

Tega Industries

Bodh Capital

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Investment thesis - Tega Industries

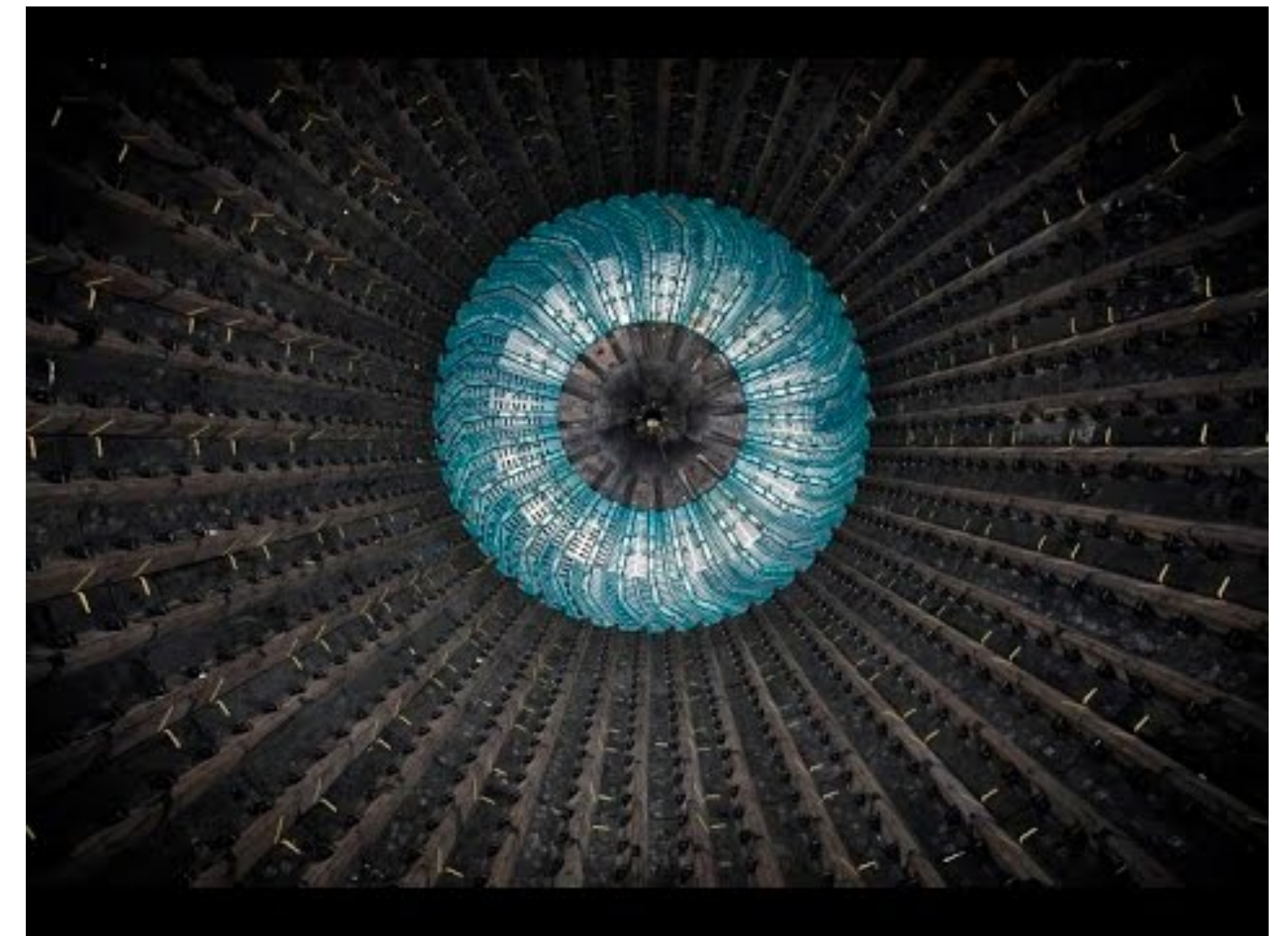
Tega Industries

- Leading brand in an oligopolistic market - product quality at/above par leading brands
- Gaining market share from global players, supplies to all major mining companies, direct relationship with companies for key products
- Flagship product - Dynaprime is increasingly being accepted by mines globally, can outpace industry growth in the near future
- McNally Sayaji acquisition can open more opportunities for cross selling and upselling
- Strong financials, comfortable debt, prudent capital allocation
- Copper demand to remain strong/grow as economies move away from fossil and towards electrification/clean energy

Tega Industries

Global brand in a slow changing industry

- What does Tega do?
 - It is a leading manufacturer of Mill Liners
- What are Mill liners used for?
 - Grinding mills are like giant drums. These drums are fed metal ores and grinding media (large metallic balls). The rotation of the large mill causes grinding media to fall and crush the ore. The finer ore is sent for further crushing/processing. The grinding mills have liners on their inside walls. These wear over time as more ore is crushed.
- What do buyers want?
 - Low downtime -> long life of mill liners. 1 hour of downtime results in **Rs. 1-2 cr. Loss** to the mine
 - Efficiency -> Use of appropriate material
 - **Ongoing R&D** to improve in areas of wear resistance, impact resistance, and efficiency



**Video - Learn more about liners /
Metso**

Tega - Becoming stronger

Growing ahead of competition with strong financial discipline

- **Direct supplier to all major Cu and Au mines** - not easy to get direct entry into these accounts, getting approvals alone can take 2+ years
- Gaining market share from global competitors
- Gross margin maintained above 58%
- Products have evolved to be at/above par the leader (Metso)
- Resilience - managed to navigate long cycles of poor industry conditions
 - Emerged stronger after expiry of restrictive agreement with a Swedish technology partner (Skega AB)
- Customer intimacy - provides excellent service to even smaller customers

Why is replicating Tega's business model difficult?

Assimilation of three technologies

- Must gain expertise in
 - Mechanical engineering +
 - Mineral processing and grinding +
 - Rubber technology
- Hard to find people/companies with specialization in all three
 - Long gestation - Has to be built ground up through years of R&D, experimentation, and failures

End use - Copper demand

Declining ore grade, net zero -> long runway for consumables

- Declining ore grades (Cu- 5% 150 years ago, 1% today) -> must mine more to extract a kg of Cu
 - -> Require more equipment and consumables
- Clean energy / net zero will translate into massive demand for Cu
 - EV requires 4x copper (80kg) over ICE
 - High requirement in solar PV, geothermal, bioenergy, battery storage

Copper demand

Declining ore grade, net zero -> long runway for consumables

- Offshore wind
 - Cu in turbine, longer transmission lines (more Cu), Site cables linking individual turbine to the offshore substation
- Solar PV
 - PV cells, wiring, inverter, module cables
- Substitution threat from Aluminum limited??
 - Al has lower conductivity
 - Cu has high resistance to corrosion, friction and fire
 - Al lines require more maintenance (difficult to service in hard to reach regions e.g. offshore)

Strong business becoming stronger

B2B Engg./R&D focused companies in the watchlist + portfolio

	Usha Martin	AIA Engineering	Tega Industries	Rajratan Global	Advanced Enzymes
Increasing global market share	Yes	Yes	Yes	Yes	Yes
Decades of experience	Yes	Yes	Yes	Yes	Yes
Strong engg./R&D	Yes	Yes	Yes	Yes	Yes
Cost as % of end product/ manufacturing cost	Low	Medium	Low	Low	Low
Criticality in user's business/ manufacturing process	High	High	High	High	Medium
Competitive landscape - Capacity decreasing/stagnant	Yes	Yes	Yes	No	Yes
Valuation	Fair	Fair	Fair	Expensive	Fair
End users	Diversified	Concentrated	Concentrated	Concentrated	Diversified
Business model resilience	High	High	Medium/High	Medium/High	High
Risk of obsolescence	Low	Low	Low	Low	Low
Cost leaders (global competitiveness)	High	High	High	High	High
Skin in the game (promoter holding)	47%	58%	75%	65%	35%

When we met Tega, we were surprised to see an engineering company out of India which is looking to build a strong global presence. They are one of the largest players in mill liners. They're one of the few players in the segment. They supply an international quality product, they do it directly to all their customers who are large mining companies. So you have to be of certain caliber (to win contracts of top mines) in terms of what you're offering but also who you interact and do business with. We found that pretty impressive.”

Dhiraj Poddar, TA Associates

Valuation

- 35x TTM earnings, MCap - 6,600 Cr
 - Direct comp - Thejo Engineering (poor quality, local market, no/low comp. advantage - trades at 54x)
 - AIA Engineering - 29x, 10 year median - 29x, 5 times bigger, serves different market
- **Recommendation: Accumulate - preferably thru SIP**
- Co. has a runway to grow at low-mid double digits for 5+ years
- Key monitorables
 - McNally earnings - should open up more opportunities and increase the share of service revenues
 - Momentum of Dynaprime

Appendix

Types of liners, their advantages, and applications

1. Rubber Liners:

- **Advantages:**
 - Excellent abrasion resistance, making them suitable for grinding abrasive ores like copper.
 - Good impact resistance, absorbing and dampening the impact forces in the mill.
 - Reduced noise levels during operation.
- **Conditions:**
 - Well-suited for softer ores and where noise reduction is a priority.
 - Effective in wet grinding applications.

2. Metal Liners:

- **Advantages:**
 - High hardness and toughness, providing good wear resistance.
 - Suitable for high-impact conditions.
 - Can withstand heavy loads and abrasive wear.
- **Conditions:**
 - Effective for grinding hard and abrasive ores like copper.
 - Common metals used include steel and alloyed steel.
 - Ideal for larger mills and high-energy milling environments.

3. Composite Liners:

- **Advantages:**
 - Combines the benefits of rubber and metal liners.
 - Offers good abrasion resistance and impact strength.
 - Can be designed for specific applications.
- **Conditions:**
 - Suitable for a range of ore types and grinding conditions.
 - Provides a balance between the wear resistance of metal and the impact resistance of rubber.

1. Ceramic Liners:

- **Advantages:**
 - Exceptional hardness and wear resistance.
 - Suitable for high-impact and high-abrasion applications.
 - Can improve milling efficiency.
- **Conditions:**
 - Effective for grinding extremely hard and abrasive ores.
 - Common ceramics include alumina and silicon carbide.

2. Poly-Met Liners:

- **Advantages:**
 - A combination of rubber and metal elements for enhanced performance.
 - Good wear resistance and impact strength.
 - Can be designed for specific applications.
- **Conditions:**
 - Suitable for a range of ore types, offering a compromise between rubber and metal properties.
 - Effective in both wet and dry grinding environments.

3. High-Chrome Iron Liners:

- **Advantages:**
 - High abrasion resistance.
 - Suitable for grinding abrasive ores.
 - Good toughness and impact resistance.
- **Conditions:**
 - Effective for grinding high-chrome and high-impact ores.
 - Commonly used in ball mills.

4. Magnesium Oxide Liners:

- **Advantages:**
 - Good abrasion resistance.
 - Suitable for corrosive environments.
- **Conditions:**
 - Effective for grinding in corrosive conditions.
 - Used in combination with other liner materials for specific applications.

Why is manufacturing poly-met liners complex?

- Material compatibility: Combination of rubber and metal. Bonding critical under challenging conditions of grinding mills
- Precision engineering: Customized according to mill specs
- Stringent testing: Poly-Met liners are subjected to various tests to evaluate their performance under simulated operating conditions. e.g. wear resistance, impact resistance.