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METEC INDIA NEWSLETTER

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CRAFT THE GROWTH STORY OF THE INDIAN METAL INDUSTRY

Why India

- By 2050, almost 20% of the steel produced globally is likely to be sourced from India.
- Rise in global population, Urbanization of the Asian countries will create a strong demand of minerals & metal India has set the targets of achieving a total crude steel capacity of 300 million tonnes per annum (MTPA) and total crude steel demand/production of 255 MTPA by 2030-31.
- The cumulative growth of India's mineral production for the period Apr-Sept, 2023-24 over the corresponding period of previous year is 8.7%.



Showcase your innovations and products



Michael Kotas, Managing Director & CEO of John Cockerill India Ltd.



Exhibitor's Testimonials

e are pleased to join METEC India, the premier regional event for the metal industry in Maharashtra state.

John Cockerill India Limited, formerly CMI FPE Limited, is a leading engineering company under the John Cockerill Group. Specializing in cold rolling mill complexes, it offers a wide range of technologies for steel processing, thermal and chemical treatments, and auxiliary equipment. With its headquarters in Mumbai and workshops outside the city, the company has a global presence across continents. It focuses on delivering quality products and services tailored to each customer's needs, supported by a team of experienced international managers. John Cockerill India aims to exceed customer expectations by providing timely and competitively priced solutions, backed by expertise in design, engineering, manufacturing, erection, commissioning, and after-sales support. The company's vision aligns with the group's ambition to be the preferred industrial partner for international clients, offering tailored solutions and optimizing equipment performance throughout its lifecycle.





We place utmost attention on our customers' needs, and it is this focus that drives our extensive service offerings, including advanced post-rolling and packaging solutions in Strapping and Tying Machines for steel products, in addition to working to offer equipment that is Industry 4.0-compliant. Our forward-thinking approach is also evident as we venture into High-Speed Wire Rod Block Mill applications, ready to meet the evolving demand for superior wire rod production.

Naresh Kathuria Managing Director, Kathuria Rollmill



I take immense pride in our group's unwavering commitment to engineering excellence within the steel industry. Our expertise in designing, manufacturing, and managing Hot Steel Rolling Mills is unparalleled, with each project meticulously tailored to meet our clients' precise specifications. From Bar Mills, Section Mills and Merchant Mills to Strip Mills, we ensure that every solution adheres to the strictest quality standards.

Our subsidiary, Hollteck India, is a testament to our dedication to quality and efficiency, offering guiding equipment that significantly enhances the rolling process. Our comprehensive approach also extends to the integration of critical components such as Bearings, Rolls, and TC Rings, which are Our philosophy is not just to meet expectations but to exceed them. We believe in a partnership approach, working closely with you to ensure that our solutions not only meet the challenges of modern steel production but also provide a competitive edge in the market.

The consistent participation of Kathuria Group in the METEC exhibitions since 2011 is a reflection of our commitment to industry collaboration and growth. We are grateful for the support from METEC India and eagerly anticipate the 2024 exhibition, where we will showcase our latest innovations.

Thank you for your continued trust in Kathuria Group. Together, we will continue to set new standards and achieve new milestones.

TO ENSURE THE CHEMISTRY IS **ALWAYS CORRECT**

n addition to the impending PFAS ban, stricter environmental regulations and energy prices are consistently challenging the chemical industry. New pipelines for the use of hydrogen as an energy carrier, as well as raw material are therefore becoming significantly more important. This is because they logistically support chemical companies to fulfill ecological requirements. With their quality pipes and pipework systems for implementing pipelines, manufacturers are proving to be reliable pillars for a successful future. To ensure the chemistry is always correct.

The industry is now in transition: "The production processes of the chemical industry are currently altering rapidly," explains the Fraunhofer Institute IGB. In doing so, the chemical industry must also survive threatening scenarios, such as the EU Commission's threat to ban perfluorinated and polyfluorinated alkyl substances (PFAS), which have been criticised for their long durability and harmfulness to the environment. However, there are considerable concerns about such a ban, including from the Federal Association of German Industry (BDI). "The broad regulation for entire groups of substances, irrespective of the actual risk of the individual substances, is not appropriate from the industry's point of view." The consequence of a ban would be significant restrictions on the production of plastic pipes and plasticlined steel pipes.



Plastic pipes are required by the chemical industry: According to the BDI, PFAS are "always utilised in many industries when extreme framework conditions such as high or low temperatures, high frictional resistances or aggressive chemical conditions require them in their applications". Eliminating several thousand PFAS could mean, however, that "many urgently needed applications could no longer be produced in the EU, as there are currently no suitable alternatives". A problem would arise for the manufacture of pipes and pipework systems for the chemical industry.

STAINLESS STEELS

Stainless steels are also often utilised in the chemical industry. For example, Outokumpu provides solutions which "reflect the industry's requirements for performance in extreme temperatures, highly corrosive environments, high pressure handling, and high purity of the final product." The chemical industry without stainless steel pipes is unimaginable.

Bimetallic pipes are often also utilised in chemical plants. They can comprise a stainless steel outer pipe and a zirconium inner pipe liner. Pipes, which are produced with these materials, have one thing in common, they withstand corrosive chemicals. Production losses as well as plant downtimes and pipeline failures are prevented by using suitable materials. Therefore, "pipeline systems are essential for the safe gas neutrality, according to VCI. "They can be utilised to execute the transport process for materials such as hydrogen, they can be used to temporarily store energy and they play an important role in the recycling of CO2 as part of so-called carbon capture and usage or storage projects (CCU/S). Pipelines contribute to a safe and reliable supply of raw materials in times of insufficient rail freight capacity and seasonal transport restrictions on the waterways (low water of the Rhine)," explains the VCI.



iemens Energy

INVESTMENTS IN PIPELINES

The chemical industry relies on pipeline networks: An important lifeline of the Ruhr Metropolis is the PRG propylene pipeline as a pipeline network. The PRG propylene pipeline creates the backbone of propylene chemistry in the Ruhr Metropolis, emphasises PRG Propylenepipeline Ruhr GmbH & Co. KG. Propylene is delivered via this system because it has not been produced in sufficient quantity in the region for years.

Additional, ongoing construction of pipelines is an important task for the present and future of the chemical industry, for which pipe production is therefore essential. Ten companies - including BASF, Borealis, BP, Dow, Evonik and the Port of Rotterdam - have signed an agreement on crossborder pipeline development in the trilateral region. It is a cooperation for the chemical industry in Flanders, the Netherlands and North Rhine-Westphalia ("TRILOGUE"), in which the annual turnover is 180 billion Euros and more than 350,000 members of staff are currently employed. "Pipelines are the 'lifelines' of the trilateral chemical cluster; as the cleanest and safest mode of transport, their importance for the competitiveness of the industry will continue to grow," emphasises the German Association VCI. Once again, numerous pipes are required for implementing these pipelines.

A new 140-kilometre-long hydrogen pipeline will connect Germany and Denmark. From 2027 onwards, H2 is to flow from the island of Bornholm to Lubmin. "This cross-border hydrogen infrastructure is intended to drive the development of offshore wind energy in the region and throughout the Baltic Sea," explains the hydrogen grid operator Gascade. In addition, it indicates a cost-efficient decarbonisation path for the north-east European energy system. In addition to the direct connection between Germany and Denmark, there are considerations, according to Gascade, to manufacture the interconnector with a future Baltic Sea backbone towards Sweden and Finland.

PIPES AS ENABLERS OF PROGRESS

With the increased use of hydrogen as an energy source, which has been

transport of water, chemicals and gases," emphasises GF Piping Systems.

HYDROGEN AS A RAW MATERIAL AND ENERGY SOURCE

In order to maintain its competitiveness, the chemical industry urgently needs hydrogen - as a raw material, because it is the initial point for important chemical value chains. And also as an energy source. For the transport of the booming material, a suitable infrastructure is necessary, which in turn requires numerous pipes. An advantage of using pipelines: They are "the safest, most environmentally friendly and most reliable means of transport," explains the German Chemical Industry Association (VCI). That is why the chemical industry has long relied on pipelines.

In addition to the safe and environmentally friendly supply of chemical locations, a well-developed pipeline network is an important building block for the transformation of the industry towards greenhouse



made possible by underlying pipeline logistics, the chemical industry is in a win-win situation: This is because it can thereby strengthen its international competitiveness against the background of stricter environmental requirements and also with a view to rising energy prices.

However, if renewable raw materials or biogenic residues are increasingly utilised as starting materials, then "processes, plants, material recipes, process parameters or methods for quality control and safety assessment usually also have to be adapted, which also has an impact on upstream and downstream industries," Fraunhofer IGB explains. Without the pipe industry, the transition will not be therefore feasible: It will develop into an enabler of the progress of the chemical industry.

MR NAVEEN JINDAL TAKING OVER AS PRESIDENT INDIAN STEEL ASSOCIATION



Mr. Naveen Jindal, Chairman Jindal Steel and Power

Mr. Naveen Jindal, Chairman Jindal Steel and Power has been unanimously elected as the President of the Indian Steel Association (ISA) by the Apex Committee, the Governing body of ISA. He has taken over the Charge of President ISA from Mr. Dilip Oommen, CEO, AMNS India and Executive Vice President, Arcelor Mittal on March 21, 2024. Recent past Presidents of ISA includes Mr. Sajjan Jindal, CMD of JSW Steel and Mr. T. V. Narendran MD and CEO Tata Steel.

The Apex Committee members appreciated and lauded the leadership of Mr Dilip Oommen who steered the ISA as its President, when Industry faced various critical issues.

Mr. Naveen Jindal is the Chairman of Jindal Steel & Power (JSP), India's leading Industrial conglomerate with interests in steel, mining and infrastructure sector. Mr. Naveen Jindal, is a wellknown Indian Industrialist and Philanthropist. He is known for successfully fighting a ten year long legal battle, which resulted in every Indian gaining 'Right to display the national flag on all days' as part of their Fundamental Right. He was also elected twice to Indian Parliament where he served as a Parliamentarian for 10 years.

"For India to realise its development goals, steel along with its upstream and downstream manufacturing value chains have to grow in tandem.

The decarbonisation is a huge challenge which is a key initiative for

JSW, TATA, ARCELORMITTAL NIPPON TO RAMP UP SCRAP-BASED STEEL PRODUCTION



ndian steel producers need to ramp up scrap-based steel production in the country to reduce extraction of natural resources—like iron ore and coking coal—and cut carbon emissions thereby.

National Steel Policy 2017 aims to develop a globally competitive hashtag#steel industry by creating 300 MT a year steel production capacity by 2030 with a contribution of 35-40% from the hashtag#EAF route. Steel scrap comes from various sources like mill scrap, used structural items like beams, reinforced steel and plates, plant and machinery including pipes, tubes, old vehicles, domestic goods, automotive scrap, shipbuilding industry and railways.

ArcelorMittal Nippon Steel (hashtag#AM/NS) India plans to establish steel scrap processing centres across the country, while Tata Steel is setting up electric arc furnace (EAF)-based recycling plants. hashtag#JSW Steel's plant in Dolvi plant will also use scrap steel as its feed.

As part of AM/NS India's plan to reduce emission intensity by 20% by 2030, the global steelmaker aims to increase scrap use to around 10% by 2030 from 3-5% currently. The company has also set out plans to establish several steel scrap processing centres across the country to participate in a circular economy for steel.

In September last year, JSW Steel increased its stake in NSL Green Steel Recycling Ltd to 100%, acquiring joint venture partner New Zealand's metal recycler NSHL's 50% stake. The primary objective of NSL is to establish scrap shredding facilities in India, starting with a plant in Khalapur, Maharashtra, which would supply scrap to JSW Steel's plant in Dolvi in the form of baled or bundled scrap. The project is slated for commissioning in FY25. The steelmaker will replicate it at other steel plants. hashtag#Tata Steel's first EAF plant is coming up in Ludhiana with a capacity of 0.75 million tonne (MT). The steelmaker will set up similar furnaces in other parts of the country as part of its plan to increase domestic manufacturing capacity to 36 MT a year. The steelmaker also plans EAF-based steelmaking at its Port Talbot site in South Wales with a capital cost of £1.25 billion. UK government has announced a \$621 million support package for Tata Steel's proposal.

The use of every tonne of scrap shall save 1.1 tonne of iron ore, 630 kg of coking coal and 55 kg of limestone, according to Steel Scrap Recycling Policy. There will be considerable savings in energy consumption. It also reduces water consumption and greenhouse gas hashtag#emissions by 40% and 58% respectively.

India's hashtag#scrap consumption rose 12% to 29 MT in 2023, but the country does not produce enough scrap domestically. Hence, demand is met from abroad. Imports of ferrous scrap for steelmaking stood at around 9.8 MT in FY23, compared with around 3.6 MT in FY22. The country imported about \$12 billion worth of metal scrap in 2022, more than double the amount from just five years earlier.

saving our planet. Steel Industry has taken the onus and is committed to decarbonise and reduce its carbon footprints to meet its target in-line with commitments of Hon'ble Prime Minister of India to the World.

The Indian steel industry plays a pivotal role in the nation's economic landscape, with far-reaching impacts across sectors and society" said Mr. Naveen Jindal, President Indian Steel Association.











The Bright World of Metals



