

CMP: INR 740

Outlook: Positive

Stock Info

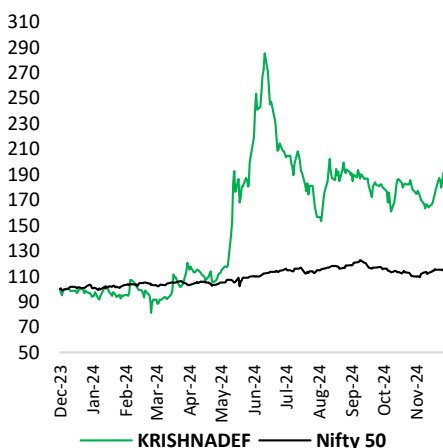
NSE – SME	KRISHNADEF
Sector	Aerospace & Defence
Face Value (INR)	10
Equity Capital (INR Mn)	137
Mkt Cap (INR Mn)	10140
52w H/L (INR)	1,130/295
20 D Vol (in 000')	56,700

Shareholding Pattern %

(As on sep 24)

Promoters & Promoter Group	62.27
Public & Others	37.73

Krishnadev Vs Nifty



We visited the Krishna Defence & Allied Industries Ltd. plant in Vadodara ,Gujarat . Krishna Defence & Allied Industries Ltd., established in 1997, has evolved from engineering dairy equipment to becoming a key player in India's defense manufacturing sector. With three state-of-the-art facilities— Kalol (40,000 sq. ft.), Halol (120,000 sq. ft.), and Bengaluru (6,000 sq. ft.)—the company emphasizes indigenization, innovation, and stringent quality control. During the plant visit , we observed their state-of-the-art infrastructure, strategic diversification into composite materials and a focus on lightweight, durable solutions highlight its adaptability to the defense sector's dynamic needs. Continued investment in technology and material sciences positions the company to sustain its competitive edge in the evolving defense landscape.

Investment Rationale

Strategic Indigenization and Import Substitution : Company focus on indigenization aligns with India's 'Atmanirbhar Bharat' initiative, reducing dependency on imported components. Key products like bulbar (for naval applications), special grade steels (for submarines), and armor plates (for T90 tanks) have been successfully developed to replace foreign imports. This not only strengthens India's defense supply chain but also positions the company as a critical player in national security initiatives. The move to localize advanced materials enhances cost efficiency and self-reliance, solidifying its competitive edge in the defense manufacturing sector.

Diversification into Lightweight Composite Materials: The company's foray into composite materials, such as lightweight naval doors and hatches, reflects a forward-looking strategy to address the evolving needs of the defense industry. These products, developed in collaboration with a Netherlands-based partner, offer enhanced performance by reducing weight while maintaining durability and strength. This diversification positions the company to tap into emerging opportunities as global defense manufacturers increasingly prioritize advanced, lightweight solutions for operational efficiency.

Robust Infrastructure and Focus on Quality Control : Company's state-of-the-art manufacturing capabilities—spanning heat treatment, welding, and precision testing—underscore its commitment to delivering high-quality defense-grade products. Advanced testing protocols, including chemical analysis, mechanical property testing, and microstructure analysis, ensure compliance with stringent defense specifications. Moreover, the company's traceability and documentation systems enhance accountability and reliability, key factors for success in the defense sector.

Outlook

Krishna Defence & Allied Industries Ltd.'s emphasis on indigenization, innovation, and alignment with the "Atmanirbhar Bharat" initiative positions it for growth in India's defense manufacturing sector. By substituting domestically produced goods such as submarine-grade steels, T90 tank armor plates, and high-strength steel bulbars for imports, the firm bolsters its independence and solidifies its position as a major defense supplier. Its expansion into R&D-driven innovation and lightweight composite materials fits nicely with worldwide trends, opening up export opportunities. Strong government backing and robust manufacturing capabilities further improve its prospects, and sustained investments in new materials and technologies guarantee long-term growth. **We are "positive" on business and working on detail numbers.**

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Management Meet Key-Highlights

Focus Areas: Continued emphasis on R&D, indigenization, and composite materials to meet modern defense demands. Opportunities to explore sustainable practices in manufacturing.

Growth Prospects: Potential for export opportunities through advanced materials and global collaborations. Long-term growth underpinned by government support and alignment with defense modernization goals.

Raw Material Purity: Ensuring high-purity titanium, vanadium, and chromium remains challenging. Strong supplier relationships and quality monitoring mitigate risks.

Core Operations: Company specialized processes include welding, heat treatment, and rolling, ensuring defense-grade product specifications. And Utilizes custom-built machinery for heat treatment and quality testing.

Bulbars (High-Strength Steel): Indigenized to replace imported Russian components for Indian Navy shipyards. 3x stronger than standard materials, reducing vessel weight and enhancing stealth, speed, and performance.

Composite Doors & Hatches (Naval Applications): Lightweight design (1/3 weight of traditional materials) under development with a Netherlands-based collaborator. And focused on efficiency, durability, and aligning with global trends for advanced naval technology.

Armor Plates (T90 Tanks): Produces 35 types of indigenized armor plates for T90 tanks. And reduced foreign dependency; strengthened position as a key supplier to India's defense forces.

Ballast Bricks (Submarines): Low magnetic permeability ensures stealth capabilities, critical for sonar and radar detection avoidance. Essential for underwater defense applications.

Special-Grade Steels (Submarine Construction): Incorporates titanium and vanadium for high pressure and corrosion resistance. Local production replaced imported materials, boosting the domestic defense supply chain and national security.

Machinery Used in the Plant

Heat Treatment Machinery : The company specializes in producing high-grade materials such as armor plates, submarine-grade steel, titanium-alloy steel, and composite-grade metals, which are crucial for high-performance defense equipment. Custom-built machinery ensures precision in heat application, enabling superior material properties and meeting the exacting demands of the defense sector.

Rolling Mills : Company utilizes advanced metal shaping and thickness reduction processes to ensure uniformity and high-quality output. These techniques are pivotal in producing high-strength steel for critical applications such as naval vessels and tank components, including bulbar and armor plates. By delivering consistent dimensional accuracy, the company minimizes material wastage and enhances cost efficiency, making it well-suited for large-scale production of defense-grade materials.

Welding Stations: The welding techniques to join high-strength materials such as steel, composites, and alloys with precision and durability. These methods are integral to manufacturing critical defense products like composite naval doors, armor plates, and submarine ballast bricks. The company's expertise in seamless joining enables the production of lightweight, high-strength structures that meet rigorous defense standards, reinforcing its position as a leader in the sector.

Chemical Analysis Equipment: Company conducts meticulous analysis of raw materials and finished products to ensure chemical composition accuracy, particularly for critical elements like titanium, vanadium, and chromium. This rigorous quality control guarantees that all materials meet stringent defense purity standards, ensuring compliance and mitigating the risks associated with substandard materials. This focus on precision underscores the company's commitment to delivering reliable, high-performance solutions for defense applications.

Mechanical Property Testing Machines : The rigorously tests the tensile strength, elasticity, and load-bearing capacity of materials under simulated conditions to ensure their reliability in extreme environments. This testing process is critical for products such as T90 tank armor plates and submarine-grade steels, ensuring they perform consistently during high-stress operations. By preventing material failures, the company reinforces product durability and builds confidence among defense customers regarding the reliability of its materials for mission-critical applications.

Microstructure Analysis Tools : The advanced techniques to examine the internal structure of metals and composites, detecting imperfections such as cracks or voids. This process is crucial for ensuring the integrity of products like bulbar and submarine ballast bricks, where material consistency directly impacts stealth capabilities and durability. By ensuring homogeneity and consistency, the company enhances material performance while minimizing the likelihood of manufacturing defects, reinforcing the reliability of its defense-grade products.

Specialized Machining Equipment

- Produces high-precision components like submarine ballast bricks, armor plates, and naval composite hatches.
- Includes CNC machines for achieving exact tolerances.
- Supports the production of customized defense-grade components.
- Enables rapid prototyping and efficient scaling of new product lines.

Composite Material Processing Units

- Fabricates lightweight and durable composite products such as naval doors and hatches.
- Utilizes advanced material science to replace traditional metal components.
- Reduces weight by up to 30%, enhancing operational efficiency.
- Aligns with global trends in defense manufacturing for advanced, lightweight materials.

Traceability and Documentation System

- Tracks every batch of material from sourcing to final delivery.
- Maintains comprehensive records of material origin, chemical properties, and testing results.
- Ensures accountability and compliance with defense regulations.
- Facilitates efficient quality audits and certifications.

Advanced Testing Facilities

- **Chemical Analysis Laboratory:** Ensures precise composition of specialty alloys like titanium and vanadium steel.
- **Mechanical Testing Lab:** Tests products for strength, durability, and elasticity under simulated field conditions.
- **Microstructure Lab:** Detects structural flaws and ensures homogeneity.

Exhibit 1 : The Heat Treatment Machinery



Exhibit 2: The Welding Stations



Source: Arihant Research, Company Filings

Exhibit 3 : The heating Process



Exhibit 4 : Melting Process of the final product



Exhibit 5 : Heating Process through high melting point



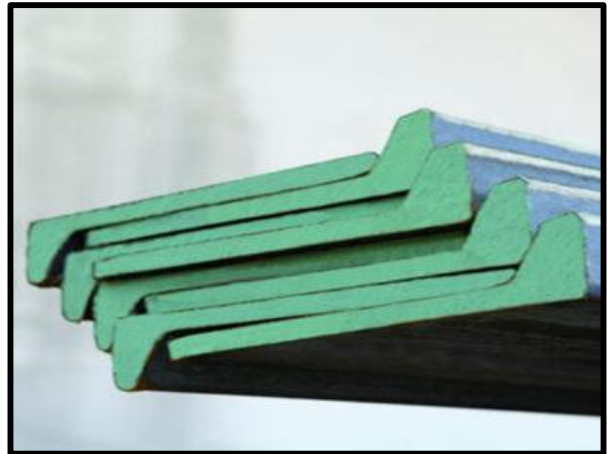
Exhibit 6 : Special Steel Alloy Ballast Bricks



Exhibit 7 : Customize Steel Ordered wires



Exhibit 8 : Ship Building Steel Sections



Source: Arihant Research, Company Filings

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Stock Rating Scale

BUY	>20%
ACCUMULATE	12% to 20%
HOLD	5% to 12%
NEUTRAL	-5% to 5%
REDUCE	-5% to -12%
SELL	<-12%

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