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INDIA | INDUSTRIALS | COVERAGE INITIATION

JM FINANCIAL

Tega Industries

Eyeing a larger slice of global mining pie

On the right side of disruption – Dynaprime opens up new opportunity

Second largest player in oligopolistic market; well placed to outpace industry

Initiate with HOLD and TP of INR 630

JM FINANCIAL

Tega Industries | HOLD

Eyeing a larger slice of global mining pie

Sandeep Tulsiyan
sandeep.tulsiyan@jmfl.com | Tel: (91 22) 66303085
Roshan Paunikar, CFA
roshan.paunikar@jmfl.com | Tel: (91 22) 66303563
Gaurav Uttrani
gaurav.uttrani@jmfl.com | Tel: (91 22) 66303372

Tega Industries (Tega) is the world's second-largest manufacturer of polymer-based mill liners. These are 'critical to operate' consumable products, with strong industry dynamics such as low cyclicality (opex constitutes 3x of capex; depleting ore grades), high entry barriers (long customer conversion cycle) and oligopolistic market (top 5 players control 50% market share). We believe Tega is well positioned to outpace industry growth due to a) introduction of new products - DynaPrime liners have opened up a US$ 900mn metallic liner market for conversion, b) sticky customer base as 75%+ sales comes from repeat orders, c) de-risked business model due to low customer concentration (top 10 customers: 29% of sales) and diverse manufacturing base (India, Chile, South Africa, and Australia). We forecast the company to deliver sales/EBITDA/adj PAT CAGR of 14.2%/14.6%/15.7% over FY21-24E with healthy return ratios of 18%. We initiate with HOLD as the stock currently trades at rich PE multiples of 27x FY23E EPS and 22x FY24E EPS.

- **Second-largest producer in an oligopolistic market:** Tega is the world's second-largest producer of polymer-based mill liners (fifth largest in the overall liners market) in an oligopolistic market (top 5 players account for 50% market share). The mill liner industry is expected to grow at c.6% CAGR over the next 10 years driven by greater demand from gold/copper and depleting ore grades. The industry is characterised by strong fundamentals such as low cyclicality as opex constitutes 3x of initial capex in the mineral processing industry and high entry barriers as customer conversion cycles are fairly long (12-18 months) along with high costs associated with supplier switch.
- **Well positioned to outpace industry growth:** Tega is well positioned to sustain its steady growth rate due to a sticky customer base (75-80% of sales from repeat orders), low customer concentration (top 10 customers contribute 29% of sales), and a local manufacturing presence across four countries (India, Chile, South Africa, and Australia). We believe longstanding customer relationships will help in faster adoption of new products (DynaPrime, Trommels, Rapido) and reduction in client acquisition period. Conversion revenue accounted for 18%-25% of consolidated revenue over FY19-21.
- **On the right side of disruption – DynaPrime opens up new opportunity:** Tega has diversified its capabilities by expanding its product portfolio and offers 55 mineral processing and material handling products. DynaPrime (flagship product) has unlocked an opportunity to convert the existing metallic liner market – Total addressable market of US$ 900mn. This is a new market for Tega in addition to existing US$ 400mn rubber and PM liner market. We expect DynaPrime product range to deliver 28% sales CAGR over FY21-24E, generating INR 3.6bn sales in FY24E (30% of sales vs 21% in FY21).
- **Initiate with HOLD and target price of INR630:** We forecast the company to deliver sales/EBITDA/adj PAT CAGR of 14.2%/14.6%/15.7% over FY21-14E, with healthy RoE of 18%. We initiate coverage with **HOLD**, as the stock currently trades at rich PE multiples of 27x FY23E and 22x FY24E. **Key risks** in the business are predatory pricing by competition and technology disruption.

Recommendation and Price Target	
Current Reco.	HOLD
Previous Reco.	NR
Current Price Target (12M)	630
Upside/(Downside)	13.6%

Key Data – TEGA IN	
Current Market Price	INR555
Market cap (bn)	INR36.8/US$0.5
Free Float	21%
Shares in issue (mn)	66.3
Diluted share (mn)	66.3
52-week range	768/545
Sensex/Nifty	59,037/17,617
INR/US$	74.4

Price Performance			
%	1M	6M	12M
Absolute	-3.5	NA	NA
Relative*	-7.9	NA	NA

* To the BSE Sensex

Financial Summary					(INR mn)
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
Net Sales	6,848	8,055	9,285	10,625	11,989
Sales Growth (%)	8.1	17.6	15.3	14.4	12.8
EBITDA	1,065	1,875	2,007	2,366	2,820
EBITDA Margin (%)	15.6	23.3	21.6	22.3	23.5
Adjusted Net Profit	661	1,081	1,139	1,374	1,673
Diluted EPS (INR)	10.0	16.3	17.2	20.7	25.2
Diluted EPS Growth (%)	102.6	63.6	5.4	20.6	21.8
ROIC (%)	12.1	15.3	14.6	16.0	17.8
ROE (%)	15.3	20.1	17.2	17.7	18.4
P/E (x)	55.7	34.0	32.3	26.8	22.0
P/B (x)	8.0	6.0	5.2	4.4	3.7
EV/EBITDA (x)	36.3	20.3	18.7	15.7	12.8
Dividend Yield (%)	0.0	0.0	0.4	0.5	0.5

Source: Company data, JM Financial. Note: Valuations as of 21/Jan/2022

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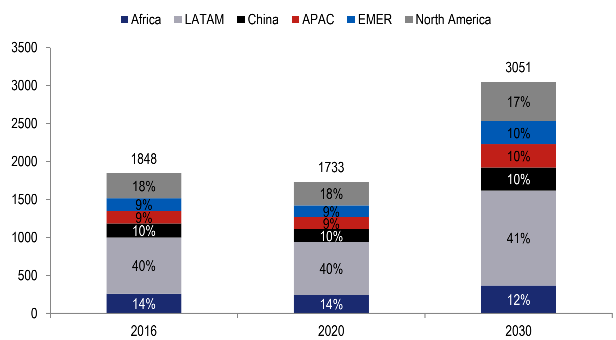
Key Charts

Exhibit 1. Key Charts

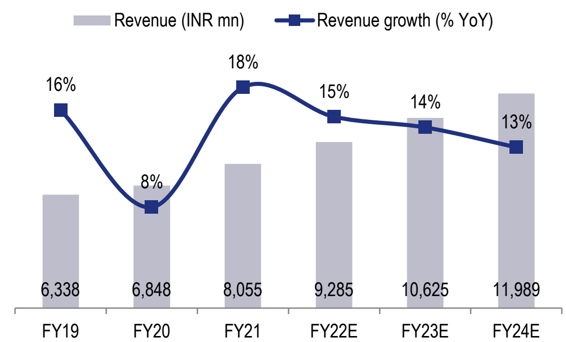
Competitive landscape – Mill type (as per material type, usage and size)

Mill Size (Diameter in mtrs)	SAG Mill				Ball Mill			
	Rubber	Composite	Hybrid	Metallic	Rubber	Composite	Hybrid	Metallic
<=2.4					Tega, Metso, Weir, Polycorp, Multotec, PT Growth, Regional players			
>2.4; <=3.8								Less presence
>3.8; <=4.6		Tega, Metso, Multotec, Weir		Less presence		Tega, Metso, Weir, Polycorp, Multotec, PT Growth, Regional players		
>4.6; <=5.5		Tega, Metso, Weir, Polycorp, Multotec		Medium presence				Medium presence
>5.5; <=8.5		Tega, Metso, Weir, Polycorp, Multotec					Tega Metso, Siom	High presence
>8.5; <=9.5		Tega, Metso, Siom		High presence				
>9.5;<=12.5			Tega					

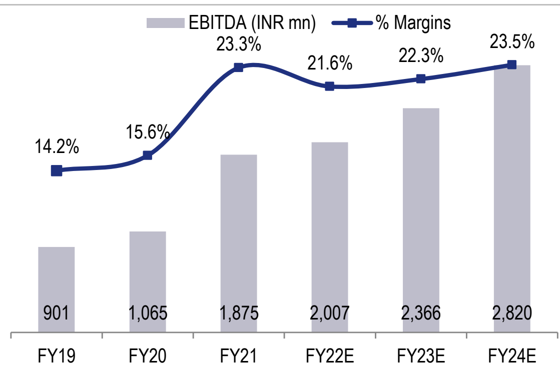
Geography-wise mill liner demand (Total in USD mn)



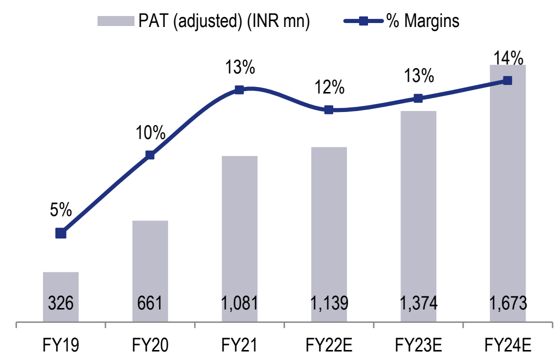
Revenue to grow steadily



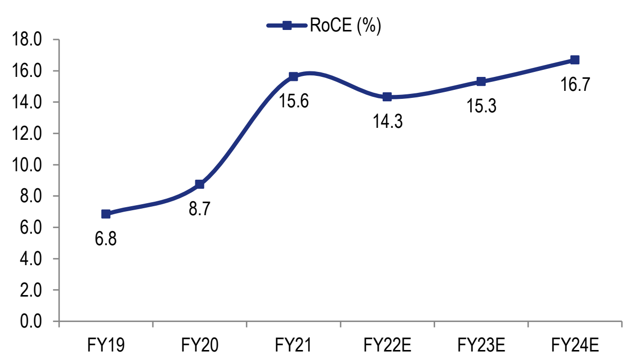
EBITDA margin helped by operating leverage



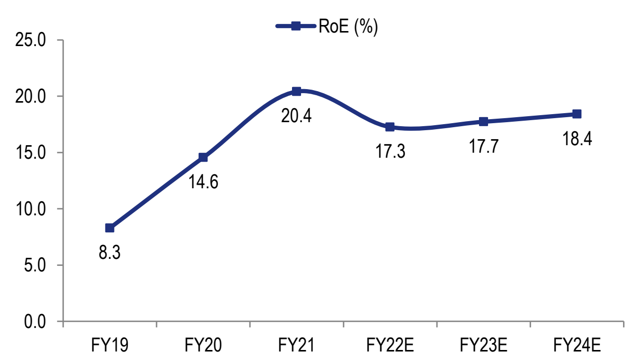
Net income to rise on the back of strong growth



RoCE profile to improve on growth



RoE expected to be stable



Source: Company, JM Financial, Industry

Investment Arguments

2nd largest producer in an oligopolistic market

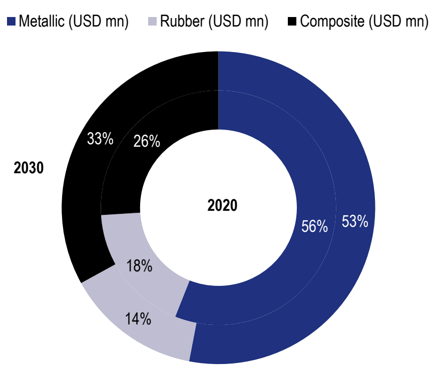
Tega Industries is the world's second-largest producer of polymer-based mill liners and the fifth largest in the overall liners industry, which is an oligopolistic market. Its products are critical to the productivity of a mineral processing site (better throughput, lower grinding media consumption, lower energy consumption and lower downtime) and lower the overall proportion of opex for the site.

Mill liner industry is expected to grow at c.6% CAGR over FY20-30E driven by –

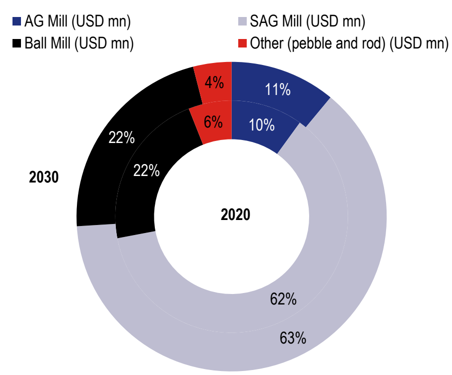
- **Declining ore grades** - Ore grades have declined over the last few years in copper and gold mines, which has led to disproportionate industry growth of around 5-7% for mining and mineral processing equipment
- **Strong demand for copper/gold** – Demand for copper and gold is expected to be driven by higher EV production/industry automation and use in jewellery/electronics industry respectively. These metals are expected to grow at 3.7%/4.3% CAGR over FY20-30E respectively, but reducing ore grades will result in 1.5-2 pps higher growth in ore mining.
- **Increasing mill sizes** – Increased usage of SAG mills and quest to improve throughput per mine has led to an increase in average mill sizes over the past few years. With increasing mill sizes, demand for lighter lining material is increasing as it helps improve overall energy consumption and reduces wear rates.

Exhibit 2. Breakdown of mill-liner market

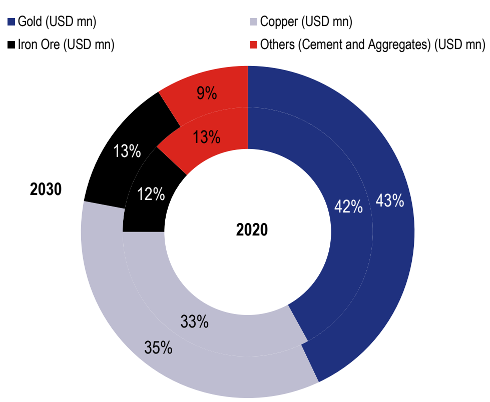
Current mill liner demand by type (%)



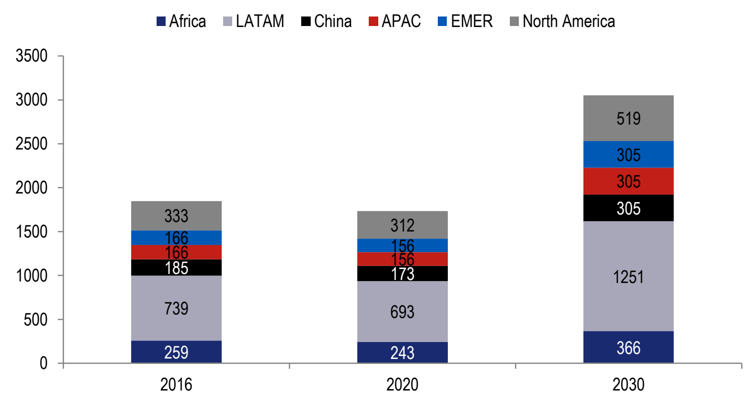
Current mill liner demand by end usage (%)



Current mill liner demand by ore type (%)



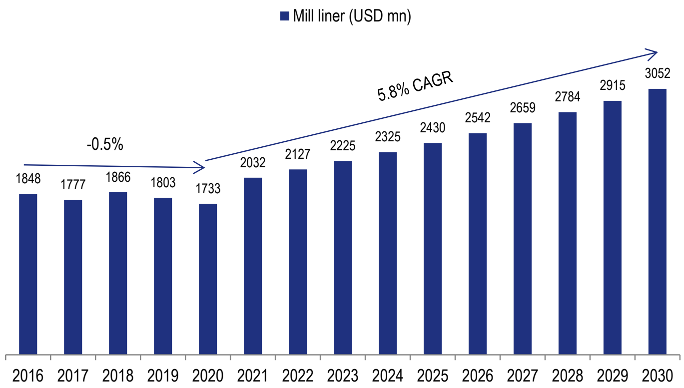
Geography-wise mill liner demand (US$ mn)



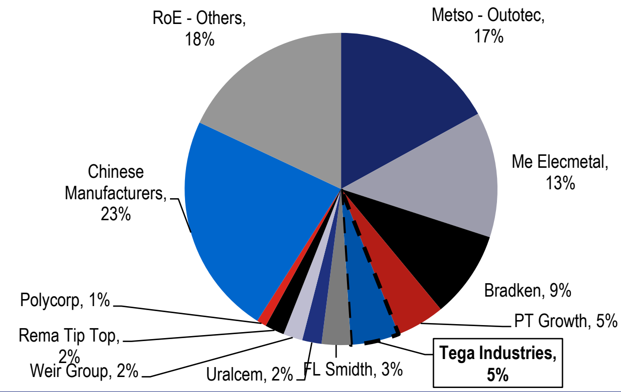
Source: Company, JM Financial

Exhibit 3. Mill liner industry expected to grow at c.6% CAGR

Mill liner expected to grow at 5.8% CAGR



Tega commands 5% share on the overall mill liner market



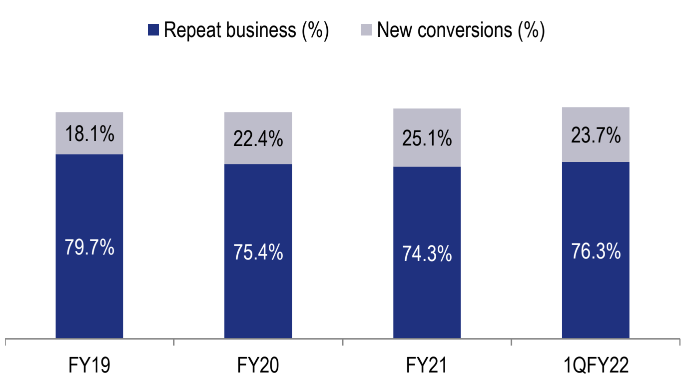
Source: Company, JM Financial

Inherent strengths in the business

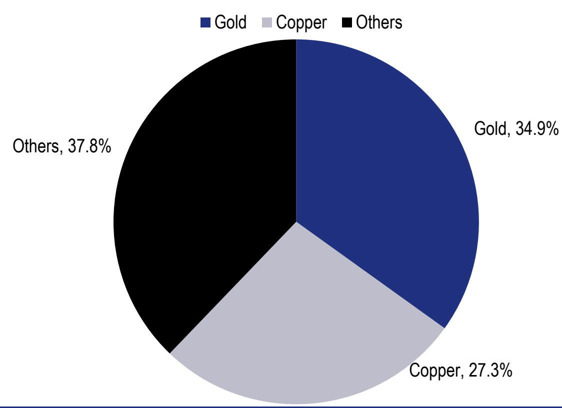
- **Sticky customer base** - Mineral processing sites do not tend to switch to a substitute supplier due to the high cost of initial planning involved, the lead time required for approval, degree of certainty of the products of an established supplier, the high cost of downtime or shutdown of a site, and relatively lower percentage cost of components in the total operating costs of a mineral processing site. It takes nine to fifteen months to become an approved supplier once approved by a customer and these approvals do not have an expiry period.

Exhibit 4. High share of repeat customer; Higher proportion of sales towards gold & copper mining

Higher proportion of repeat business



Gold & copper form majority of revenue proportion

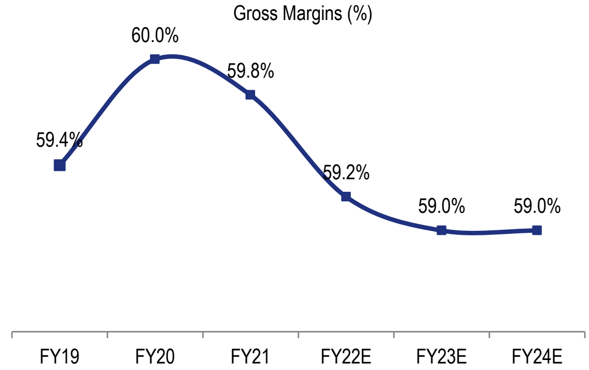


Source: Company, JM Financial

- **High entry barriers** – Entry into the industry requires customer validation and approvals, expectation from customers for product innovation, high quality standards and stringent specifications. Hence, the entry barrier is high. Given these are 'critical-to-operate' products, stringent checks are in place to ensure timely supply and adequate stocking of replacement parts to avoid unplanned shutdown and reduce downtime. Though a mill liner is a low cost component of a mill, downtime cost per hour can be as high as US$ 174,042 (with average mill tonnage of 293 tph and 9gms/tonne gold grade).
- **Insulated from mining capex cycles** - Tega caters to the after-market spend of a mining processing unit. After-market spend is typically three times the upfront capex spend over the lifecycle of a mill, and is a recurring cost for miners. Repeat orders formed 75-80% of Tega's consolidated revenue over FY19-21.

- **Resilience in margins** - Since mineral processing sites ordinarily refrain from switching suppliers and remain with an existing approved supplier, Tega has the flexibility to maintain high margins throughout the period of association with a mineral processing site. Further, liners typically forms 3-15% of the total operating costs, providing significantly leeway to Tega to pass on cost escalations to customers. This is reflected in the company's stable material margins over the last three years.

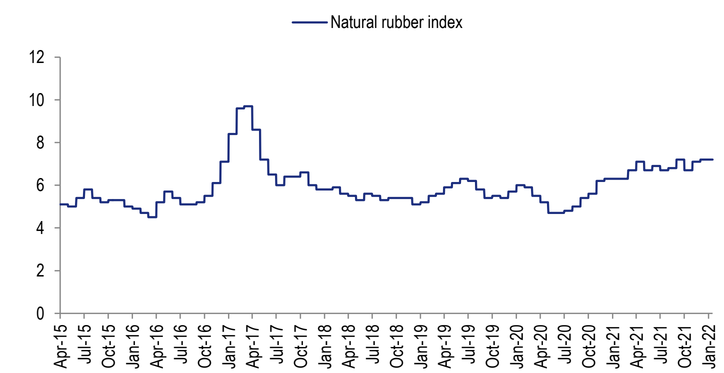
Exhibit 5. Gross margins have remained stable over past 3 years…



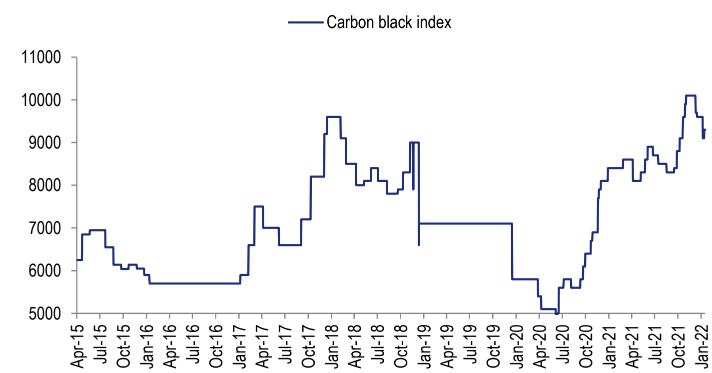
Source: Company, JM Financial

Exhibit 6. …despite high inflation seen in raw material prices

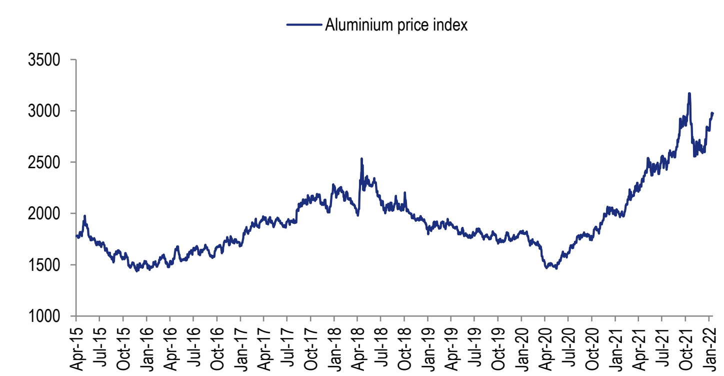
Natural rubber index



Carbon black index



Aluminium price index



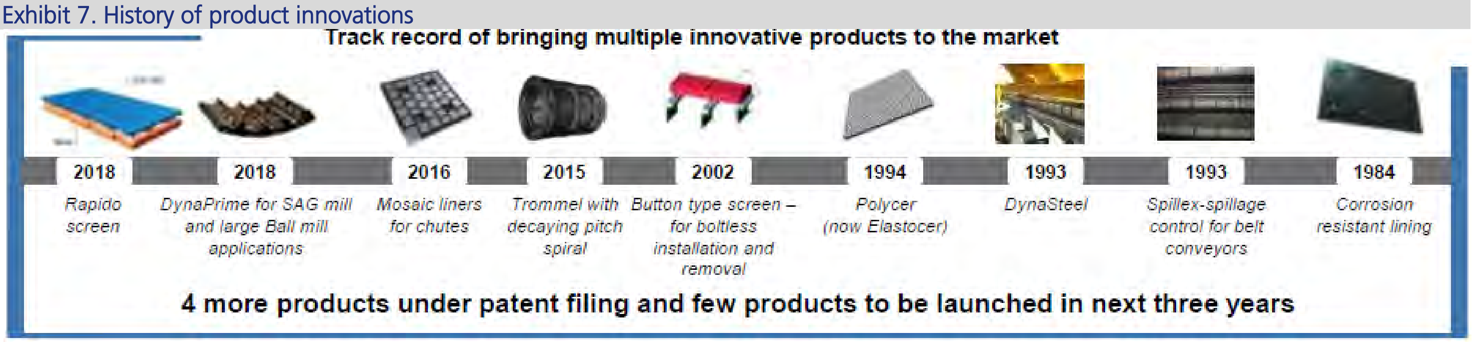
Steel price index

Source: Company, JM Financial, Bloomberg

Portfolio of technology intensive products

Tega's product portfolio comprises 55 mineral processing and material-handling products, including DynaPrime. Other recently launched precision technology value-added products include Rapido (an efficient screening machine used to separate particles according to size), mosaic liners for chutes (launched in 2016), and trommels (launched in 2015). Tega has registered eight global patents and several trademarks.

Exhibit 7. History of product innovations



Source: Company, JM Financial

Dynaprime – the flagship product

Installation downtime was higher in large mills using traditional metallic liners due to lower liner life. Further, constant replacement of metallic liners also raised concerns over installation safety. To mitigate this problem, Tega introduced DynaPrime to extend offerings in this market with improved product profile and material composition. DynaPrime requires lesser number of pieces and fixing points, which ensures faster installation. The product also led to increased life and reduction in weight, energy consumption, and personnel requirement.

- The product has unlocked a new opportunity of converting the existing metallic liner market to Dynaprime – Total addressable market of US$ 900mn. This is a new market for Tega in addition to the existing US$ 400mn rubber and PM liner market. We expect the company to generate INR 3.6bn in FY24E from this segment (30% of sales).
- As per the F&S report, Tega is the only company providing a 'hybrid liner' across both larger SAG mills in the segment range of (>9.5 dia) and Ball Mills (>5.5 dia).
- In addition to reduction in operating expenses and improving asset productivity, Dynaprime also helps in improving safety standards at a mill operating site as installation is done from outside via bolting system and requires lesser personnel for installation.

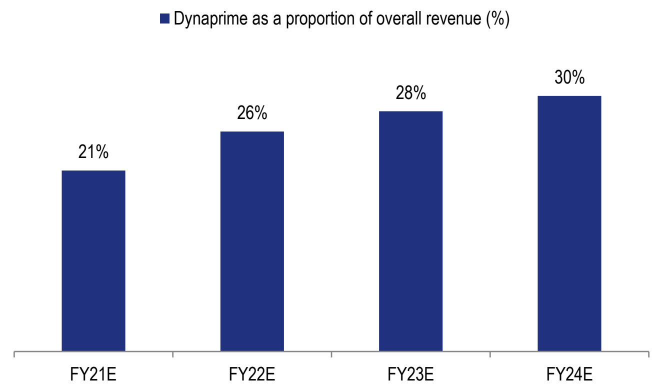
Exhibit 8. Dynaprime and its advantages

Increase asset productivity	Reduce operating expenses	Reduce risk	Improve safety	Improve environmental sustainability
Increase mill availability to process more ore	Lower maintenance cost	Do away with unplanned shut-down	Installation from outside.	Lower CEE required, enabling reduction in carbon footprint
Increase mill operation time as a result of faster relining	Lower energy expenses			
Increase life as per plant requirement	Less personnel required for installation	Better liner profile stability throughout the campaign		Reduces the environmental contamination by eliminating oxy-flame cutting
Increase ball charge volume due to decrease in liner weight	Faster reline due to lesser number of fixings for liner installation			

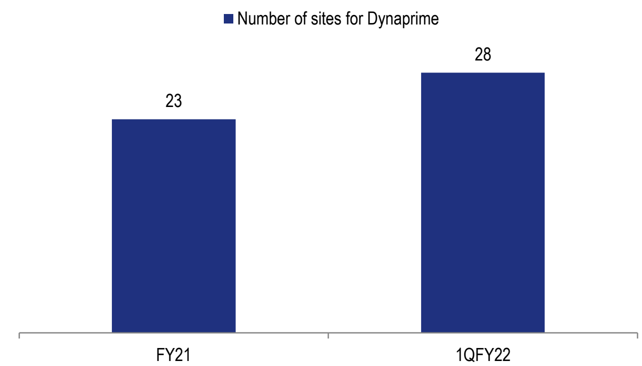
Source: Company

Exhibit 9. Dynaprime to be the primary growth driver

Dynaprime to witness 28% revenue CAGR over FY21-24E



Number of mining sites for Dynaprime – Added 5 new sites in 1Q



Source: Company, JM Financial

Case studies – depicting innovative solutions developed by Tega

Chute

- Gold mines in Canada suffered from uneven distribution of mill discharge. The objective was to get an even distribution of mill discharge with solid reporting on each outlet. Tega offered a new tapered discharge chute, with improved design and a rock box kind of arrangement. This resulted in an almost even split as desired for the circuit. Further, the liner selection was optimised to suit the new design and maximise the liner life. This resulted in an overall improvement in performance and increased downstream circuit efficiency.

Trommel

- Copper mines were facing regular shutdowns due to the short life of the trommel panels. The objective was to improve the life of the trommel panel for greater productivity. Tega designed a panel that was optimised to counteract the wear rate. The heavy duty rubber trammel panels optimised for each specification resulted in an increase in the life of the panels, reduction in the number of shutdowns per annum, and reduction in the cost per tonne of the trammel panels.

Centrax

- Iron ore mines in India were facing frequent tripping due to exaggerated belt sway, which resulted in unscheduled shutdown to clean the spillage. To control the belt sway and stop unscheduled shutdowns, Tega offered Centrax in identified locations. Centrax lowered the belt sway, reducing instances of tripping of the belt. This also increased belt life and provided annual savings to the customer.

Distributed manufacturing facilities

Tega has six manufacturing sites, including three in India (at Dahej in Gujarat, at Samali and Kalyani in West Bengal), and three in major mining hubs of Chile, South Africa, and Australia. Facilities in India cater to the domestic and overseas markets across mineral processing and materials handling industries, while facilities in Chile, South Africa, and Australia cater to their respective local and regional mineral processing and materials handling industries. Additionally, the joint venture in India with the UK branch of Hosch Group, Germany, is engaged in precision conveyer belt cleaning and caters to various industries in India. Tega also has 18 global and 14 domestic sales offices located close to key customers and mining sites.

Exhibit 10. Manufacturing facilities

Sr. No	Facility location	Capabilities/products manufactured	Leased/owned	COD/Acquisition
Domestic				
1	Dahej, Gujarat	Mill Liners, Wear products, Screens and Trommels	Leased	2013
2	Samali, West Bengal	Mill Liners, Wear products, Hydrocyclones, screens, trommels and conveyors products	Owned	1985
3	Kalyani, West Bengal	Mill liners (except Dynaprime), Conveyor products, Chute liners and Pump liners, Hydrocyclones	Leased	1978
Overseas				
4	Chile	Mill liners, Trommels, Chute liners, Screens, Pipe and pipe repair and spools	Leased	2011
5	South Africa	Mill liners (except Dynaprime), Spillex, Screen panels and Chute liners	Owned	2006
6	Australia	Chute liners and Trommel	Leased	2010

Source: Company

Low customer concentration

Tega has a diversified client base with the top 10 customers accounting for around 29% of the revenue from operations for last 3 years. This diversified customer base reduces the geographical and concentration risk as the company operated at 513 mining sites in FY21.

Exhibit 11. Low customer concentration

Customer concentration

Low client concentration	For last 3 years	1QFY22
Top 10	29%	34%
Top 20	42%	53%
Top 50	65%	78%

Continuously rising customer base

	FY19	FY20	FY21	1QFY22
Customer sites (Nos.)	479	498	513	212

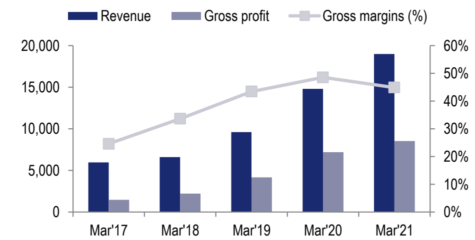
Source: Company, JM Financial, Industry

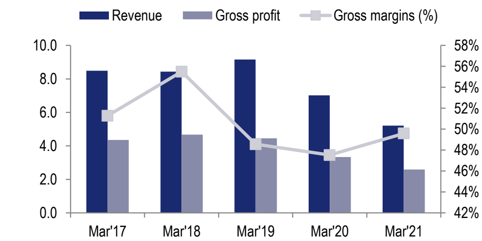
Strong track record of acquisition and successful integration

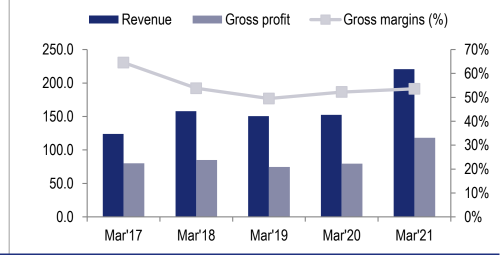
- In FY07, Tega acquired Tega Industries Africa (Pty) Ltd. (formerly, Beruc Equipment (Proprietary) Limited) ("Tega Africa") a South Africa-based manufacturer and distributor of grinding mill liners and screen media, et al. The acquisition provided access to manufacturing capabilities and customers in Africa's mining and industrial markets including member countries of the Southern African Development Community (SADC).
- In FY11, Tega acquired Chile-based Tega Industries Chile SpA (formerly Acotec SA) ("Tega Chile") which manufactures pumps, screen media, and wear products. The facilities in Chile gave it access to the South American markets including Chile, Peru, and Bolivia (Latin American markets contribute 40% of global copper production and 8% of global gold production).
- In FY11, Tega acquired Perth-based Losugen Pty. Ltd. ("Losugen"), which specialises in the design, distribution, installation, wear monitoring of wear liners, rubber lining, and screens for mining handling industries.

Exhibit 12. Subsidiary financials

Chilean subsidiary (amount in Chilean Peso)	Australian subsidiary (amount in AUD)	South African subsidiary (amount in SAR)





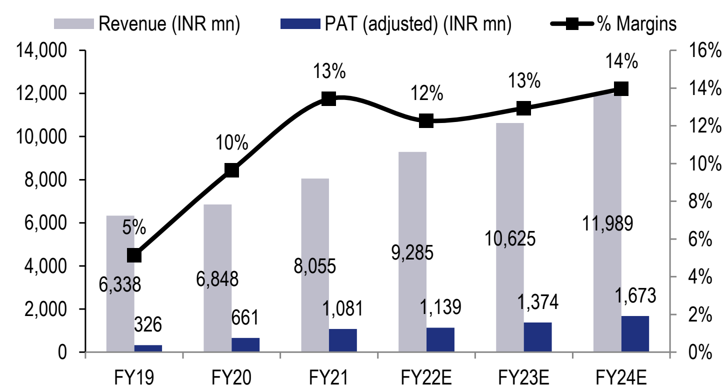


Source: Company, JM Financial

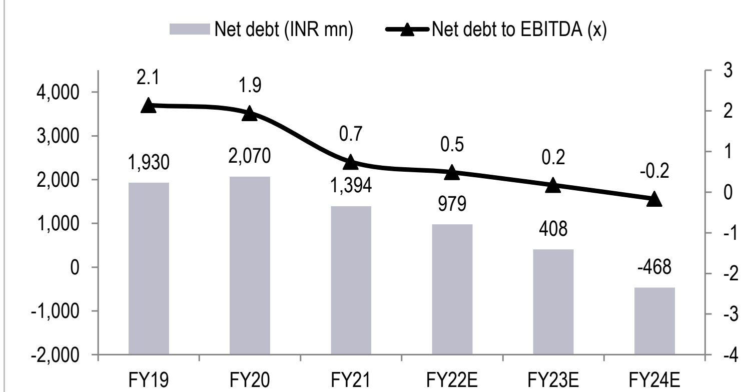
Strong financial profile

Exhibit 13. Strong financial profile

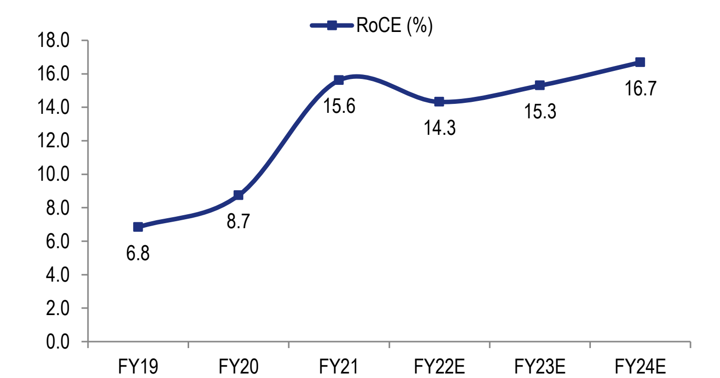
Strong revenue growth will drive profitability margins



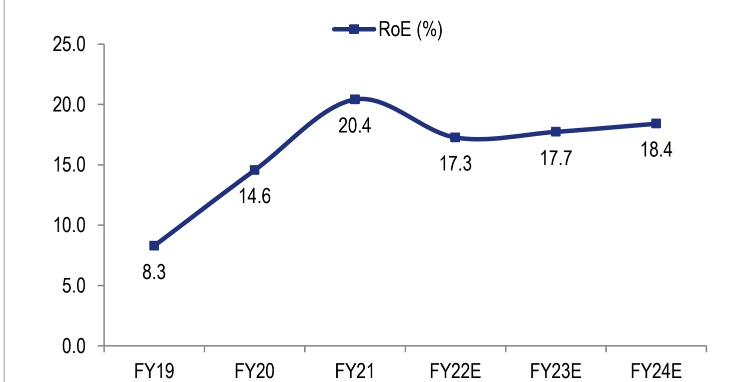
Low debt gives ability to capitalise on expansion opportunities



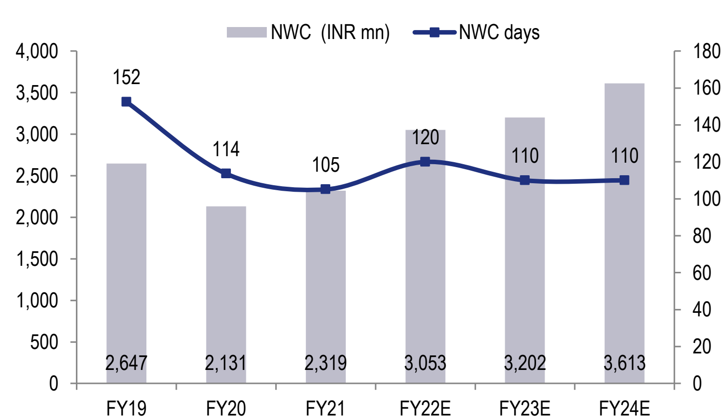
RoCE profile to improve, going forward



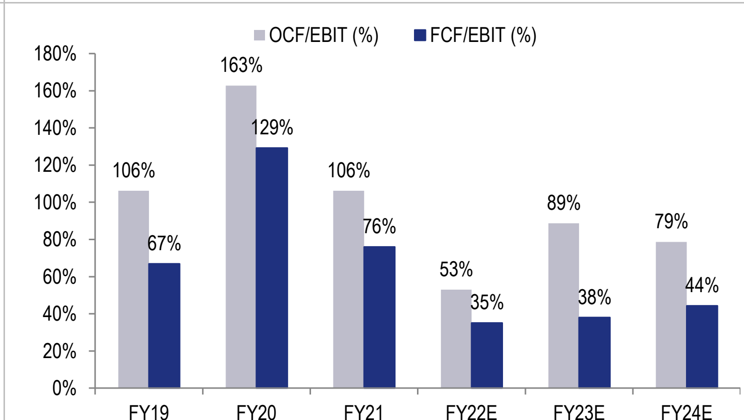
RoE profile to remain stable



Net working capital trend



Cash flow to EBIT ratios



Source: Company, JM Financial

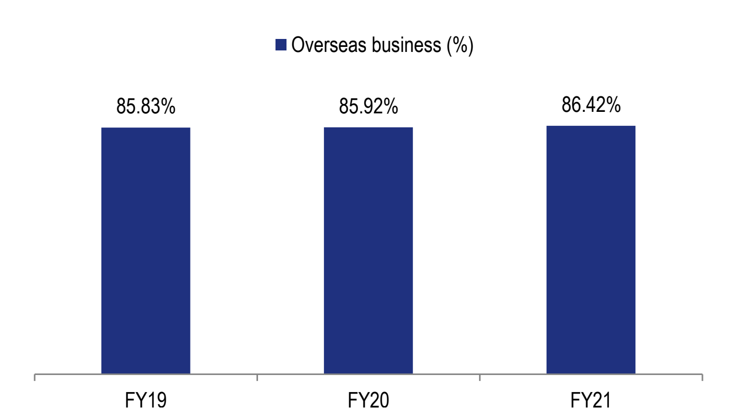
Overseas business contributes significant proportion of revenue

Over FY21, FY20, and FY19, Tega's overseas business constituted 86.42%, 85.92% and 85.83% of consolidated revenue with its presence at 513, 498, and 479 installation sites respectively in over 70 countries. The key markets include North America, South America, Africa, EMER and Asia Pacific, which constituted 13.74%, 24.71%, 22.62%, 15.49% and 9.85% of the consolidated revenue in FY21.

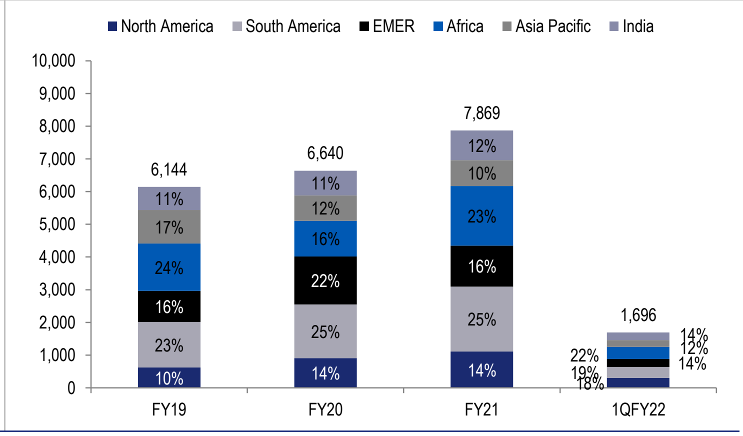
Tega is further expanding its operations in other markets of North America, South America, Australia, and South Africa. The focus end-customers are mineral processing sites involved in gold and copper ore beneficiation.

Exhibit 14. Overseas business accounts for majority of revenue

Overseas business accounts of more than 85% of revenue



Geographical revenue spread (total in INR mn)



Source: Company, JM Financial

Valuation framework

Stock trades at 22x FY24E PE; we value the company in line with its larger peers

- We contrast and compare Tega Industries' business with its peers in India and the global mining industry to arrive at a fair valuation multiple for the company. The product profile varies across these companies, but the underlying growth drivers are similar. While Tega's business size and scale is much smaller compared to its larger India peer - AIA Engineering – its business is superior in a few aspects as **a)** distributed manufacturing facilities eliminate risks related to logistics/travel, **b)** consistent introduction of new products has expanded its product basket to include liners, screens, and conveyor products to capture a wallet share of customers and **c)** low threat of non-tariff barriers on imports due to local manufacturing presence across different regions.
- We also compared valuation multiples with other consumable companies in segments such as bearings and abrasives. While mill liner products are consumable in nature, the end-user industry is much more concentrated than the non-mining consumables which cater to multiple end user industries. Also, industry growth rates in the mining segment are significantly lower due to its global spread, when compared with domestic automotive or industrial segments such as railways, wind energy, and material handling. Thus, we believe the steep valuation discount to other consumable companies is justified.
- **We value Tega Industries at PER of 25x FY24E EPS to arrive at a target price of INR630**. Our target multiple is at a discount to other consumable companies, but in line with our target PE for AIA Engineering, as growth profile and RoEs are similar in nature, but Tega has a better cash conversion cycle.

Exhibit 15. Peer group valuation table

Companies	M Cap.	EV	EV/Sales			PE			EV/EBITDA			P/B		
	(INR bn)	(INR bn)	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Domestic mining consumables														
Tega Industries	36.8	38.2	4.1	3.6	3.2	32.3	26.8	22.0	19.0	16.1	13.5	5.1	4.4	3.7
AIA Engineering	179.1	167.0	4.9	4.0	3.5	30.7	23.3	20.3	24.6	17.9	15.8	3.9	3.5	3.2
Domestic non - mining consumables														
Carborundom Universal	168.5	162.2	5.1	4.4	3.9	45.0	37.0	32.9	28.5	23.9	21.1	NA	NA	NA
Grindwell Norton	213.6	207.2	10.5	8.8	7.9	71.4	58.6	51.9	51.8	42.8	38.3	NA	NA	NA
Timken India	149.6	148.1	7.6	6.7	5.3	61.5	51.7	35.1	38.0	26.9	23.0	9.5	8.1	6.5
SKF India	194.5	189.5	5.7	4.9	3.9	50.6	42.3	31.9	35.4	26.2	23.2	10.8	9.4	7.8
Schaeffler India	281.5	269.1	4.8	4.3	3.8	45.7	39.7	33.8	28.1	24.7	21.3	7.7	7.0	6.2
Wtd avg – Domestic (Ex-Tega)			6.1	5.2	4.5	48.2	40.0	33.0	32.6	26.0	22.8	5.1	4.5	3.8
International Peers	USD bn	USD bn												
Metso Outotec	9.4	10.4	2.2	1.9	1.7	24.2	17.5	14.9	14.7	11.5	9.9			
Weir Group	6.2	7.6	2.8	2.5	2.4	24.5	19.5	17.5	15.0	12.6	11.9			
FL Smidth	2.0	2.3	0.9	0.8	0.7	25.9	17.0	13.3	11.0	8.8	7.6			
Sandvik	33.3	36.3	2.9	2.7	2.6	18.1	16.7	15.6	11.6	10.8	10.3			
Wtd average - International			2.7	2.5	2.3	20.3	17.2	15.6	12.6	11.1	10.3			

Source: Company, JM Financial, Bloomberg

Tega Industries Limited

Overview

Tega is the world's second largest producer of polymer-based mill liners in terms of revenue for FY20, in a near oligopolistic market structure. It is present across the value chain of a mineral processing site and provides a wide range of products and solutions across different stages of mineral processing. Tega commenced operations in 1978 in India, after a foreign collaboration with Skega AB, Sweden. Madan Mohan Mohanka acquired the entire equity stake of Skega AB in the company in 2001

Its offerings include solutions in the mineral beneficiation, mining and bulk solids handling industry. The company's strong engineering capability enables it to consistently offer quality, complex manufactured products, driving operational efficiencies for customers.

Exhibit 16. Global footprint

Source: Company

Exhibit 17. Manufacturing facilities

Sr. No	Facility location	Capabilities/products manufactured	Leased/owned	COD/Acquisition
Domestic				
1	Dahej, Gujarat	Mill Liners, Wear products, Screens and Trommels	Leased	2013
2	Samali, West Bengal	Mill Liners, Wear products, Hydrocyclones, screens, trommels and conveyors products	Owned	1985
3	Kalyani, West Bengal	Mill liners (except Dynaprime), Conveyor products, Chute liners and Pump liners, Hydrocyclones	Leased	1978
Overseas				
4	Chile	Mill liners, Trommels, Chute liners, Screens, Pipe and pipe repair and spools	Leased	2011
5	South Africa	Mill liners (except Dynaprime), Spillex, Screen panels and Chute liners	Owned	2006
6	Australia	Chute liners and Trommel	Leased	2010

Source: Company

Exhibit 18. Capacity and utilisation

Location	FY19			FY20			FY21		
	Installed capacity (MT)	Production (MT)	% Utilisation	Installed capacity (MT)	Production (MT)	% Utilisation	Installed capacity (MT)	Production (MT)	% Utilisation
Dahej	8,173	4,391	54%	8,538	5,485	64%	9,633	4,899	51%
Samali	6,449	2,976	46%	6,449	2,859	44%	6,449	3,897	60%
Kalyani	2,008	1,707	85%	2,008	1,616	80%	2,008	1,430	71%
South Africa	3,192	1,049	33%	3,192	1,219	38%	3,192	1,643	51%
Chile	1,164	1,125	97%	2,490	1,800	72%	3,276	2,400	73%
Overall	**20,986**	**11,248**	**54%**	**22,677**	**12,979**	**57%**	**24,558**	**14,269**	**58%**

Source: Company

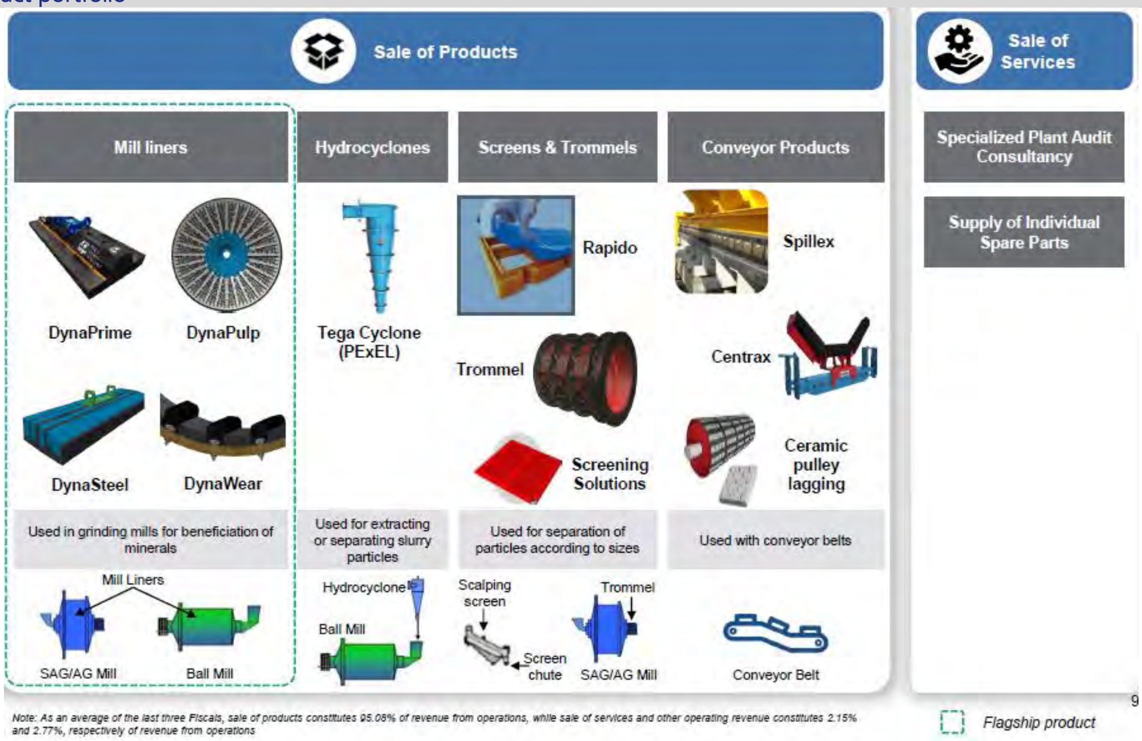
Product portfolio

The company's product portfolio includes consumables required in the mines and mineral processing industry. In the sequence of their usage in the mineral processing mines, after blasting to floatation, Tega's products include chutes and its liners, grinding mill liners, trommels and screens, hydrocyclones, pumps and flotation parts, and conveyor products.

Mill liners

Mill liners are used in grinding mills for the beneficiation of minerals. The types of mill liners include DynaPrime, DynaSteel, DynaPulp, and DynaWear, all of which are Tega's flagship products.

Exhibit 19. Product portfolio



Source: Company, JM Financial

Exhibit 20. Major competitors

Products	Competitors
Mill liners	Metso-Outotec, Mc Elecmetal, Bradken, FL Smidth and Wier
Hydrocyclones	Wier, FL Smidth, Metso-Outotec, Schlumberger and Technip
Trommels and Screens	Multotec, Sandvik, FL Smidth and Metso-Outotec
Mineral processing equipment	Metso-Outotec, Trelleborg AB, FL Smidth and Wier

Source: Company

Services segment

The services segment offering ranges from undertaking specialised plant audit consultancy service to customers for grinding and classification upgrades, supplying individual spare parts, to comprehensive solutions covering maintenance and operations. The company focuses on creating unique solutions to enhance the performance and productivity of its customers' plants and equipment throughout their entire lifecycle.

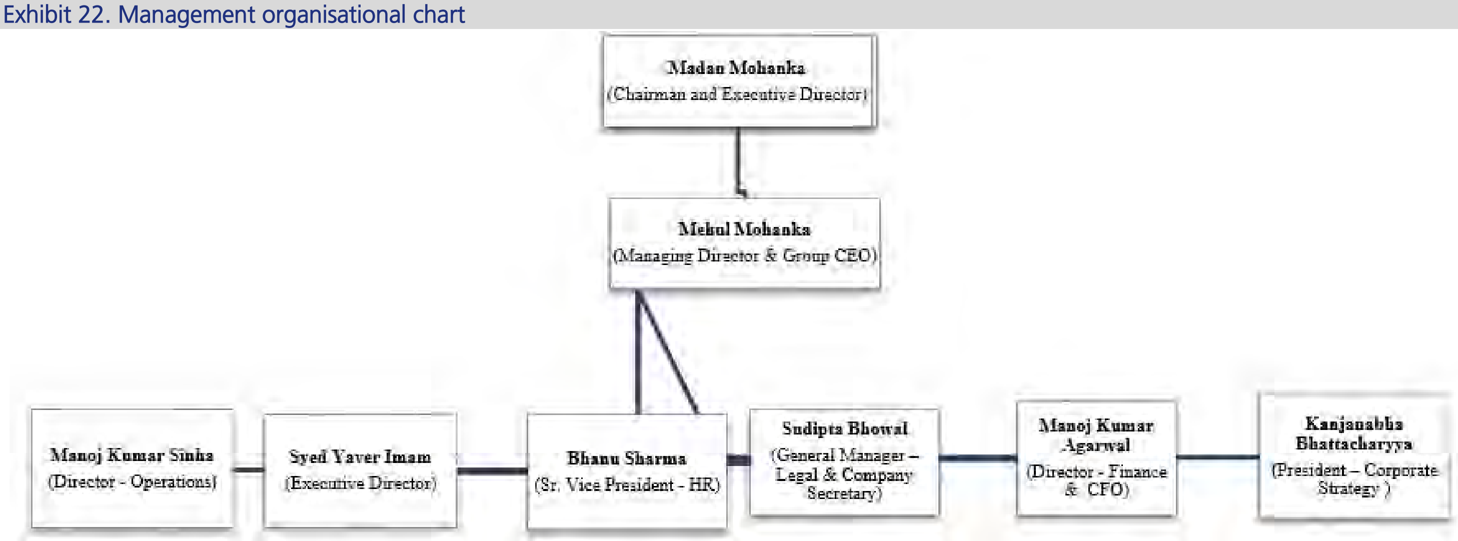
Milestones

Exhibit 21. Key milestones

Year	Details
1975-76	Collaboration agreement entered into between Madan Mohan Mohanka and Skega AB, Sweden and incorporation of the company
1991	Joint Venture alliance with Hosch (G.B.) Ltd.
1992	Application for registration of patent in relation to method of preparing liner
2001	Buyout by Madan Mohan Mohanka of Skega AB's entire stake in Company
2002	Amalgamation of MM Global Private Limited with Company
2006	Acquired Beruc Equipment, South Africa
2010-11	Acquired Acotec S.A, Chile and Losugen Pty Ltd, Australia
2011	Investment by Wagner Limited, an affiliate of TA Associates Management, L.P.
2013	Grant of patent in relation to mosaic liners for chutes
2018	Amalgamation of Tega Industries (SEZ) Limited with Company.
2019	Grant of trademark in relation to 'DynaPrime'

Source: Company

Exhibit 22. Management organisational chart



Source: Company

Key Managerial Personnel

Madan Mohan Mohanka

He is one of the Promoters of the company, and the Chairman and Executive Director of Tega. He holds a bachelor's degree in science (engineering) from Ranchi University and a post graduate diploma in business administration from Indian Institute of Management, Ahmedabad. He has been associated with the company since its incorporation.

Mehul Mohanka

He is one of the Promoters of Tega, and the Managing Director and Group CEO of the company. He holds a bachelor's degree in commerce from University of Calcutta. He also completed MBA from University of Pittsburgh and an advanced management programme from Harvard Business School. He has been with associated various industry associations in different capacities. He has been associated with the company for almost two decades and has been instrumental in diverse functions such as sales and operations.

Syed Yaver Imam

He is the Executive Director of Tega and has been designated as Director – Global Product Group. He holds a bachelor's degree in civil engineering from Jadavpur University and has completed a short-term course in mineral processing from Indian School of Mines, Dhanbad. He has been associated with the company since 2005.

Manoj Kumar Agarwal

He is the Chief Financial Officer. He joined as President – Finance on April 20, 2015. He was previously associated with Sesa Sterlite Limited for almost a decade.

Manoj Kumar Sinha

He is Director Operations. He has been associated with Tega since September 28, 2015. He was previously associated with Tata Engineering and Locomotive Company Limited, New Holland Tractors (India) Private Limited and Sterling Generators Private Limited.

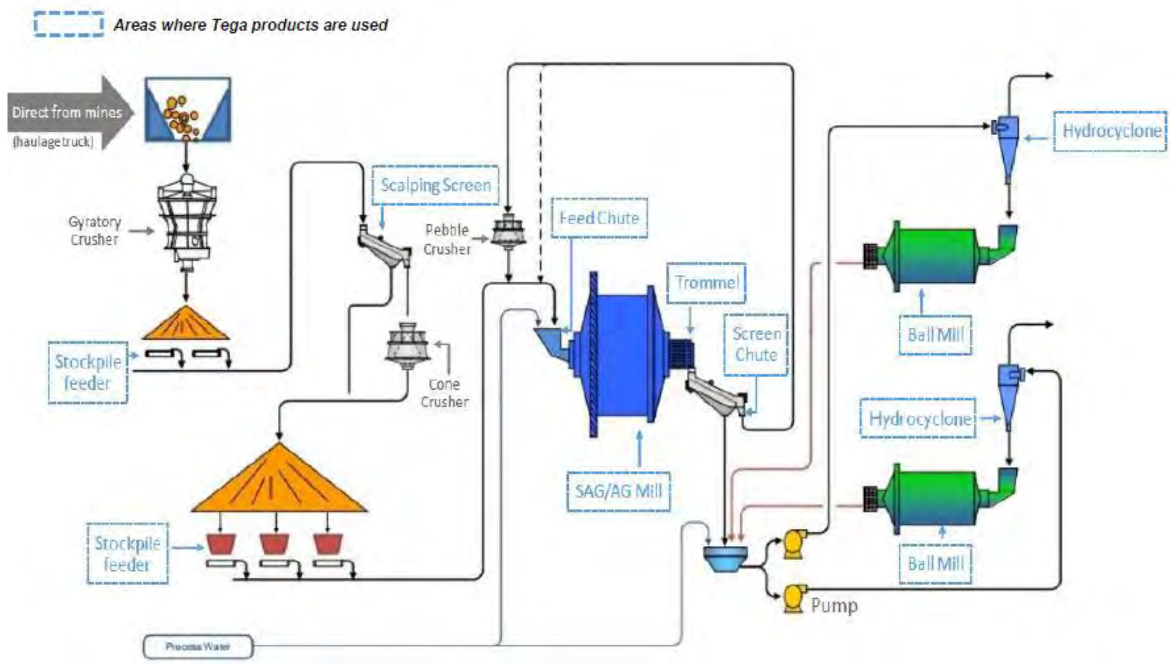
Kanjanabha Bhattacharyya

He is President – Corporate Strategy. He has been associated with the company since April 5, 2021. He was previously associated with Outotec India Private Limited, Boston Consulting Group (India) Private Limited and Siemens VAI Metals Technology Private Limited.

Mineral processing industry

- The mineral processing value chain (after mining the ore to floatation) requires various mineral processing equipment such as chutes, grinding mills, trommels and screens, hydrocylones, pumps, floatation parts and conveyors. The surfaces of these equipment are subjected to high impact, sliding abrasion and corrosion. To protect them, have a longer service life, reduce downtime, and reduce noise levels during the operation, it is very critical to install liners that can withstand sliding abrasion in these equipment.
- Mineral processing happens over three stages – Crushing, Screening and Concentration
  - Crushing is done to reduce the size of rocks, stones, and ores.
  - Screening is used to separate the granulated ore into multiple grades by particle size
  - Concentration - The common ore dressing methods are gravity concentration, flotation, magnetic separation, electric separation, chemical dressing, and so on.

Exhibit 23. Mineral beneficiation process

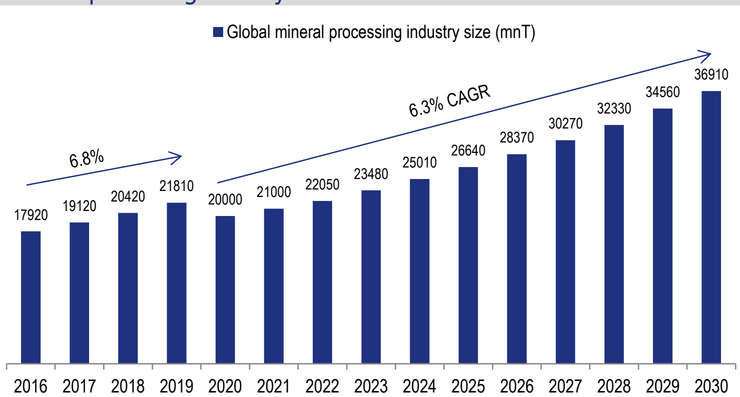


Source: Company, JM Financial

Global Mineral Processing Industry

- The global mineral processing equipment market was an estimated USD 20 bn in CY20. The market reported a growth of 7% CAGR until CY19. The industry is likely to recover in CY22 and is estimated to grow to USD36.9 bn by CY30, at a CAGR of 6.3%.

Exhibit 24. Mineral processing industry outlook



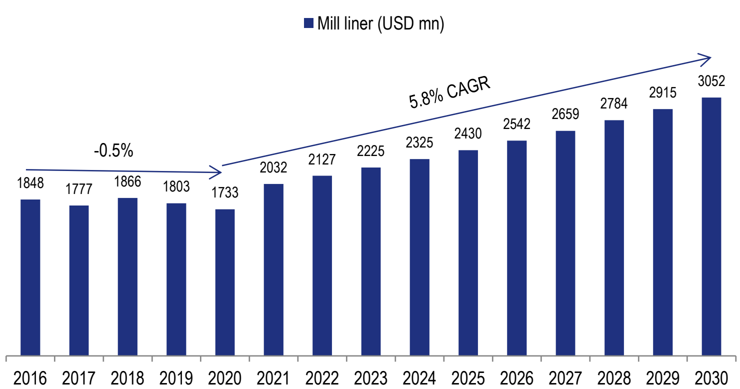
Source: Company, JM Financial

Global mill liner industry

Overview

- A mill is a machine that grinds, cuts, and crushes solid materials into useable sizes for further processing. Mill liners fundamentally protect mills from the wear that comes with grinding harsh raw materials.
- Mill liners improve a mill's performance, efficiency, and longevity; however, not all mill liners are made equal, even though they all serve the same purpose. Mill liners can be classified as metallic, rubber or composite materials based on the type of material used.
- Copper and gold mine processing sites are key consumers of mill liners, as the mined material is significantly abrasive; also, the yield per tonne of ore mined in these two segments is declining due to ore degradation and excess mining in the past. Mill liners primarily have a life of 6 months to 2 years, depending on the hardness of the ore to be refined.
- The global mill liner market was estimated at USD1.73bn in CY20 and was largely driven by ore beneficiation in gold and copper worldwide and iron ore in Brazil and China. The market was oligopolistic in nature with the top 5 producers, namely Metso- Outotec, Me Elecmetal, Bradken, PT Growth and Tega Industries, capturing a global market share of 49%.
- Demand is primarily driven by LATAM countries, which 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 liners is higher in replacement against newly installed grinding machine with mill liner in a year. The ratio is expected to be about 70% to 80% from replacement and 20% - 30% from new installed machines

Exhibit 25. Mill liner industry



Source: Company

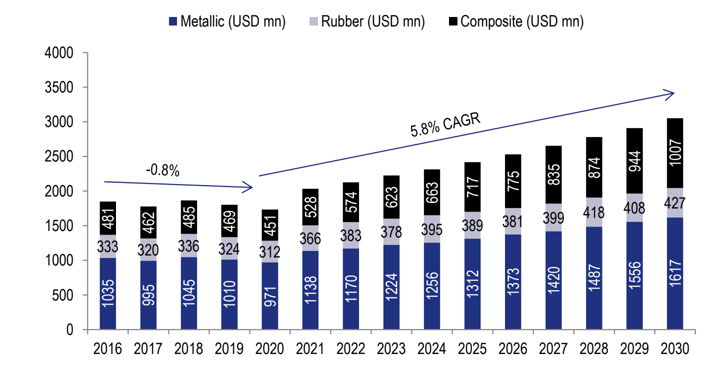
Exhibit 26. Global mill liner industry - competition

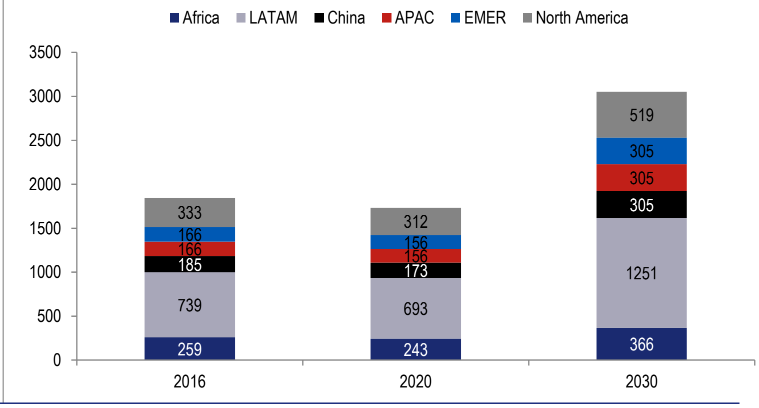
Global competition	Countries	Market Share	2020 Revenue (USD mn)
Metso - Outotec	Finland, India, Argentina, Australia, US, Peru, Brazil, Chile, Estonia, Belarus, Indonesia, Kazakhstan, Paraguay, Norway, Russia, South Africa, Sweden, UK and Uzbekistan	17%	300
Me Elecmetal	Chile, US, China and Zambia	13%	230
Bradken	Australia, China, Canada and Malaysia	9%	163
PT Growth	Indonesia, China, Australia, Ghana, South Africa, Chile, Peru and Mexico	5%	83
Tega Industries	India, Chile, South Africa and Australia	5%	80
FL Smidth	China, India and Poland	3%	54
Uralcem	Russia	2%	31
Weir Group	Poland, US, Mexico, Colombia, India, China, South Africa, Brazil, Peru, Chile	2%	30
Rema Tip Top	Germany & China	2%	30
Polycorp	Mali, Mongolia & Russia	1%	25
Chinese Manufacturers	China	23%	400
RoE - Others	RoW: Chile, Peru, USA, and South Africa	18%	307
Total			**1733**

Source: Company

Exhibit 27. Mill liner demand forecast

Current mill liner demand by type (%)	Geography-wise mill liner demand (USD mn)





Source: Company, JM Financial

Exhibit 28. Mill liner usage by type/size of mill

Mill Size (Diameter in mtrs)	SAG Mill				Ball Mill			
	Rubber	Composite	Hybrid	Metallic	Rubber	Composite	Hybrid	Metallic
<=2.4					Tega, Metso, Weir, Polycorp, Multotec, PT Growth, Regional players			Less presence
>2.4; <=3.8								
>3.8; <=4.6		Tega, Metso, Multotec, Weir		Less presence		Tega, Metso, Weir, Polycorp, Multotec, PT Growth, Regional players		
>4.6; <=5.5		Tega, Metso, Weir, Polycorp, Multotec		Medium presence				Medium presence
>5.5; <=8.5		Tega, Metso, Weir, Polycorp, Multotec					Tega Metso, Siom	High presence
>8.5; <=9.5		Tega, Metso, Siom		High presence				
>9.5;<=12.5			Tega					

Source: Company, JM Financial

Global Mill Liner Market by Type

- Steel mill liners are preferred in large grinding mills, unlike rubber mill liners that are best suited to small and medium-sized mills with diameter up to 6.5-meters.
- Rubber lines, often available in ball mills less than 3.8 meters in diameter, are most usually employed in smaller operations.
- Composite mill liners are made with a combination of various steel alloys and rubber compounds. These mill liners have large demand from primary ball and SAG mill. **Advantages of composite mill liners:**
  - Composite mill liners are nearly 35-40% lighter in weight vs. conventional metallic mill liners - offer less downtime and quick installation.
  - Composite offers flexibility in the design and has fewer components. This reduces joints between liners and minimises joint gaps.
  - Composites are faster to produce and, therefore, the lead times are shorter.
  - Lighter mills can be optimised to increase volumetric capacity, resulting in higher production.
- Hybrid mill liner is made from a combination of various steel alloys and rubber compounds. It has a special attachment system that does not require the crew to be present in the grinding mill, making it secure and faster to install than a conventional metallic liner.

Global Mill Liner Market Size by Application

- SAG mills will dominate the market at a CAGR of 6% until CY30. AG mills, meanwhile, will be the fastest growing mill segment at a CAGR of 6.8%.
- The metallic liner has a relatively lower presence in a smaller mill, moderate presence in mid-size mill segments, and relatively higher presence in bigger mills.
- Tega, Metso and Wier closely compete with each other in composite mill liners under the SAG mill category. But Tega is the only company producing hybrid mill liner for SAG mill with diameter over 9.5 to 12.5-meter range.
- In ball mill, Tega is one among the leading global competitors in rubber and composite mill liners and is one of top manufacturers of hybrid type mill liners in the segment range of 5.5 to 8.5 meter, competing with Metso and Siom.
- Tega largely focuses on, and has a strong presence in large mill liners with metallic segment for both Ball and SAG mill.

Global Mill Liner Market Size by Industry

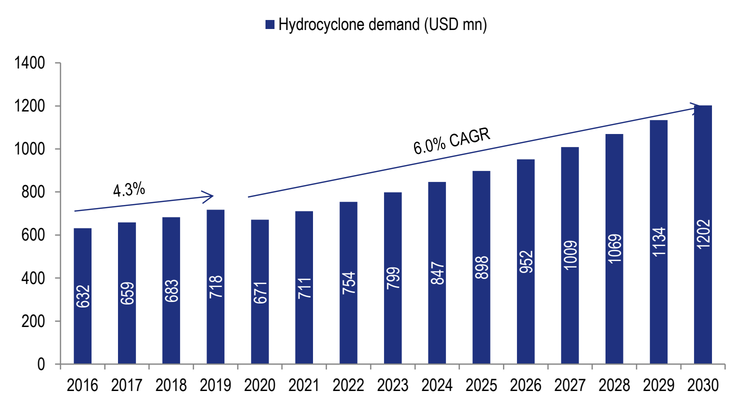
- Mill liner demand in gold mining is expected to grow at a CAGR of 6.1% by 2030, while the demand for copper mines will grow at a CAGR of 6.4%. Mill liner demand in the iron ore industry is expected to grow at a CAGR of 6.7% due to the growing demand for ore beneficiation. Mill liner applications in the gold and copper industry will be the top driver.

Global hydrocyclone industry

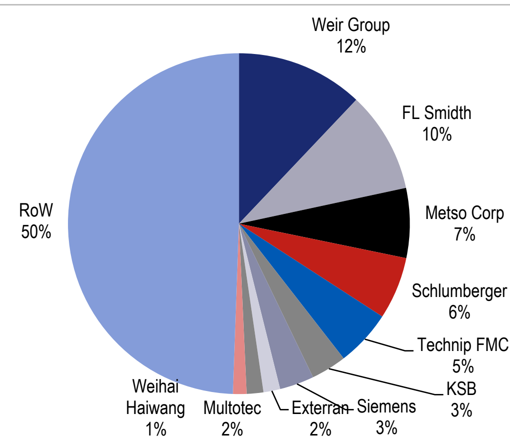
- Gold, copper, and iron ore segments account for 60% of the demand for hydrocyclones. Coal and construction are the other key segments. The global hydrocyclone market was estimated to be USD 671 mn in CY20. Wier, FL Smidth, Metso, Schlumberger and Technip are the top 5 suppliers, accounting for 43.1% of the market share.
- Owing to copper and iron ore mining activities, LATAM countries account for 35% of the global demand for hydrocyclones. The global hydrocyclone market is expected to grow at a CAGR (2020–2030) of 6.0% to reach USD1.2 bn by CY30. Demand for hydrocyclones will resume gradually with the rebound in automotive, construction, and consumer durables segments

Exhibit 29. Hydrocyclone industry

Hydrocyclone demand and growth outlook



Player-wise demand



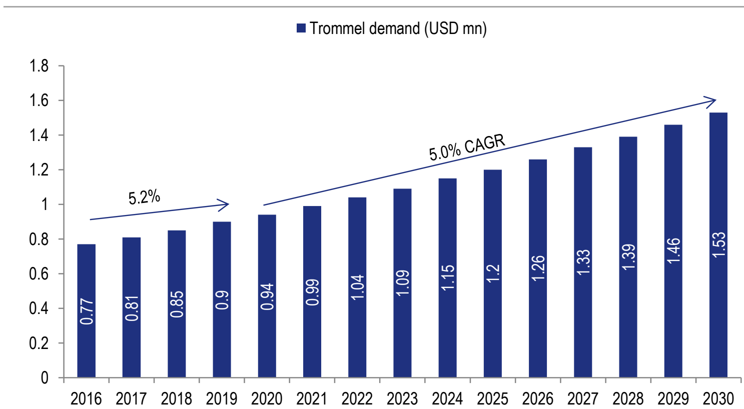
Source: Company

Global trommel and screen media industry

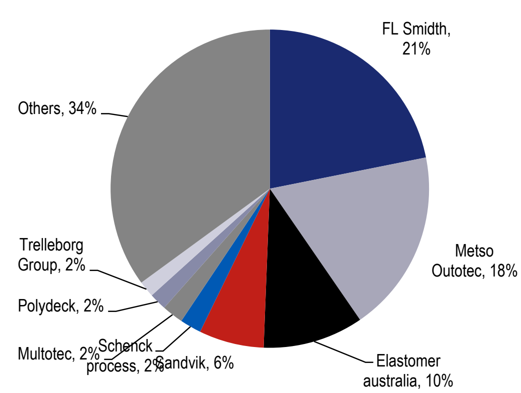
- Iron mines accounted for 44% of the total demand/revenue for trommel screens in CY20. Copper and gold are the top end-user industries, accounting for about 27% of the total trommel screen market in CY20. Stationary trommels account for 34% of the market; tracked trommels, 26%; and wheeled trommels, 17%
- Gold and copper will be the top end-user industries of screen trommel, as its application in the ore beneficiation process will increase, particularly in Latin American, Africa, Australia, China, Russia and North America
- The demand for screen trommel from iron ore (2400 mn tonnes) applications is expected to grow 45% by CY30. The demand from copper and gold (now 27%) will grow to 32% because of higher mining volumes and depleting ore grades.

Exhibit 30. Hydrocyclone industry

Trommel demand and growth outlook



Player-wise demand

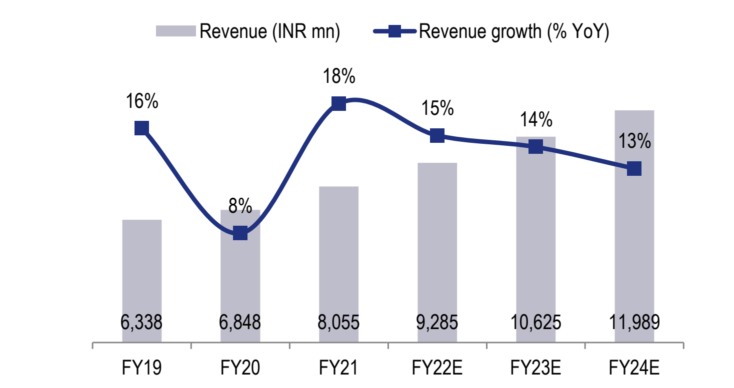


Source: Company

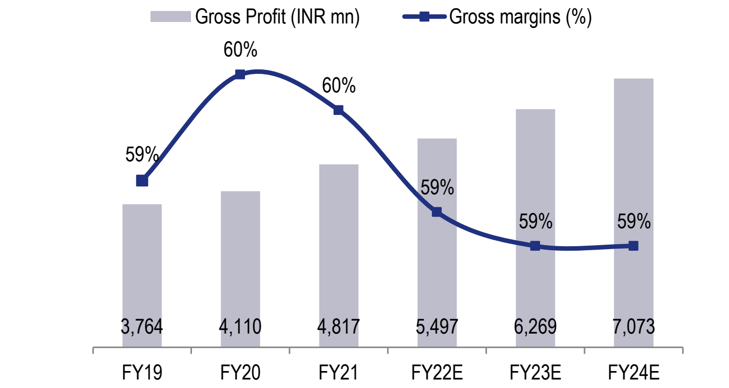
Tega - Key financial metrics

Exhibit 31. Financial Metrics

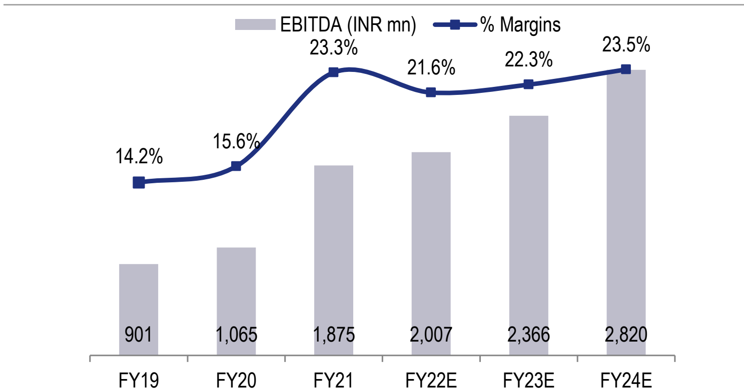
Revenue to report steady growth



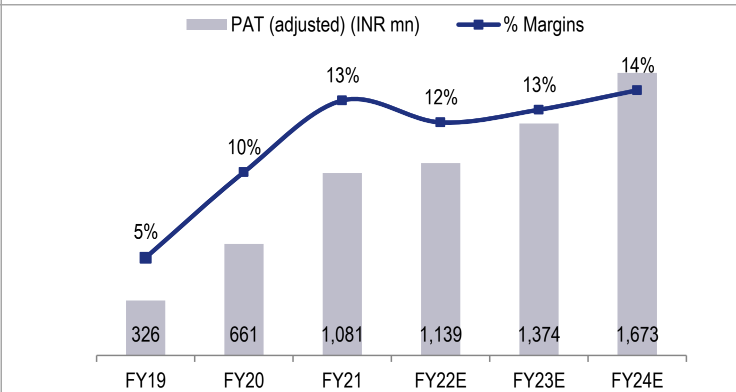
Gross profit & margins



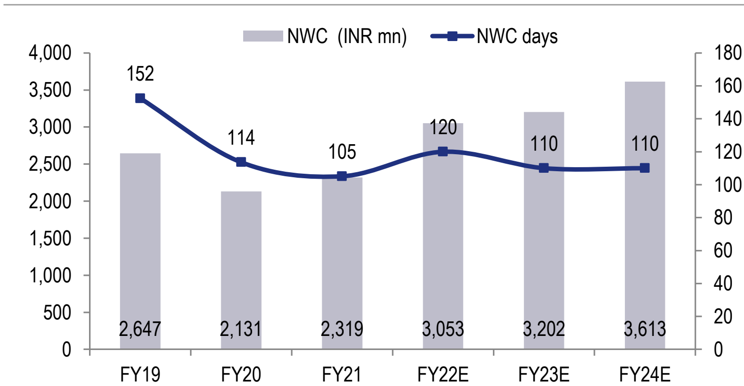
EBITDA margins helped by operating leverage



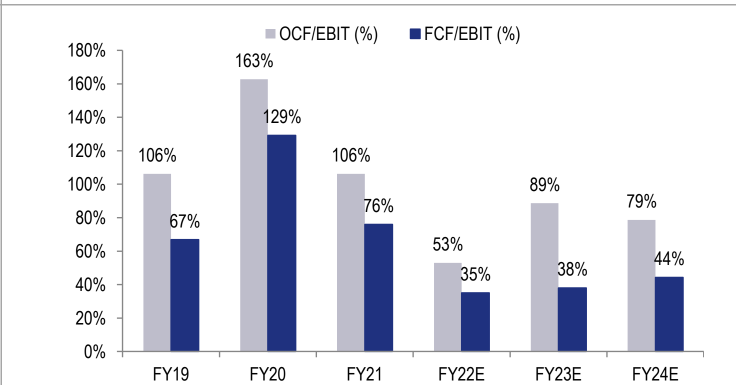
Net income to rise on the back of strong growth



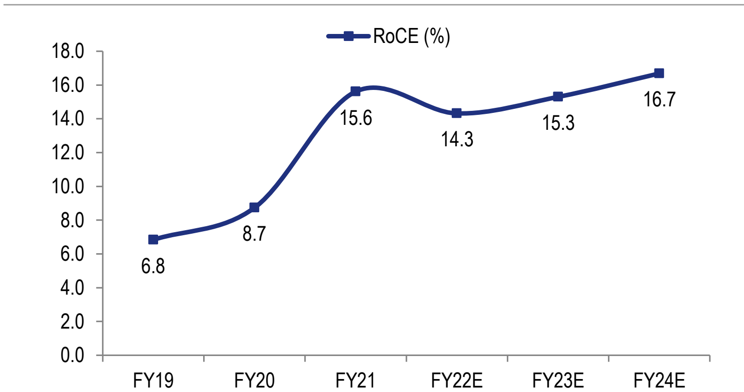
NWC to rise with rise in revenue



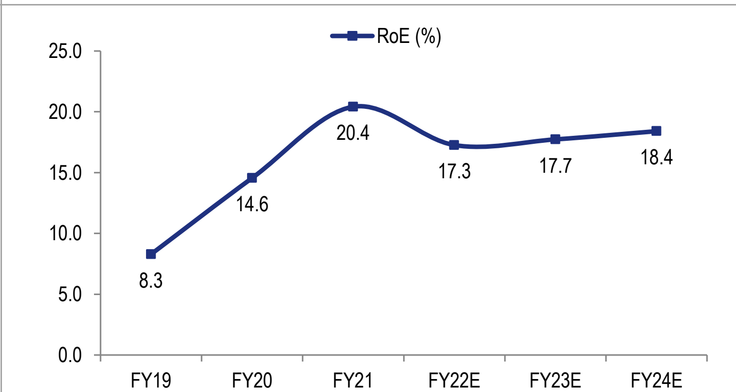
FCF lower on account of higher capex and lower other income



Return ratio profile to improve on growth



RoE expected to improve



Source: Company, JM Financial

Key Risks

Inability to comply with quality standards may adversely impact operations

During FY15-17, some customers experienced defects in certain products manufactured at the manufacturing facility in Dahej, Gujarat. Tega incurred significant costs for replacement and implementing preventive measures, and suffered customer churn, which adversely affected order book and revenue. The company incurred an expenditure of approximately INR106mn over FY16-17 in replacing the defective products.

Cancellations in orders or inability to forecast demand may impact operations

Occurrence of unforeseen events may lead to the cancellation of orders or deferment of revenue. The company's long-term contracts are typically of 2-3 years, which may result in termination of the relationship with little or no notice. Further, the absence of contractual exclusivity to the business arrangements poses a risk on the company's ability to continue to supply products to the customers.

Adverse movement in currency may impact revenues and margins

Tega is exposed to foreign exchange rate fluctuations (mainly in USD and Chilean Peso) in respect of (i) revenue from overseas business in foreign denominations; (ii) its foreign currency denominated borrowings; (iii) currency translation losses for the purpose of preparing the consolidated financial statements (which are presented in Indian Rupees), on account of global operations; and (iv) value of foreign assets.

Tega may be subject to significant import duties or restrictions

Tega's key overseas markets include North America, South America, Africa, EMER and Asia Pacific. Export destination countries may also enter into free trade agreements or regional trade agreements with countries other than India. This may lead to increased competition or may even place it at a competitive disadvantage.

Contingent liabilities

Exhibit 32. Contingent liabilities (INR mn)	
Particulars	as on Mar'21
Disputed excise duty	14.8
Disputed service tax	3.1
Disputed income tax	64.5
Disputed sales tax	6.6
Pending finalisation of legal/arbitration proceedings	4.1
The company stands at surety in connection with General bond executed by MM aqua tech ltd	1.5

Source: Company

Borrowings

Exhibit 33. Borrowings		
Indebtedness	Sanctioned (INR mn)	Outstanding as on Jun'21 (INR mn)
Secured		
Term Loan	1,244.8	992.2
Working capital facilities		
Fund based	2,123.6	670.5
Non fund based	680.9	1,100.1
Unsecured		
Term Loans	64.2	53.3
Total	**4,113.4**	**2,816.1**

Source: Company

Material related party transactions

Exhibit 34. Related party transactions		(INR mn)			
Related party transaction	Relationship with the company	Type of transaction	FY19	FY20	FY21
Tega Industries Inc	Subsidiary	Sale of goods and services		166.1	372.5
Tega Industries Canada Inc	Subsidiary	Sale of goods and services		318	393.1
Tega Holdings Pte Ltd	Subsidiary	Sale of goods and services	961.6	816.3	361.3
Tega Industries Africa	Step down subsidiary	Sale of goods and services	222.4	168.5	247.4
Losugen	Step down subsidiary	Sale of goods and services	156.9	109.4	86.9
Tega Industries Chile	Step down subsidiary	Sale of goods and services	202.4	120.4	103.1
Hosch Equipment India Ltd	JV	Sales commission earned	13.2	12.8	15.3
Tega Industries Chile	Step down subsidiary	Business support service income	12.3	15.7	19.0
Tega Industries Africa	Step down subsidiary	Business support service income	13.6	11.4	11.2
TPW Engineering Limited	KMP having significant influence	Rent/services/hire charges	22.9	24.2	25.8
TPW Engineering Limited	KMP having significant influence	Payment made for transfer of lease			201.3
Tega Do Brasil Services	Subsidiary	Marketing fees	36.7	31.8	26.0
Tega Holding Pte Ltd	Subsidiary	Marketing fees	33	35.6	50.2
Tega Holdings Pte Ltd	Subsidiary	Investment in subsidiaries	575.9	586.8	

Source: Company

Financial Tables (Consolidated)

Income Statement					(INR mn)
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
Net Sales	6,848	8,055	9,285	10,625	11,989
Sales Growth	8.1%	17.6%	15.3%	14.4%	12.8%
Other Operating Income	0	0	0	0	0
Total Revenue	**6,848**	**8,055**	**9,285**	**10,625**	**11,989**
Cost of Goods Sold/Op. Exp	2,738	3,238	3,788	4,356	4,915
Personnel Cost	1,153	1,227	1,447	1,565	1,676
Other Expenses	1,891	1,716	2,043	2,337	2,578
EBITDA	**1,065**	**1,875**	**2,007**	**2,366**	**2,820**
EBITDA Margin	15.6%	23.3%	21.6%	22.3%	23.5%
EBITDA Growth	18.2%	76.0%	7.1%	17.9%	19.2%
Depn. & Amort.	384	402	441	513	612
EBIT	682	1,473	1,566	1,853	2,208
Other Income	107	130	106	117	125
Finance Cost	214	173	146	128	86
PBT before Excep. & Forex	574	1,430	1,526	1,842	2,247
Excep. & Forex Inc./Loss(-)	0	382	0	0	0
PBT	574	1,812	1,526	1,842	2,247
Taxes	-68	475	415	500	609
Extraordinary Inc./Loss(-)	0	0	0	0	0
Assoc. Profit/Min. Int.(-)	-18	-27	-28	-32	-36
Reported Net Profit	661	1,364	1,139	1,374	1,673
Adjusted Net Profit	**661**	**1,081**	**1,139**	**1,374**	**1,673**
Net Margin	9.6%	13.4%	12.3%	12.9%	14.0%
Diluted Share Cap. (mn)	66.3	66.3	66.3	66.3	66.3
Diluted EPS (INR)	**10.0**	**16.3**	**17.2**	**20.7**	**25.2**
Diluted EPS Growth	102.6%	63.6%	5.4%	20.6%	21.8%
Total Dividend + Tax	0	0	133	166	199
Dividend Per Share (INR)	0.0	0.0	2.0	2.5	3.0

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
Shareholders' Fund	4,625	6,137	7,144	8,352	9,826
Share Capital	576	576	663	663	663
Reserves & Surplus	4,049	5,561	6,481	7,689	9,163
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	2,439	1,878	1,784	1,427	714
Def. Tax Liab. / Assets (-)	-240	-169	-169	-169	-169
Total - Equity & Liab.	**6,824**	**7,847**	**8,759**	**9,610**	**10,371**
Net Fixed Assets	2,222	2,397	2,256	2,743	2,931
Gross Fixed Assets	3,340	3,863	4,163	5,163	5,963
Intangible Assets	0	0	0	0	0
Less: Depn. & Amort.	1,205	1,535	1,976	2,489	3,101
Capital WIP	86	69	69	69	69
Investments	1,578	2,013	2,013	2,013	2,013
Current Assets	4,766	5,517	6,780	7,329	8,219
Inventories	1,326	1,586	1,908	2,038	2,299
Sundry Debtors	1,852	2,209	2,544	2,765	3,120
Cash & Bank Balances	369	484	805	1,020	1,181
Loans & Advances	129	105	127	146	164
Other Current Assets	1,089	1,133	1,396	1,361	1,454
Current Liab. & Prov.	1,741	2,081	2,290	2,474	2,792
Current Liabilities	653	987	1,145	1,164	1,314
Provisions & Others	1,089	1,093	1,145	1,310	1,478
Net Current Assets	3,024	3,436	4,490	4,855	5,427
Total – Assets	**6,824**	**7,847**	**8,759**	**9,610**	**10,371**

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
Profit before Tax	598	1,839	1,554	1,874	2,282
Depn. & Amort.	384	402	441	513	612
Net Interest Exp. / Inc. (-)	191	134	40	11	-39
Inc (-) / Dec in WCap.	120	-385	-733	-149	-411
Others	186	16	0	0	0
Taxes Paid	-195	-303	-415	-500	-609
Operating Cash Flow	**1,284**	**1,702**	**887**	**1,749**	**1,835**
Capex	-264	-484	-300	-1,000	-800
Free Cash Flow	1,019	1,219	587	749	1,035
Inc (-) / Dec in Investments	-749	-313	0	0	0
Others	0	0	0	0	0
Investing Cash Flow	**-1,013**	**-797**	**-300**	**-1,000**	**-800**
Inc / Dec (-) in Capital	0	0	0	0	0
Dividend + Tax thereon	0	0	-133	-166	-199
Inc / Dec (-) in Loans	179	-531	-94	-357	-714
Others	-271	-259	-40	-11	39
Financing Cash Flow	**-92**	**-790**	**-267**	**-534**	**-874**
Inc / Dec (-) in Cash	**179**	**115**	**321**	**215**	**161**
Opening Cash Balance	197	369	484	805	1,020
Closing Cash Balance	376	484	805	1,020	1,181

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
Net Margin	9.6%	13.4%	12.3%	12.9%	14.0%
Asset Turnover (x)	1.0	1.1	1.1	1.1	1.2
Leverage Factor (x)	1.5	1.4	1.3	1.2	1.1
RoE	15.3%	20.1%	17.2%	17.7%	18.4%

Key Ratios					
Y/E March	FY20A	FY21A	FY22E	FY23E	FY24E
BV/Share (INR)	69.8	92.6	107.8	126.0	148.2
ROIC	12.1%	15.3%	14.6%	16.0%	17.8%
ROE	15.3%	20.1%	17.2%	17.7%	18.4%
Net Debt/Equity (x)	0.4	0.2	0.1	0.0	0.0
P/E (x)	55.7	34.0	32.3	26.8	22.0
P/B (x)	8.0	6.0	5.2	4.4	3.7
EV/EBITDA (x)	36.3	20.3	18.7	15.7	12.8
EV/Sales (x)	5.7	4.7	4.1	3.5	3.0
Debtor days	99	100	100	95	95
Inventory days	71	72	75	70	70
Creditor days	41	58	57	51	52

Source: Company, JM Financial

APPENDIX I

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Corporate Identity Number: U67100MH2017PLC296081
Member of BSE Ltd., National Stock Exchange of India Ltd. and Metropolitan Stock Exchange of India Ltd.
SEBI Registration Nos.: Stock Broker - INZ000163434, Research Analyst – INH000000610
Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.
Board: +9122 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.com
Compliance Officer: Mr. Sunny Shah | Tel: +91 22 6630 3383 | Email: sunny.shah@jmfl.com

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Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for large-cap* stocks and REITs and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.
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