

## Crafting Wear Solutions for Enduring Excellence

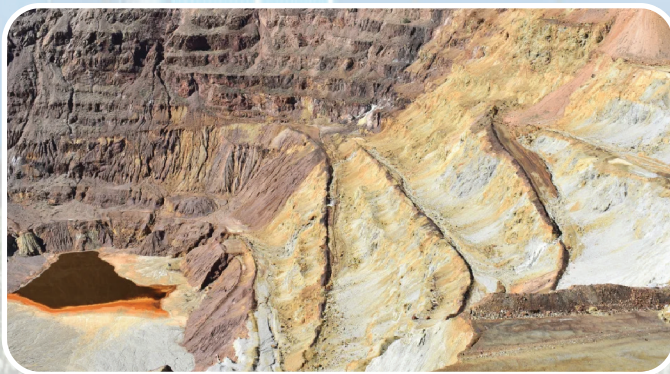




AIA Engineering Limited

## Crafting Wear Solutions for Enduring Excellence

**Mining**



**Cement**



**Quarry**



**Thermal**

## Accumulate

### Key Data

DATE	01-01-2024
Reco Price	3650-3690
Target	4909
Sector	Castings & Forgings
BSE Code	532683
NSE Code	AIAENG
Face Value (Rs.)	2
Market Cap (Mn)	348042.16
52-week High/Low (Rs)	3830.00/2383.50

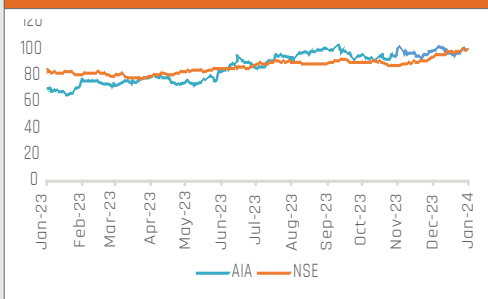
Source : NSE, BSE

### Shareholding pattern (September-2023)

	%
Promoters	58.47
DII's	20.29
FII's	18.50
Public	2.74
<b>Total</b>	<b>100.00</b>

Source : NSE, BSE

### Price Performance



Rebase to 100

### Retail Research

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## AIA Engineering Limited

### Company Background

AIA Engineering Limited (AIA) was incorporated in 1991, is a distinguished entity in the design, development, production, installation, and servicing of high chromium wear, corrosion, and abrasion resistant castings. These superior products specifically serve the cement, mining, and thermal power-generating industries, highlighting the Company's capacity to cater to diverse market demands. The company engages with a customer over 18 to 24 months to develop a mine site by doing trials and establishing optimal chrome grade for that set of operating conditions. Because of these benefits company is expect high chrome to take higher market share forged over a time. The business covers most important geographies including North America, Latin America, Australia and Brazil. The company continues to acquire new customers in these geographies. The installed capacity of company is 4,40,000 TPA that will rise further to 5,20,000 TPA by March, 2025. It has 4 manufacturing facilities i.e. Ahmedabad (Grinding media), Nagpur (Centrifugal castings), Bengaluru (Grinding media) and Trichy (Grinding media).

### Outlook and Valuation

AIA Engineering Ltd. is a global leader in grinding solutions, boasting a 35% market share across 125 countries and over 95% dominance in India. With a focus on reducing wear parts costs, the company is confident in maintaining its strong position in the industry. Growth is tied to the Cement Industry's expansion and market share, while significant opportunities exist in the Mining Industry, particularly in converting mines to High Chrome Grinding Media. AIA Engineering is poised for customer acquisition, continuous engagement, and sustained growth, leveraging its competitive advantages. The company also maintains dominance in supplying large castings to the Thermal Power Plant Industry in India.

The company's outlook revolves around its involvement in basic industries like Mining, Cement, and Thermal Power generation. The estimated revenue growth is at a 19% CAGR from FY23 to FY26E, supported by an increase in volume along with capacity expansion. **We recommend an "Accumulate" rating with a target price of Rs 4909, reflecting a potential upside of 33% based on a PE multiple of 28X to FY26E EPS of Rs 175.35.**

### Financial Snapshot

Particulars (in Mn.)	FY23	FY24E	FY25E	FY26E	CAGR % (FY23 - FY26E)
Revenue	48,380.25	56,897.38	68,276.86	80,566.69	19%
EBITDA	11,746.30	14,793.32	17,069.21	20,141.67	20%
EBITDA %	24.28%	26.00%	25.00%	25.00%	
PAT	10,559.29	12,311.40	14,216.45	16,539.14	16%
EPS (Rs)	111.95	130.53	150.73	175.35	16%

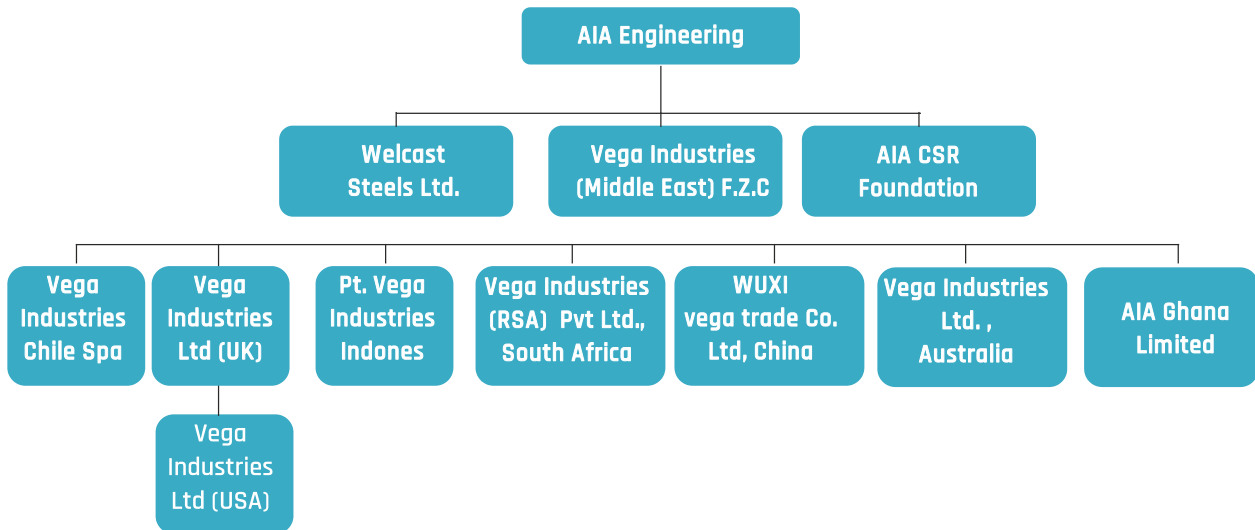
Source: Company, ACMIIL Retail Research

### Company at a Glance

- A leading provider of cutting-edge wear components and innovative solutions.
- Capacity expansion to enhance future growth.
- Adapting renewable power on a large scale to strengthen sustainable energy practices.
- Prioritizing optimal performance by introducing automation and streamlining production processes to drive efficiency.
- Substantial Opportunities in Mining and Cement Sectors



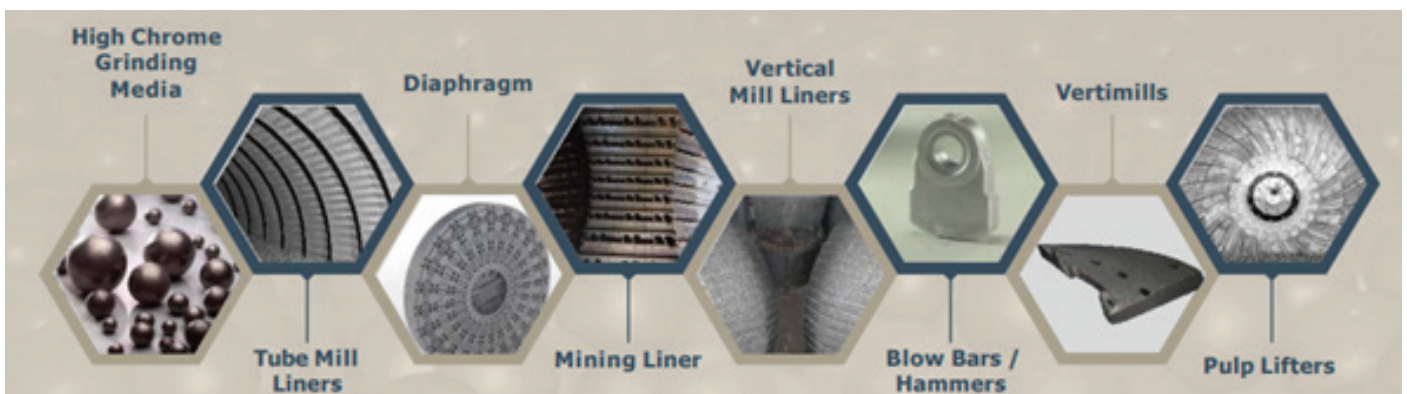
## AIA Structure



Source: Company, ACMIIL Retail Research

## Product Portfolio

AIA manufactures grinding media, liners and diaphragms which are collectively known as Mill Internals. These are used in crushing and grinding operations in cement, power utility, and mining industries. Further, the services provided by company are Ball size optimization, Ore grindability, Millart, Mill Audits, Alloy selection for wear reduction, installation support, line wear monitoring & alloy optimization for improving metal recoveries.



Source: Company, ACMIIL Retail Research

## Industry Served



### Cement

Expertise in manufacturing of tube mills & vertical mills  
Strong metallurgical, grinding, & design experience

### Application

Grinding of Limestone & cement



### Mining

Minimising downtime in mining operations  
Expertise in advanced alloys & mineral manufacturing

### Application

Grinding mineral ore for material separation



### Thermal

Producing shell liners & grinders  
Innovate alloys for diverse minerals with advanced manufacturing

### Application

Coal grinding prior to entering the boiler



### Quarry

Develop alloys & methods for various minerals  
Specialize in extracting iron, gold, lead/zinc, bauxite, copper & Phosphorus

### Application

Crushing of aggregates

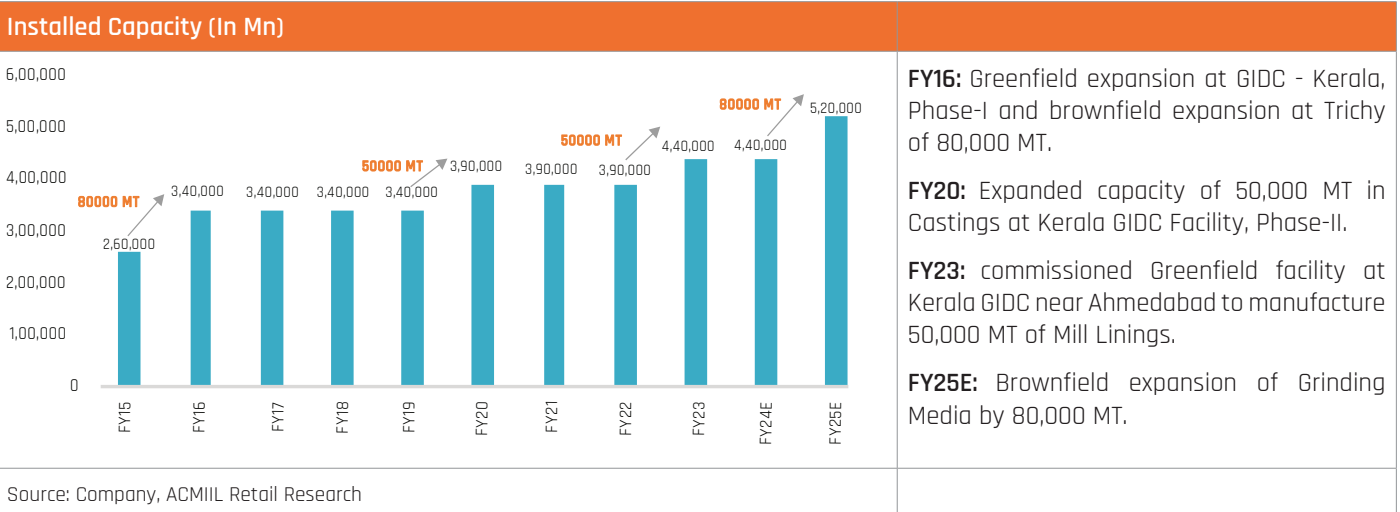
Source: Company, ACMIIL Retail Research

## Investment Rationale

### A leading provider of cutting-edge wear components and innovative solutions

It is India's largest manufacturer and supplier of high chrome wear, corrosion and abrasion resistant castings used in cement, mining and thermal power plants (or mills) with 95% market share & globally, it has 35% market share (excluding China). The company has evolved from modest origins into a reliable global partner, emphasizing excellence and commitment to delivering inventive solutions. AIA's strong market position is driven by superior technology, strategic presence in key segments, efficient aftersales services, and enduring client relationships across diverse end-user sectors. With over 40 years of legacy in India and the international reach facilitated by Vega Industries, AIA has set benchmarks in quality, services, and innovation, establishing itself as a renowned global solution provider.

### Capacity expansion to enhance future growth



**FY16:** Greenfield expansion at GIDC - Kerala, Phase-I and brownfield expansion at Trichy of 80,000 MT.

**FY20:** Expanded capacity of 50,000 MT in Castings at Kerala GIDC Facility, Phase-II.

**FY23:** commissioned Greenfield facility at Kerala GIDC near Ahmedabad to manufacture 50,000 MT of Mill Linings.

**FY25E:** Brownfield expansion of Grinding Media by 80,000 MT.

The company is actively expanding its capacity to meet demand, having incurred a capex of Rs 1950 Mn in FY23 for a new mill liners plant with capacity of 50,000 TPA. Ongoing projects include a brownfield expansion of grinding media capacity of 80,000 MT in Kerala GIDC, with an estimated investment of Rs 2500 Mn expected to be commissioned by FY 2024-25. Additionally, Rs 2000 Mn restructuring initiative aims to optimize operational efficiency, creating warehouse space and enhancing capabilities for precision manufacturing. The company expects 20,000 MT capacity addition in castings & liners through de-bottlenecking.

### Increased R&D focus to further strengthen total solutions capabilities

The company's increased focus on research and development is evident in specific areas aimed at enhancing its total solutions capabilities. Notably, R&D efforts have been directed towards the development of new alloys for Grinding Media in the mining industry, with the expectation that these innovations will result in more cost-effective solutions for customers. Additionally, the exploration of the effects of using High Chrome Media instead of Steel Forged Balls has shown promise in improving mineral recoveries, thereby adding substantial value for customers. Looking ahead, the company plans to sustain its commitment to innovation by continuing to introduce solutions that are not only cost-effective but also enhance overall value for its customers, reinforcing its position as a leader in providing comprehensive solutions.

### Adapting renewable power on a large scale to strengthen sustainable energy practices

With a strong emphasis on minimizing power consumption and mitigating environmental impact, AIA Engineering is committed to enhancing its use of captive and renewable energy sources in line with sustainability goals. Prioritizing eco-friendly practices, the company aims to decrease its carbon footprint and ensure long-term operational sustainability. Notably, AIA Engineering has already implemented 11 Wind Energy Turbines at sites in Kutch and Jamjodhpur, generating 24.3 MW of renewable energy. In the fiscal year 2022-23, the company successfully fulfilled 17% of its total electricity requirement for all plants through renewable sources. Additionally, the company has recently incorporated two Hybrid Projects in Village Dedan, Gujarat. Looking ahead, AIA Engineering plans to invest Rs 600 Mn in the FY24 to further expand its Renewable Energy Projects, encompassing both Solar and Wind initiatives.

### Prioritizing optimal performance by introducing automation and streamlining production processes to drive efficiency

The company is dedicated to adopting advanced technologies and automated systems to improve various aspects of its operations. Automation plays a crucial role in minimizing manual intervention, reducing errors, and speeding up production cycles. By embracing automation and streamlining production processes, company aims to achieve higher levels of precision, consistency, and overall operational efficiency. This approach allows the company to meet growing demands, enhance product quality, and ensure timely delivery to customers. The emphasis on optimal performance aligns with the broader goal of maintaining a competitive edge in the market while also addressing sustainability concerns by potentially optimizing resource utilization. In essence, the integration of automation and streamlined production processes at AIA reflects a commitment to driving efficiency across its operations, contributing to the company's overall success and resilience in a dynamic business environment.

## **AIA Engineering's Acquisition Enhances Technological Capabilities and Market Presence in Mill Liner Segment**

AIA's recent acquisition of a 30% stake in an Australian company is a strategic move aimed at bolstering the company's presence in the mill liner market. The Australian company brings valuable high technology design capabilities to the table, enhancing AIA's overall technological progress. This acquisition is particularly significant as it expands AIA's addressable market for mining liners, estimated at around 300,000 tonnes for the metal segment. The Australian company's expertise in designing a wide variety of mill liners adds a layer of sophistication to AIA's capabilities. The acquisition also provides access to new markets, contributing to AIA's aggressive approach to capitalize on the mill liner opportunity and boost volumes in this segment. The synergy is evident as the acquired company already has an established business relationship with AIA, making this strategic move a complementary and mutually beneficial endeavor that aligns with AIA Engineering's long-term focus on technological advancement and solution-driven capabilities.

### **Focus on customization**

AIA is entirely focused on delivering customized solutions tailored to specific applications. With a global presence in over 125 countries, the company has implemented its solutions in countless mills and equipment worldwide. Their unique expertise lies in more than 100 alloy combinations and specialized heat treatment cycles, designed to meet the diverse needs of different solutions. Despite the complexity involved, AIA Engineering has established significant entry barriers, ensuring customer loyalty once a solution is applied. Beyond cost reduction, their comprehensive package aims to minimize overall ownership costs, enhance process efficiency, and boost client profitability.

### **Secures Reliable Ferro Chrome Supply and Financial Support through SAL Steel Agreement**

AIA has entered into a three-year non-exclusive supply agreement with SAL Steel for ferro chrome in Sep-22, ensuring a steady and assured source of this critical material. As part of the agreement, AIA will also provide a secured inter-corporate deposit of Rs 1250 Mn to SAL Steel, which will be used for its working capital requirement. This strategic move not only guarantees a consistent supply of ferro chrome for its manufacturing processes but also provides financial flexibility for loan repayment and working capital needs. With SAL Steel being one of the five vendors for AIA, the arrangement adds resilience to the supply chain, reducing dependency risks and bolstering company's operational and financial robustness.

### **Effective Strategy for Stability through Price Pass-Through Mechanism**

The inclusion of a price pass-through mechanism in contracts is a strategic approach to maintain stability in pricing. This mechanism allows the company to reflect previous raw material and freight costs in the pricing of their products. In practical terms, when there are fluctuations in the costs associated with raw materials or freight, the pricing of AIA Engineering's products can be adjusted accordingly. This serves as a risk mitigation strategy, providing the company and its clients with a level of predictability and protection against sudden and unpredictable changes in input costs. It aligns with the company's commitment to transparency and fair pricing while navigating the dynamics of the market.

### **Building a sustainable future via ESG approach**

AIA is in line with the strategy to maintain the industry's circular economy target by considering the reduction of waste from operations and synergizing with responsible waste management. Furthermore, they reuse foundry dust/sand and plastic bags to create eco-friendly bricks/paver blocks and reuse foundry sand in cement kilns. The company also reduces per capita water consumption through operational efficiency, water recycling and reuse, and rainwater harvesting to recharge groundwater levels. Another major initiative of organization is environmental protection and reducing carbon footprint and undertaken initiatives such as 'Plantation' and 'Reclamation of Land' and successfully planted 100,000 trees during the year.

## **Industry growth drivers**

### **Substantial Opportunities in Mining and Cement Sectors**

AIA adopts a strategic stance of being largely agnostic to Mining Industry cycles. Despite potential scenarios of zero or negative growth in the mining sector, the company remains confident in its growth plans. The considerable headroom available for the conversion of mines to High Chrome use serves as a mitigating factor, ensuring resilience to market fluctuations. Mining industry uses forged grinding media (forged grinding balls which is cheaper than high chrome grinding balls offered by AIA since the wear rate of forged balls are much higher than HCM). When assessing the mining sector, company sees a significant replacement opportunity ranging from 2.5 million to 3 million tonnes. The addressable opportunity for the ore types the company focuses within the range of 1.5 million to 2 million tonnes. Notably, there exists a distinct opportunity for penetration in high chrome, with AIA Engineering currently leading in this aspect with a range of 400,000 to 500,000 tonnes. The company is actively working on converting this opportunity, aiming to reinforce its position in the market. In the cement industry, the opportunity is approximately 300,000 tonnes, primarily serviced by high-chrome use. While the cement sector is relatively stable for AIA Engineering, the focus remains on leveraging opportunities for growth and consolidation within the high chrome segment.

## Global Thrust: Navigating Growth in Mining and Cement Industries

AIA places special emphasis on the global mining industry, particularly in Copper, Gold, and iron ore mines worldwide. The mining sector has remained largely unaffected by disruptive factors that impacted other economies due to geopolitical tensions. This is mainly because the mining industry is concentrated in specific regions like North America, Latin America, Australia, Africa, the Far East, China, and CIS countries, with minimal presence in Europe. Notably, Copper and Gold continue to show bullish trends, and Iron, as a base metal, has witnessed steady growth. Globally, the Mining Industry is growing at a rate of around 3% to 4% per annum. The Cement Industry is expected to maintain a near double-digit growth rate in India and a normal single-digit rate of around 3% to 4% worldwide. AIA expects its supplies to the Cement Industry to grow in tandem, with additional growth coming from increased market share.

### Rising Global Copper Demand

The global demand for copper is on the rise, driven by stimulus packages countering the impact of China's zero-Covid policy and efforts in Europe to expedite renewables and infrastructure projects amid diminishing Russian gas deliveries. Copper, a vital industrial metal in electronics, appliances, vehicles, and renewable energy technologies, is predicted to see its demand double by 2035, reaching 50 million metric tons. However, by 2030, existing and projected mining activities are expected to meet only 80% of this demand, indicating a looming copper shortage. This shortage is poised to fuel increased mining activities, amplifying the consumption of AIA Engineering's products tailored for the mining industry.

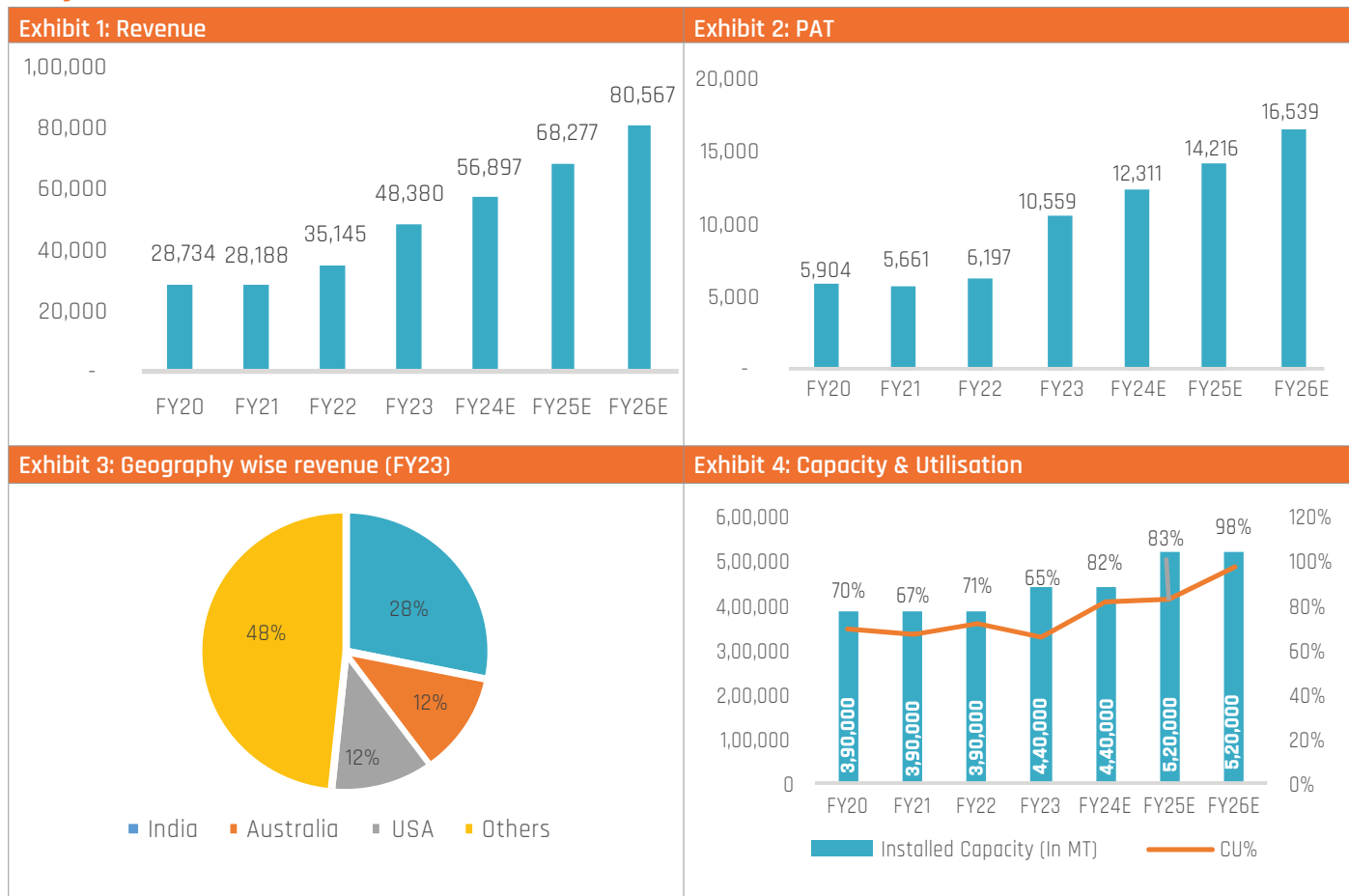
### Industrial shift from steel-based grinding media to High Chrome Mill Internals (HCMI) products for operational efficiency

Presently, industries favor steel-based grinding media due to its lower cost compared to High Chrome Mill Internals (HCMI) by 20-40%. However, the steel-based material contributes to increased wear and tear on machinery, making it less cost-effective in the long run. Recognizing this, several companies are transitioning to HCMI products, despite a minor price difference, to minimize wear and extend the life of mills & to get operational cost efficiency for overall production.

### Empowering Green Initiatives through Expanded Metal Mining for Electric Vehicles and Renewable Energy Generation

As global governments advocate for cleaner energy solutions, the push for electric cars and green energy generation intensifies. This surge in demand for electric vehicles and renewable energy technologies fuels increased mining activities for metals essential in manufacturing car batteries. Simultaneously, the growing emphasis on electricity generation amplifies the need for these metals. AIA Engineering stands to benefit significantly, providing its High Chrome Mill Internals (HCMI) products to both the expanding electric vehicle and green energy sectors.

## Story in Charts (Values in Mn.)



Source: Company, ACMIIL Retail Research

## Financial Statements

### Consolidated Profit & Loss Statement:

Particulars (₹ in Mn)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue	28,733.62	28,187.79	35,144.68	48,380.25	56,897.38	68,276.86	80,566.69
Expenses	22,852.12	22,223.54	28,409.52	36,633.95	42,104.06	51,207.64	60,425.02
<b>EBITDA</b>	<b>5,881.50</b>	<b>5,964.24</b>	<b>6,735.16</b>	<b>11,746.30</b>	<b>14,793.32</b>	<b>17,069.21</b>	<b>20,141.67</b>
<b>EBITDA%</b>	<b>20.47%</b>	<b>21.16%</b>	<b>19.16%</b>	<b>24.28%</b>	<b>26.00%</b>	<b>25.00%</b>	<b>25.00%</b>
Other Operating income	966.12	627.14	520.8	707.44	853.46	1,024.15	1,208.50
Other Income	1,419.10	1,721.96	1,562.90	2,345.39	2,271.68	2,328.01	2,384.35
Interest	100.68	81.85	85.01	248.37	268.07	268.07	268.07
Depreciation	978.79	935.01	921.16	930.4	1,235.18	1,198.03	1,414.26
<b>PBT</b>	<b>7,187.24</b>	<b>7,296.48</b>	<b>7,812.69</b>	<b>13,620.36</b>	<b>16,415.20</b>	<b>18,955.28</b>	<b>22,052.19</b>
Tax	1,284.04	1,639.42	1,616.51	3,055.36	4,103.80	4,738.82	5,513.05
<b>PAT*</b>	<b>5,903.58</b>	<b>5,661.22</b>	<b>6,196.81</b>	<b>10,559.29</b>	<b>12,311.40</b>	<b>14,216.46</b>	<b>16,539.14</b>
<b>PAT%</b>	<b>20.55%</b>	<b>20.08%</b>	<b>17.63%</b>	<b>21.83%</b>	<b>21.64%</b>	<b>20.82%</b>	<b>20.53%</b>
EPS (in Rs)	62.59	60.02	65.7	111.95	130.53	150.73	175.35

Note: \*PAT is adjusted after Minority interest

Source: Company, ACMIIL Retail Research

## Risks and concerns

- Business operations can be impacted by supply chain disruptions arising from geopolitical uncertainties
- Downturn in the mining, cement, thermal, and quarry industries will have a direct impact on the company's operations



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