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## INTERVIEW

*BRIJENDRA PRATAP SINGH, DIRECTOR IN-CHARGE  
(BURNPUR AND DURGAPUR STEEL PLANT), SAIL*

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MAKE INDIA PLANT AS ONE OF THE HUBS  
TO MEET THE REQUIREMENTS  
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*UDAYA SANKAR  
MANAGING DIRECTOR OF REFRATECHNIK INDIA*

**REFRATECHNIK**

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*In conversation with Mr. Nirmalya Mukherjee,  
Editor-in-chief of Steel and Metallurgy,  
Mr. Udaya Sankar, Managing Director of  
Refrastechnik India discusses the performance of  
Refrastechnik India, the Visakhapatnam plant, while  
also shedding light on his plans to see the company as  
a major player in the Indian refractory market.*

**Mr. Udaya Sankar**  
Managing Director of Refrastechnik India

**REFRASTECHNIK**

**NM :** Good day Mr. Udaya Sankar. You have completed almost 17 years at Refratechnik Steel GmbH & in which 7 years as the managing director of Refratechnik India. How would you evaluate the performance of Refratechnik India since you took over as a managing director of this company?

**US :** Greetings Mr. Mukherjee. Yes, I have completed 17 years with Refratechnik Group in various capacities leading India and South-East Asia business for Refratechnik Steel and 7 years as Managing Director of Refratechnik India. In the last 17 years, the growth of Refratechnik Steel sub-group where Refratechnik India is a subsidiary in India is phenomenal. A major achievement of our team is establishment of Refratechnik brand in Indian steel and Non-ferrous industry and establishment of our own plant in India – a dream fulfilment.

**NM :** Though Refratechnik has been supplying refractory products for the last 30 years. You have started your Indian manufacturing facility at your Visakhapatnam plant on 8th of November, 2023 with an investment of about 30 million euro and a production capacity of roughly 40 thousand tonnes of magnesia carbon bricks and a monolithic plant to meet the requirements of your customer. Could you briefly highlight the details of your production facility including workshop area and the available machinery equipment?

**US :** Refratechnik has established a State-of-the-art manufacturing facility, one of the largest in Refratechnik group (62450 sq.m) to manufacture and provide products of consistent quality to our esteemed customers in India and nearby countries. Refratechnik always takes special care to see that its products meet its global quality and environmental standards produced from any of its locations. Visakhapatnam is the first Refratechnik Group's venture in India, which is aimed to establish its manufacturing presence and support



to the growth of Indian steel and non-ferrous industry. With all its experience, a combination of process automation and auto-batching systems were established to produce consistent quality products. Largest In-house crushing facility with a unique auto-batching system with high accuracy in operation, supported by a unique mixing system has been established. This plant uses green fuel to support cleaner environment and the product quality. The plant was constructed taking all the sustainability factors and carbon emissions into consideration.

**NM :** During the current fiscal year 2023-24 how much of magnesia carbon refractories are you likely to produce and what is your target for the monolithic plants?

**US :** We started our commercial production in April'23, in a span of 14 months from the date of commencement of construction. As you know that Refratechnik has been supplying Magnesia Carbon products from our manufacturing facility from China for the past 17 years giving excellent performance in all the vessels that we are operating. Therefore, our aim was to manufacture and supply products which give the same / better performance norms than our supplies from our China location.

**WE ARE VERY HAPPY TO SHARE THAT ALL OUR SUPPLIES HAVE GIVEN PERFORMANCE AT PAR OR SURPASSED OUR OWN PERFORMANCE FROM OUR CHINA SUPPLIES WHICH PROVES THAT OUR INSTALLED FACILITIES AND THE QUALITY ASSURANCE SYSTEMS ARE WELL STABILIZED**

To make this happen, we meticulously planned, obtained trial orders from all our existing customers, proved performance, and gradually booked bulk orders for execution. We are very happy to share that all our supplies have given performance at par or surpassed our own performance from our China supplies which proves that our installed facilities and the quality assurance systems are well stabilized. We are sure that this fiscal year we should reach minimum 70-80% capacity booking for both bricks as well as high alumina monolithic production facilities.



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**WE ALWAYS STRIVE TO OPTIMIZE MANPOWER UTILIZATION AND WILL VIGOUR UPON WHEN THE PLANT WILL GROW TO THE CAPACITY OF 60,000 T / 100,000 T AS PLANNED IN APPROPRIATE TIME**  
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**Initiative” (towards self-reliant India). To this end, could you explain how the Indian refractory industry is likely to gain from the initiative?**

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**THIS FISCAL YEAR WE SHOULD REACH MINIMUM 70-80% CAPACITY BOOKING FOR BOTH BRICKS AS WELL AS HIGH ALUMINA MONOLITHIC PRODUCTION FACILITIES**  
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**NM : Do you have any plans to export magnesia carbon bricks to countries in South-East Asia & middle East in the near future/upcoming days?**

**US :** The Refratechnik group’s aim is to make India plant as one of the hubs to meet the requirements of its customers world-wide. Depending on the logistics support and other market dynamics, the Visakhapatnam plant may be utilized to feed the other markets like South-East Asia, near Middle East, North American markets etc. Happy to inform that we have already received encouragement with a nice order from North American market.

**NM :** We understand Refratechnik India currently employs around 200 employees for your plant in Visakhapatnam and another 100 for your other functions at various locations. Could you throw some light on your expansion plans both in terms of your production target and increasing your work force in the short & medium term?

**US :** Visakhapatnam plant has a unique balance of process automation and manual activities to minimize human dependency on critical processes. On one side, getting skilled human resource is a challenge for industries and on the other side a social responsibility remains as an important aspect to address by employing people. We always strive to optimize manpower utilization and will vigour upon when the plant will grow to the capacity of 60,000 t / 100,000 t as planned in appropriate time, based on the growth in the steel industry and market requirement. We designed the plant to accommodate the peak capacity under the existing premises.

**NM :** The entire thought process behind setting up of your green field plant at Visakhapatnam was to meet the clarion call of our honourable Prime Minister towards “Aatmanirbhar Bharat

**US :** Yes, the Refratechnik group initiated the plant under the honourable Prime Minister’s call of “Aatmanirbhar Bharat Initiative” (towards self-reliant India). From our side, we are helping to fill up the demand - supply gap in the industry and helping the customers in saving valuable foreign exchange, valuable lead times and meeting their emergency requirements at very short notices of 2-3 weeks against 10-12 weeks prior to setting up the plant. This is a big step towards moving closer to the customers. India’s steel capacity is projected to be @ 300 million t by 2030 as per national steel Policy. Production is expected to grow to 230 Mt by that time from 140 million t in FY 23. This means that an unprecedented need-gap is waiting to be addressed by the refractory industry. Growth like never before exists as a possibility, right in front of India. The Indian refractory industry is approx. + 1.3 \$billion market by value, growing at CAGR of 3.45% between 2017 and 2022 and expected to grow at a CAGR of 5.8% during 2021-2026.

The specialty of our plant is, it is a blend of European technology with Indian manufacturing skills, fast execution skills, shorter delivery times, low processing costs and judicious use of local recycled materials. We also look forward for Joint developments



with industries and institutions on technological front which would benefit steel industry for a healthy growth. Yes, dependency on imported raw materials and Chinese price threat will always be there and the Indian industry is capable to meet the challenges. Refratechnik is a technologically driven company and always believes in working to meet the cost performance ratio. Understanding customer specific operating conditions and designing customized products with application focus will certainly result in positive outcomes.

**NM :** What are the major challenges faced by the Indian refractory industry today and what are your suggestions to overcome the same?

**US :** Indian refractory industry faces challenges like non-availability of high purity raw materials like magnesite, graphite, even low ferric bauxite and some other materials like micro silica etc., in India. We are clearly dependent on China and other countries for these materials. Even though many multinational refractory companies including Refratechnik invested in India for meeting the requirements of Indian steel industry, these challenges of raw materials availability will remain till some alternate means are developed. On this front, Refratechnik has some advantage, as we have our own Magnesita productions in Australia and Canada.

**REFRATECHNIK IS MAKING DIFFERENT EFFORTS TO MAKE THE REFRACTORY JOB MORE ATTRACTIVE TO THE YOUNG GENERATION**

In spite of investments in India with import of raw materials and additional costs, the cost of production and the prices may not be cheaper than the imports from China. Therefore, Indian refractory industry looks forward for support from the government, by giving concessional duties on import of raw materials and support from steel industry in this endeavour, by encouraging more domestic procurement and restricting imports gradually. More collaborative approach is required from Indian steel industry to develop innovation and work towards basic research and development in refractory industry for the development of newer products.

Another challenge before the industry is to attract human talent which is a very sensitive topic in today's scenario. Still refractory is not a very lucrative and attractive job option for the upcoming generation due to the dust, heat, and dirt. Switching towards software and related

jobs is very common nowadays has put this industry in concern. Refratechnik is making different efforts to make the refractory job more attractive to the young generation.

**NM :** As the managing director of Refratechnik India how would you like to see the company as a major player in the Indian refractories market by the year 2047 when Indian Steel Industry is likely to produce 500 million tons. How do you think in the refractory industry should gear up to meet this challenge? What is your vision for your organization?

**US :** India has been one of the fastest growing economies in the past few years as well as fastest growing steel producing countries in the world. Therefore, I am sure India would become a 35 trillion economy and produce nearly 500 million by 2047 when we achieve 100 years of Independence. I love to live, to see the figures in reality.

The steel sector is undergoing a transformative phase, the requirements are continuously evolving to achieve Net Zero emissions with the changes in low carbon technologies, hydrogen usage in steel production etc. Indian refractory industry has been continuously gearing up in taking actions to meet the ever-changing requirements of Indian steel industry. Some of the changes that are required to meet the challenges of steel industry are – Customer Relationship Management (CRM) platform, continuous R&D in development of newer products which gives better performance, implementation of FMEA in process, CMMS system for maintenance management with digitalization / utilization of AI, Project Management Software (PMS) for progress tracking, utilization of recycled materials, upgradation and utilization of local materials, development of skilled workforce- etc . Needless to mention, nevertheless Refratechnik shall focus on all the areas to meet the challenges of the steel industry.