



**AIA Engineering Ltd (NSE Code – AIAENG) – Alpha/Alpha + stock report for Mar'18**

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## Company Snapshot (25<sup>th</sup> Mar'18)

**Rating** – Positive – 4% weightage; this is not an investment advice (refer rating interpretation).

**CMP** – 1411.55 (BSE); 1403.65 (NSE)

**Dividend yield** – 0.57%

**BSE Code** – 532683; **NSE Code** – AIAENG

**Market capitalization** – Rs 13,232.00 cr.

**Total Equity shares** – 9.43 cr.

**Face Value** – Rs 2.00

**52 Weeks High/Low** – Rs 1702.00/1276.00

Particulars (in cr.)	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	9M FY 18
Income from operations	1160.66	1416.67	1751.31	2080.08	2183.64	2098.39	2246.01	1701.28
Gross profit	783.71	874.24	1097.01	1283.68	1422.04	1383.43	1519.09	1050.42
Gross profit margin (%)	67.52%	61.71%	62.64%	61.71%	65.12%	65.93%	67.64%	61.74%
Op expenses as % of revenue	-46.05%	-42.42%	-44.92%	-37.57%	-38.34%	-36.89%	-39.38%	-40.05%
Operating Profit	249.21	273.30	310.24	502.15	584.82	609.31	634.56	369.12
Operating profit margin (%)	21.47%	19.29%	17.71%	24.14%	26.78%	29.04%	28.25%	21.70%
<b>Other Income</b>								
Interest/Investment/Dividend income	19.36	13.27	21.32	33.41	34.75	72.37	80.44	49.86
Exchange rate difference	5.36	0	0	0	48.46	29.57	24.00	22.45
Finance charge	-2.02	-4.39	-6.34	-6.36	-3.93	-4.87	-4.49	-4.07
Depreciation	-25.40	-29.44	-34.48	-38.14	-69.75	-65.52	-72.48	-51.6
Profit Before tax (PBT)	246.51	252.74	290.74	491.06	594.35	640.86	662.03	385.75
Profit After tax (PAT)	183.39	180.46	210.82	324.97	430.93	456.79	457.21	291.17

## Introduction

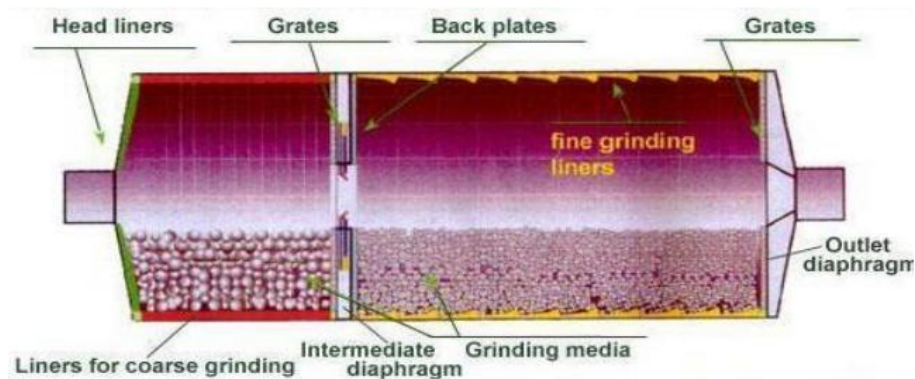
In Apr 2014 we recommended a very high quality company AIA Engineering at around 560-570 odd levels and closed it in Aug'16 at around 1270-1275 odd levels. At the time of closure, we were apprehensive about possible deterioration in the margins of the company and therefore decline in profitability despite increase in volumes.

So, yes, since our closure the margins of the company have contracted by around 700-800 basis points and as a result the profits are also down by around 10-15%. Further, the stock has delivered only around 6% CAGR since our closure.

Since the last few years the company has been working diligently with several big mining companies on customizing solutions and services for them and making them understand the benefits of converting from conventional forged steel mills to High chrome mill internals (HCMI) and has been successful in making in-roads and bagging a few orders. Going forward, we believe the company is well placed to capitalize on the large mill internals conversion opportunity in the mining space and further with improvement in capacity utilization and pass through of raw material prices, there could be improvement in margins as well.

## Understanding Business and Company

AIA is one of the world's largest manufacturers of the value-added, impact abrasion, and corrosion resistant High Chrome Mill Internals (HCMI). It is engaged in the designing, development, manufacture and installation of products like grinding media, liners, diaphragms, and vertical mill parts (collectively referred to as mill internals).



Source: AIA's Investor presentation

These products find application for grinding and crushing operations in segments like Mining, Cement, thermal power stations, etc.

AIA and Magotteaux are the two companies that have pioneered the use of high chromium alloys in grinding media. This unique technology which combines an increased resistance to wear and shocks allows offering solutions differentiated from standard steel and iron foundry products.

In fact, in 1992 AIA Magotteaux Pvt. Ltd was formed as JV between Magotteaux (at that time world's largest player in high chrome mill internals (HCMI)) and AIA. In 2001 the JV ended and the company got renamed as AIA Engineering Ltd as AIA's promoters bought the Magotteaux's stake. Then, AIA's capacity was only 20,000 MT.

Today, with 3.4 lakh MT of HCMI capacity, AIA is at par with Magotteaux and will soon become the largest with the company expanding the capacity to 4.4 Lakh MT

### HCMI industry overview

**Grinding media** – Grinding media industry can be classified into Conventional forged mill internals and High Chrome mill internals.

Grinding media is primarily used as a consumable in crushing and grinding mineral ores, grinding cement clinker, other crushing operations in utilities and recycling of concrete as

aggregates. Total global consumption of mill internals is ~3.3 mtpa (million tonnes per annum) driven by the mining sector (annual requirement of ~3 mtpa) while that of the cement segment is 0.3-0.35 mtpa. Current sales of AIA of HCMI are only around 0.225 mtpa and therefore commands ~6-7% market share in the mill internals segment.

Currently, HCMI is mainly used in the cement and thermal power units while the penetration in the mining industry is only 10-15%; however, even in mining industry HCMI is fast becoming popular over conventional forged media as HCMI offers reduced wear rate, better productivity, energy saving and better control on grinding process.

**Unique Industry characteristics** – Though crushing and grinding seem mundane jobs; however mill internals and more specifically HCMI can be characterized by technical expertise, limited competition and customer stickiness.

Technical knowledge is critical and also acts as an entry barrier as industry players require high expertise in metallurgy, grinding application and process technology. Secondly, though mill internals account for only 1-2% of the total production cost in cement and around 5-10% in mining, they are highly critical to the overall production process and their failure or inefficiency can result in loss of production for the company. Thus, customer stickiness is very high in the industry and HCMI manufacturer empanelment is a long-drawn process. Also, customers look for end-to-end solutions and complete product range from HCMI manufacturers which is generally not possible in case of small scale manufacturers.

Thus, above are the key factors behind there being practically only two key players in the HCMI industry, AIA and Magotteaux.

**Demand Dynamics** – Replacement demand accounts for ~85-90% of the total global demand for HCMI due to the high wear and tear rate of mill internals such as grinding media, which need to be replaced every 30 days. The remaining demand comes from other mill internals such as liners and diaphragms that need to be replaced every 2-3 years.

As mentioned above, HCMI has already penetrated major portion of cement and thermal power units while only 10-15% penetration has been achieved in mining space; however it

is important to understand here that potential market size in mining space is 8x-10x of cement and thermal power industry.

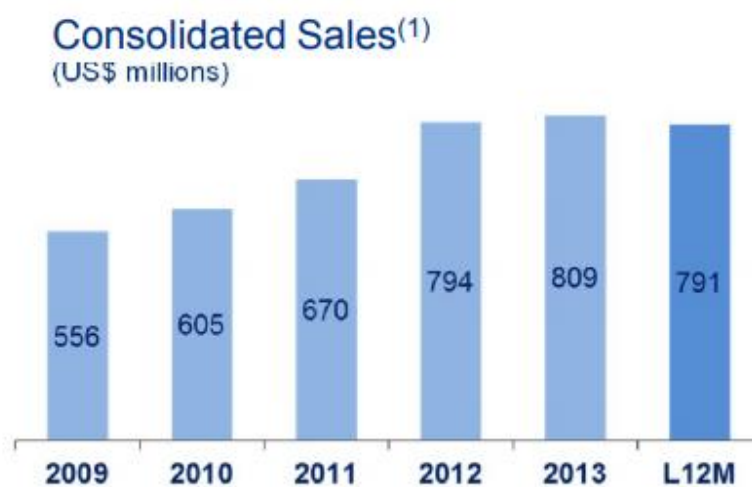
While the potential market size is huge, customer stickiness acts as a deterrent in miners converting from conventional forged media to HCMI and therefore getting empanelled with a miner is a long-drawn process. As a result, AIA is now acting as a total solution provider with services covering pre-sales (audits, analysis, and diagnosis), sales (including installation, supervision and equipment fine-tuning) and after-sales (performance follow-up, real time mill management).

Once the customer starts using HCMI, the stickiness becomes boon as then it would be almost impossible for the miner to go back to conventional forged media. It's like bulb Vs LED, while the initial capital cost of LED lamp is higher, the enduring benefits are also higher.

**Understanding competitor** – As mentioned above, Magotteaux is the major competitor of AIA as the other companies don't have the scale to challenge both at the global level.

As far as Magotteaux is concerned, we believe the company isn't growing much nor is as aggressive as AIA in expanding the reach of HCMI in mining space. Based on our understanding, Magotteaux's HCMI capacity has remained at the same level of ~3.5 lakh MT since 4-5 years now and as is evident from the below illustrations, the sales seem to have actually contracted from USD 794 million in 2012 to USD 628 million at the end of 2016.





Source: Magotteaux

Source: Sigdo Koppers Corporate Presentation Sep'14

BUSINESS AREAS	INCOME (US\$ millions)			EBITDA (US\$ millions)		
	Dec / 2015	Dec / 2016	Change	Dec / 2015	Dec / 2016	Change
Magotteaux	692.284	628.520	-9,2%	80.415	63.362	-21,2%
Ingeniería y Construcción SK	488.018	455.443	-6,7%	28.903	-1.802	-106,2%
Puerto Ventanas	131.832	132.398	0,4%	43.318	34.512	-20,3%
INDUSTRIAL	1.457.492	1.323.386	-9,2%	263.548	230.611	-12,5%
Enaex	761.766	691.731	-9,2%	181.056	165.479	-8,6%

Source: Sigdo Koppers Annual Report 2016

Also, the profit margins of Magotteaux are much lower than AIA and the same will in all likelihood impact its ability to grow at similar pace as AIA. For the sake of comparison, in CY 2016, Magotteaux reported sales of around Rs 4000 crore while AIA reported sales of Rs 2,246 crore in FY 17; while on the front of profits Magotteaux reported EBITDA of Rs 405 crore, AIA reported an EBITDA of Rs 638 crore.

### Promoters/Management

Mr. Bhadresh K Shah is the Founder, Promoter and Managing Director of AIA Engineering. He did his B. Tech in metallurgy from IIT Kanpur.



Mr. Shah has a career spanning over 30 years in the manufacture and design of various kinds of value added, abrasion and corrosion resistant high chrome castings. He has been instrumental in negotiating and developing several foreign collaborations and his emphasis on manufacturing process improvements, new product development, quality and adhering to international manufacturing standards has ensured that AIA's products are recognized domestically as well as internationally

### Shareholding pattern (as reported on BSE)

	Dec'17	Sep'17	Jun'17
<b>Promoter and Promoter Group</b>	<b>61.65%</b>	<b>61.65%</b>	<b>61.65%</b>
India	61.65%	61.65%	61.65%
Foreign			
<b>Public</b>	<b>38.35%</b>	<b>38.35%</b>	<b>38.35%</b>
<b>Total</b>	<b>9,43,20,370</b>	<b>9,43,20,370</b>	<b>9,43,20,370</b>

From a passive investor's perspective it's important for the ones running the company to have high ownership as it aligns their interest in line with those of minority shareholders and in the case of AIA Engineering the promoters own 61.65% equity stake.

As on 31<sup>st</sup> Dec'17, the major shareholders of the company and their stakes are as below:

<b>Name of the shareholder</b>	<b>Category</b>	<b>% stake in AIA Engineering</b>
<b>Promoters and PAC</b>	Promoters	61.65%
<b>Nalanda India Equity Fund</b>	Public	9.68%
<b>Matthews India Fund</b>	Public	2.82%
<b>HDFC Mid-cap opportunities fund</b>	Public	2.53%
<b>SBI Magnum Balanced fund</b>	Public	1.90%
<b>ICICI Prudential Long Term Equity Fund tax savings</b>	Public	1.33%
<b>L&amp;T Emerging Businesses Fund</b>	Public	1.21%

## AIA Engineering – Performance Snapshot

Particulars (in cr.)	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	9M FY 18
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Source: AIA Engineering's ARs

AIA is a high quality company and its financial performance is very much indicative of the same. The company has been growing continuously, is debt free with more than 1000 crore of surplus cash and has healthy return ratios.

Despite end user industries like mining and cement facing one of the worst slowdowns in the last few years, AIA has been growing continuously, albeit rather slowly. The steady growth and strong financial performance of AIA can be attributed to the oligopolistic nature of the industry, strong replacement demand and AIA's foray into mining industry.

Just like there are fast moving consumer goods, AIA's products can be termed as fast moving industrial goods. As mentioned above, replacement demand accounts for ~85-90% of the total global demand for HCMI and due to high wear and tear rate, certain mill internals need to be replaced every 30 days. Thus, even if the company isn't able to acquire new clients, the volumes in any particular year do not contract substantially.

**Slow growth** – Since the last 3 years or so the mining volumes haven't increased at the pace initially envisaged. While getting empanelled with any miner is a long process in itself, substantial contraction in commodity prices diverted mining company's attention towards sustaining operations than trying new things like converting to HCMI from conventional forged media.

However, with commodity prices rebounding and with the efforts of AIA over the last few years, the management is confident of incremental volumes of 40,000-50,000 MT per year from mining segment. If the company is able to achieve the above, it will translate into 18-20% CAGR in volumes over the next few years.

Important Numbers	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
ROAE (%)	18.77%	15.78%	15.89%	20.59%	22.55%	20.73%	18.14%
Cash Flows from operations	34.69	93.66	163.09	451.69	307.04	594.99	229.59
Net working capital	440.74	540.93	579.46	563.97	666.85	652.23	839.52
Sales to working capital ratio	2.63	2.62	3.02	3.69	3.27	3.22	2.68
Net Debt	-281.71	-241.97	-304.92	-628.24	-738.35	-880.75	-1060.12
Debt to Equity ratio	0.02	0.04	0.11	0.07	0.05	0.08	0.05

Source: AIA Engineering's ARs

Further, while the realizations aren't expected to increase, we believe the EBITDA margins of the company may have bottomed out around current levels of 21-22% in FY 18. The current level of margins are a result of entry-level pricing, huge volatility in scrap and ferro chrome prices and not so favourable currency fluctuations. AIA works on flexible pricing with its customers and should therefore be able to pass on any hike in prices in scrap metal and ferro chrome, though with a lag of few months. Secondly, as the volumes are expected to grow at decent pace in the years ahead, the operating expenses are likely to come down as per cent age of sales.

So, with operating leverage and pass through of hike in raw material prices, we expect the EBITDA margins of the company to improve. Thus, with expansion in volumes and margins, we believe there's high probability of company recording 18-22% CAGR in profits over the next few years.

## Valuations

From the above discussion we know that AIA is a high quality company, working in an oligopolistic industry with huge market opportunity to tap. We also know that AIA's main competitor hasn't been as aggressive as AIA in expanding the market size of HCMI in mining industry.

We also know that AIA is a debt free company with more than 1000 crore of surplus cash and expected to record 18-22% CAGR in profitability over the next few years.

Thus, while current valuations of 32 times trailing twelve months earnings aren't exactly low; however similar companies (not same business but similar business profile) like Schaeffler India, Bharat Forge, Grindwell Norton, Cummins, SKF, etc are all trading in the range of 30-40 times earnings or even more and in most of the cases the growth outlook isn't as good as AIA.

We believe, in case of 15-20% correction in stock price, if at all, it will be a good opportunity to further increase the allocation in the stock.

## Risks & Concerns

While customer stickiness is good for the business, it also acts as a deterrent for mining companies to switch from conventional forged media to HCMI and can therefore make it difficult for AIA to tap the vast opportunity.

Ministry of Development in Brazil has initiated anti-dumping investigation on exports of certain grades of grinding media from India into Brazil. They have imposed an interim duty of USD 359.16/MT to be paid by the importer. AIA currently exports 15,000 MT to Brazil. So while contracted supplies may not get impacted and due to customer stickiness they may continue in future as well, company's plans of acquiring new clients may get impacted.

Magotteaux has initiated arbitral proceedings against AIA alleging infringement of its patent. There could be huge loss to the company if the case is decided in favour of Magotteaux.

In case of steep rise in Ferro Chrome prices the substitution economics for HCMI in mining would be adversely affected and it would become difficult for the company to propose any miner to shift from conventional media to HCMI as the differential cost benefit would diminish.

Last but not the least, appreciation of rupee against the dollar will impact the sales realization of the company.

**Disclosure:** I have personal investment in AIA Engineering but have not traded in the stock in the last 30 days.

Best Regards,

Ekansh Mittal

Research Analyst

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### **Rating Interpretation**

Positive – Expected return of ~15% + on annualized basis in medium to long term for investment recommendations and in short term for Special situations

Neutral – Expected Absolute return in the range of +/- 15%

Negative – Expected Absolute return of over -15%

Coverage closure – No further update on the stock

% weightage – allocation in the subject stock with respect to equity investments

Short term – Less than 1 year

Medium term – Greater than 1 year and less than 3 years

Long term – Greater than 3 years

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Analyst ownership of the stock: Yes

Details of Associates: Not Applicable

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