



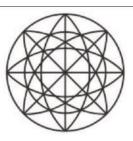
A JOURNAL ON FERROUS AND ALLIED SECTORS











MI.DA®

Deep into the Green



Mi.DA® or Micro-Mill Danieli is an in-house. patented and breakthrough innovation conceptualized and developed to address the global and most challenging topic of industry in terms of quality and sustainable green steel Mi.DA® production. ensures maximum production efficiency out of a single mill in endless casting-rolling mode having least environmental impact.

The entire plant is treated as single production unit where scrap feeding to produce quality long products (in terms of rebars, wire rod, spooler and light sections of varied steel grades and combination) takes place with minimum carbon footprint, superior quality and unmatched production consistency. Some of the key factors those make Mi.DA® a truly winning concept are:

- -No RHF!! Zero emission of direct NO_x, SO_x & CO₂ → Green Steel;
- -Possibility of utilizing renewable energy → Green Steel;
- -Ultra-compact design as no RHF → Lesser area & inventory;
- -Endless casting-rolling → longer campaigns with higher energy savings & lower consumable cost;
- -No billet → lower NG cost & higher yield avoiding scale loss;





DANIELI

The reliable innovative partner to be front runners in the metals industry

Danieli India Limited

Technopolis, 5th Floor, B - Wing Block – BP, Plot – IV, Sector – V Salt Lake, Kolkata – 700091, West Bengal, India

Contact: +91 33 7101 6202 Mobile: +91 90510 78667

CONTENTS





STEEL SCENARIO VOL 31/	M12	Registration No. 53085 / 92
SECTION: EDITORIAL		Founder Chief Editor
Secondary steelmakers need a right ecosystem	2	Late Dr. Monoj Chatterjee
SECTION : COVER STORY	2	i Late Di. Wonoj chatterjee
MI.DA Deep into the Green	5	Editor & Publisher
By Abhisek Bhadra , General Manager-Sales & Marketing,	Ŭ	Sakuntala Chatterjee Chanda
Key Accounts Danieli group, India		Sakulitala Chatterjee Chanda
SECTION: EVENT		Content & Marketina Frequetives
ER secondary steel sector stakeholders' meet reviews challenges	5 8	Content & Marketing Executives
By Steel Scenario Bureau		Joyanta Mani
SECTION: CEO MEET 2022		Tanumay De
SNAPSHOTS	13-14	
Welcome Address of the Meet on "Growth of Secondary Steel"	15	Accounts & Admin
By Rishabh C. Kothari, President, Merchants' Chamber of		Gobinda Roy
Commerce and Industry		ı 1
Hedging Price Risk in a Volatile Steel Market	16	Design & Layout
By Mr. Sameer Patil, Chief Business Officer, BSE		SERC
Clean and Green Steel Making The Green Furnace	18	1 1
By Mr. Vikas Varshney, Director, Megatherm		Representative in Bangladesh
Secondary steel sector - scope	21	Rifat Mahmood
By Mr. Ranjan Bandopadhyay, Executive Secretary,		+88-01911394324
Joint Plant Committee		serc.events@gmail.com
Air Water- your partner for Industrial Gases	23	
By Mr. Kaushik Mukhopadhyay, Executive Director	27	EDITORIAL ADVISORY BOARD
Contribution in Skilling Workers for Business Growth of	26	
Secondary Steelmakers Dr. Mr. Suching Personics Chief Fraguetics Officer HISSES		Dr. Narendra Kumar Nanda, M.Tech, Ph.D
By Mr. Sushim Banerjee, Chief Executive Officer, IISSSC A Green Deal on Steel	27	Sushim Banerjee, Director & CEO (Hony.), IISSSC
By Mr. Mainak Gataet, Scientist-C, BIS	21	· ▲ Nirmal Chand Mathur, Stainless Steel Expert
Exploring Digital Market & Credit Linkages For MSMEs	28	
By Mr. Achintya Kumar Mondal & Ms. Sreela Das, Canara Bank	20	Dr. Shoeb Ahmed, Ex-Director Commercial - Steel
SECTION : ARTICLE		Authority of India Limited
Will the govt deliver on its promises?	31	Pritish Kumar Sen, Ex-Tata Steel
By Steel Scenario Bureau		Debashish Dutta, Ex-General Manager - Institute
SECTION: REPORT		of Steel Development & Growth
'We should focus upon both macro and micro economic challenges'	' 35	· ·
By Steel Scenario Bureau		Ishwar Chandra Sahu, Ex-Executive Director I/c
SECTION: IN NEWS	36	SAIL, IISCO Burnpur
SECTION: DATA BANK		Rakesh Kumar Singhal, Consultant - Steel Research
Steel Market Price	37	Technology Mission of India
INDUSTRY SCENARIO VOL 01/	/M12_	▲ Abhijeet Sinha, National Program Director-
TOUR TOUR		ASSAR
SECTION: FOREWARD		I
The MSME sector rebounds	39	Divya Kush, President of The Indian Institute of
SECTION : ARTICLE		Architects Member (Alt.), Council of Union of
Bengal's Mission MSME	40	International Architects
By Ritwik Mukherjee		Rajesh Nath, Managing Director, VDMA India
India should Redesign Strategies & Policies for MSME Sector	45	. ▲ Nikunj Turakhia- President, Steel Users
By Mr. R. P. Gupta, Economist & Author, 'Turn Around India'		Federation of India
SECTION: INTERVIEW		' I
'We provide value with values'	43	Sanat Bhaumik, Director - Sales & Marketing,
Mr. Rishabh C. Kothari, CEO, CKC Fragrances		Steel Plantech India Private Ltd.
		ATTENTION OF THE PARTY OF THE P
Spark Economy Research Centre		ATTENTION SUBSCRIBERS Any complain of non-receipt of journal should reach 'Steel Scenario'
46CD, Binodini Bhavan, Sammillani Park, East Rajapur, Santoshpur, Kolkata - 70 Email: info@steelscenario.com / editor@steelscenario.com Web: steelscenario		office at Kolkata latest within a month of publication.
Linan. info@steetstenano.com/ editor@steetstenano.com web: steetstenand	J.CUIII	- Publisher





Secondary steelmakers need a right ecosystem

In order to achieve the 300 million-tonne (MT) target of steel capacity by 2030-31, the secondary steel sector will play a vital role. A demand slump at home is leading to a reduction in output by secondary steel producers, which represent over 40% of India's steel industry. The country's steel production is being limited by inadequate raw material supplies, high energy and transportation costs, as well as limited access to finance. The constant decline in capacity utilization is also responsible for this. To achieve ease of doing business, state and central government policies must work together and be active in involving secondary steel producers and consumers.

For a manufacturing sector, 90% is the ideal level, but units that make finished steel like re-rollers suffer at 46%. Those who add value to steel, such as coldrollers, tinplate manufacturers, pipes, and colour-coated steel manufacturers, report even lower capacity utilization of 37%. The capacity utilisation for sponge iron and pellet makers is now 54%.

Attention needed for secondary steelmakers

Sluggish demand has led to a 10 to 15 percent drop in steel products like TMT bars and structural steel. Prices are likely to ease more before stabilizing. While the costs have skyrocketed. Direct Reduced Iron (DRI) producers require high quality thermal coal to make sponge iron, which has increased costs by 50 percent despite a compromise in input quality. Imported coal prices, which were 120 USD per tonne before the war, shot up to 300 USD per tonne. The price is not sustainable unless passed through. There are many secondary steel producers who use outdated technology. For the same product with matching quality, they end up spending over \$1,000-2,000 more per tonne compared with their bigger brothers. They cannot ensure quality since they lack ladle refining facilities, which causes them to fail to meet standards (BIS). Their freight costs are as high as their power costs. Manpower shortages, a lack of professional management, and a lack of marketing support contribute to their problems.

Family-owned, small-sized, and unrated secondary sector units make up most of the market. Poor corporate governance is also an issue. As a result, banks are rather Capacity-expansion target, 300 mtpa in 2030-31 reluctant to extend loan facilities to them fearing the piling up of NPAs again. The secondary steel sector of India is high cost due to limited availability of coking coal, low productivity of labour, poor infrastructure and irregular supply of energy.

and 500 mtpa India's 100th year of Independence in 2047, the government is now formulating a policy meant exclusively for secondary steel producers. ""

India has traditionally been a net importer of finished steel. However, in recent years, India has become a net exporter of finished steel. In FY20-21, steel imports to India were 30 per lower while steel exports increased by 50 per cent. India is cost-competitive with respect to finished steel production but loses this advantage once the material moves out of the plant due to higher logistics costs, associated taxes and levies resulting in a price differential with respect to international prices.

Policy to Solve the Issues

However, given the importance of their role in the ambitious capacity-expansion target, 300 mtpa in 2030-31 and 500 mtpa India's 100th year of Independence in 2047, the government is now formulating a policy meant exclusively for secondary steel producers. The proposed policy is likely to address some of the issues impeding their operations. It is considering options like strengthening institutional support for research & technology, supporting R&D effort, excluding some items they produce from the purview of the quality control order, bringing amendment to the MMDR Act to ensure availability of iron ore to sponge iron and pellet manufacturers.

They need to scale up, produce the right quality, green steel acceptable to all, even in the export market where their exposure is minuscule. They need to team up with peers to acquire modern, up-to-date machines quickly. India has enough opportunity to provide secondary steel producers.

Strengthening institutional support for research & technology, supporting R&D effort, excluding some items they produce from the purview of the quality control order, bringing amendment to the MMDR Act to ensure availability of iron ore to sponge iron and pellet manufacturers are under active consideration of the government.

The secondary steel sector is a diverse industry in itself. Ideas generated through this event, which will be helpful in setting policy directions for the government. The Meet on Growth of Secondary Steel was organised by our journal with MCCI with the aim of providing a platform to players in the Secondary Steel sector to share their views on the challenges faced by the sector and ways in which they themselves can modify their business strategies as well as the Steel Ministry can create an ecosystem in which the industry can thrive.







PEB PURLINS

An innovation in colourful pre-painted steel sheet solutions that promise longevity and durability of

PEB STRUCTURES TO REFLECT YOUR IMAGINATION







Jyotiraditya M. Scindia assumes additional charge of Steel Ministry



Shri Jyotiraditya M. Scindia, Union Minister has assumed the additional charge of the Steel Ministry, Govt. of India. Mr. Scindia is currently in charge of the Civil Aviation Ministry. He represents Madhya Pradesh in the Rajya Sabha, and took charge as the third Steel Minister in the current government.

He took charge in the presence of Steel Secretary Sanjay Kumar Singh and other senior Ministry officials.

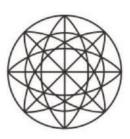
Steel Scenario Team congratulates Shri Jyotiraditya M. Scindia for his new role.











MI.DA®

Deep into the Green



Abhisek Bhadra General Manager-Sales & Marketing, Key Accounts Danieli group, India



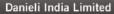
Mi.DA® or Micro-Mill Danieli is an in-house, patented and breakthrough innovation conceptualized and developed to address the global and most challenging topic of metal industry in terms of quality and sustainable green steel Mi.DA® production. ensures maximum production efficiency out of a single mill in endless casting-rolling mode having least environmental impact.

The entire plant is treated as single production unit where scrap feeding to produce quality long products (in terms of rebars, wire rod, spooler and light sections of varied steel grades and combination) takes place with minimum carbon footprint, superior quality and unmatched production consistency. Some of the key factors those make Mi.DA® a truly winning concept

- -No RHF!! Zero emission of direct NO_x , $SO_x \& CO_2 \rightarrow Green Steel$;
- -Possibility of utilizing renewable energy → Green Steel;
- -Ultra-compact design as no RHF → Lesser area & inventory;
- -Endless casting-rolling → longer campaigns with higher energy savings & lower consumable cost;
- -No billet → lower gas cost & higher yield avoiding scale loss;



The reliable innovative partner to be front runners in the metals industry



Technopolis, 5th Floor, B - Wing Block - BP, Plot - IV, Sector - V Salt Lake, Kolkata - 700091, West Bengal, India

Contact: +91 33 7101 6202 Mobile: +91 90510 78667





330 kWh/t

Multi-strand casting

and rolling from cold

billet charge

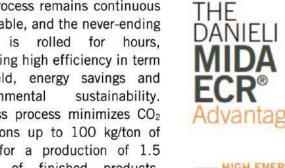


Available in 4 configurations, mainly A. Nano, B. Standard, C. Jumbo & D. Twin; Mi.DA® ECR plants can produce quality long products with capacities from 200,000 to 2,000,000 tpy. Each configuration offers the most competitive CapEX and OpEX, giving tangible advantages over traditional Minimill users. The entire process from liquid steel to final product formation happens in 15 minutes or less.

The process remains continuous and stable, and the never-ending is rolled achieving high efficiency in term of yield, energy savings and environmental Endless process minimizes CO2 emissions up to 100 kg/ton of steel for a production of 1.5 MTPY of finished products, corresponding to the emissions of 75,000 cars, saving 100% energy lost to reheating otherwise

0 kWh/t

and rolling (MIDA ECR)



HIGH ENERGY SAVINGS UP TO 1.2 GJ / TON

ZERO NO., SO. DURING CASTING-ROLLING

MAXIMIZED EFFICIENCY UP TO 99% YIELD, 5% RUNLIGHT

OPERATING COST SAVINGS AROUND 20% COMPARED TO CONVENTIONAL MINIMILL

— HIGHEST PRODUCT QUALITY IN BAR BUNDLES, SPOOLED BARS, WIREROD AND LIGHT SECTIONS

SMALLER PLANT AREA AND RELATED CONSTRUCTION

NO BILLET STOCK / HANDLING AND WORKING CAPITAL COSTS

LESS MANPOWER IN CASTING AND ROLLING

QUICK PLANT STARTUP AND PROCESS STABILITY



-100% Multi-strand casting High-speed casting Endless casting

and direct rolling

80 kWh/t

76%

DIGIMELTER® & Q-ONE®

165 kWh/t

-50%

and rolling from hot

billet charge

Taking advantage of experience in controlling power electronics on high-power inverter drives, in 2015, Danieli Automation explored the idea of improving the arc current and voltage during melting and refining processes. The Q-ONE DIGIMELTER® technology thus was born, and the electric arc started to be controlled digitally, just like the speed and torque of stand motors are regulated. The testing of first prototype in 2016 immediately proved and surpassed best the design estimates. Thanks to a very low flickering and voltage unbalance, Q-ONE® proved to be capable of operating with total harmonic distortion within the limits and a power factor above 0.96 - 0.97. Lower electrode & refractory consumption were achieved too.

MIDA-HYBRID®

Like the vehicles, H-MIDA® explores two or more distinct types of power to feed the plant: Solar & Conventional energy. The basic principle is to use solar energy during the day and the conventional network energy during the night. An additional 90 KWH/ton of energy savings is expected utilizing H-MIDA®

a MIDA Hybrid QLP® minimill, by te		
MIDA Hybrid QLP®	CO ₂ emissions	
Meltshop	250 kg CO ₂ /ton	
Caster	7 kg CO,/ton	
Rolling mill	50 kg CO ₂ /ton	
Auxiliaries	18 kg CO_/ton	
Cranes and materials handling	50 kg CO./ton	



Key Figures from plants:

- -111 TPH in single strand sequence casting, Ref: Guilin Pinggang, China;
- -9 m/min. stable casting speed Octagonal billet. with Confidential, USA;
- -52 heats in sequence, Ref: Egyptian Steel, Egypt
- -11 km continuous billet rolled having cross-section of Square 130 mm, Ref: Confidential, USA

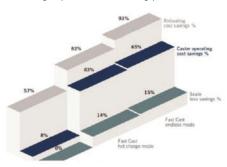




OCTOCASTER®

A single-strand, high speed continuous casting machine is the core of Danieli Mi.DA® process. Equipped with patented FastCast cube (FCC®) mould oscillator, Eco-Power® mould copper tube and a new Octagonal section, Octocaster® produces quality endless billets at speeds up to 10 m/min, making it possible to reach productivities up to 1.5 MTPY in single strand.

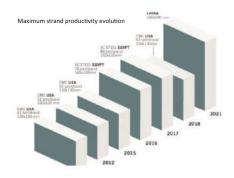
Fastcast saving: comparison with conventional charge process



AUTOMATION & DIGI&MET®

The synchronization between caster and rolling mill is guaranteed by a control algorithm that allows reliable production flow irrespective of operating conditions.





-7 Euro/t

DIGIMELTER® MELTING UNITHigh performances, low emission and reduced network disturbances



-2.5 Euro/t

SINGLE-STRAND OCTOCASTER®
Mould and refractory duration,
and yield saving



-4 Euro/t

ROLLING MILLS
High yield, maximized mill utilization factors and consumable savings



-12 Euro/t

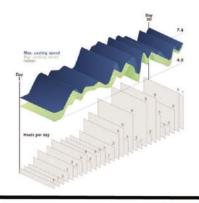
INDUCTION HEATERS

No gas-reheating furnace nor emissions, lower scale formation



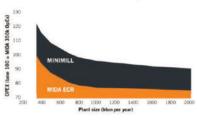
SUPER QUICK RAMP-UPS

Danieli having decades of experience in starting up of Mi.DA® plants can support the customer to reach a nominal & stable production in the least possible time. The full production is reached within 8 months of operations: thanks to the strong collaboration between Danieli & customer personnel, plug-and-play equipment installation & availability of all consumables just-in-time, based on a production forecast.



OpEX

maximum MIDA® guarantees competitiveness in the production costs, with around 20% of OpEX savings. consistent % for all plant sizes, from small regional ones to largescale production units. The factors influencing the transformation cost savings are the overall high mill yield (up to 99%), absence of natural gas because of no reheating in process, as well as reduced consumables in CCM & RM since one long billet is produced without interruption, instead of hundreds of billets/sequences.



(*) European costs references; Scrap Yield, Light rolling & Depreciation exclude





ER secondary steel sector stakeholders' meet reviews challenges

By Steel Scenario Bureau

Would the West Bengal government be willing to (i) form "a committee with representatives from all stakeholders" in the steel industry for the purpose of identifying all issues related to "make the state the largest steel hub in the country"? And (ii) set up an exclusive 'steel ministry'? No one knows the answers to these questions, as yet, but they are on the wish-list of the Merchants' Chamber of Commerce & Industry (MCCI), Kolkata. **Mr. Rishabh C. Kothari**, MMCI President, shared this thought while welcoming the participants at the CEOs' meet held at The Park, Kolkata on July 13, 2022 to discuss 'Business Growth in Trade for Secondary Steelmakers'.

Over 60 CEOs and senior management executives of secondary steel producers and other stakeholders from related fields attended the meet that was jointly organised by MCCI and Steel Scenario journal. The meet aimed to bring various stakeholders of the secondary steel sector to a common platform to find solutions to the challenges facing the sector and opportunities that are available for utilisation.

In his welcome address Mr. Kothari pointed out that 55% of India's total steel production came from the secondary steel sector not very many years ago. Today the share has reduced to less than 40%. The goal before the country was to achieve steel production capacity of 300 million tonnes (mt) by 2030-31 from the present level of ~118 mt. The big players alone would not be able to reach the target. This is where the secondary steel sector would be playing a crucial role, and for this they would have to overcome the challenges facing them, mainly production-related. These challenges would need to be addressed unitedly by all the stakeholders of the sector, including the governments at the Centre and the states, he said.

The steel industry contributed 2% to India's GDP of Rs 147.4 lakh crore in 2021-22, added Mr. Kothari, and since the secondary steel sector was in the business of value addition, the national economy would be immensely benefited by the growth of this sector. But the local government would have to play the role of facilitator, and chart out a roadmap in the form of a policy for the secondary steel sector at the earliest, he suggested. Taking up West Bengal as an instance, he

said, the secondary units like producers of sponge and pig iron, ingots/billets/blooms, and rerollers producing finished steel items all enjoyed locational advantages of proximity to raw material sources and transportation points, but suffered from high cost of input materials and freight. All this could only be sorted out by brainstorming of all stakeholders in the picture.

With this thought-provoking welcome address setting the tone, the inaugural session of the meet was kicked off by special guest speaker Mr. Sameer Patil, who is the Chief Business Officer of Bombay Stock Exchange (BSE). Currently in its 140th year, BSE is the oldest and largest stock exchange in Asia with over 5,000 listed companies through which over 10 crore investors seek to create wealth. Mr. Patil, a domain expert in commodities trading, hedging strategies and other financial product-related areas, was invited to speak at the meet to inform the participants about the benefits of entering into steel futures contracts, that "has tremendous utility for producers as well as consumers of steel to manage their price risks" at a time when allround efforts are being taken by the government and the business community to make India a \$5-trillion economy, in the process of which steel demand is "likely to take a quantum leap".

According to Mr. Patil, the price of steel is a major component of total cost in many infra projects, but logistical and supply inefficiencies have made prices of steel and its raw materials extremely volatile, posing challenges to the entire value chain participants. Physical market participants find it difficult to manage the volatility in steel prices in the absence of an appropriate hedging platform. It is here that BSE sought to make an intervention, and has successfully found a solution by partnering with Steel Users' Federation of India (SUFI), to enable trade in steel futures on BSE.

After a detailed study and stakeholder outreach jointly with SUFI, which has over 8,000+ members from across India, BSE launched SUFI Steel billets futures contracts exactly a year ago. Billet was chosen from among other steel products as the first item to be traded since it is a standardised and an acceptable product which is widely in use in the steel ecosystem. The SUFI Steel



billets futures contract offers market participants an additional avenue to all stakeholders' effective risk hedging instruments using the latest technology and risk management framework. The underlying prices are as of Raipur, where the delivery centre is based. The trading and delivery unit are 10 tonnes. The tick size is Rs. 10, which gives traders enough movement for bid and offer prices.

BSE SUFI Steel futures products have been growing steadily since launch, informed Mr. Patil, and the exchange has seen a total turnover of Rs. 563 crore on this platform, with average open interest of 9 lots. So far, 360 tonnes have been delivered on the platform. By trading steel futures contract at BSE, users can enjoy benefits such as market transparency, increasing liquidity and the security of knowing every steel futures contract is cleared through Indian Clearing Corporation Ltd. "BSE is confident that with this contract, the industry can avail a more structured and healthier price discovery platform as well as a national level benchmark price as a ready reference for the participants, enabling them to mitigate price risk," said Mr. Patil.

The next special guest speaker was Mr. Ranjan Bandopadhyay who is currently helming the Union Ministry of Steel's Joint Plant Committee (JPC) as Executive Secretary. JPC is the only authentic databank on the Indian iron & steel industry, recognised by not only the Govt. of India (GoI) but international bodies such as the World Steel Association and Organisation for Economic Cooperation & Development. Mr. Bandopadhyay informed at the outset that the Union Steel Ministry is presently giving the final touches to a policy aimed to exclusively benefit the secondary steel sector. Apart from that it is also developing a roadmap for industry-wide adoption of 'Green Steel' standards. In this context, he said usage of scrap had increased in India during FY22 over the previous year, indicating a positive move towards green steel making. However, he added, scrap processing centres would have to come up in large numbers across the country for costeffectiveness and efficiency in green steel production.

Providing highlights of the Indian steel industry's performance during FY22, he informed that "all-time high growth has been achieved in all major production parameters, and even the secondary steel sector had added 3.8 mt of crude steel production capacity. It was likely that another 28 mt capacity would come up in this sector by 2030-31, according to a survey conducted by JPC, he added. There was over 25% jump in exports, while imports of finished steel showed negative growth. With the domestic market displaying robust

demand, steel consumption grew 11.4% over FY21 and per capita steel consumption reached a level of 77.2 kg with year-on-year growth of 10.3%.

Mr. Bandopadhyay pointed out that the Indian rural market "is one area where latent demand lies untapped, with per capita consumption pegged by the JPC study at 23 kg (2021-22) having the potential to reach 38 kg by 2030-31". This opportunity could be utilised by the secondary steel producers to the maximum because they were adept at developing local markets. Demand-led supply would also boost the sponge iron, scrap and pellet segments, the principal input materials for making steel through the 'green' route. A JPC study also indicates that the construction sector accounts for 68% of total finished steel consumed in the country. This huge potential can be targeted by the MSME steel producers, "since they account for nearly 70% in total bars and rods production in the country", concluded Mr. Bandopadhyay.

Mr. Samrat Rahi, who is Deputy Chairman of Shyama Prasad Mukherjee Port (SPMP), Kolkata, was the Guest of Honour at the meet. In his address, he provided details on the various initiatives being taken by the port authorities both at Kolkata and Haldia for greater ease of exports and imports of the steel industry in the eastern region. For instance, SPMP has introduced floating crane facilities and night navigation facilities are being created, he said, besides improving roads leading to the port, as part of an over Rs. 100-crore initiative to improve infrastructure. "All export and import processes are now digital, i.e. paperless," and improvement in railway infrastructure and dredging facilities are on the anvil," he claimed. Loading and unloading of cargo at Sagar (because of the draught issues at both Kolkata and Haldia) and barge operations for coastal movement of commodities have already started in a bid to integrate domestic transportation channels. All this was being done to provide customerfriendly services, he maintained.

Following an animated question-answer session, this portion of the meet concluded with a vote of thanks by Ms. Sakuntala Chanda, Editor & Publisher, Steel Scenario. The second half of the meet consisted of technical sessions on 'Securing raw materials & skilled workers'; 'Green Steel technology'; and 'Business Growth in Trade'. The sessions were moderated by veteran journalists Mr. Kingshuk Banerjee and Mr. Ritwik Mukherjee.

Several CEOs of companies in the secondary steel sector put across their views and suggestions, speaking from experience and perhaps with some frustration at



the lack of attention from the central and state governments, despite many representations by industry associations. Mr. Dipak Kumar Agarwal, CMD of the Shakambari Group of Industries and Chairman of MCCI's Council on Steel, while acknowledging the locational advantage of the steel units in eastern India in terms of proximity to sources of raw materials, tersely pointed out some of the challenges that the secondary sector has been facing, including heavy coal shortage, absence of coal linkages, delivery delays following auctions, non-availability of adequate number of rakes to transport imported coal from ports, high base prices of iron ore mines being auctioned, continuously rising power tariffs, consistent water supply, and scarcity of land for expansion. He felt that the governments "should give special attention to the needs of the secondary steel sector, which has the potential to be a large employer".

Mr. Vivek Adukia, CEO of the AIC group of industries, President of the Steel Re-Rolling Mills' Association and Co-Chairman, MCCI Council on Steel, welcomed the duties imposed on exports of steel and iron ore by the GoI since it had led to higher availability of raw materials for domestic steel MSMEs at lower prices. Mr. Adukia suggested that industry associations should again request the government to help in supply of adequate volumes of coal to sponge iron industries in West Bengal which employed over two lakh people. He felt that the secondary steel units in West Bengal could expand robustly and contribute significantly to the growth of the Indian economy if the governments took note of the problems of no coal linkage, high power and freight tariffs, lack of adequate rail transport infrastructure, etc., which were spiking cost of operations of sponge iron units.

Mr. Asish Shah, MD, Ispat Exports, sought government intervention in the logistics area of steel for smoother transportation options that would substantially cut variable costs of the producers.

Green steel was a much-discussed issue as well. Singapore-based **Mr. Raj Shah** of Ispat Exports who advocates green steel, recycling and cost-effective technologies in the metal industry, spoke passionately about the imperative need to set up metal shredding units in locations close to the secondary mills in eastern India for generation of local scrap in large volumes for use as the primary input in EAFs and induction furnaces. "The low availability of scrap in the domestic market has led to high imports. Local scrap use would substantially reduce foreign exchange outgo as well as the CO2 footprint of the industry," he pointed out. Steel made from scrap also requires 74% less energy

compared to steel made from iron ore and coal in the BF-BOF route.

Senior executives from leading green steel technology providers also made presentations. Mr. Vikas Varshney, a founder-director of Megatherm group which is a prominent manufacturer of induction melting furnaces and heating equipment, spoke on how green furnaces reduce energy consumption, leading to higher production and earnings. Expenditure on power cable lines alone was one-third of traditional systems. Mr. Abhishek Bhadra of Danieli India Ltd explained the cost-effectiveness of the company's patented technologies like Endless Flow that gives 99% yield and MIDA plants that produces finished steel from scrap in two hours. There is no reheating furnace in the process and furnace fumes are used for energy. Savings on power bills alone can be judged from the fact that ~420 KwH per tonne of steel produced is saved.

Mr. Kausik Mukhopadhyay who heads the India operations of global conglomerate Air Water Inc. of Japan, provided an insight into the benefits of using a mix of oxygen and argon as industrial gas for BOF operations. Mr. Mainak Gataet, Deputy Director of the Bureau of Indian Standards (BIS), informed that steel plants and mills account for 8% of industrial emissions in the world and 25% in India. To meet the 17 Sustainability Development Goals by 2050, the nation is looking to the Indian steel industry to adopt all possible measures for curtailing emissions.

Mr. Sushim Banerjee, CEO of the Indian Iron & Steel Sector Skill Council (IISSSC) and Member of the National Committee on Steel of both CII and FICCI, took the participants from hard technical thoughts to the human factor in business: "Secondary steel mills are facing a big challenge in the area of human resources in the form of increasing skill gap when compared to the bigger steel makers," he said. With technology upgrades, and automation/online functioning of many processes in steel making being adopted across the industry, skill development of manpower is a necessity today in order to remain competitive.

"There is a dearth of technical manpower and knowledge in smaller steel plants. A suitably skilled worker contributes in a major way in "enhancing productivity, minimising wastage and ensuring safety and security of operations which, in turn, leads to higher productivity and quality products, increased revenues and sustained growth," he explained.

Providing an overview of the GoI's efforts in promoting



skill development in industry since 2005, Mr. Banerjee informed how skill development councils (or centres) were formed at the national level in 38 sectors of industry. The IISSSC was set up in 2013 mainly to cater to the units using sponge iron, induction furnaces, foundries, ferro-alloys, refractories, etc., and had their industry associations as advisors. With the formation of the Ministry of Skill Development by the Centre in 2015, the IISSSC's efforts have been strengthened. A labour marketing management system called the Niyog Setu has been set up and functions as a job portal for government-certified workers to gain employment in suitable posts across India. Industry units are also

benefited by the availability of skilled human resources in this centralised pool.

Among representatives of other stakeholders of the secondary steel sector who spoke at the meet were Mr. Nikunj Turakhia of SUFI, and Mr. Pinakin Dave of BSE. A presentation by a Canara Bank team comprising Mr. Achintya Mondal and Ms. Sreela Das informed that an investment of Rs 10 lakh crore was required to meet the developmental challenges before the steel sector by 2030. A number of project finance schemes have been launched by the bank for this purpose along with financing avenues for coal and iron ore linkages.

Largest ever green steel investment

Salzgitter approves €723m spend on first stage of hydrogen-focused project

German steel producer Salzgitter is to spend €723m (\$723m) on the first development stage of its long-term plan to decarbonise its business — which represents 1% of Germany's carbon emissions — by the end of 2033.

It is the largest investment in green steel to date. A handful of larger investments have been announced by rival steel makers such as LKAB, SSAB and Arcelor Mittal, but funding for those green steel projects has yet to be approved.

Salzgitter's plan, called Salcos (Salzgitter Low CO₂ Steelmaking), will use green hydrogen to replace the coking coal currently used in its blast furnaces to extract iron from iron ore. "This will be possible with the help of so-called direct reduction plants, in which iron ore is reduced to iron directly in the solid state by hydrogen," the Salcos website explains. "This technology emits water vapour instead of CO₂."

The company explains: "Salcos is aimed at converting the integrated steelworks into low-carbon crude steel production in three stages over the period up until 2033. As part of the transformation, direct reduction plants and electric arc furnaces will be built and will then replace the blast furnaces and converters in stages.

"The new facilities will enable us to produce 1.9 million tons of green steel a year. Customers from a range of industries are already expressing keen interest. As a result, the Salzgitter Group has already agreed possible deliveries in recent weeks with customers from various sectors, including household appliance manufacturers, the automotive industry, and re-rollers."

Car maker BMW is among the companies that have agreed to buy green steel from Salzgitter.

The funding was approved earlier this week by the company's supervisory board after previous sign-off from its executive board.

"I am convinced that the timely implementation of Salcos will generate competitive advantages for us in the green steel market," said Salzgitter CEO, Gunnar Groebler, who was previously head of wind power at Swedish utility Vattenfall.

The steel producer said that despite making €723m of its own funds available for the Salcos project, it is still "counting on public funding and consequently submitted the relevant grant applications some months ago — the final decisions are still pending, however".

Although green steel is more expensive to produce than traditional steel, it would only represent a minimal extra cost in finished products. For instance, it is expected to add only €150-300 to the production cost of a medium-sized electric car. Volvo is already introducing the use of green steel in its trucks, while Mercedes-Benz and BMW will do so from 2025 and 2026, respectively.

Salzgitter aims to complete the first Salcos expansion stage, reducing CO_2 emissions in its steel production by 30% by the end of 2025, with a second phase concluded by the end of 2030, along with a 50% carbon reduction. The full project is due to completed by 31 December 2033, reducing CO_2 emissions by more than 95%.

(Courtesy: Recharge)



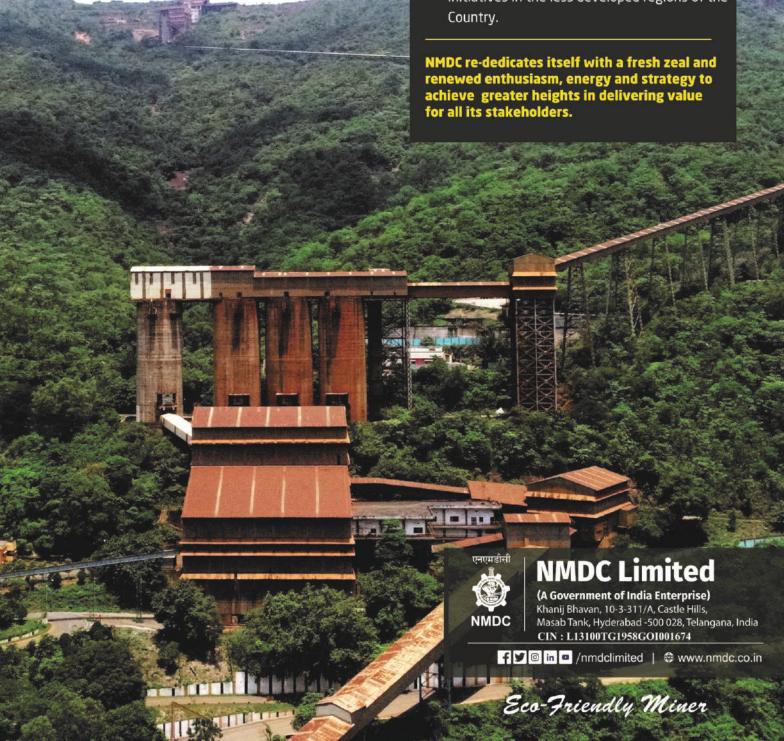
The Earth is our Workplace.

We Preserve and Protect it.

(Going Green since 1958)

More than 6 decades of Responsible Mining and Sustainability

- > One of the best performing Public Sector Enterprises of India
- > The single largest producer of iron ore in India
- Venturing into steel by commissioning 3.0
 MTPA Steel Plant at Nagarnar, Chhattisgarh
- > Sole producer of Diamonds in India
- Bringing socio-economic transformation through innovative and impactful CSR initiatives in the less developed regions of the Country.



CEO MEET 2022 - SNAPSHOTS



Dr. Saugat Mukherjee, Director-General, MCCI addressing the audience



Mr. Sameer Patil, Chief Business Officer, BSE



Mr. Ranjan Bandopadhyay, Executive Secretary, Joint Plant Committee, Ministry of Steel, Govt. of India



Mr. Samrat Rahi, Dy. Chairman, Syama Prasad Mookerjee Port, Kolkata



Ms. Sakuntala & Mr. Rishab C. Kothari with Team BSE



Mr. Rishabh C. Kothari President , MCCI delivering his welcome address



Participants at the meet



Ms. Sakuntala, Editor & Publisher, Steel Scenario Journal, addressing the Vote of Thanks



Mr. Kaushik Mukhopadhyay, Executive Director, Air Water India Private Limited



Mr. Deepak Kumar Agarwal, CMD, Shakambari Group of Industries

CEO MEET 2022 - SNAPSHOTS



Mr. Raj Shah, Director, Ispat Exports Private Limited



Mr. Sushim Banerjee, Indian Iron and Steel Sector Skill Council (IISSSC)



Mr. Vikas Varshney, Director, Megatherm Group



Mr. Abhishek Bhadra, GM-Sales & Marketing - Key Accounts, Danieli



Mr. Ashish Shah, Ispat Exports Private Limited



Mr. Vivek Adukia, President, Steel Re-Rolling Mills Association of India



Mr. Nikunj Turakhia, President, Steel Users Federation of India



Mr. Pinakin Dave, Additional General Manager, Products & Business Devt., BSE



Mr. Mainak Gantait, Scientist - C, BIS



Mr. Achintya Kumar Mondal, Divisional Manager-MSME Sulabh, Kolkata, Canara Bank





Welcome Address of the Meet on "Growth of Secondary Steel"

By Rishabh C. Kothari, President, Merchants' Chamber of Commerce and Industry

Eastern India is strongly placed as a Steel production core for the nation. Given the backdrop of the resurgence of the Steel Sector, its traditional production hub in the East, MCCI's base in Kolkata, and the significant secondary steelmakers among its membership, we at the MCCI felt that it was only fitting to have a Secondary Steelmakers Forum as part of our calendar.

India's Steel Sector contributes a little above 2 per cent of country's GDP. The per capita consumption of steel in India grew at 10% to 77 kg in 2021-22, largely due to construction, Government interventions, and muted steel prices. The National Steel Policy of 2017 has been a major driver for the Sector.

Notably, India and Brazil are the only ones among the top ten steel producing nations that have registered growth in steel production from January to March 2022. India produced 31.9 million t.p.a. of steel in the first quarter of 2022, a growth of 5.9% (Source: World Steel Association; April 2022). Today, India is looking forward to triple its production capacity from 118 million t.p.a. in 2022, to 300 million t.p.a. in the next 10 years. In terms of global ranking, India remains the second largest steel producer in the world.

Despite the positives and the growth story, the sector comes with its share of challenges. Growth pangs affect the sector; challenges with modernization remain, although they have improved; and opening up to market forces leaves us vulnerable to dumping of cheap steel, issues that are being addressed in some part, but have not gone away. MCCI hopes to table and address some of the positives and the negatives of the emergent scenario at the forum.

In 2019, The Government of India came up with the vision - "Towards a Vibrant, Efficient and Globally Competitive Indian Steel Sector". As per the accompanying vision document, the objective is to involve participation from over 900 participants across Government (Centre, State), CPSEs, private sector, research institutes, consulting and banking sectors. Under this vision, the secondary steel sector in India, which currently contributes over 40% of the total capacity, will need to play a crucial role for India to reach 300 MT.

The Secondary Steel Sector in India is composed of production units which are a diverse lot with widely varying product range, technology and scale of operation. The sector incorporates major product segments including pig iron, sponge iron, standalone cold rolled steel sheets, re-rollers producing hot rolled long products, wire rods, standalone GP/GC and color coated steel sheets, wire drawing units, standalone tinplate products etc. These units are generally small in size compared to the integrated steel Indian Steel Market plants and are widely dispersed across the country.

The prospects for the secondary steel sector lie in addressing the opportunity offered by the current (low) level of per capita finished steel consumption in India (60.8 kg) and gearing up to meet the local demand, specially required in rural and semi-urban areas of the country, thereby helping growth in rural steel off take The Steel forum firstly, aims to identify challenges to capacity expansion with a special focus on secondary steel and secondly, invites suggestions on alleviating these through interactive sessions.





Hedging Price Risk in a Volatile Steel Market

By Mr. Sameer Patil, Chief Business Officer, BSE



Background:

Industrials metals, especially steel prices are witnessing a volatile scenario globally, and are down by around US\$ 100 per tonne over a three-to-four-week period, amidst fears of a global recession, continued imposition of lockdown in China and prolonged geopolitical scenario in Eastern Europe.

Volatility - A big risk for Steel Users

Even in general, the historic trend has been that the global commodity markets are in a constant state of flux and evolving continuously. The prices are largely influenced by a multitude of factors such as economic and industrial growth, recession, substitution costs, global infrastructure demand etc., demand and supply, weak US Dollar Hedge, bet on Emerging Market Demand Growth, portfolio diversification, geopolitical situations etc leading to commodity risk. Therefore, it is important for various stakeholders to recognise and manage these risks and volatility effectively.

As seen, the geopolitical uncertainties have made steel and its raw material prices extremely volatile posing challenges to the entire value chain participants. For instance, the annualized volatility of domestic steel



spot prices was 23.52% in the last year. Similarly, the global annualized volatility (LME Steel) is 25.16% over the last three years. The average daily volatility for the LME Steel Futures is 1.58% and annualized volatility is 25.16% for the period April 01, 2019, to March 31, 2022.

Steel prices have always fluctuated, yet it is extremely difficult to forecast when and in which direction those price moves will occur. One can offset the risk of adverse price fluctuations through hedging.

BSE-INTERNALHedging price risks

In India, risk management tools, such as BSE SUFI Steel Billets Futures contract enable the steel ecosystem and its stakeholders along the entire supply chain to protect profit margins and minimize risk, using futures contracts. These contracts bring a national level benchmark price for the market participants which are transparent, structured, and healthier, reducing price risks.

Hedging is the process of offsetting the risk of price movements in the physical market by locking in a price for the same commodity in the futures market. It is similar as protecting your home, car or health, hedging guards against having to incur unforeseen, extra costs. If properly hedged, changes in the underlying prices will be mostly offset by the hedge, thus protecting profit margin and asset value.

Who should Participate:

- Buyers: Equipment manufacturers, Infrastructure and Construction firms, Industrial companies, and Investors
- Sellers: Producers, Users, Holders of Inventory, Investors

Benefits of Hedging On BSE

The BSE Steel Billets Futures contract offers these various stakeholders an opportunity to hedge their price risk effectively and efficiently at a transparent & competitive rate on an electronic trading platform. The market participants will be able to take a long-term view on the underlying via this contract. It also offers market participants effective risk hedging futures

contracts using the latest technology and risk management framework.

Advantages of BSE Steel Billets Futures Contract

- Created jointly with India's leading steel trader association Steel Users Federation of India (SUFI).
- Hedging and Price Risk Management Tool for Value Chain Participants
- Structured and healthier price discovery platform with transparency.
- National level benchmark price as a ready reference for the participants
- Raipur based Underlying prices and Delivery Center the hub of Steel in India
- Trading and delivery unit: 10 MT the preferred unit for stakeholders

Hedging Risk via BSE SUFI Steel Billets Futures contracts

The total turnover so far on the BSE platform is Rs. 724 crores, with an average open interest of 240 MT. As of now, a total of 370 MT has been delivered via the exchange platform at designated delivery centre in Raipur.

The appeal of BSE's product portfolio and liquidity continues to attract new users. By trading Steel Billets futures contract at BSE, users can enjoy benefits such as market transparency, increasing liquidity and the security of knowing every Steel futures contract is cleared through Indian Clearing Corporation Ltd (ICCL).

The various stakeholders such as producers, processors, exporters, importers etc. can use various risk management techniques and strategies to mitigate adverse price fluctuations. Steel prices can be very volatile, so investors looking to hedge on short-term bottlenecks in supply might see steel as an attractive investment.

BSE's open interest continues to grow, and we look forward to introducing options, which should complement our clients' existing strategies and help them minimize risk.





Clean and Green Steel Making The Green Furnace

By Mr. Vikas Varshney, Director, Megatherm

One of the World's largest manufacturers of induction equipment with close to 3000 installations in 42 countries

Facilities include:

- Manufacturing setups in Kolkata & Kharagpur. India with total shed area of 250,000 sq ft
- •State of the art manufacturing, R&D and testing facility spread across 10 acres close to IIT Kharagpur launched in 2017
- Engineering, R&D and IT park in Sector V, Kol



Established in 1989 by our founder Mr S B Chanda with core expertise in Induction technology for products ranging from induction furnaces for steel and foundry applications to induction heating and hardening equipment for various mass heating, forging and special applications



Today Megatherm is a diversified group with wide product range and nearing 3000 installations in 42 countries



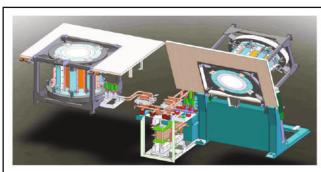


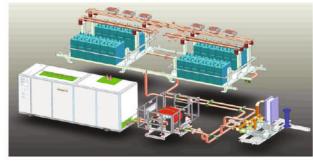




The Green furnace: Most energy efficient IMF in the world for steel making

- Guaranteed energy consumption of 465 kWh/t using mill heavy/end cutting scrap (475 kWh/t for under 10MW)
- Guaranteed 60 kWh/t 75 kWh/t lower energy comsumption compared to older furnaces
- 10% higher productivity than other brands
- Sustained power factor of over 98% throughout the heat cycle
- Harmonic distortion restricted strictly within IEEE
 519 norms
- New features likes Automatic Inverter Voltage boosting, Nano Cable Design, Tight Frequency Range, No Capacitor Cutting





Testimonials: The satisfaction of a decade long R&D for energy efficiency

"Of all furnace brands in our plant Megatherm's Green furnaces are consuming less energy"

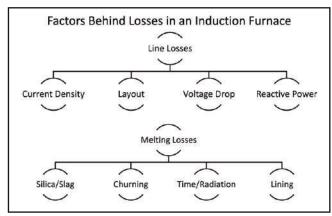
-Prakash Industries official 15T, 20T (Largest IMF steel plant with over 20 furnaces), Chattisgarh

"Green furnace has significant energy benefits compared to furnaces of others makes and Megatherm's older models"

- -Vinod Kothari, MD, Kamachi Steel 30T, Chennai
- "We witnessed substantial gains by upgrading existing furnace with green technologies"
- -MD, PT Shiva Shakti 25T, Indonesia

"We have purchased green furnace from Megatherm and performance commitments have been achieved. It is the most energy efficient furnace"

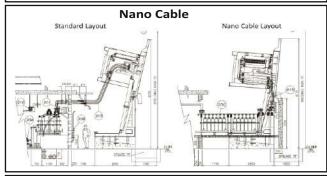
- -Dinesh Adhukia, MD, NN Ispat 15T, Durgapur
- "More than satisfied with energy consumption of newly supplied 20T Green furnace by Megatherm"
- Vinay Agarwal, MD, Gagan Ferrotech 20T, Durgapur

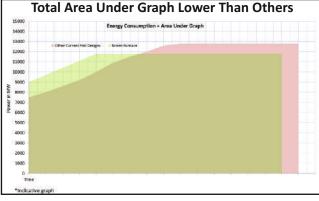


Why is Green furnace more energy efficient and more productive?

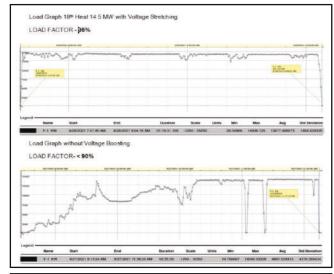
- 1. Lowest Line Losses: Features 1 to 5
- 2. Lowest Melting Losses: Features 6 8

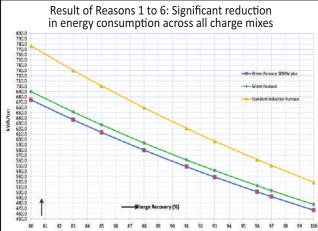
Reason No.	Feature	kWh/t Saving	Productivity Improvement
1	Compact Layout & Improved copper sections leading to minimal current density and line losses	3-5	1%
2	Nano Cable Design: Lowest cable loss & voltage drop	8 - 12	1%
3	Power factor of 98%. Constant PF above 40% load	2-3	2%
4	Strict Harmonics Control	2	0% - 1%
5	Low Loss Higher Rated Capacitors	2-3	0% - 1%
6	Voltage Boosting, High Power Pickup (like series circuit) via phase angle shifting	8-10	2%
7	Intelligent Power Delivery, High Load Factor, Stretching Increased	10	1%
8	Tight Frequency Range (up to 280 Hz unlike others which go up to 400+ Hz) because of no capacitor switching	25-30	2%
	Total	60 - 75	10%







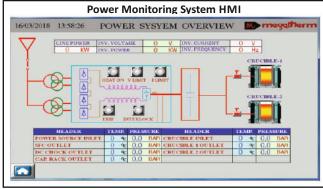




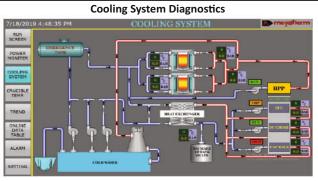
As a Siemens System House, Megatherm was the first to introduce digital systems in induction furnaces back in 2002

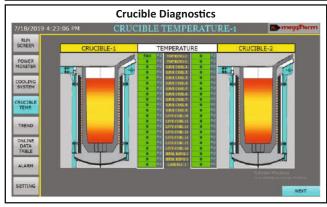


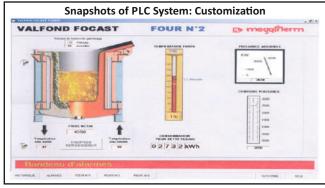
















Secondary steel sector - scope

By Mr. Ranjan Bandopadhyay, Executive Secretary, Joint Plant Committee

JPC: Today

- Today, JPC is the only institution in the country, officially empowered by the Ministry of Steel, Government of India to collect data on the Indian iron and steel industry.
- JPC is the official data provider for India to global agencies World Steel Association (on basis of which Indian Steel's rankings are derived) and OECD Global Forum (on Global Steel Excess Capacity).
- Extensive analytical support to Ministry of Steel (Parliament Questions, Standing Committee, Consultative Committee, Annual Report, etc), government policy formulation (NSP, DMIS&P, PLI etc) and formulation of economic parameters of different arms of Government of India like IIP, WPI, GDP, Eight Core Sector Infrastructure Index are the other core uses of the JPC iron and steel database.

Industry Status

	2020-21	2021-22	Change(%)
Crude Steel Production	103545	120293	16.2%
Finished Steel Production	96204	113597	18.1%
Finished Steel Imports	4752	4669	-1.7%
Finished Steel Exports	10784	13494	25.19
Finished Steel Consumption	94891	105752	11.49
Per Capita Consumption (in Kg)	70.0	77.2	10,3%

Big 6 vs Others

Big 6 Producers - SAIL, RINL, TSL, JSWL, AM/NS, JSPL

			Production in '000 tonnes
Production Status	2020-21	2021-22	Change(%)
Grude Steel Production – Big 6	65053	74875	15.1%
Crude Steel Production – Others	38491	45419	18.0%
Share of Others (%)	36.1%	36.0%	
Finished Steel Production – Big 6	55322	65055	17.6%
Finished Steel Production – Others	40882	48542	18.7%
Share of Others (%)	42.5%	42.7%	

Segment-wise Status of Other Producers: 2020-21

51. Mo.	Type of Industry	No. of Working Units	Capacity ('000 tonnes)	Production ('000 tonnex)
I	Pellets	32	44126	37180
п	Sponge Iron	278	33384	24536
***	Blast Furnace - Hot Metals	26	13460	8847
ш	- Pig Iron	34	10402	3464

. No.	Type of Industry	No. of Working Units	Capacity ('800 tonnes)	Production ('000 tunnes)
		IV. Grade Steel		
1	BOL	8	4077	1788
2	Electric Arc Furnace	28	11640	7683
3	Induction Furnace	883	16206	29062
IV	Crude Steel(1-3)	886	81962	38491
	V. Grade Ste	el to Finished Steel Equival	ent	
4	Re-rolling - Non Flat	1014	62445	33103
	- Flat	1014	02440	8434
8	HR Product (PM Plates & HR Coils)	10	8115	8328
Y	Crude Steel to Finished Steel Equivalent(4-5)	1024	70500	40865
	VI	I. Value Added Steel		
6	HR Product (HR Sheets /HSM Plates)	10	8115	11
2	CR Product	50	11487	4279
8	GP/GC Sheets	15	3990	2632
0	Colour Control	9	1130	890
10	Tinplate	2	390	294
11	Pipes	70	8710	3084

Segment-wise Status of Other Producers: 2021-22

l. No	Type of Industry	No. of Working Units	Capacity ('080 tennes)	Production ('000 tounes)
1	Pellets	34	33888	39665
п	Sponge Iron	281	34578	27763
ш	Blast Furnace - Hot Metals		10000	8112
ш	- Pig Iron	35	13580	4801
		IV. Crude Steel		
1	BOT	4	3177	2070
2	Electric Arc Furnace	27	11614	8138
3	Induction Purnace	847	51040	35211
IV	Crude Steel(1-3)	870	68830	46419
	V. Crade Sto	el to Finished Steel Equival	ent	
4	Re-rolling - Non Flat	1038	67251	88909
	- Flat	1099	93401	3141
5	HR Product (PM Plates & HR Coils)	10	8115	4715
V	Crude Steel to Finished Steel Equivalent(4-5)	1048	75366	46542
	William Control of the Control of th	. Value Added Steel		
6	HR Product (HR Sheets /HSM Plates)	10	8115	15
2	CR Product	B6	12143	8968
8	GP/GC Sheets	16	4376	2783
9	Colour Coated	11	1296	1016
10	Tinplate	2	390	383
11	Pipes	101	9418	3354

Charge Mix – secondary sector

Region	Sponge Iron(%)	Pig Iron (%)	Scrap(%)
East	66	11	23
North	17	1	82
South	37	2	61
West	51	6	43
2021-22	47	5	48
2020-21	51	5	44

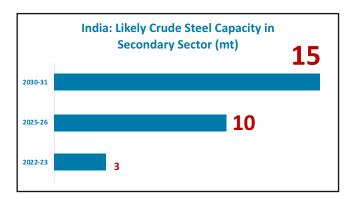
Capacity addition – secondary sector

YEAR	CRUDE STEEL CAPACITY ('000 tonnes)	CHANGE
2018-19	60804	
2019-20	60367	-0.7%
2020-21	61982	2.7%
2021-22	65830	6.2%

Action Taken so far – Capacity Expansion Data (Secondary Sector)

- Compiled from Snapshot Survey conducted by JPC
- India's Secondary Steel Sector is likely to add a total of 28 million tonnes of crude steel capacity by 2030-31.





OPPORTUNITIES

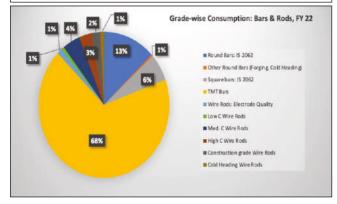
• 2021-22 has marked the resurgence of steel industry, with all major performance parameters crossing pre-COVID levels. This shows that the inherent strength of the domestic market remains intact and in itself is an opportunity to grow further. The most important aspect of this is domestic demand – where a strong foundation ensures a stable market, to be suitably targeted and approached from the supply side.

Performance of Indian Steel Industry					
Item	Unit	2019-20	2021-22		
Crude Steel					
Production	mt	109.137	120.29		
Capacity	mt	142.29	154.06		
Total Finished Steel					
Production	mt	102.621	113.597		
Imports	mt	6.768	4.669		
Exports	mt	8.355	13.494		
Consumption	mt	100.171	105.752		
Per Capita Consumption kg 74.7 77.2					
Source: JPC; mt=million tonnes					

- Enhancement of per capita steel consumption and all its associated developments is perhaps the biggest opportunity faced by the steel industry. The Indian rural market, for example, is one area where latent demand lies untapped with per capita rural consumption pegged by the JPC Study at 23 kg (2021-22) and having the potential to reach 38 kg by 2030-31. Rural steel demand is predominantly led by Construction, with a share of 64% in overall total followed by Items for professional use.
- Rise in demand-led supply through all the routes will in turn boost the sponge iron, scrap and pellet segments, the principal input materials for the Electric Route of steel making.
- A JPC Study also indicates that on an overall basis, construction sector accounts for 68% of total finished steel consumed in the country. This indicates a huge potential for the Other Producers segment to target,

given that they account for nearly 70% in total bars and rods production in the country. The grade-wise share of Bar & Rods is shown below and indicates TMT Bars with a share of 68% as the driver of long product consumption in this category.

Rural steel consumption: % Share of End-Use Sectors (FY22)				
Sector % Share				
Construction	64			
Items for professional use	20			
Household items	7			
Vehicles	7			
Furniture	2			
Source: JPC Study				



Aiding industrial growth is a host of policy measures of the Government of India:

- PLI scheme which would open up new areas of industry growth in the specialty steel sector
- Vehicle Scrappage Policy a milestone mark in the development of steel industry impacting the raw material consumption pattern
- 'Purvodaya' : Accelerated Development of Eastern India - creation of a world-class steel hub in the Eastern Region
- Domestically Manufactured Iron & Steel Products (DMI&SP) focusing on increasing steel consumption in Government procurements
- NSP 2017 laying down the long term growth plan for the industry
- 'Make in India' with objective of nation building and encourage domestic manufacturing
- Vision 2047 which is currently under formulation
- Most importantly, a National Steel Policy specially for the Secondary Steel Sector is being drafted, and will address the issues faced by this sector specifically





Air Water- your partner for **Industrial Gases**

By Mr. Kaushik Mukhopadhyay, Executive Director



Parent Company

- Establishment: Established in 1929 with headquarters in Osaka, Japan
- Revenue: Overall revenues of > \$7.3 bn in FY 2021
- Credit Rating: Corporate credit rating of "A" from Japan Rating and Investment Information (R&I) and "A+" from Japan Credit Rating Agency (JCR)
- Global Presence: Japan, China, India, Indonesia, USA, Vietnam, Taiwan, Thailand, Malaysia, Philippines, Singapore
- Industry Reach: Caters to 30-35% of Japanese steel making capacity with multiple ASUs with Nippon Steel, Kobe Steel, etc.
- Capability: Design, Engineering and Execution capabilities for building ASUs ranging from 100 TPD to 2,000 TPD and operating them safely, reliably and efficiently.
- Employee Strength: ~18,000 globally









Industrial Gases Experience:

- a. Focus Segments: Steel, Electronics, Healthcare and **General Manufacturing**
- b. Currently caters to 30-35% of Japanese steel making capacity with multiple ASUs with Nippon Steel, Kobe Steel, etc.
- c. Design, Engineering and Execution capabilities for building ASUs ranging from 100 TPD to 2,000 TPD
- d. Business Model: Primarily on Build, Own & Operate (BOO) / Lease and O&M
- e. ASUs are manufactured by "Air Water Plant & Engineering Inc." (AWI, Japan Company), Japan
- f. Research and Development centres located in Matsumoto and Sakai, Japan; Centre of Excellence in Osaka, Japan
- g. Real Time Monitoring Systems: capability for modulating gas supplies based on steel making
- h. Ensuring high order of plant reliability through routine/monthly inspections and periodic repair & maintenance in synchronization with customer production & maintenance schedule
- i. Strong emphasis on spares management: standby equipment and back up systems
- j. High focus on safety: facility operation and safety management standards

Downstream investments in cryogenic equipment manufacturing:

• Acquired Taylor Wharton's cryogenic tanks manufacturing unit in Malaysia in 2016 and CVA (Cryogenic Vessels Alternative) in 2018.

History

1934 First ASU

1935 First H2 separation unit

1936 First export ASU 2,000 Nm3/h O2 for Coal to Liquid (70 TPD O2)

1975 First Automatic System (awarded Okouch Prize in Japan)

1978 World's First Helium re-liquefaction unit

1981 First large MS type ASU (GO2 16,000 Nm3/h (530



TPD) Brazil)

1983 High purity nitrogen plant (ppb level) for semiconductor application

1991 Krypton/Xenon extraction unit

1992 First Daily Start & Stop (DSS) for LOX/L $I\ N/LAR$ Plant

1994 Large ASU (GO2: 50,000Nm3/h (1700 TPD)

1997 First ASU for coal based IGCC

2003 ASU for coal base IGCC (250 MW)

2012 ASU 60,000 Nm3/h (2,000 TPD) for steel

2016 ASU for Coal based IGCC (500 MW x 2)

2018 H.P. ASU for chemical (GOX 700 TPD, 6.7MPaG without Oxygen Compressor)



Product range

	Туре	Sizes (Nm3/hr)	Sizes (TPD)	Products	Purity %
Air Separation Units	Cryogenic	5,800-58,000	200-2,000 TPD	Oxygen	99.80%
				Nitrogen	99.999%
				Argon	<2 ppm O2, <2 PPM N2, tota <5 ppm
Nitrogen Gas Generators	Cryogenic	120-20,000	4-600 TPD	Nitrogen	99.999%
Oxygen Generators	PSA, VSA, PVSA	300-2,000	10-70 TPD	Oxygen	93%
Nitrogen Gas Generators	PSA	1-300	0.03-9 TPD	Nitrogen	99.99%

Presence in India:

- Established in 2014 with headquarters in Kolkata
- Revenue INR 870 Cr. in FY 2020-21
- Strong footprint in East, North & South India
- Pursuing aggressive expansion
- Engineering and Project Execution team in India
- Headed by highly experienced person in Air Separation plant project execution

- Average experience 18 years
- Supported by overseas project execution team of Air Water, Japan

Assets & Businesses

- 1 x 875 TPD ASU (Commissioned in 2006; Acquired from Praxair and operated for Tata Steel, Jamshedpur on BOO basis since Jul. 12, 2019)
- 2 x 875 TPD ASU (Commissioned in 2008; Acquired from Praxair and operated for Tata Steel, Jamshedpur on BOO basis since Jul. 12, 2019)
- 1800 TPD ASU (Commissioned in 2009; Acquired from Linde and operated for JSW Steel, Bellary on BOO basis since Dec. 16, 2019)
- 65 TPD ASU operated as merchant plant
- Cylinder filling stations located in Parbangla and Asansol, Chennai and Hyderabad

Tata Jamshedpur

- 3x875 TPD ASU
- Pipeline gas supply to Tata Steel
- Liquid manufacturing merchant business
- LOX/LIN: 220 TPD
- LAR: 85 TPD
- Liquid storage
- LOX: 5000 Ton
- LIN: 4000 Ton
- LAR: 260 Ton

JSW Bellary

- 1 x 1800 TPD ASU
- Pipeline gas supply to JSW Steel
- Liquid manufacturing for merchant business
- LOX/LIN: 100 TPD
- LAR: 75 TPD
- Liquid storage
- LOX: 1000 Ton
- LIN: 750 Ton
- LAR: 450 Ton

Bulk business

- 65 TPD ASU in Hyderabad
- 300+ Stationary Tanks at customer sites
- Large debulking storages in Bangalore, Chennai & Kolkata
- Robust distribution systems
- 100 + Transport Tankers
- GPS Tracking
- 5 point monitoring Camera
- Distribution safety



Package business

• Chennai

Filling Capacity (m3/month)

• MOX: 1,40,000 • GOX: 1,40,000 • Argon: 3,20,000 • Nitrogen: 1,10,000

Mini Bulk filling

Secondary distribution

Hyderabad

Filling Capacity (m3/month)

• MOX: 5,50,000 • GOX: 4,00,000 • Argon: 2,00,000 • Nitrogen: 1,00,000 • Mini Bulk filling

Parbangla

Filling Capacity (m3/month)

• MOX: 2,50,000 • GOX: 1,00,000 • Argon: 37,000

• Nitrogen: 37,000 • Mini Bulk filling

Secondary distribution

Asansol

Filling Capacity (m3/month)

• GOX: 1,25,000

Safety Principles:

1. All incidents, injuries and occupational illness are preventable.

2. Safety evaluation of all business process is mandatory.

3. Working safely is a condition of employment and supplier's contracts.

4. Train all employees and contractor to work safely.

5. SHE is a line management accountability.

6. Employees and contractors are empowered to stop or refuse a job to perform if it unsafe.

7. All SHE incidents must be reported and corrected.

8. Our commitment to, and efforts in, safety will yield positive results.

BP and thyssenkrupp Steel team up on green steel production

British oil and gas company BP has collaborated with German steel manufacturer thyssenkrupp Steel Europe to support the decarbonisation of steel production. Under the memorandum of understanding (MoU), the firms will focus on developing a long-term supply of low carbon hydrogen and renewable power in steel production.

The two parties will explore supply options for blue and green hydrogen, as well as sign wind and solar power purchase agreements. The partners also plan to jointly promote policies in Europe to support the development of green steel and low-carbon hydrogen.

In Germany, Thyssenkrupp Steel accounts for 2.5% of the carbon dioxide (CO₂) emissions, primarily at the Duisburg site where it operates coal-fired blast furnaces. To achieve the 2045 climate-neutral steel production target, the company is planning to replace these blast furnaces with direct reduction plants utilising lowcarbon hydrogen.

BP regions, cities and solutions executive vice-president William Lin said: "As part of our strategy to provide a range of decarbonisation solutions to corporates, bp is already investing in and working to develop a portfolio of industrial-scale hydrogen projects in Germany, the Netherlands, Spain, the UK and Australia. With our aligned ambitions and complementary investments, thyssenkrupp Steel and bp can together help this hard-toabate sector decarbonise faster."

thyssenkrupp Steel currently has an annual production capacity of 11 million tonnes of crude steel. It aims to produce 400,000 tonnes of CO₂ -reduced steel by 2025.

BP plans to produce green hydrogen at its refineries in Lingen, Germany; Castellón, Spain; and Rotterdam, the Netherlands. The company also intends to develop blue and green hydrogen production projects across the world.

thyssenkrupp Steel chief technology officer Dr Arnd Köfler said: "The decarbonisation of the steel industry will require enormous quantities of low-carbon and in the long term green hydrogen. This will increasingly require the use of electricity from renewable sources. All this can only be achieved through a well-developed hydrogen infrastructure with a supra-regional pipeline network. The MoU is an important milestone for us to set the course with bp for a reliable supply of energy in the future."

(Courtesy: Mining Technology)





Section: CEO Meet 2022

Contribution in Skilling Workers for Business Growth of Secondary Steelmakers

By Mr. Sushim Banerjee, Chief Executive Officer, IISSSC

About secondary steel market in India

- Steel Industry is one of the most crucial sector and contributes significantly to GDP growth and Employment generation.
- The Secondary Steel sector in India contributes the 55% of total steel production in the country. Out of this 25% is represented by Electric Arc Furnace units and balance 30% by Electric Induction Furnace units
- Current stress due to non-availability of raw materials, high cost of power, lack of financing options and unavailability of skilled manpower.

Segment wise presence of Secondary steel players

Segment	Number of players
Pellets	32
S.Iron	278
Fer. Alloys	92
Rerollers	1014
EAF	28
IF	823
CR	50
GP/GC/CC	24
PIPES	76
Alloy/SS	>100

Indian Iron And Steel Sector Skill Council (iisssc)

- Indian Iron and Steel Sector Skill Council (IISSSC) is industry driven non-profit company limited by guarantee, registered under the Indian Companies Act, 1956.
- All Major Steel Producers like (SAIL, TATA, JSW, JSPL, AM/NS, RINL), Industry association like (IFAPA, SIMA, AISRA, IIF), the true representatives of the secondary sector are in the board of IISSSC.
- Skill Gap Study conducted to understand the quantum and quality of training.
- Industry decides on the need of training through NOS Committee. Industry nominates shop floor officers in NOS Committee of IISSSC. Qualification Packs are developed in consultation with NOS Committee. IISSSC has developed 42 QPs till date out of which 27 are active QPs on which training, assessment and

certification can be done. Popular job roles are Fitters, Machinist, Welder, Bearing Maintenance, conveyor operations and maintenances etc.

- •IISSSC affiliates Training Partners and Assessment Agencies through which training and assessments are conducted on the QPs.
- •Certification are given to the candidates who successfully complete the training and assessment process. The certificate is govt. gazetted certificate.

Programs available with IISSSC

There are three type of training programmes launched by Govt. of India to reduce the scarcity of trained and skilled work force for the industry.

SI. No.	Project	Description
1	Short Term Training (STT)	Under this training is provided to fresher's for 3-4 months. After the training assessment and certification is done.
2	Recognition for Prior Learning	Under this assessment is done to check the skills available with the candidates already employed in an Industry. Certificate is given to successful candidates.
3	Apprenticeship Scheme	Under this candidates are engaged in industries under apprenticeship scheme for 1-2 years. The candidates can be retained for further employment.

New Qualification Packages (QP)

Developed For Secondary Steel Sector

SI. No	Name of QP	NSQF Level		
I.	Safety Supervisor Steel Plant	Level 5		
2	Iron and Steel Fabricator	Level 5		
3	Process Control Operator- BOF	Level 6		
4	Induction Furnace	Level 5		
5	Process Operator- Electric Arc Furnace	Level 6		
6	Process Operator- DRI	Level 6		
7	A few Multiskilled job roles	To be developed		

Development of Job Portal By IISSSC

- IISSSC is developing a Labour Market Information System (LMIS). This a job information portal in which industry, SSC and training partners will be having login lds. Industry will put their demand of manpower job role wise and training partners will be uploading detail of certified candidates ready to be employed.
- IISSSC names this venture as "NIYOG SETU".
- Need arise due to lack of availability of data regarding trained and certified work force.





A Green Deal on Steel

By Mr. Mainak Gataet, Scientist-C, BIS

KEY MESSAGES

- Indian Steel Industry is indispensable to India's economy :
- Our industry is ready to be the first to decarbonise with a "Green Deal on Steel", reducing CO₂ emission from steel by 30% by 2030 and 80-95% by 2050. For this, we need continued support from all stakeholders to secure a full level playing field with our global competitors in environment and trade, and we need support in creating markets for CO₂- neutral steel
- \bullet A large number of ambitious projects to be scaled up within the Clean Steel Partnership, Innovation Fund etc. in the period 2020 to 2030. If successful, Indian steel technological pathways, rolled out in India and globally, would tackle 7% of the globe's anthropogenic CO₂ emissions and 25% of industrial emissions.

Carbon Border Adjustment and other instruments creating markets for CO₂-low steel and Circularity

- Should be introduced for steel and set at an effective level, in addition to existing carbon leakage measures accompanied with other measures necessary for a successful transition of the sector.
- Eco-Innovation credits for **"green steel"** in downstream sectors.

CASE STUDY

- A study was conducted on 'The Role of Hydrogen in the Indian Iron and Steel Sector'
- In association with TERI, Siemens and Primetals

RECOMMENDATIONS

- Deep Decarbonisation in Indian Scenario is technically possible
- Technologies available to deliver this vision
- Cost will exceed from conventional method
- Policies required to accelerate this transition

REQUIREMENT OF STANDARD

- Standard does not specify the manufacturing route
- Requirements for reducing CO₂ emissions can be introduced to meet sustainable development goal
- Inputs required from the Steel Industry to incorporate such requirements in the standard

- Manufacturing route can be altered however the properties of final products need to meet the demand of application
- Standards can bridge the gap between the manufacturing technology and application demand

History

06 Jan 1947 - Indian Standard Institution 1986 – Bureau of Indian Standards 2016 – BIS Act 2016



GRADES							
No	Pig Iron For	Designation	Chemical Composition, Percent				
			Silicon	Manganese	Phosphorous	Sulphur Max	
1000	Steel Making	PG Si X Mn 1 P 40 PG Si X Mn 3 P 40	> 0.75 - 1.75	<0.5 0.5 to 1.0 1.0 to 1.5	<0.4	0.06	
		PG Si X Mn 5 P 40					

		GRADES		
SL NO	CONSTITUTENT		GRADE	
(6)	Total iron, percent	89-93	88, Min	85 to < 88
(ii)	Metallic iron, percent	80, Min	76, Min	70, Min
(iii)	Metallization, percent	88, Min	86, Min	82, Min
(iv)	Carbon Content: (a) Gas based sponge iron/DRI (b) HBI (c) Coal based Sponge iron/DRI	≤ 1.5 1.1 and above 0.08-0.12	≤ 1.5 0.97 - <1.1 0.08-0.12	≤ 1.5 0.97.<1.1 0.06-0.12
(*)	Sulphur, Max (a) Gas based sponge iron/DRI (b) HBI (c) Coal based sponge iron/DRI	0.005 0.005 0.030	0.005 0.005 0.030	0.005 0.005 0.030
(r)	Phosphorous, Max	0.060	0.070	0.100
(vii)	SiO2 +Al2O3, Max	6	7	S





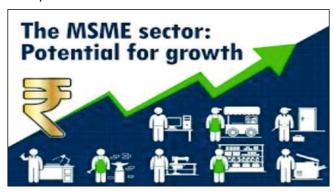
Exploring Digital Market & Credit Linkages For MSMEs



By Mr. Achintya Kumar Mondal & Ms. Sreela Das, Canara Bank

MSME OVERVIEW

- MSME contributes 30% of India's GDP
- Total exports of MSME related products is **45**% of overall exports.
- In India, 6.30 Crore MSMEs are there which gives employment to 11.10 crore people.
- Only 6% of the MSMEs have received bank credit.



Source: www.cii.in, The Hindu Business Line

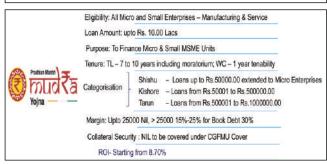
	MSME -	Defined	
(All MSME I		ISME Definition cation from https://udyamreg	istration.gov.in)
0.00	Criteria: Investm	ent & Annual Turnover	on.
Classification	Micro	Small	Medium
Manufacturing & Service (Plant & Machinery or Equipment)	Net Investment ≤ Rs. 1 Cr & Net Turnover ≤ Rs. 5	Net Investment ≤ Rs. 10 Cr & Net Turnover ≤ Rs. 50 Cr	Net Investment ≤ Rs. 50 Cr & Net Turnover ≤ Rs. 250 Cr

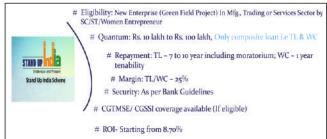
MSME SCHEMES

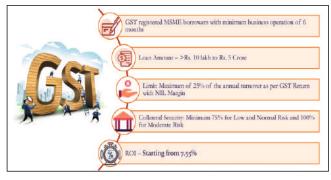
- MUDRA
- STAND UP INDIA
- CANARA GST
- CANARA CONTRACTOR
- MSME CAP
- CANARA UDYOG
- CANARA VYAPAR

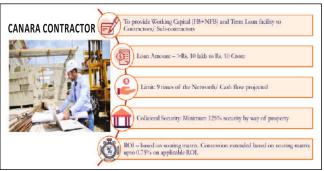




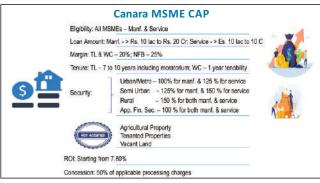


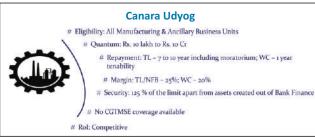








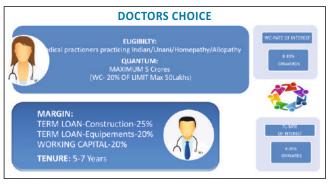




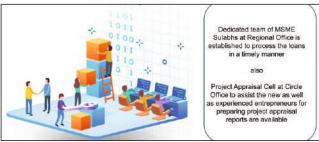






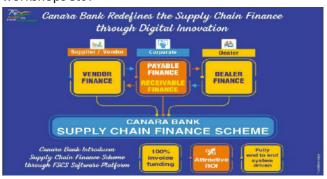






START UP

- •Introduction of a new loan scheme for Financing Start-Ups & Early Stage Units promoted/proposed to be promoted by graduates of reputed educational institutions
- Honorable Prime Minister of India, Sri. Narendra Modi highlighted the urgency to revive Indian manufacturing sector. "Come and make in India," he exhorted the world, and stressed on channelizing the strength of the youth towards manufacturing sector.
- •The scheme is expected to attract/generate good response and sizeable business for the Bank.
- •. Banks are advised to create awareness about the scheme at leading Educational Institutions, incubators and startups, credit camps, MSME meets, seminars, workshops etc.







GIVING LIFE TO INDIA'S VISION.

Pioneering structural sections and TMT Rebars, for stronger, safer, and efficient construction.



Contact us: shop.jindalpanther.com | Toll free number on 1800 208 2008

India's First and Largest Producer of Fe 550D TMT Rebars



Will the govt deliver on its promises?

By Steel Scenario Bureau

It takes two to tango. The government seems to have finally woken up to this reality, particularly with respect to India's secondary steel sector. According to official sources, a dedicated policy for the sector is in the final stages of preparation. It is expected that this policy will lay down crucial pathways within the overall scope of National Steel Policy (NSP) 2017 exclusively for the secondary steel sector to thrive both domestically and in the export market.

Only seven years ago, in 2015, more than half (55%) of the country's steel production was from the secondary steel sector. India ranked third among steel producing nations globally then and was steadily closing the gap with the US, which was in second place. The government was so buoyed by the performance and projected growth prospects of the steel industry in general, that it drew up NSP-2017 — an ambitious roadmap for achieving a crude steel production capacity of 300 million tonnes (mt) of steel by 2030-31 to service an envisaged domestic demand for finished steel of around 230 mt. The "BF-BOF route is expected to contribute about 60-65% of the crude steel capacity and production, with remaining 35-40% by EAF & IF route in 2030-31" stated the NSP.

The projected demand-scape to support the target focused on the needs of an envisaged rapidly growing infrastructure and construction sector, following government initiatives like 'Housing for All' by 2022, expansion of the railways network and defence sector through private participation, development of the domestic automobile, power and shipbuilding industries through the 'Make in India' programme, et al. The NSP also repeatedly mentioned the demandgeneration potential existing in "the low per capita steel consumption of 61 kg in India, compared to the world average of 208 kg". As steel consumption is a globally recognised development indicator, the "threefold" demand growth in the ensuing 15 years, as projected in the NSP, was greeted warmly by industry insiders and observers alike.

The steel industry was, naturally, galvanised into action, and capacity building and full utlisation of existing capacity became operational bywords. Production, too, grew during the following two years. However, amidst all the euphoria, only few analysts

highlighted the fact that it was the primary or main producers, having integrated steel production processes, that were leading the charge. These were the big players operating with the BF-BOF route (some combined EAF as well) and had captive iron ore and well-established coking coal supply chains besides their own power supply sources.

The scenario of the medium and small steel units operating EAFs and IFs for production of pig/sponge iron, semi-finished steel like billets, and finished steel for certain user segments, was not so rosy. As it were, global markets had been behaving in a volatile manner, and domestic demand for steel had also not been as robust as expected, even though production by the big players kept rising, leading to a glut. Resultantly, prices were driven down and the axe fell on the secondary steel units because they did not have enough staying power as the big players. Besides, the rising cost of power and iron ore became real threats, many secondary units fell sick or became unviable and had to down their shutters when they were unable to pay back bank loans taken as short-term working capital with huge hopes that the future would wipe the slate clean. According to the NSP document, "As on March 2016, there were 308 sponge iron producers that use iron ore/pellets and non-coking coal/gas providing feedstock for steel production; 47 electric arc furnaces and 1,128 induction furnaces that use sponge iron and/or melting scrap to produce semi-finished steel and 1,392 re-rollers that rolls out semi-finished steel into finished steel products for consumer end use." If all had gone well and as per plan, their tribe would have increased and flourished. But that did not happen. At the end of calendar year 2021, for instance, there remained only 285 sponge iron units, as recorded in government data. This indicates that over 20 sponge iron units have shut shop in the last six years. Incidentally, India ranks no. 1 in the world in sponge iron production.

Available statistics on the sector's gradual decline over this period, as given below, speak for themselves:

Steel production by secondary steel sector								
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22		
Production	42450	43745	42214	40755	38492	43349		
('000 tonnes)								
%age of total steel	43.3	42.4	38.1	37.3	37.2	36		
production								



What the table above underlines is the steady dwindling of the share of the secondary steel sector (or MSME sector as is popularly known now) in total domestic production from the 55% in 2015 to 36% at present. While it is true that the big players added capacity and produced more to shore up their own share in total domestic steel production, the chart above tells us that from 2017-18, production by secondary units kept falling. Why? This was not supposed to happen! To quote context, the NSP stated: "Demand for pig iron for merchant use, such as for castings and supplementary metallic in the electric arc or induction furnaces, is projected to increase to 17 mt by 2030-31. Similarly, demand for sponge iron is projected to increase to 80 mt by 2030-31... It is projected that the sponge iron capacity may increase to 114 mt by 2030-31..." So, what happened?

To understand the scenario, we must look at the environment in which the secondary steel sector operates, especially the regional/local factors. There is quite a lot of disparity in the input mix of these units depending upon availability of raw materials. For instance, there are more units in the East and West using sponge iron in their charge-mix, whereas those in the northern and southern regions of the country use more scrap. Also pig iron is used by a large number of secondary steel units in eastern India. Clearly, the higher availability of iron ore and location of a larger number of integrated steel plants in eastern and midwestern India have helped to shape the profiles of units utilising sponge/pig iron. Similarly, the prevalence of small engineering units generating scrap metal has encouraged secondary steel units in northern region to use scrap as their charge-mix.

But as per official data, use of sponge iron fell and that of scrap rose in 2021-22 over the previous financial year. This actually points to the first problem areas – shortage of raw materials and high input costs.

During April-September 2020, when lockdown had restricted movement of surface transport, the secondary steel players faced critical logistical and labour issues. Cash flow also was inhibited. Thus, while the big players laid a thrust on exports and covered substantial loss in domestic demand, the secondary players could only watch because they did not have the required manpower or infrastructure to match their big brothers. From Q4 of FY21, as the situation normalised, the fortunes of the secondary producers started reviving, but within no time they were hit by sharp price rise of both iron ore and coal.

On July 31, 2021 the *Economic Times* reported: "A pronounced revival in the commodity cycle rescued several steel companies and boosted their bottomlines, but the recovery has not been equal. Several

secondary steelmakers from Jharkhand, Maharashtra, West Bengal and Chhattisgarh are shutting shop – or on the verge of doing so... Several companies were forced to shut shop due to the high cost of inputs and lesser access to export markets."

The report went on to quote **Mr Vivek Adukia**, Chairman, Steel Rerolling Mills Association of India: "There are around 120 sponge iron, billet/ingot manufacturers and rollers in West Bengal that have reduced production by 15-50% and laid off workers, and about 10 units shut down completely in and around Durgapur, Barjora, Mejia and Asansol."

The scenario was no better in other regions. High market demand had resulted in prices of steel shooting up, making input materials like billets and ingots unaffordable for rerollers to produce various types of finished steel products. Such units in Chhattisgarh, Mandi Gobindgarh and other manufacturing hubs in the north-western part of India, catering to consumers of automobile components, cycle parts, food containers and roofing, to barrels, machine parts and nails, etc., were hit hard and suffered badly.

Industry bodies were seen complaining regularly to the government, urging for capping of steel prices to save their respective member units from sickness. "Input raw material prices like pellets and pig iron are very high. There is a 300-400% increase in raw material prices. Pellet prices were Rs 5,000 to Rs 6,000 a tonne last year; now they are around Rs 15,000 a tonne. Coal prices have also gone up 40%," Mr Vijay Jhanwar, executive committee member of Chhattisgarh Sponge Iron Manufacturers' Association, told ET. "Several players have lost both export and even domestic orders," he added.

One of the biggest causes of rising input prices during FY21 was high demand of iron ore and pellets by China that was being met by Indian exports. The other was the hurdles in raising output from mines, arising from the provisions of the MMDR Act 2015 and subsequent amendments in 2021. Not only are royalty levels high, there were (and continue to be) long delays in mine auctions, lease approvals, prospecting and mine development, deemed mining status, and a hundred other impediments for even medium-level steel producers to access steady supplies of ore. This resulted in shortages in the domestic market. Secondary steel makers purchasing iron ore from merchant miners in Jharkhand, Odisha and Chhattisgarh were severely impacted by this as well as the over 300% rise in prices of ore. It is important to remember here that big steel producers used their captive iron ore sources.

Similar mining hurdles exist in the coal sector as well, especially affecting small steel makers. The severe coal



crisis in the country which, according to official sources, comprises a shortage of over 49 million tonnes, has sent prices of coal soaring. Steel producers in the MSME sector mainly use non-coking coal that is widely available in the country. However, Coal India Ltd, India's largest coal producer, is stretching itself to the limit to maintain supplies to its biggest customer – the power sector. Steel plants – even mini ones – also require electricity to run their operations and the coal crisis has forced many of them to only keep basic operations running.

Media reports say that some sponge iron plants are running at 40-60% capacity utilisation levels due to the coal crunch. Coal is a required input for sponge iron production. Many MSME steel producers are therefore importing coal at high cost—the Ukraine-Russia war has already blown coal prices sky high. India's sponge iron industry is expected to import around 35 mt of coal in FY23. This will be 30% higher than imports in FY22. Sponge iron manufacturers' associations across the country have been petitioning the government for higher allocation of thermal coal by Coal India.

The high costs of power and freight is yet another straw on the backs of the secondary steel makers.

All of these causes have had a singular effect on the MSME steel makers — the draining-out of financial resources. As it is, most secondary steel producers have not been able to modernise their production processes due to operating continuously with very thin margins. So, the recent market developments have naturally had a huge impact on their **capacity utilisation** levels. Induction furnaces and EAFs producing crude steel were utilising only 55% of their capacity at the close of FY22. The situation has worsened during Q1 of the current financial year. Units making cold-rolled steel products, pipes, tinplate, etc., are now reportedly using only about 35-37% of capacity.

At a time when some of the large, cash-rich players are in acquisition mode and are consolidating their higher capacities, the secondary steel makers are left with no option but to look for support from the government for sustenance and survival in the long run. They have been petitioning the government since long for lowering of tariffs and allocation of raw materials through cluster formations in different regions.

According to an industry insider, once the basics are assured, they can modernise and service the new niche markets opening up across the country and the world with their custom-made products. As they increase in capacity – the government expects crude steel capacity addition of around 18 mt by this sector by 2030-31 – they will not only be able to contribute to achievement of the NPS targets, but help to generate local

employment for thousands along the way.

The secondary steel sector is now finally seeing some light in the end of the long dark tunnel they have been negotiating in recent years, with whispers that the government is going to soon come to their aid. According to reliable sources, apart from "actively considering" their demand for formation of clusters, the government is about to bring amendments "to the MMDR Act to ensure availability of iron ore to sponge iron and pellet manufacturers", exclude "some items they produce from the purview of the quality control order", strengthen institutional support for research & technology, and support R&D efforts of the sector.

The 'cluster' approach had been promised by the government in NPS 2017 itself: "(The Steel) Ministry will also promote cluster-based approach, particularly in MSME steel sector with common infrastructure, on consortium approach for optimum land use, easy availability of raw materials and economies of scale" was one of the clauses. The policy had added: "The formation of steel clusters (especially for MSME steel units), service centers and steel processing centers will be facilitated. Creation of related common infrastructure on partnership basis will be promoted to optimize land use. Small and medium steel enterprises, including FDI projects, will be encouraged to be set up in industrial corridors and in clusters under PPP (public-private partnership) to ease land acquisition."

Specific to the **MSME Steel Sector**, the NPS mentions:

"MSME sector, including sponge iron industry, plays an important role in providing employment, meeting demand of some special products required in small volumes and local demand of steel in hinterlands. Apart from this, the sector is also highly export oriented which helps in earning foreign exchange for the country. Various measures as mentioned below will be taken to improve the performance of MSME steel sector and sponge iron industry—

- Availability of raw materials will be ensured by facilitating auction of non-coking coal exclusively for steel/ sponge iron sector and increasing the iron ore availability in the domestic market.
- Adoption of energy efficient technologies in the MSME steel sector will be encouraged to improve the overall productivity & reduce energy intensity.
- Small and medium iron and steel making units will be encouraged to be set up in the proposed industrial corridors and clusters for optimal utilisation of land and reach economies of scale.

All eyes are now on the government. The secondary steel players are awaiting the forthcoming policy aimed exclusively for them with bated breath and a lot of hope. May the tango begin!



World-class technology is now in your TMT.

Call Toll Free **1800 102 8157**



'We should focus upon both macro and micro economic challenges'

By Steel Scenario Bureau

There are challenges in today's society and will be, both macro and micro economically. We only concentrate on the macro part; however, micro economic challenges should also be focused upon, stated Mr. Suresh Prabhu, presently Chancellor of Rishiwood University and Visiting Professor at London School of Economics & Political Science, and formerly Union Minister for Civil Aviation, Railways, Commerce & Industry, Power, Chemicals & Fertilisers, Environment & Forest, and six-time Member of Parliament. He was one of the main speakers at the MCCI India Economic Forum 2022 held at Hotel Taj Bengal in Kolkata recently.





"In macro economy, fiscal deficit comes in the forefront. Today, we face an unprecedented global challenge, where the economy is suffering due to geo-political changes. The world is changing at such a fast rate. If any sector is going for a change in their work-front, it will automatically have an effect on the economy, but at both the macro and micro levels. Thus, a uniform policy should be evolved which will work for our country," added Mr. Prabhu.

In midst of these challenges, there is also good news for the Indian economy in the form of robust infrastructure investment and start-up programmes being organised by the present Government for creation of increased employment opportunities. Additionally, merchandise exports grew in FY 2021-22 overshooting the target of US\$

400 billion. A number of

trade agreements have also been signed recently, such as the Free Trade Agreements with the UAE and with Australia, as part of a strategy to stimulate trade diversification. Further, the Gol's new PLI scheme is expected to enhance India's participation in the global value chain and reduce import dependency in critical sectors, providing impetus to the goals of Atma Nirbhar Bharat.

Mr. Pawan K. Kumar, Dy. Managing Director, IIFC, Dr. Mridul Saggar, Investor Education & Protection Fund, NCAER Chair Professor Ms. Rupa Dutta, Principal Advisor, Dept. of Promotion of Industry & Internal Trade, Ministry of Commerce & Industry, Govt. of India Dr. A.R. Khan, Chief General Manager/OIC, NABARD West Bengal Regional Office and Mr. Subhendu Moitra, Chief Credit Officer, IIFCL also spoke at the forum.





Ministry of Steel establishes advisory committee for secondary steel sector

Ministry of steel has established an advisory committee for secondary steel under the chairmanship of Honourable Civil Aviation and Steel Minister Shri Jyotiraditya Scindia to identify and deliberate on the issues pertaining to the steel sector especially the secondary steel industry. The first meeting of the committee is scheduled on 8 August to identify issues of concern and set priority for the committee for action. Inputs will also be invited from all stakeholders so that actionable points are quickly identified and resolved.

Secondary steel producers form an important component of the domestic steel industry. But their share in country's steel output has been falling sharply over the years. From a level of 55% in 2015, secondary steel producers now account for an output of just 40% of country's total steel production.

Steel ministry hopes that the important inputs coming from the advisory committee would help in formulation of a much need policy for the secondary steel sector. The secondary steel sector, which has seen a sharp fall in its capacity utilisation levels, wants higher allocation of coal from Coal India while steel government's intervention to levy export duty on iron ore pellets so that the key steel making raw material is available for domestic producers.

Apart from the steel minister, the advisory committee will have representation from All India Induction Furnace Association, Sponge Iron Manufacturers' Association, Institute for Stainless Steel development Association, Alloy Steel producers Association, Steel re-rollers Association, Pellet Manufacturers' Association, Indian Ferro alloy Producers association etc.

Tata Steel signs MoU with Bengaluru-based start-up Aarav Unmanned Systems for drone-based mining solutions

Tata Steel has signed a Memorandum of Understanding (MoU) with a Bengaluru-based start-up with Aarav Unmanned Systems (AUS), for drone-based mining solutions for effective mine management. Both will jointly develop and offer sustainable and end-to-end integrated solutions focussing on efficiency, safety, and productivity of open cast mining operations.

Tata Steel will also work jointly with AUS to provide exclusive drone-based solutions, including mine analytics and geo-technical mapping, to Tata Steel group companies across mining locations in India, it said.

In this regard, Mr. D. B. Sundara Ramam, Vice President, Raw Materials, Tata Steel, stated that drone survey enabled digitalisation and other technology will assist in gathering impactful and actionable insights. There is enormous potential in redefining core mining processes such as exploration and mine planning using drone data and adequate analytics. These end-to-end mining solutions are economical, demand fewer onfoot exploration requirements, and improve production, efficiency, and site safety.

Tata Steel aspires to leverage the opportunities arising from the Government's Atmanirbhar Bharat Programme and regulatory changes to meet captive raw material requirements beyond 2030 by creating a sustainable mining business. The company had charted out its vision a couple of years ago to become a leading player in digitalising its mining operations across the value chain. Digitalisation enables the development of targeted strategies using real-time data and data analytics, provides visualisation and decision matrix tools to predict failure, helps in optimisation of scheduling and material flow, and improves the capability of beneficiation plants through online monitoring of quality data, it said.

Mr. Vipul Singh, Founder and CEO, Aarav Unmanned Systems said that Tata Steel's trust in AUS to create end-to-end solutions jointly with them, for the domestic and global mining industry, directly reflects on the vision shared by both, and openness of a behemoth like Tata Steel to partner with a start-up to derive the most effective solution.



				STEEL MARKET PRICE (thousand tonnes)	T	RICE (the	usand tonnes)		July 2022
CITY	INGOT	BILLETS	TMT 12MM	WIRE	SCRAP	COIL/CR/HR	SPONGE IRON	PIG IRON	NO
ALANG	49500				43500			Foundry Grade	steel Grade
AHMEDABAD	49600	20500			42300	67800/59500			
BHIWARI	51600								
BHAVNAGAR	20000	20300	26500		43500				
BATALA									
регні						00865/00899			
DURGAPUR	48700	49600	48800	5.5mm-54000/12G HB-56000	44600		36400	52300	47000
GOA	48600		55300						
GAZIABAD	51100	51600	26500		45000	00065/00089			
INDORE MELTING									
INDORE	49800	49600	54400		41200				
JALANDHAR									
JALNA SUPER									
JALNA MELTING									
JAIPUR	50900				42000				
JAMMU	53800				41000				
KANPUR	52000		59300		40500				
KOLKATA	49400	20200	49300		45100	66300/57000			
LUDHIANA	52800	22600			44800	67800/57500		51200	49500
MANDI GOBINDGARH	52800	52400	57300		40800		40000	51400	49700
MUMBAI	49600	20000	53200		40800	00929			
MUZAFRNAGAR	51300	51900	55300		47000				
RAIGARH	47800	48400	51700				35600		
RAIPUR	48500	49000	52100	5.5mm-54200/12G HB-56700	43800		36400		47000
ROURKELA	47900	48400	52700				36000		45800
									Source: Metal Market





VOL 01 / M12





The MSME sector rebounds

Micro, Small and Medium Enterprises (MSMEs) are considered to be the backbone of India's socio-economic development. MSMEs have emerged as the second-largest employment-generating sector after agriculture. The sector is a key driver of employment growth and considerably contributes to the country's GDP by manufacturing a wide range of products and services. With a 29% contribution to GDP and 50% of the country's exports, the sector is growing at a faster pace. The sector has provided employment to around 12 million people and has constantly maintained a growth rate of over 10%, which is why it is crucial to promote entrepreneurship and innovation in this segment. The challenge for successive governments has been to grow the economy while at the same time generating quality jobs in large numbers every year. By supporting the development of grassroots entrepreneurs to set up their own MSME units, we can suitably address the problem of youth unemployment.

The Union Budget 2022 focuses on the ease of doing business for MSMEs with new policy initiatives, extending credit support to boost liquidity, reducing import tariffs, and enhancing financial inclusion. The announcement of additional credit under the Emergency Credit Line Guarantee Scheme (ECLGS) has given a much-needed boost to more than 13 million MSMEs in India. The ELCGS Guarantee Coverage has been extended until March 2023. It has been increased by Rs. 500 billion, bringing the total coverage to Rs. 5000 billion, with additional funds set aside for hospitality and related enterprises.

The MSME sector is expected to rebound in the FY22 on-demand recovery following a pickup in economic activity. The reason for this growth in this financial year is a more significant uptick in the overall economy of India. The reason is primarily a shift and pent-up demand in the sentiments of the general business industry.

Also, the country is currently experiencing inflation, as the price of certain commodities has increased. Furthermore, the third pandemic wave had a negligible impact on India's overall demand for products and services.

The banking sector has introduced several on-ground schemes, and growth is expected to result from this introduction. One of the best examples of this scheme is the Emergency Credit Line Guarantee Scheme and a few other disbursements that have been noticed. This minimal growth gives the lending sector confidence to get back in shape and gain exposure.

The lending sector is expected to take a jump, but there are concerns related to the assets' quality, which has increased further this year. This is major because the second wave of the pandemic has impacted collection to a great extent. As expected, the NPA level will remain the same or at the same level. With credit becoming more accessible in tier-2 and tier-3 cities, MSMEs are witnessing remarkable growth. On the policy front, the recent announcement by RBI will be a boon for small merchants and shop owners as it will widen the card acceptance infrastructure and connect UPI with other modes of payments. This will help in empowering merchants with digital payment options that are convenient and secure.

Additionally, the MSME sector expects no significant impact, even if a fourth wave occurs. No denying the fact that it was the pandemic that resulted in accelerating the digital route to increase credit among MSMEs, The vital lessons learned from the pandemic have transformed how businesses operated earlier. The pandemic fast-tracked the digital transformation of MSMEs and many adopted digital-led tools for business growth. MSMEs across India have witnessed the power of these digital tools, whether in order intake, order fulfillment, pricing, delivery, payment settlement, etc.

The MSME ecosystem in India is a "Survival to Revival" saga. The credit demand from MSMEs is now back to the pre-pandemic levels. These indicators are the visible green shoots in the economy.



Bengal's Mission MSME

By Ritwik Mukherjee

MSMEs are the backbone of not only the national economy, but also of any state. The sector suffered a severe jolt post pandemic. The West Bengal government is now putting a healing touch, trying to give a new lease of life to this crucial sector.

MSMEs (Micro, Small and Medium Enterprises) are the backbone of the Indian economy. These businesses contribute about 45% to manufacturing output, more than 40% of exports and over 28% of GDP. This amounts to employment for over 110 million (11 crore) people, which in terms of volume, is second only to the agricultural sector. The revival of MSMEs post pandemic is a formidable task that lies ahead.

The impact on MSMEs during the past two waves has been deadly, with many forced to down their shutters during the period and/or lay off employees, according to industry experts, even as there is no data recorded on this by the government. The situation has definitely caused concern among MSMEs. They are awaiting things to unfold with bated breath.

Lockdown, despite its inevitability, choked supply chains and as a result the entire manufacturing process for MSMEs went for a toss. During the prolonged lockdown MSMEs had to try to keep stock of raw materials at least for a month or so in order to continue work. The room for the MSME sector to absorb the third wave did not seem to be much. While white-collar jobs and online businesses, including retail, had a reasonably robust playbook when it came to dealing with lockdowns, MSMEs remained vulnerable, with blue-collar jobs and small units quite underprepared for another shock of the magnitude felt in the first two waves.

Going by a survey by the Consortium of Indian Associations (CIA) covering more than 81,000 self-employed individuals and SMEs in India through 40 partner SME associations of CIA in June last year, as high as 73% of SMEs were not able to make a profit during the last financial year (FY21). Likewise, around 59% of start-ups and MSMEs were likely to scale down, shut down or sell themselves this year due to the second wave, community platform LocalCircles had said in its survey which received over 11,000 responses from more than 6,000 small enterprises in May last

year. Only 22% of respondents had over three months of runway left.

While all MSMEs can't be painted by the same brush, those that remain unaffected by consumer mobility will continue to do well, especially post the preparedness from the first two waves. Most sectors that require inperson presence will reel under a third wave. The resilience that MSMEs have shown in the face of the first two waves is unexpectedly remarkable, and the optimistic view would be that this prepares them well for a likely third wave. But the reality might be that the resilience came at the expense of exhausting reserves, and an MSME sector that is already running on fumes to re-energise itself may have little room to give.

The Bengal Scenario

This is the overall post pandemic situation in the country's MSME sector, and West Bengal is no exception. This is notwithstanding the fact that the state government is quite confident that its MSMEs have done well and are expected to overcome challenges arising out of the Covid-19 pandemic in the coming months. West Bengal hosts the highest number of MSMEs in the country and they play a vital role in the state's economy.

Medium and small scale industries and apex trade bodies had bet big on the outcome of this year's Bengal Global Business Summit (BGBS) to turn the corner. BGBS has been a regular platform for recognising the contribution of MSMEs to Bengal's economic growth. And the last BGBS was no exception. The outcome of this year's summit, which took place between April 20-24, 2022, in terms of new investments, is expected to help businesses, particularly in the MSME sector, rebound from their moribund state.

The Confederation of West Bengal Trade Association, in collaboration with the West Bengal government, had identified BGBS 2022 as the platform for launching the Bengal Global Trade Expo 2022 to help traders and manufacturers connect and collaborate with industry leaders, academicians and the state administrations. MSMEs and SMEs which had successfully showcased their product offerings to the general public at the expo are expected to attract investors and foreign technology providers who also exhibited their wares there.



Significantly, West Bengal accounts for 11.62% of MSMEs in the country with over 52 lakh units. Small and medium size companies from Bengal have traditionally relied on bank loans, borrowings from individual lenders and their own capital to fund growth or meet their working capital needs. However, this is changing now. Out of the 259 companies which got listed on the SME platform, 18 are from this state. Interestingly, two of the largest IPOs on the platform came from firms in West Bengal. They are now realising that the IPO route is a better option than private borrowings or funding from banks. Traditionally, states like Gujarat, Maharashtra and others had the equity culture while others like Bengal had been a debt-driven economy. But the companies from Bengal have finally realised that the benefits of listing range from raising funds to maintaining proper debt-equity ratio to improve balance sheet, among others.

MSME & Credit Target

Meanwhile, the West Bengal government's revised credit target to the MSME sector of Rs. 1.02 lakh crore for FY22 looked achievable, with credit flow to the sector remaining firm with single-digit growth during the first half of the fiscal. Lending to MSMEs in H1 of FY22 was Rs. 46,000 crore which is about 47% of the previous year's credit of Rs 87,166 crore. The last two quarters have attracted greater credit demand and with the economy on a revival trajectory, the revised target is likely to be achieved. It bears mention here that a state-level bankers' meeting had initially set the credit target at Rs 90,237 crore, but the then finance minister Amit Mitra had urged the bankers to increase it to Rs 1.02 lakh crore.

SIDBI Extends Helping Hand

In another significant development for the sector, the Small Industries Development Bank of India (SIDBI), the country's principal financial institution engaged in the promotion, financing and development of MSMEs, has entered into an MoU with the Government of West Bengal (GoWB) to develop the MSME ecosystem in the state. Under the MoU, a project management unit (PMU) will be deployed by SIDBI to provide support to the GoWB in making necessary interventions for focused engagement of SIDBI with the state, with the objective of facilitating development of the MSME ecosystem. SIDBI would also place an expert agency with the state MSME department.

The key functions of the PMU include the following:

 Study of existing framework and guide stakeholders for cluster / sector specific products / interventions for MSMEs.

- Handholding MSMEs for onboarding on digital platforms for funding, marketing and listing.
- Evaluating scope of infrastructure projects for MSME clusters.
- Facilitating MSMEs in getting collateral-free loans from banks, incentives from the Centre / state government.
- Coordinating with SIDBI, state government and other agencies for rollout of various schemes for MSMEs and infrastructure development.
- Designing / developing need-based schemes / products / interventions for MSMEs.
- Providing technical / consultative support to the state government for initiatives for MSMEs.
- Providing support in organising / supervising programmes / events planned by SIDBI in the state.
- Facilitating in implementation of SIDBI Cluster Development Fund (SCDF) scheme in the state.
- Mapping of repository of market best practices and helping in adoption of these practices.
- Policy advocacy for MSMEs, etc.

Incentive Scheme for Powerloom Segment

The state government has recently announced an incentive scheme for MSMEs in the powerloom segment. The basic objective is to provide fiscal support for the installation of new-age powerlooms to boost production of improved quality fabrics in the state. The scheme, which runs from January 1, 2022 for three years ending December 31, 2024, will offer eligible MSMEs a capital investment subsidy of 20% on fixed capital investment in plant and machinery. There will also be an interest subsidy on term loans for five years depending upon the location of the plant, and waiver of electricity duty.

Under the scheme, the state is classified into five zones covering developed and backward areas for purposes of incentive limits. For those who would be interested in setting up powermills under the scheme, Tantuja will provide them with yarn (to the first 2,000 powerlooms) and buyback support. Under the scheme, the state would also provide reimbursement towards employees' state insurance and provident fund of an MSME firm if it employs 50% of its workforce from persons registered with the employment bank of the state.

ExpertSpeak

For new MSME units, states and the Centre have announced several schemes which provide capital subsidies, credit guarantee, etc. Ironically, however,



barely 15% of MSME units in the country have registered with the UDYAM platform. Micro and small units very often avoid joining government programmes and schemes for fear of regulatory actions and tax hazards. This must be resolved, points out Mr. R.P. Gupta, economist and author of Turn Around India.

He says that there are several thousands of state and Central laws governing business. Among them, there are more than 25,000 clauses envisaging criminal prosecutions and huge penalties even for delays or non-compliance. Many such provisions are also applicable to MSMEs. Such a regulatory environment generates fear and crafts entry barriers among the educated youths. Therefore, they prefer regular salaried jobs instead of setting up MSMEs. In sequel, most micro and small units are operated by such persons who failed to get decent employment or their level of education didn't prove to be enough support for regular jobs. Hence, easing the regulatory parameters is the most crucial need for unlocking entrepreneurial capability of Indians and developing MSME potential. India must essentially build a team of "job providers" to resolve the crisis of "job seekers", is Mr. Gupta's opinion.

India also must conduct quick sample surveys every six months and detailed surveys every year. The aim should be to update numbers, diagnose problems and assess the impact of policies. Regular interactions with trade and industry associations will also provide vital inputs. That will refine the process of policy formulations.

The District Industries Centres (DICs) in a state should be converted as facilitation centres for all MSMEs, and this organisation should be strengthened by deputing subject experts, adds Mr. Gupta. District Inspectors and Central District Commissioners should act as chief facilitation officers. Suitable legislation and directives may be enacted so that their recommendation should have legal bindings on the state departments and Central ministries. That will resolve several problems of MSMEs.

Mr. Gupta pointed to another factor that hurts MSMEs – GST. MSMEs cannot compete with large industries. Therefore, GST rates on the "products of Micro and Small Enterprises" (both manufacturing and services) should be reduced significantly. GST exemption limits should also be increased to Rs.100 lakh and Rs. 50 lakh for the supplier of goods and services, respectively. GST composition limits may be increased to Rs. 2.5 crore and Rs. 5 crore and fixed GST rates may be charged in two slabs. Some incentives may also be given to MSMEs on the incremental exports. All this can be provided under the condition of mandatory UDYAM registration. Such relaxations will give a tremendous boost to micro and small businesses and could be a game-changer, feels Mr. Gupta.

At the end of the day, the government – be it at the Centre or a state – must remember that with a vibrant and fast growing MSME sector, the job crisis shall be indeed a trivial issue. And that's not all. With a robust MSME sector, India will also be able to craft a large team of entrepreneurs.

There is a need to reconsider import tariffs to support our MSME exporters - Suman Bery-NITI Aayog Vice Chairperson

"For a relatively open economy like India, competitiveness is linked to imports. In certain value chains such as precision engineering, India is dependent on imports. It is tempting to impose tariff on imports to reduce the trade deficit. However, a tax on imports is a tax on exports and hence there is a need to reconsider import tariffs to support our MSME exporters", stated Mr. Suman Bery-NITI Aayog Vice Chairperson India, which has a surplus on services account and remittances in the balance of payment, has had a reasonably manageable trade deficit in the past, except in the current circumstance when energy prices are abnormally high, he noted. "There is little reason to consider a significant trade deficit to GDP ratio as worthy of policy attention."

India's trade deficit had doubled to \$70.8 billion in April-June 2022 vis-a-vis \$31.4 billion during the year-ago period due to an increase in the import bill of crude oil, coal, edible oil and precious metals. India should not be too rigid in the distinction between merchandise exports and services exports as a lot of service component is embodied in merchandise exports as well.

"Various digital initiatives that facilitate exports represent the embodiment of services in goods exports. Trade facilitation by itself is services intensive. So, it is not appropriate to draw a sharp distinction between goods and services exports in the supply chain. We need to identify the services provided by MSMEs that are embodied in goods exports," he said.



'We provide value with values'

Mr. Rishabh C. Kothari, CEO of CKC Fragrances, a leading manufacturer of fragrances for industrial applications, is also President of the Merchants' Chamber of Commerce & Industry and the Fragrances & Flavours Association of India, as well as Member of the National MSME Board. A man of varied interests, he often contributes articles to various publications, edits a perfumery journal, and is a trainer of Heartfulness meditation, that combines scientific and esoteric practices for self-development. He shared vignettes of both his entrepreneurial as well as personal journeys in an interview with Industry Scenario.



Industry Scenario: Established in 1980, how has CKC Fragrances created a pan-India clientele for its products?

Rishabh C. Kothari: The CKC Fragrances Group was founded by my father Shri Chandrakant Kothari. My father had very humble beginnings and he literally built his business brick by brick and through relationships. His tenacity and hard work have been my constant inspiration.

Fragrance is easily one of the most important and distinctive parts of some consumer products, and often defines their brand identity. As designers and creators of this critical input, we become partners in not only the product's development and success story but that of its producer as well. So relationships based on mutual trust and respect have helped us to literally add people — whom I would rather address as business partners than merely clients — from all over the country as well as overseas.

Our core philosophy has always been inspired by fragrance itself; we look upon creating and adding value to any product, enhance its offering, and convert its usage into a memorable experience. Our customers are treated as partners in the creation of synergies that enhance us both. We back up this endeavour by our rigorous approach to quality assurance, competitive pricing and superior service.

IS: From the time of taking up the reins of the company, what are the various challenges you have faced and how have you handled them?

RCK: I have had my share of blessings and my share of challenges, just like all of us. All challenges are a part of our individual and collective evolutionary process and I think the most important component in addressing any situation is our attitude. Our attitude determines our perspective, and our perspective determines how we approach and resolve any problem or difficulty. So our attitude to our work, challenges, and life in general, determines the outcome of anything we try to achieve.

I have been blessed to have found a simple yet transformative practice of meditation called Heartfulness Meditation which is offered free to one and all and can be practised by anyone willing to make the effort without any distinctions. It has helped shape my outlook both inwards and towards the world in general and I would highly recommend it to anyone interested in self-development to at least try it out.

Having said that, I think the biggest challenge that I faced when I joined our business was that of perception. In an industry where almost all the leading global players are well-entrenched in the country, and given the propensity in our country for and towards all things 'imported', to be able to demonstrate perceptible value addition and the demonstrable superiority of our products vis-à-vis these global players to any customer was extremely challenging, but despite all the odds we have succeeded and continued to thrive.

While competing with these global players, we are also competing against regulatory, logistics and manpower inefficiencies and the sloth endemic in our country visà-vis our global competitors. Increasing productivity and efficiency in all aspects of our operations and services has been a constant challenge as well as a



mission at CKC where we keep razor-sharp focus on adding value to our customers as well as all stakeholders.

IS: This year you are the President of MCCI, which is representing hundreds of MSMEs in West Bengal. What challenges do these MSMEs face mainly and what solutions do you have in mind to help them carry on their business activities successfully?

RCK: We have moved on from 'Small is Beautiful' to 'Big Business'. The challenges that MSMEs face anywhere in the country, including Bengal, are multifold. Therefore, from inadequate infrastructure, inaccessible and expensive credit finance, hindrances in access to research and technology, and restricted market access and penetration are some common challenges faced by MSMEs all over the country.

In West Bengal, the state government has been trying its best to facilitate and support the growth of MSMEs and the results are also there for all to see. However, much more needs to be done in support of MSMEs which are the largest employers in the country.

As a chamber of industry, MCCI would like to see the following which will go a long way in the further growth of MSMEs in the state.

- Promoting start-up culture and entrepreneurship throughout the state with equity support and policy measures. The state government has already set up the WB MSME Venture Capital Fund to provide support to MSMEs, but efforts have to be intensified for substantive results to show.
- Reduce red-tape and cumbersome processes in setting up of new units and running of existing units, enabling business to focus on their core activity rather than compliance.
- Offering consulting and hand-holding support to MSMEs and giving them access to the latest technologies so that they can upgrade and become more competitive.
- Strengthening the participation and support of the cooperatives and SHGs in both production and marketing in the MSME sector. Their major focus is to strengthen the weaker sections of society, so this synergy is possible.
- It would also help to have a cluster-based approach to build competitiveness through cost, quality and technology interventions, and best practice sharing.

IS: How has the consumer sector changed with time and how has your company managed to keep up with the changing demand profiles in fragrance?

RCK: The per capita consumption in India for various FMCG categories is woefully low compared to

countries in the West. Growing affluence, increased exposure to television, internet and social media and consequent changing aspirations of the new generation are some of the key drivers towards the growth of the consumer products industry. With changing tastes and preferences, it is imperative that we continue to research and serve the aspirations of the next generation of both products and consumers.

This endeavour keeps us on our toes as we try to not only map evolving tastes but also predict future trends. Our ability to remain ahead of the curve using both product development and research as well as consumer insights have allowed us to offer our customers a critical edge with their own product development as we partner with them to offer the very latest in both product performance and consumer choices.

IS: From personal wash to mouth freshener, what has been the vision of CKC Fragrances?

RCK: Our products and their applications may vary, but our vision and the core offering remain constant – we provide value with values and we have remained absolutely focused on creating value and adding value. We are well known for the quality of our products and our commitment to customer service. We also enjoy a long-standing reputation for innovation and creativity and each day we try to build upon it.

IS: Fragrances from Europe and other countries enjoy a substantial market in India. How does your company manage that competition?

RCK: As I have mentioned earlier, apparent competition from 'international' fragrance companies, including those from Europe, was and continues to be a challenge. However, India has historically been a land of olfactory indulgence — our attars, Incenses and aromatherapeutic products have existed for thousands of years, and personal perfumes have been a part of ancient royal families. International fragrance houses have their own brands, their own propositions and market-driven power to attract customers. Therefore, our main focus has been research and creativity and offering the best products at even better prices and service.

IS: With what kind of business innovations is CKC Fragrances planning to grow its market in coming years?

RCK: Innovation and creativity have been the hallmark of CKC Fragrances. While we remain focused on key customers and application areas, we are actively working on many futuristic fragrance applications driven by both VR as well as AI.



India should Redesign Strategies & Policies for MSME Sector

By Mr. R. P. Gupta, Economist & Author, 'Turn Around India'

In 2018-19, the share of MSME sector in the national GDP, GVA and exports was 30.3%, 33.5% & 40-45% respectively. MSMEs provided about 110 million jobs which is about 22-23% of the total employment and next highest to Agriculture. In December-2020, Sri Nitin Gadkari announced increasing its share to 40% in national GDP, 60% in exports and creating new 50 million jobs. This is the right antidote to job crisis besides pushing GDP and exports. As per national sample survey in 2015-16, total MSME are 63.34 million numbers. Out of this, the share of Medium and Small businesses is barely 0.53% and balance 99.47% is Micro units. About 67% units are owned by socially backward class (SC/ST/OBC) and about 51% units are in rural area and thus, MSME provides inclusive growth in true sense.

Among MSME, the share of Manufacturing, Trade and other Service are about 31%, 36% & 33%. Assuming same ratio, Small and Medium Manufacturing units (excluding micro units) might be about 1.10 lakhs and the Service industries 1.20 lakhs. It reveals that; the enormous potential of Indian entrepreneurs is underutilized. India must re-design its strategies and policies surmounting past legacy.

During licensing era, there were fewer medium and large industries. By that time, Small Industries were facilitated by District Industries Centres (DICs) headed by Director of Industries (DI) at State level. Development Commissioners (DC) from Centre were supplementing. Subsequently, service industries and Medium Industries were also included. Lately, the contribution of Trade was also recognized and the Manufacturing, Trade and Services were merged under a single umbrella of MSME.

Despite enormous contribution of MSMEs, most of their problems are still unknown to policy makers. India must conduct quick Sample Survey every six months and detail survey every year. The aim should be to update numbers, diagnose problems and assess the impact of policies. Regular interactions with Trade and Industry Associations shall also provide vital inputs. That will refine the policy formulations.

DIC at each District should be converted as facilitation

centre for all MSMEs and this organization should be strengthened by deputing subject experts. State DIs and Central DCs should act as chief facilitation officers. Suitable legislation and directives may be enacted so that; their recommendation should have legal bindings on the State and Central Departments. That will resolve several problems of MSME.

For new MSME units, the States and Centre have announced several schemes which provide capital subsidies, credit guarantee, etc. Despite this, barely, 15% of MSME units have registered with UDYAM Platform. Particularly, Micro and Small units have genuine fear of regulatory and tax hazards and those avoid registration. This must be resolved.

There are several thousands of State and Central laws governing business. Among them, there are more than 25000 clauses envisaging criminal prosecutions and huge penalties even for the delay or non-compliance. Many such provisions are also applicable to MSME. Such regulatory environment crafts fear and entry barriers among the educated youths. Therefore, they prefer regular salaried jobs instead of owning MSME. In sequel, most micro and small units are operated by such persons; those failed to get decent employment or their education don't support for regular jobs. Hence, the regulatory easement is the most crucial need for unlocking entrepreneurial capability of Indians and developing MSME potential. India must essentially build team of "job providers" to resolve the crisis of "job seekers".

I believe; India should give priority in resolving the problems of existing MSME units. If we succeed in this herculean task, those units will graduate from micro to small and small to medium units. Such success stories shall automatically motivate educated youths, for starting new MSME units. Currently, overall credit, tax and regulatory environment and the consequential business failure risks are the big impediments. Even the youths from business families are hesitating for new units. If so, how can India gainfully realize its demographic dividend for pushing economy and generate jobs?

In September 2021, gross bank credit to MSME Sector



was Rs.13.20 lakh crores, barely 12.04 % of India's gross bank credit of Rs.109.56 lakh crores. Considering the proposed share of MSME in GDP as 40%, in next 2/3 years, India must increase MSME credit share to 20-22%. This is the basic need. For this, India may reduce consumer loan portfolio and SLR loan obligations. Besides banks, State Financial Corporations must be fully activated for the Micro and Small units. Sufficient share capital may be infused by states, banks and LIC. Those should also get refinancing facility from Banks.

Bad loan percentage in MSME is obviously higher comparing to large business due to its small size, marginal experience and poor competitiveness. However, total volume of such bad loans shall be too small comparing to total Bank Credits. Existing Credit guarantee scheme should not be restricted to existing borrowers alone but be extended to new borrowers. Overall guarantee cover amount may be suitably enhanced. However, guarantee cover should be limited to 50% of loan to micro and small units and nil to medium units. Yes-NPA norms should be relaxed and loan restructuring may be liberally permitted as per

lender's wisdom; that will reduce bad loan.

MSME can't compete with large industries. Therefore, GST rate on the "Products of Micro and Small Enterprises" (Manufacturing & Services) should be reduced to about 50-60% level. GST exemption limit may also be increased to Rs.100 and 50 lakhs for the supplier of goods and services respectively. GST composition limits may be increased to Rs.2.5 Crores & 5.0 crores and fixed GST rates may be charged in two slabs. UDYAM registration should be mandatory. This will give a tremendous boost to Micro and Small business and could be a game changer. More so, some incentives may be given to MSME on the incremental exports.

Such small sacrifices of revenue shall be a prudent choice over other spending. This will be partly compensated with fast rise in GDP. With a vibrant and fast growing MSME sector, the job crisis shall be indeed a trivial issue. More so, India will craft a large team of entrepreneurs. Many of them shall graduate to medium and large scale enterprises and take the Indian economy to great height.

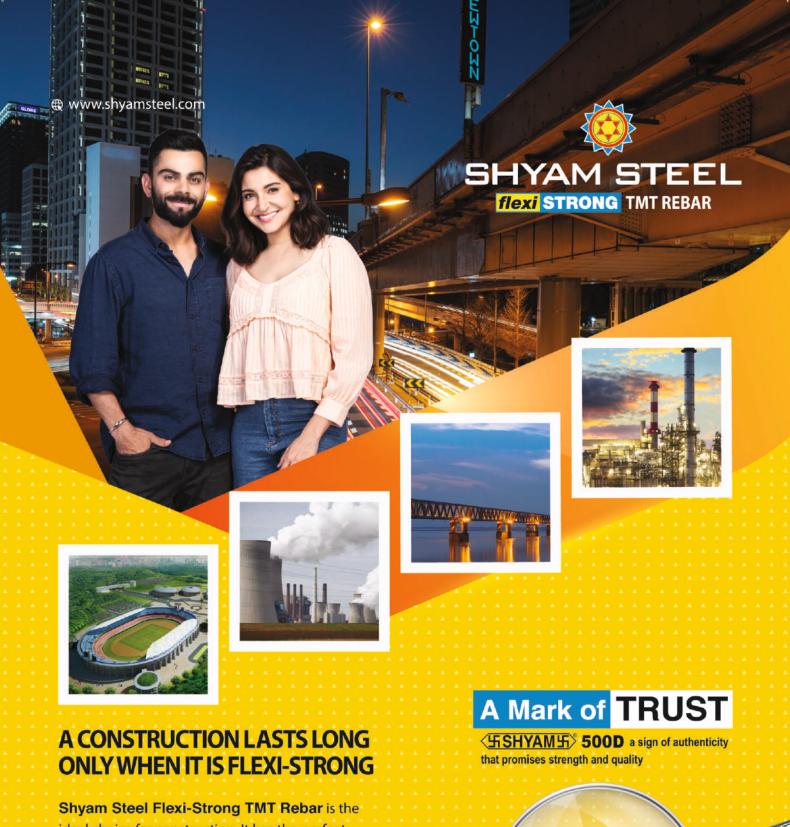
Trichy MSMEs to recuperate through railway and shipping work orders

The Expert Committee for Revival of MSMEs in Tamil Nadu has suggested leasing the siding facility at the Small Industries Development Corporation (SIDCO) Industrial estate located in Thiruverumbur, Tamil Nadu to Trichy Engineering and Technology Cluster (TREAT), thus, promoting small businesses in the state. The rationale is set to provide a new lease of life to the fabrication units in the area to fabricate rail bogies. From the 450 units, 36 enterprises have shut shop between 2014 to 2019 and 52 enterprises have been declared NPA. From the 52 stressed firms, 13 firms have already closed their operations. Railway Board has approved the TREAT cluster to fabricate Railway bogies.

The expert committee has recommended that the facilities involved in siding that are not in use could be leased to TREAT due to the high demand for 30,000 metric tonnes requirement in rail wagons which is not being fully met by Golden Rock Workshop. Fabricating rail bogies can be taken up by existing fabrication companies as they are experts in fabrication, machining and integration. The project has got support from the Tamil Nadu Industrial Development Corporation and Tamil Nadu Industrial Investment Corporation who are keen to help meet the financial requirements once they contract from Railways is confirmed.

The expert committee has also created a technical advisory team of ten members led by TIDCO's project director B.Krishnamoorthy to revive the fabrication hub. In one of the recent meetings, he has assured that TIDCO will support the TREAT cluster to obtain orders from railways and shipping industries. Other organisations that the fabrication industries could work for, as recommended by the MSME expert committee are: Bharat Earth Movers, Integral Coach Factory, Ordnance Factory – Medak, Nuclear Power Corporation, Vizag Ship Yard, BHEL, Indian Space Research Organisation, Heavy Vehicles Factory, CONCOR, Brahmos and municipalities in the government sector.

From private sector companies such as Larsen ad Toubro, JSW, private transport companies, petroleum corporations and TAFE and other agri-equipment manufacturers can also be leveraged.



ideal choice for construction. It has the perfect balance of strength and flexibility that will protect your structure for generations to come. So, if you're planning to build an everlasting structure, choose Shyam Steel, because only Flexi-Strong can last truly long.

Follow Shyam Steel India @ 😝 📵 💟 🙃 in















Electrotherm, the most preferred steel plant maker up to 1 MTPA globally, is now the business partner of Ergolines (Italy), who is manufacturer and market leader of Electromagnetic Stirrers (EMS) for Caster and EAF, non-radioactive automatic mould level controller and powder thickness measurement and control system.



PRODUCT RANGE

- Mould Electromagnetic Stirrer (M-EMS)
- Strand & Final Electromagnetic Stirrer (S-EMS & F-EMS)
- Tundish Stirrer
- LF & EAF Stirrer
- Inductive Mould Level Detector (ILD)
- Ultrasonic Mould Level Detector (ULD)
- Optical Powder Profile Detector (OPD)
- Powder Thickness Measurement and Control System (PTC)
- Automatic Mould Powder Feeder (MPF) and Instrumented Powder Diffuser (IPD)
- Vibrational & Optical Slag Detectors (VSD & OSD)
- Mould Oscillation Checker (OPI)



ELECTROTHERM® (INDIA) LIMITED

72, PALODIA, (VIA THALTEJ) AHMEDABAD, GUJARAT- 382 115, INDIA

Phone: + 91 2717- 660 550, Email: mkt@electrotherm.com

Website: www.electrotherment.com