



**WELCOME
TO THE
PRESENTATION**

STATUS OF MAGNESIUM MARKET IN INDIA



India...a 1.4 billion dream

- India missed the manufacturing revolution in the 90's by focusing more on the service sector.
- The use of magnesium in India is confined to aluminium alloying, steel desulfurization and pharmaceuticals. The use of magnesium in automobile and aerospace industries is very limited.
- Though India has good reserves of Magnesium ore, it relies on import of magnesium worth about 120 million USD, 85% of which comes from China.
- India lacks domestic magnesium industry and is completely dependent on imports

How will India lead the Magnesium usage in the next decades?

- India with its 1.4 billion population, driven by rapid growth and urbanization is poised to become one of the largest middle-class population which has a huge appetite for spending on automobiles and consumer electronics.
- India's GDP is expected to grow at an average pace of 7% per annum, with focus on manufacturing and exports, which till now remains neglected.
- With Indian Government's policies of Make In India, Make for India, focus on EV's, Electronics manufacturing, etc., the emphasis will be on rapid industrialization in the next two decades.
- Based on rapid growth of Automobile and Aerospace industries in India, we expect to see substantial growth in incorporation of magnesium.

- India's commitment at the Paris conference COP21 to reduce emissions by 30% and to increase the share of renewable energy to 50% of the total power generation forces all the industry players to look at sustainable options.
- The incorporation of magnesium in automobile and aerospace industries will help the sustainability goal we created for ourselves.

Presence Of Industries Connected With Magnesium In India



- Almamet India Private Limited



- Ibex Engineering Pvt. Ltd.



- Bhagyanagar Magnesium Pvt. Ltd.



- Buhler (India) Pvt. Ltd.



- Frech India Machinery Pvt. Ltd.



- High Energy Batteries (India) Pvt. Ltd.



- Hindustan Aeronautical Limited (2 Units)



- Jpm Autocomp And System Pvt Ltd



- Exclusive Magnesium Pvt Ltd.



- Tk Velocity Wheels Pvt. Ltd.



- Sandhar Components, Manesar



- G-plast (P) Ltd.



- Rauch Furnace Technology GmbH



- Bright Industries

USER SECTORS

India has the worlds' leading Auto Manufacturers



Mercedes-Benz



ISUZU

USER SECTORS

India is a leader in Two-Wheeler Manufacturing.



TRACTOR



ELECTRONICS



OTHER



EV Market demand is increasing.

Challenges to overcome

- Lack of Pure magnesium extraction industry
- Lack of trained manpower in handling magnesium
- Limited Alloying and casting infrastructure
- Lack of proactive OEMs in India to incorporate magnesium
- Scarce magnesium recycling infrastructure critical for automobile industry
- Operational Risks and Safety

Focus areas of GDC Tech on Magnesium

- Promotion of Magnesium in user sectors like the Automotive industry.
(GDC TECH is given to understand that Castings of Oil Sump, Transmission Housing, engine cover - Front and Back are under development in India)
- Enhancement of Magnesium Technology among foundry industry
- Development of Die Technology for Magnesium Casting
- To build relations with the Government to support start ups in this area of Magnesium.
- To persuade the Government to take concrete steps for extraction of Magnesium from ore

BRIEF REVIEW OF THE FIRST EVER MANGNESIUM CONFERENCE HELD IN INDIA IN JANUARY 2025

- It is our great pleasure to share the feedback on the FIRST EVER Magnesium Conference held in India. The Conference was very well received with more than 180 participants from all over India along with participants from Germany, Italy, Japan, Austria and China. 14 exhibitors participated in the exhibition.
- 21 Technical papers were presented by eminent speakers on various subjects, like Methodizing & Design Aspects of Magnesium Alloy Sand Castings for Aerospace Applications, Surface Treatment of Magnesium Alloys, Mg Die Casting - Opportunities And Manufacturing Challenges, Thixomolding of Magnesium - Efficient Process, Industrialization by Combining a Digital Twin and Systematic Casting Trials, Latest Developments in Magnesium Aerospace Technologies, Die Casting Machine for Magnesium, etc...

PARTICIPANTS of FIRST EVER MANGNESIUM CONFERENCE

TECHNICAL PRESENTATIONS BY



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KORAPUT DIVISION



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EXHIBITORS of FIRST EVER MANGNESIUM CONFERENCE



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GDCTECH FORUM, as you are probably aware, is a group of entrepreneurs, technologists and enthusiasts representing the aluminium casting fraternity including casters (GDC, HPDC, LPDC, sand casting), alloy and tool makers and associated industries. All these people committed to furthering the cause of the aluminium casting industry to come together on a single platform - to share their expertise, knowledge, trends and developments, as well as their vision and impressions for the future of the industry.

With 5 zonal offices in India.

We have 400+ members. Through GDCTECH we conduct a plethora of events every year.

OUR REGULAR ACTIVITIES

- Training Programmes
- Yearly Conferences on focus themes
- Bi-Monthly Journal
- Monthly GDCTECH Coffee Talk
- Various Awards
- Industry Visits
- International Delegations with Industrial Visits
- Participating in International Exhibitions like GIFA, NEWCAST and China Diecasting Congress



mega event
2025

**ALUMINIUM DIECASTING
EXHIBITION & CONFERENCE**

www.gdctechforum.com

12th GDCTECH EVENT

THEME OF THE CONFERENCE

TRANSFORMING DIECASTING THROUGH INNOVATION

4-5-6 December (Thu-Fri-Sat) 2025 at
The Orchid Hotel, Pune, India

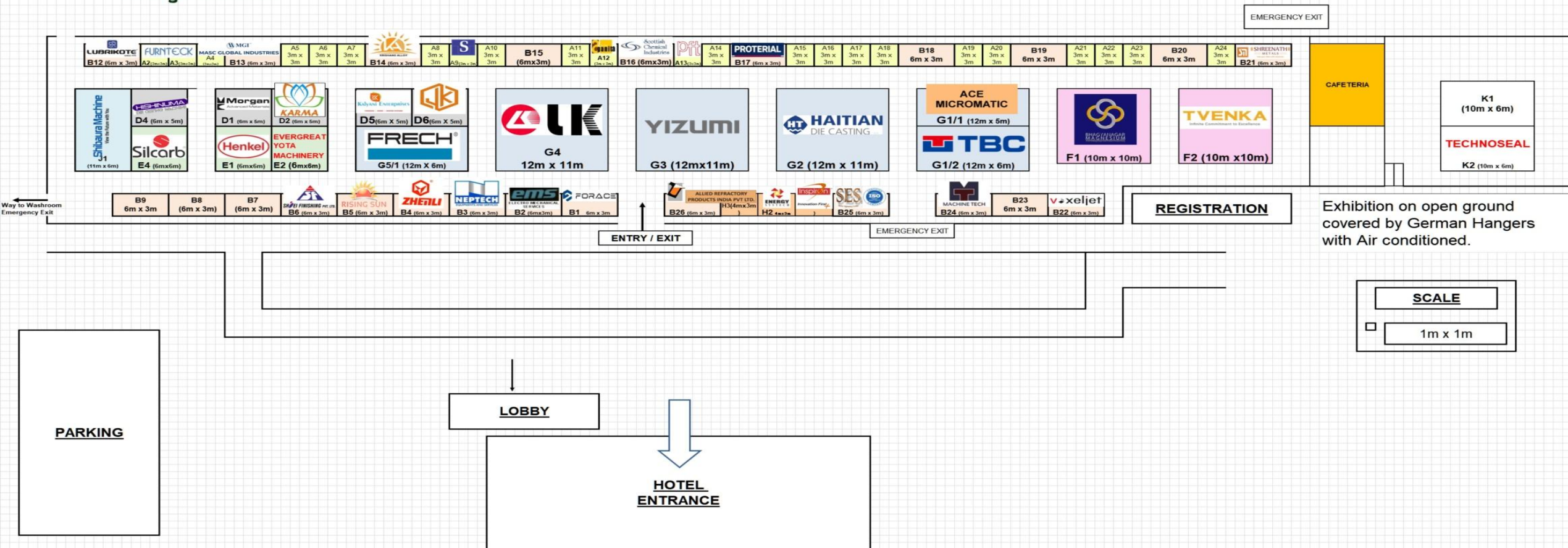
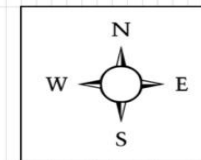
- Concurrent Exhibition – over 100 exhibitors (3000 sqmtrs) (Two Halls)
- Concurrent 2nd Magnesium conference in association with International Magnesium Association (IMA)
- CEO Meet
- Women Engineers Meet
- Buyers Sellers Meet
- Post Congress Industry visits



International Exhibition & Conference

Theme
**Transforming Die Casting
Through Innovation**

The Orchid Hotel, Balewadi, Pune, India 4-5-6 DECEMBER 2025 (Thu-Sat) EXHIBITION LAYOUT



Exhibition on open ground
covered by German Hangers
with Air conditioned.



GDCTECH 2025

International Exhibition & Conference

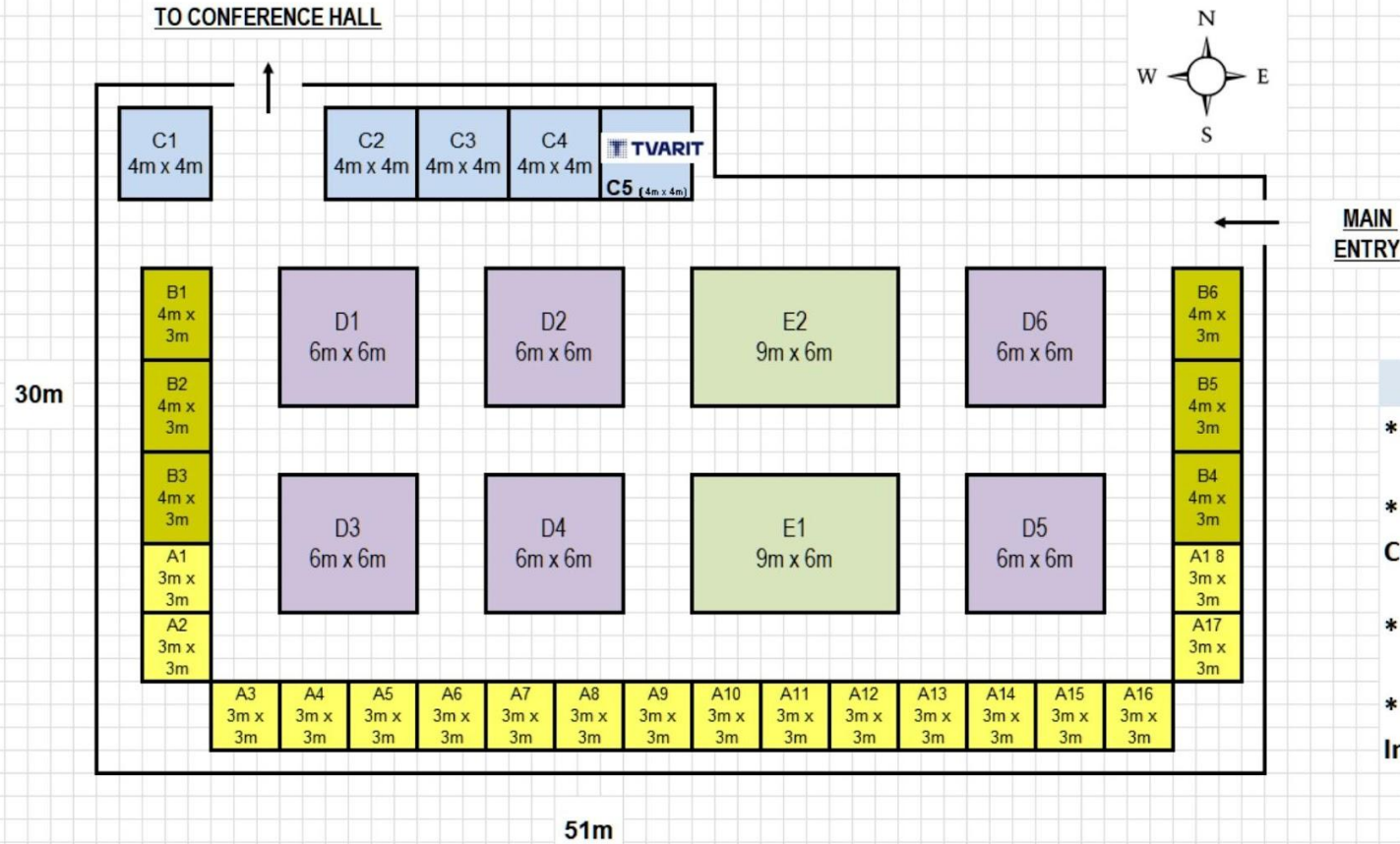
Theme

**Transforming Die Casting
Through Innovation**

The Orchid Hotel, Balewadi, Pune, India

4-5-6 DECEMBER 2025 (Thu-Sat)

EXHIBITION LAYOUT - HALL 2



For the exhibitors representing

- * Measure & Test Industry
- * Post Casting Operation Industry like Finishing of Castings / HeatTreatment / Surface Coating
- * Next Gen Technologies Service Providers
- * R & D Organisations Innovative Projects



GREAT DIECASTING TECHNOLOGY FORUM

GDCTECH (INDIA) INVITES

WORLD'S MAGNESIUM FRATERNITY TO BE PART OF...
2nd CONFERENCE & EXHIBITION ON
MAGNESIUM CASTING TECHNOLOGY

The Orchid Hotel, Balewadi, Pune, India
4-5 December 2025 (Thu-Fri)

Partner Association



Associate Association

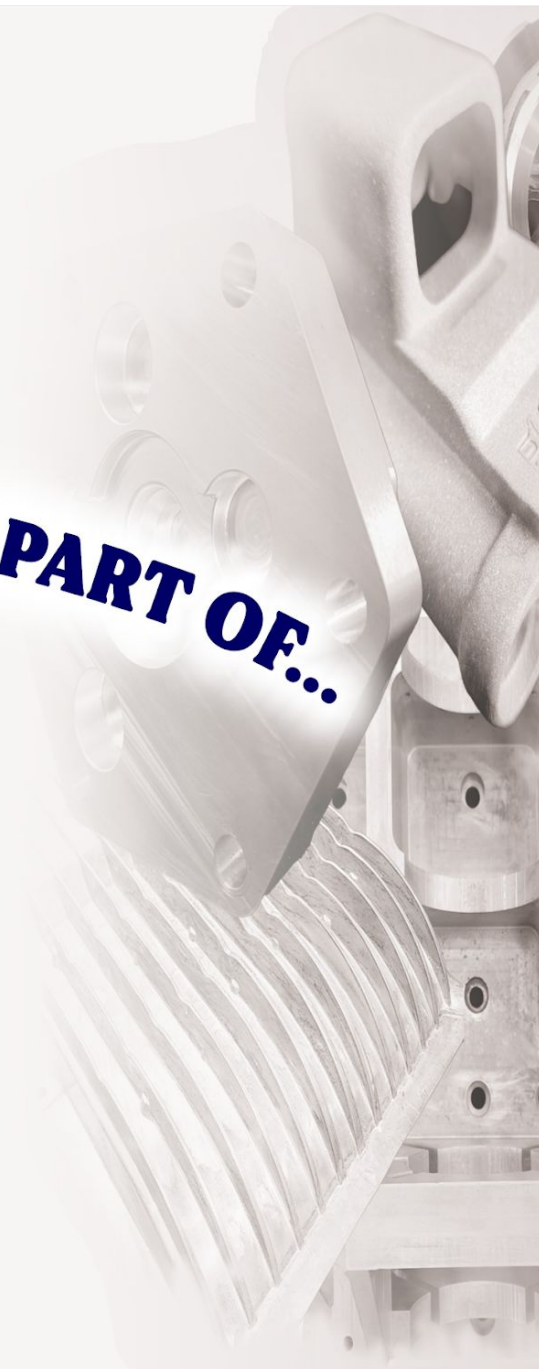


For Details Contact

GREAT DIECASTING TECHNOLOGY FORUM

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www.gdctechforum.com



Proposed Topics for 2nd Magnesium Conference
4-5 December 2025 at Hotel Orchid, Pune, India

1. Casting Technologies, with Case Studies, Metallurgical aspects and Design aspects.
2. Detailing in-depth on Magnesium Recycling, Furnace Design, New Applications.
3. Export Opportunities
4. Opportunities for JV /Technology Transfer
5. Thixomoulding Technology.
6. Primary Magnesium production as an import substitute
7. Innovations in Magnesium Alloys – New compositions tailored for different applications such as automotive, aerospace, electronics, military, battery, transportation, and biomedical applications.

8. Understanding corrosion and surface engineering for protection – Latest research in corrosion and coatings on magnesium alloys/composites, and surface treatment specific to magnesium.
9. Challenges in Large-scale Manufacturing and Applications – Real-world case studies and industrial insights.
10. Advancements in Mg metal extraction technologies
11. Digital twinning and AI based control systems in Mg foundry and metal production practices.
12. Product Design is the Key - keeping in view the intrinsic strengths of Mg which includes thin walls, Excellent NVH and Thermal Properties.

13. How Can an Existing Al Die Caster add to or get into Mg Casting as well.
14. Roadmap for OEMs to start using Mg Cast Parts.
15. Application of Mg alloys in medical devices and bio-medical engineering like reabsorbable implants and Mg Nano robots for targeted drug delivery, etc.
16. Carbon foot print of Mg alloy Components compared to Components made in Al and Fe alloys over total component life Cycle

17. Tool designing and manufacturing specific to Magnesium alloys... assessing if the existing tool makers for Aluminium industry can upgrade
18. Development of Mg wheel via Forging, Thixo and LPDC.19
19. Risk mitigation - potential Fire and Health Hazard and their mitigation.

Marked in red colour we are expecting international papers

We propose to make a package for delegates from IMA members coming to India for the event in December 2025.

The package would be as under:

Mumbai – Mumbai (3-8 Dec 2025)

Transport from Mumbai to Pune on Wednesday, 3rd Dec 2025

4th and 5th December 2025 (Thu-Fri) Mg conference

6th December 2025 (Sat) visits to Industries.

7th December 2025 (Sun) Rest or sight seeing.

8th December 2025 (Mon) industry and

Return to Mumbai on Monday, 8th Dec 2025 in the night

We request you to take full advantage of this offer and be a part of our 2nd Magnesium Conference.

THANK YOU