and accounting to the leadership of AIA Engineering.
- **Mrs. Janaki U. Shah - Independent Director:** Mrs. Janaki Shah, an Economic Graduate, is an Independent Director with plenty of experience in textile manufacturing and computer education.

ESG Compliance:

Energy Reduction Measures:

- The Company has installed 11 Wind Energy Turbines at the Kutch and Jamjodhpur sites and 3 sets of Hybrid (Wind+Solar) at Amreli, Gujarat which have total installed capacity of 37.38 MW of renewable energy.
- Conversion of its 8 MT Induction Melting Furnace from 5MW to 6MW, which will save approximately 10 Units/MT of charge daily.
- Installation of high-efficiency induced draft fan for rotary shake instead of dust collector

AIA Engineering Ltd ensures Complete Zero Liquid Discharge (ZLD) is maintained. Dry-type cooling tower is installed which reduces blow down drastically. The cooling tower blow-down is then further reused in the plant. Similarly, grey water or sewage is treated in the STP plant, which comprise of a three-tier system and an ultra-filtration water purification system. Treated water is reused in the plant.

CSR Initiatives:

Exhibit 28: During the year, AIAE contributed ₹ 165 million in various fields

Education:	₹ 65 million
Environment:	₹ 29 million
Promotion of Sports:	₹ 5 million
Eradicating Hunger:	₹ 18 million
National Heritage/Art/Culture:	₹ 10 million
Healthcare:	₹ 39 million

Source: Company, ACMIIL Research

AIA Engineering Ltd (AIAE:IN)

Risks to our recommendation

Similar to most manufacturing companies, AIA Engineering Ltd is exposed to certain operating business risks. Some of these risks can be mitigated by regular monitoring and corrective actions.

Risks that AIA Engineering Ltd faces are as follows:

Anti-dumping duties in foreign markets: AIAE uses its facilities based in India as a manufacturing hub for exports around the world. In the recent past anti-dumping duties or protectionist policies imposed by its target countries such as: Canada, Brazil and South Africa have impacted the company's sales volumes. Any increase or modifications to such measures are likely to impact volumes in the future.

Increased shipping cost and unavailability of containers: Due to Red Sea crisis, Israel- GAZA conflict and Russia-Ukraine war, there are possibilities of continuation of challenges in overall exports and imports. In its Q1FY25 earnings call, the management highlighted serious concerns as it continues to face not only multifold increase in shipping cost (4X of original cost), but also shortage in availability of containers. We firmly believe that if these challenges continue to persist, then volumes will lower significantly as more customers are likely to go back to adopting a 'wait and watch' approach.

Currency Fluctuation: AIAE receives ~ 70% of its revenues from export. Due to high exchange volatility, there are possibilities of exchange fluctuation due to higher export in turnover and import of raw material. Proactive and adoptive hedging policy which is aligned with market best practices and dynamic pricing mechanism are in place to limit the impact of volatility in exchange rates.

Raw Material Fluctuation: AIAE engages with the customers and is able to pass through most of the raw material changes either through price pass clauses or repricing contracts with longer duration. The Company is closely monitoring raw material price movements and is regularly buying the raw materials during low price cycles so as to average out the impact of price fluctuations. However, there may be a rare case where the company shall be required to absorb price shocks, which may lower the overall profitability of the company.

Challenges in shipping and freight are risks which cannot be mitigated.

AIA Engineering Ltd (AIAE:IN)

Explanation of Investment Rating

Investment Rating	Expected return (over 12-month)
BUY	$\geq 15\%$
SELL	$< -10\%$
HOLD	$> -10\%$ to 15%

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