



ABOUT THE REPORT

The Mangal Industries Limited (MIL) Sustainability Snapshot for FY 2024 provides a comprehensive overview of the organization's commitment to sustainability and its strategic initiatives throughout the fiscal year. This report highlights the key activities and developments, reflecting the company's ongoing efforts toward sustainable practices.

The reporting boundary includes all operational activities within the organization, spanning Engineering & Automation, Component Solutions, and Toolworks, with facilities located in Karakambadi, Petamitta, Thenepalli in Andhra Pradesh, and Oragadam in Tamil Nadu. This report excludes the Battery Component business, which was recently demerged, effective February 1, 2024.

The reporting period, from April 1, 2023, to March 31, 2024, features notable achievements and progress for fiscal year 2024. The report aligns with the Global Reporting Initiative (GRI) standards, the Business Responsibility and Sustainability Report (BRSR) framework, and the UN Sustainable Development Goals (UN SDGs), reinforcing MIL's commitment to responsible business practices and operational excellence.







At Mangal Industries, we aim to surpass customer expectations and create a meaningful impact on stakeholders, employees, and communities through a steadfast commitment to sustainability. The monthly sustainability committee rigorously reviews key performance indicators and oversees projects designed to meet our sustainability objectives.

Our initiatives focus on minimizing our environmental footprint through various energy and water reduction projects. Notable achievements in fiscal year 2024 include reduction in energy intensity by 15%, commissioning of a 1.0 MW rooftop solar system, and reduction in carbon emissions intensity by 28%. Additionally, our waste management initiatives led to reduction in landfill waste by 50%. We are also advancing digital sustainability by implementing advanced systems for precise measurement of water and energy consumption; and by integrating management information systems to enhance the accuracy and timeliness of sustainability data. These improvements facilitate better decision-making and support our commitment to environmental stewardship.

Our broader vision focuses on supporting customers in achieving their net-zero goals, continuously reassessing targets, exploring innovative technologies, and enhancing organizational capabilities. We have also introduced a comprehensive business risk assessment process to identify and mitigate sustainability risks effectively.

Sustainability is at the core of Mangal Industries' mission reflecting our dedication to a better future, driven by determination, innovation, and a focus on creating value for shareholders, the planet, and all its people.

Harshavardhana Gourineni

Director, Mangal Industries Ltd.

OUR BUSINESS

Mangal Industries, founded by Dr. Ramachandra N. Galla, is a prominent member of the Amara Raja Group conglomerate. The company serves a wide range of industries with its expertise in Auto Components, Metal Fabrication and Toolworks, Storage Solutions and Custom Fabrication. Under the guidance of distinguished leadership and executive committee, Mangal Industries has utilized its advanced infrastructure, strong technical and logistical capabilities, and rigorous quality assurance to become a leading partner in products and solutions.

Our highly driven workforce, global perspective, diverse product and technology portfolio, and core values are key factors that distinguish us in the market.

Mangal Industries, an evolving design-led manufacturing organization, operates through three Strategic Business Units (SBUs)

Component Solutions



Auto Components: Fastners (Petamitta)



Auto Components: Plastics (Oragadam)



Auto Components: Small Parts (Petamitta)

Engineering & Automation



Metal Fabrications (Karakambadi & Thenepalli)



Storage Solutions (Thenepalli)

Toolworks



Toolworks (Karakambadi)

Focused Industries



Auto/ Mobility



Elevators



E-commerce & Retail



Power & Energy



Medical Devices



Logistics



Electronics





Pharma & Chemicals



Railway & Metros



Industrial

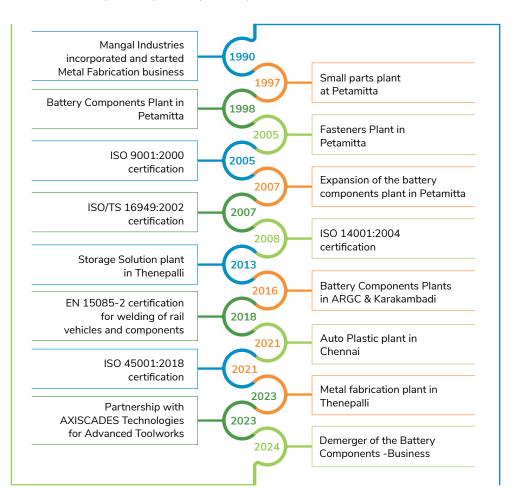




OUR PATH TO SUSTAINABILITY

Journey of Mangal Industries

Mangal Industries integrates sustainability into its operations by emphasizing on quality, environmental responsibility and responsible practices.



Sustainability linked material issues



ENVIRONMENT

- 1 Climate Change & Decarbonization
- 2 Energy Management
- 3 Air Emissions & Quality
- 4 Fresh Water Management
- 5 Wastewater Management
- 6 Waste Management
- Biodiversity & Ecosystem
- 8 Raw Materials & Circularity
- 9 Sustainable & Inclusive Supply Chain

SOCIAL

- 10 Human Rights
- 11 Community Engagement & Development
- 12 Employee Engagement & Fair Labour Practices
- 13 Talent Attraction & Retention
- 14 Health, Safety & Well Being
- 15 Diversity, Equal Opportunity, Inclusion & Belongingness
- 16 Learning & Development
- 17 Product Stewardship

GOVERNANCE

- 18 Business Ethics & Corporate Governance
- 19 Risk Management & Controls
- 20 Responsible Policy Advocacy
- 21 Long-Term Growth & Profitability
- 22 Macro-Economic & Geopolitical Context
- 23 Legal Compliance
- 24 Data Privacy & Cyber Security
- 25 Innovation and R&D



Vision

Through the Amara Raja Way, to establish Mangal Industries as the design-led manufacturing partner of choice for component, engineering, and automation solutions.



Core Purpose

To transform our increasing spheres of influence and to improve the quality of life by building institutions that provide better access to better opportunities to more people all the time.

DEEPLY ANCHORED

in vision, values, and core purpose



Values



INNOVATION

Innovation to us is proactively rebelling for better ways of doing things leading to newer possibilities.



EXCELLENCE

Excellence to us is continually enhancing our performance to consistently produce outstanding results with lasting impact.



ENTREPRENEURSHIP

Entrepreneurship to us is leading with courage and conviction to convert gaps into opportunities, create wealth and contribute to growth.



EXPERIENCES

Experiences to us are what we create for our stakeholders which make them feel part of something special, leading to endearing relationships.



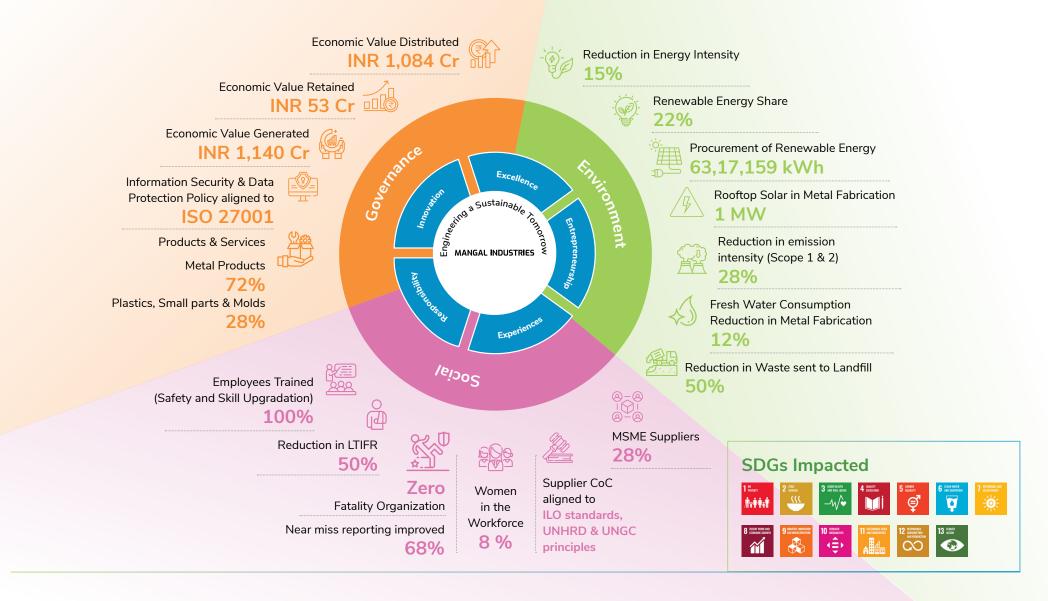
RESPONSIBILITY

Responsibility to us is the total ownership of our thoughts and actions in every situation to achieve maximum common good in the best interest of Environment, Society, Customer, Supplier, Employee and Shareholders





DELIVERING SUSTAINABLE VALUE





ENVIRONMENT HIGHLIGHTS FOR FY 2024

	Aspects	Performance	Impact*
	Carbon Emissions	 Scope 1 emissions: 1,033 tCO₂e Scope 2 emissions: 13,551 tCO₂e Total emission intensity (Scope 1 & 2) per crore of turnover: 12.79 tCO₂e 	 Absolute emissions (Scope 1 & 2) reduced by 10% Emissions (Scope 1 & 2) intensity reduced by 28 % Avoided 4,820 tons of carbon emission through use of Renewable Energy (RE)
	Energy	 Energy intensity per crore of turnover: 95.37 GJ Total renewable energy consumption: 24,438 GJ 	 Energy intensity reduced by 15% Increased RE share to 22% from 8% Commissioned 1 MW rooftop solar with an investment of INR 4.2 Cr Procurement of 63.17 million kWh of RE Saved 48,217 kWh through energy conservation programs
	Water	 Water consumption: 1,75,072 kL Water intensity per crore of turnover: 153.53 kL 	 Installed water meters and established baseline database Developed a roadmap for reduction of water intensity
	Circular Economy	 Total waste generated: 7,563 Mt Total Waste recycled: 7,286 Mt Total waste disposed by landfilling: 277 Mt 	 Waste sent to landfill reduced by 50% 100% of lead used in manufacturing is from recycled sources

*Note: For reduction calculations, baseline is considered as FY 2023

OUR ENVIRONMENTAL EFFORTS





To transition to renewable energy, an investment of INR 4.2 Cr was made in a 1.0 MW rooftop solar plant in Tirupati. This initiative has advanced the energy strategy significantly, generating INR 4.71 lakhs kWh of clean energy in FY 2024 over 8 months and avoiding 335 Mt of carbon emissions. These achievements highlight a commitment to sustainability and reducing environmental impact.



LPG Consumption Reduction



The optimization of the powder coating baking oven was undertaken to reduce Scope 1 emissions. By adjusting the oven's volume and equalizing inlet and outlet velocities, LPG consumption was decreased from 14.5 kg to 10.5 kg per hour. This project, with an investment of INR 11 lakhs, reflects a focus on improving energy efficiency and minimizing the environmental footprint.



Optimizing Waste Management



As part of our waste management initiatives, Mangal Industries has optimized chemical dosing in the Effluent Treatment Plant (ETP) process and implemented natural and hot air-drying techniques to reduce sludge moisture content. Additionally, we have redirected spent acid disposal to specialized recyclers, effectively avoiding landfills. This initiative, supported by an investment of INR 9 lakhs, underscores our commitment to minimizing waste and advancing circular economy practices.

Impact



INR **4.71 lakhs**kWh generated



335 Mt

of avoided carbon emissions

Impact



28 Mt

of avoided carbon emissions



INR

7.0 lakhs
Cost savings





50%Landfill disposal quantity reduced



INR
71.4 lakhs
Cost savings

OUR ENVIRONMENTAL EFFORTS





To improve loading efficiency, Mangal Industries developed multilayer jigs tailored to the heat load and surface area of components. This innovation allowed for the simultaneous loading of more components, significantly streamlining operations and boosting production efficiency.



Water Consumption Reduction in Pre-Treatment Process



A major sustainability milestone was achieved by replacing traditional surface cleaning with shot blasting for pre-treatment in the Metal Fabrication plant. This change reduced water usage from 0.5 to 0.3 kL per Mt of material, saving a total of 2,185 kL. This initiative highlights a commitment to environmental stewardship and operational efficiency through the successful integration of eco-friendly practices.



Establishing Water-Based Coatings with Corrosion Resistance



Introduced new technology for water-based zincaluminium flake coating using Geomet 321. This advancement eliminates the need for hazardous plating chemicals, and significantly reduces both ETP sludge and wastewater generation.

Impact



1.0 Lakh

units of energy saved



71 Mt

of avoided carbon emissions

Impact



Reduced water usage by

56%



saving **2,185**

kiloliters

Impact



3% of ETP sludge generation reduced



SOCIAL HIGHLIGHTS FY 2024_



Aspects	Performance	Impact*
Human Resources	 Total employees and workers trained: 1,686 Number of females (employees and workers): 140 	 Trained 100% employees and workers on health, safety and skill upgradation 8% gender diversity
Occupational Health and Safety	 Zero Fatality Lost Time Injury Frequency Rate (LTIFR) (per one million-man hours worked): 1.3 Total recordable work-related injuries: 5 	 Sustained zero fatality Reduced LTIFR by 50% Reduced total recordable work-related injury by 37.5% Ensured 100% compliance with medical examinations 68% improvement in near miss reporting
Human Rights	 Release of human rights policy Conducted human rights assessments at our manufacturing sites 	 Trained 100% employees and workers on human rights No human rights related issue reported Supplier CoC aligned with ILO standards, the UNHRD & UNGC Principles
Local community	CSR policy in place with focus on Education, Health, Environment and Rural Development	 CSR spent of 2% of profit (i.e. INR 2.1 Cr) through Rajanna Foundation
Sustainable Supply Chain	 Release of supplier code of conduct Conducted 3 supplier engagement programs Implemented sustainable procurement policy Digitization of supplier onboarding and evaluation process (through SAP Ariba) 	 28% of sourcing from MSMEs/small producers 72% sourced directly from within the district and neighbouring districts 100% of all critical suppliers engaged in capability building related to sustainability and MIL requirements

*Note: For reduction calculation, baseline is considered as FY 2023



OUR SOCIAL EFFORTS



Launched in 2015, the Large Scale Interactive Programs (LSIP) are designed to foster a strong organizational culture among Amara Raja's frontline workers. This initiative features a range of interactive activities aimed at instilling the Amara Raja Way® and its core values. The program is spearheaded by middle and senior management, with active support from the Human Resources team and other key personnel, ensuring a comprehensive approach to cultural development across the company.



Fostering Collaboration and Innovation: Employee Communication Meet



The employee communication meet highlights the value of offering employees from diverse teams a platform to engage with the company's leadership and share their opinions and ideas. These sessions enable two-way communication about the company's plans and progress, and they drive innovation by incorporating ideas that have positively influenced key areas of the Strategic Business Plan, including People Processes, Branding, Product Development, Digital Initiatives, Quality, and Sustainability.

Impact



Diversity, Equity, Inclusion, and Belonging (DEIB) Initiatives



At Mangal Industries, Diversity, Equity, Inclusion, and Belonging (DEIB) are integral to our organizational ethos, driving our commitment to creating a more inclusive workplace. Our initiatives include women-only focus group discussions, gender sensitization programs for senior management, and the Women Leadership Development Program for FY 2024. We are also working on enhancing our infrastructure and policies to better support Persons with Disabilities (PwDs). Our goals for the upcoming year include expanding Women Leadership Development Programs, reclassifying roles for greater inclusivity, and developing policies that integrate DEIB principles.

Impact



22 programs



1,212

Increased cross-functional collaboration



Enhanced transparency and open communication



Tangible improvements in organizational processes





SUSTAINING

AMARA RAJA | MANGAL INDUSTRIES

OUR SOCIAL EFFORTS



Enhancing Lives through Corporate Social Responsibility (CSR)



The Amara Raja Group's comprehensive Corporate Social Responsibility (CSR) program is led by the Rajanna Foundation, which is dedicated to fostering meaningful community engagement and supporting sustainable development initiatives. Mangal Industries plays a key role in this effort by contributing INR 2.1 crores to the Foundation's initiatives. The Amara Raja Group's CSR initiatives have made a significant impact across various focus areas. The Foundation's efforts have resulted in the following measurable outcomes:



HEALTH

Primary Health initiatives provide essential healthcare: 20.000 individuals



EDUCATION

Education programs, through three CBSE affiliated schools operated by the Amara Raja Educational Society (ARES), serve 80% from vulnerable backgrounds: 4.700 children



SKILLING

Skilling Rural India to 'Make in India' Amara Raja Skill Development Centre: 1,533 people skilled



ENVIRONMENT

Rainwater harvesting, and Social Forestry efforts include soil conservation and forest expansion projects, benefiting local tribal and forest dependent communities



RURAL INFRASTRUCTURE

Check dams Digital infrastructure IT/Internet RO Plant, Bank, Telephone exchange, Parks





Collaboration with AXISCADES **Technologies Limited**



A strategic partnership was formed with AXISCADES Technologies Limited, with the MOU signed by Harshavardhana Gourineni, Director, and Arun Krishnamurthi, MD and CEO of AXISCADES. The agreement focused on engineering, digital, and manufacturing collaboration.

Harshavardhana highlighted that AXISCADES' digital expertise significantly complemented their decades of precision manufacturing experience, driving innovation across the product development lifecycle. Arun Krishnamurthi emphasized that the collaboration advanced product design and manufacturing engineering, integrating cutting-edge Industry 4.0 solutions to foster innovation and open new market opportunities, ultimately delivering enhanced value for customers.



OUR SOCIAL EFFORTS



Embedding Sustainability in the Supply Chain



At Mangal Industries, we have integrated sustainability into our supply chain through a strategic capability building approach. We have engaged all 62 critical suppliers representing 100% of our key partners in developing their sustainability practices to meet both industry standards and MIL requirements.

Our capability building sessions not only enhance skills but also acknowledge individuals who excel in sustainable practices, thereby contributing to continuous improvements and strengthening our supply network. This initiative reflects our commitment to sustainability and sets a standard for responsible operations.





Enhancing Occupational Health & Safety (OHS) at Workplace



Leadership commitment is central to our safety culture, with clear objectives and resource allocation driving effective practices. We continuously integrate advanced technologies and training to ensure a safe and healthy work environment.

Key OHS initiatives implemented:



24x7 ALS Ambulance Services: Advanced Life Support ambulances operate 24/7, equipped with medication, oxygen, and ventilators.



Pre-employment medical examination: Trained staff at the OHC conduct health and fitness examinations for new hires.

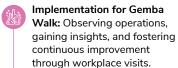


Safety Committee Meetings: Held to address and resolve safety concerns.



Doctor Consultation:

Qualified occupational health physicians address both preventive and clinical health needs.





Training Programs:

Ongoing sessions to enhance safety culture and practices.



Lock Out and Tag Out:

Implemented for effective energy isolation during maintenance.

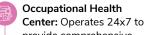


Monitoring: Continuous monitoring of workplace noise and illumination

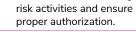
Work Permit System:

Introduced to control high-

levels.



provide comprehensive health services.



proper authorization.

Behavior-Based Safety (BBS): Introduced across all locations to reinforce safe behaviors.

Risk Assessments: Performed for all activities and new initiatives to identify and mitigate risks.

Laboratory for lead testing:

Blood lead level screening for all relevant MIL employees using advanced equipment and techniques.

Internal Safety Audits:

Conducted by internal teams to regularly evaluate workplace safety.

Emergency Drills:

Regularly conducted to prepare employees for emergencies.

Critical Risk Standards implementation: Work at height, confined space entry, isolation and forklift

Annual Medical Check

Up: Prioritize health with ergonomic workstations, annual checkups, preventive programs, and OHC access.

Periodic Inspections: Carried out by

truck safety.

competent authorities on lifting tools, tackles, and pressure vessels.

Engineering Controls:

Inspections of engineering controls, lifting tools, and material handling equipment.

Road Safety Policy:

Implementation of golden safety rules, road safety audits, trainings etc.



OUR SOCIAL EFFORTS



Participation and Consultation

At MIL, employee participation and ownership are crucial for maintaining a culture of safety. Health and Safety committees at each site are actively involved in developing, implementing, and monitoring health and safety policies. They address safety concerns, identify training needs, and enhance workplace safety.

To emphasize health and safety, we conduct various activities, including:



Onsite emergency mock drills



National Safety Week



Regular mock drills to improve emergency preparedness

National Road Safety Week

with the theme 'Sadak

Suraksha Jeevan Raksha'



Safety equipment exhibitions to promote Personal Protective Equipment (PPE) usage



National Road Safety Week

National Road Safety Week was observed at all plant locations to raise awareness about the 10 golden rules of road safety through various engaging activities. These included defensive driving training, street plays, vehicle check camps, toolbox talks, and surprise checks for helmets, seat belts, and documents. Road safety audits were also conducted to assess infrastructure needs. Additional activities included guiz competitions, helmet distribution drives, and poster and slogan contests. Our broader safety programs feature:



District-

level offsite

emergency

mock drills



Mock drills for emergency preparedness



Safety equipment exhibitions to promote Personal Protective Equipment use





Fire Protection

At Mangal Industries, safety is a top priority, deeply embedded in the design of all our facilities. Each site is equipped with state-ofthe-art fire detection and suppression systems. Comprehensive emergency plans and rigorous maintenance procedures further ensure preparedness. Our fire hydrant network includes pumps, hydrant points, and hoses, while critical areas are protected by clean agent fire suppression systems and tubular fire suppression units. Strategically positioned fire balls also enhance our emergency response capabilities.





GOVERNANCE HIGHLIGHTS FY 2024_

Effective corporate governance is crucial at Mangal Industries for driving sustainable business growth. Our commitment to the highest governance standards is reflected in our transparent accounting policies, robust internal control systems, and ethical decision-making framework. We also emphasize timely and comprehensive disclosure, ensuring that our practices support transparency and integrity at every level.

Aligned with our commitment to high ethical standards, we ensure accountability, transparency, and fairness in all operations. Our Board of Directors, provides balanced oversight and a diverse range of expertise.

Operational Presence:

We operate a network of six strategically positioned facilities across India, enhancing our manufacturing capabilities and regional market presence. This distribution optimizes production efficiency and enables us to effectively meet market demands across various states.

Our Facilities:

Chittoor District, Andhra Pradesh:

- Metal Fabrication Plant 1 (Karakambadi)
- Auto Components Plant, Fasteners (Petamitta)
- Auto Components Plant, Plating (Thenepalli)
- Storage Solutions Plant (Thenepalli)
- Metal Fabrication Plant 2 (Thenepalli)

Kanchipuram District, Tamil Nadu:

 Auto Components Plant, Plastics (Oragadam)



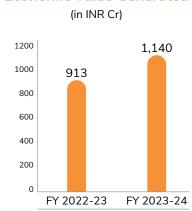


GOVERNANCE HIGHLIGHTS FY 2024_

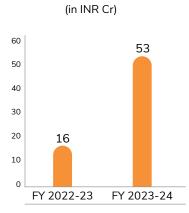
Financial Performance

As a responsible business, we prioritize equitable wealth distribution to support long-term socio-economic development. In FY 2024, we sustained strong performance with stable revenue, despite the trading business closure and material price fluctuations, while continuing to create value across our value chain, local industrial clusters, and impacted communities. Below are the figures for our Economic Value Generated, Economic Value Retained and Economic Value Distributed:

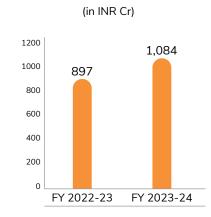
Economic Value Generated



Economic Value Retained



Economic Value Distributed



*Economic Value Distributed (breakdown)	FY 2022-23	FY 2023-24
Operating costs	794	961
Employee wages and benefits	75	102
Payment to providers of capital	15	0
Payments to governments by country	11	19
Community investments	2	2

Note: The figures shown above is for Mangal Industries Limited excluding the battery component.





OUR GOVERNANCE EFFORTS



Executive Sustainability Committee

We have established a Tier 2 Sustainability Committee, led by the Executive Director (ED) and convened by the Group Sustainability SPOC. This committee is tasked with defining the ESG roadmap and monitoring progress monthly. The Executive Director, also a member of MIL's Board of Directors, chairs the Sustainability Committee. This committee provides overarching guidance on key ESG issues and assesses the company's progress toward its sustainability goals.

The committee's key objectives include:

- Defining and monitoring sustainability metrics each month
- Reviewing and supporting planned or potential sustainability projects
- Enhancing sustainability capabilities within the organization
- Conducting periodic benchmarking and incorporating external and customer insights
- Developing and implementing the MIL Sustainability Framework and assurance protocol



Focus on Greenfield Investment and Managing Working Capital



Mangal Industries has invested INR 70 Cr in a greenfield project at Metal Fabrication (MF) Thenepalli. This investment, funded with INR 40 Cr from internal accruals and INR 30 Cr from a term loan, has resulted in incremental sales of approximately INR 200 Cr in FY 2024. Beyond the financial impact, this project has contributed to job creation, enhanced product quality, and improved resource efficiency. Additionally, we have optimized our working capital management by negotiating shorter credit periods with customers, reducing inventory levels, and securing more favourable credit terms with vendors, which has significantly bolstered our liquidity and operational efficiency.





Advancing Safety and Sustainability through Robust Manufacturing Practices

Mangal Industries has reinforced its manufacturing capabilities by achieving ISO 14001 and ISO 45001 certifications for all plants, awarded by TUV India. Additionally, we secured the "BRONZE" award for Industrial Safety Leadership at the CII Andhra Pradesh Industrial Safety Excellence Awards 2023. These accomplishments reflect our dedication to superior safety and environmental standards, enhancing our operational efficiency and industry standing.











SUSTAINING TARGETS FOR FY 2025

At Mangal Industries, our commitment to sustainability and operational excellence drives us to set clear and ambitious goals. As we advance towards FY 2025, we have established specific targets across various domains to enhance our environmental performance, uphold the highest standards of safety, and foster an inclusive workplace. These targets reflect our dedication to integrating sustainable practices into every aspect of our operations and ensuring long-term value for all stakeholders.

Specific Targets



ENVIRONMENT



Energy and Carbon

- Increase renewable energy share to 28%
- Reduce carbon intensity (Scope 1 and 2 emissions) by 25%
- Reduce energy intensity by 10%



Water

 Reduce specific freshwater consumption by 10%



Circular Economy

- Reduce waste intensity by 20%
- Achieve zero landfill
- Achieve 100% use of recycled raw materials (lead and lead alloys) in production



- Sustain as zero-fatality organization
- Reduce the Lost Time Injury Frequency Rate (LTIFR) by 30%
- Ensure 100% annual medical examinations for all employees
- Achieve a gender diversity of 12%









EXCELLENCE RECOGNIZED

Awards and Accolades



Top 50 India's Best Workplaces in Manufacturing by Great Place to Work 2024



Best Supplier Award from Group Antolin 2024



Best Workplaces in Auto & Auto Components by Great Place to Work



4 Teams nominated to ICQCC 2024



CII Safety Excellence Award 2024



Ten Par Excellence Awards in NCQCC 2024



Best Supplier Award from Kone Global 2024



Three Gold Awards in ICQCC 2023



Three Par Excellence Awards n NCQCC 2023



Best Supplier Award from Automotive Axles 2023



5'S Platinum Award from ABK AOTS 2023



Supplier Merit Award from Clarios 4 Consecutive years



Top Performance Award from Alsthom 2023



CII Challenging Champions Kaizen Award 2023



CII Challenging Champions Poke Yoke Award 2022



Best Supplier Award from Yamaha 2022

Our Associations



Tool and Gauge Manufacturers Association (TAGMA)



Quality Circle Forum of India (QCFI)



Confederation of Indian Industry (CII)

Two Gold Awards in ICQCC 2022



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