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Head, Technical & Publication Cell

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The Indian Institute of Metals – Delhi Chapter
Jawahar Dhatu Bhawan, 39, Tughlakabad Institutional Area
M B Road, Near Batra Hospital, New Delhi-110 062
Tel: 011-29956738, Telefax: 011-29955084
E-mail: iim.delhi@gmail.com; Website: iim-delhi.com

A young child with short brown hair, wearing a red and orange striped shirt, is looking into the open door of a Miele Professional washing machine. The machine is white with a stainless steel door and a control panel on top. The background shows a laundry room with a white laundry basket and a wooden shelf.

When you provide long lasting value, a customer is yours forever.

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INTRODUCTION

This News Letter contains the write-ups on the following:

- 1 Current Trends & Developments in Galvanizing Industry by Mr. L. Pugazhenthly, Executive Director, ILZDA
- 2 Infrastructure Growth & the Steel Demand
- 3 Electricity Sector Growth to Drive CRGO Demand
- 4 International Conference & Exhibition on Galvanizing
- 5 Country wise crude steel production estimates for 2013

Many National and International news items relating to Ferrous and Non-Ferrous Sector.

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Current Trends & Developments in Galvanizing Industry

L. Pugazhenthly
Executive Director
India Lead Zinc Development Association

Introduction

The Indian galvanizing industry is a fairly well established industry all these decades. Originally they were manufacturing galvanized sheets, pipes, wires, fasteners and structurals for power transmission & railway electrification. India was well known for exports of galvanized pipes, sheets as well as turnkey projects for execution of transmission line towers in several overseas countries.

Galvanizing-Inherent Advantages:

The galvanizing process produces a durable, abrasion resistant coating of metallic zinc and zinc-iron alloy layers bonded metallurgically to the steel base and completely covering the work piece. No other coating for steel matches the unique combination of properties and advantages of galvanizing.

- ❖ For most classes steelwork galvanizing provides the lowest long-term cost. In many cases galvanizing also provides lowest initial cost.
- ❖ The galvanized coating becomes an integral part of the steel surface it protects.
- ❖ The unique metallurgical structure of the galvanized coating provides outstanding toughness and resistance to any mechanical damage during transport, erection and service.
- ❖ The galvanized coating is subject to corrosion at a predictable slow rate, between one-seventeenth and one-eightieth that of steel, depending on the environment to which it is exposed.
- ❖ The sacrificial or cathodic protection for steel by zinc ensures that small areas of the steel

exposed through severe impacts or abrasion are protected from corrosion by the surrounding galvanized coating.

- ❖ An inherent advantage of the process is that a standard minimum coating thickness is always applied.
- ❖ During galvanizing the work is completely immersed in molten zinc and the entire surface gets coated, even recesses and inner portions which often cannot be coated using other processes. If required, internal surfaces of vessels and containers can be coated simultaneously.
- ❖ Galvanized coatings are virtually 'self-inspecting' because the reaction between steel and molten zinc in the galvanizing bath does not occur unless the steel surface is chemically clean. Therefore a galvanized coating which appears sound and continuous is sound and continues.
- ❖ Galvanizing is a highly versatile process. Items ranging from small fasteners and threaded components, up to massive structural members can be coated.
- ❖ The mechanical properties of commonly galvanized steels are not affected by galvanizing.
- ❖ Galvanizing provides outstanding corrosion performance in a wide range of environments.
- ❖ 'Duplex' coatings of galvanizing-plus-paint are often the most economic solution to the problem of protecting steel in highly corrosive environments. Such systems provide a synergistic effect in which the life of the combined coatings exceeds the total life of the two coatings if they were used alone.

Trends & Developments

The galvanizing industry has been witnessing some interesting trends and developments in several areas during the last few years.

Steel:

Steel is the basic material for galvanizing and its consumption during the April–November 2013 period stood at 48.29 million tonnes, registering a modest growth of 0.4% (steel consumption during April–Nov 2012 was 48.09 million tonnes). Steel consumption was modest so far because of the general economic slowdown as well as reduced infrastructural and construction activities in the country.

Zinc:

Zinc, the other basic material for galvanizing, has grown many times production-wise during the last few years. India is having the fourth largest integrated zinc & lead mining and smelting activity in the world. India's zinc production capacity currently stands at 861,000 tonnes. As per the Ministry of Mines, during the period April–October 2013, India produced 489,336 tonnes of Zinc, mainly consumed in domestic markets with some exports too.

Technology:

Over the years, a few galvanizing units have come into operation with large-sized galvanizing baths; such baths can handle long articles in a single dip and much longer articles in double dip operations. Some galvanizing baths are "totally enclosed". The drying facility prior to the galvanizing operation has certainly improved, some of them below the ground level, with automatic movable covers. Improved drying practices will help in minimization of zinc wastes, zinc splashing etc.

Traditionally, galvanizers used to have an alkaline bath for degreasing, followed by water rinsing, for removal of oils, greases, paints, organic contaminants etc., Now more and more galvanizers have switched over to an acidic bath for degreasing. This eliminates the need for subsequent water rinsing (before acid pickling) and thus enabling optimal utilization of space.

The heating systems for the galvanizing bath have certainly improved with flat flame burners, better insulation materials and reutilization of waste heat. Low Carbon-low Silicon containing steel plates are used for making the Zinc kettles. There is so much scope for zinc bath temperature control, though improvements have taken place here and there. Bath temperature has a profound influence on zinc

coating as well as formation of the inevitable waste arising like zinc dross, zinc ash/ skimmings etc.

For surface passivation after galvanizing chromate, salts have been used all along. In view of the restriction on hexavalent chromium, chrome-free passivation is being talked about everywhere, though not much headway has been made so far. Fume extraction in galvanizing plants has improved, compared to the earlier years. Effluent treatment plants are very common for treating the liquid effluents.

Markets:

Currently, we find more and more new galvanized products like galvanized lamp posts, high masts, telecom towers, wind mill structures, solar energy supports, cable trays etc., India has a huge, unexploited market for galvanized rebars in RCC structures, especially in coastal and corrosion prone areas. Galvanized rebars can be used in construction of bridge decks, flyovers, immersed columns, overhead water tanks, port structures, petrochemical complexes, acids and fertilizer manufacturing plants etc.,

Galvanized rebars can also be used in locations where pure water is not available for concrete mixing. Galvanizing of rebars is also an insurance against poor workmanship. Pre-engineered building systems have a great opportunity for use of galvanized steel structural supports, overhead structures, roofings, railways etc., This is a sector that is witnessing double digit growths in India at the moment, in industrial construction, warehouses, storage bays, airport hangers etc.,

Standardisation:

India has brought out standards and amendments in tune with the changes taking place in ISO as well as other specifications like ASTM, BIS, DIN etc. But unfortunately the interest of the industry in participation and contributions towards standardization has declined over the years.

Conclusion:

Indian galvanizing industry is now in a transition phase ready to go in for contemporary technologies. These can take place only when the industry is in an upbeat mood after the promised investments take place in the various key infrastructural sectors during 2014-15 and thereafter.



Galvanized products emerging from the zinc bath



1100 MT of Rebars Galvanized & used in a Residential Building, Mumbai - 22 Floor High Rise



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Infrastructure Growth & the Steel Demand

Infrastructure can be a set of assets linked with the society and its economic activities. It includes railways, roads & bridges, ports educational institutions, housing and other such facilities. A country's infrastructure development plays significant role in its economic growth. A fast growing economy necessitates an even faster development of infrastructure. The construction industry has the strongest economic linkages with other sectors of the economy and has a very strong multiplier effect. The % of

contribution of the sector is estimated at around 6-7% of India's GDP. But, if its multiplier effect is taken into account on the critical sectors like steel and cement, the share in GDP would be much higher. There is a need for a focused and sustained attention towards this sector. It could be the main lever to unleash India's economic growth potential. Growth of infrastructure is proportional to the growth of the economy of a country. And construction creates the basic framework of the economy on which infrastructure development takes place. Various factors underline the fact that steel demand is strongly linked with infrastructure growth.

Mega Projects

1. Metro Rail:

Union urban development ministry has decided to consider the proposal for Metro in Tier II cities like Lucknow, Kanpur, Patna, Jaipur, Ahmedabad, Pune, Surat, Indore, Nagpur, Kochi, Coimbatore, Kozhikode.

2. Airport Projects:

- ❖ Pakyong Airport is an airport under construction near Gangtok. It is spread over 400 hectares and expected to be completed by Dec. 2014.
- ❖ Multi-modal International Cargo Hub and Airport at Nagpur (MIHAN) is an airport project for Dr. Babasaheb Ambedkar International Airport, Nagpur. It is the biggest economical development project currently underway in India in terms of investments.
- ❖ A brand new Pune International Airport-The area under consideration is between Chakan and Rajgurunagar, namely around the villages of Chandus and Shirolī at a distance of 40 km from highway (NH-50).
- ❖ The Dholera International Airport is proposed near Navagam in Gujarat. This airport will be the target cargo airport in Asia with a total area of 7,500 hectares by the Gujarat state government.
- ❖ Kannur International Airport is an upcoming international airport located at Mattanur in Kannur District, Kerala, India. The airport is the fourth international airport in Kerala. It is expected to be operational by 2015.
- ❖ Navi Mumbai International Airport. The airport is being built through public-private partnership (PPP). Private sector partner will hold 74% equity while the Airports Authority of India (AAI) and the Government of Maharashtra (through CIDCO) each holding 13%. The airport will have a total area of 1160 hectares. The new airport will have a 10-lane approach road to its terminal building flanked by its two runways.

3. Chenab Bridge:

The Chenab Bridge is an arch bridge under construction in India. It spans the Chenab River between Bakkal and Kauri, in Reasi district of Jammu and Kashmir. When completed, the bridge will be 1,263 m (4,144 ft.) long, with a 480 m (1,570 ft.) trussed arch span 359 m (1,178 ft.) above the river Chenab and a 650 m (2,130) and once construction is completed in 2015 the Chenab Bridge is expected to be the world's highest rail bridge.

4. Gujarat International Finance Tech-City or GIFT:

Gujarat International Finance Tech-City or GIFT is an under-construction central business district in Gujarat. It will be built on 986 acres of land. Its main purpose is to provide high quality physical infrastructure (electricity, water, gas, district cooling, roads, telecoms and broadband) so that finance and tech firms can relocate their operations there from the cities, where infrastructure is either inadequate or very expensive. Infrastructure development urges a need of appropriate planning with close monitoring of the progress of the projects, and adoption of suitable policies to remove the constraints which obstruct the project completion. There is a need to resolve many of the legal, procedural and financial issues to evolve a public private partnership (PPP) model,

which can result in the desired development of the sector. The model can be designed to promote fairness, transparency and fair pricing of materials. One needs to understand that reforms are the pre-requisite for growth and reforming infrastructure sustains growth. After all, who does not want to see a double-digit growth rate of the GDP in the near future?

Source: Steel 360

Electricity Sector growth to drive CRGO demand

Demand for CRGO steel by the power generation and distribution sectors is pegged at around 2.75 lakh tons. However, the entire quantum is being imported at present since India still does not have the technology to manufacture it indigenously. However, there is still no clarity on the government's policies on setting up a plant within India, says Mr. Anil Nagrani, Deputy Director General, Indian Electrical & Electronics Manufacturers' Association (IEEMA) to Mr. Arindam Bandyopadhyay of steel Insights.

- ❖ What is the current capacity and actual production of cold rolled grain oriented (CRGO) steel in India?

CRGO is a raw material of strategic importance but unfortunately it is not manufactured in India. Currently, about 275,000 tons of CRGO electrical steel is consumed in the country, but it is fully imported. ThyssenKrupp India annually process/finishes about 10,000 tons of CRGO from mother coils imported from its principals in Germany. However, that cannot be termed as being manufactured in India.

- ❖ What is the current level of demand for CRGO in India? What is the expected growth in demand in the 12th Five-Year Plan (2012-17) period?

The current level of demand for CRGO is about 300,000 tons. While it is difficult to put a number on future projections, the demand for CRGO would grow substantially in the coming years given the huge growth in the country's electricity sector.

- ❖ Who are the major consumers of CRGO in India?

Manufacturers of power and distribution transformers are the major consumers of CRGO steel in India. Smaller quantities are also consumed by switchgear and instrument transformer manufacturers.

- ❖ Where is CRGO sourced from?

CRGO imports into India are in the range of 275,000 to 300,000 tons per year. The quantity varies according to the manufacturing requirement of the Indian transformer industry. Globally, there are only 14 mills producing this material. Major imports come from Nippon Steel & JFE of Japan, POSCO of Korea, A K Steel & Allegheny Steel of the US, ThyssenKrupp of Germany and France, ArcelorMittal in the Czech Republic and Brazil, Tata/Cogent in the UK, VizStal of Russia and Chinese mills.

- ❖ How crucial is CRGO for the domestic transmission sector? Don't you think the gross dependence on imports will affect growth of this user-industry in India?

Transformers (both in power generation and distribution) are one of the most crucial equipment. This implies the extreme importance of CRGO steel in the overall power sector growth in the country. Since CRGO is not manufactured in India, gross dependence on imports is currently the only choice we have. So far, this dependence has not affected adversely power sector growth to any significant extent. However, recognising its strategic importance, the Ministry of Power has been exploring ways and means of setting up an indigenous CRGO steel manufacturing facility in India.

- ❖ A number of primary steel-makers such as JSW, SAIL and RINL had planned to build CRGO capacity. What is the status of these projects and when are these capacities likely to be

commissioned?

Currently, JSW and POSCO have CRGO slitting plants, but there is no concrete plan for manufacturing CRGO in India as yet. SAIL's Rourkela Steel Plant (RSP) at Rourkela had explored the same option but the project was later dropped. We understand that the Government of India is seriously shopping around for CRGO technology to start a plant. However, there is no clear visibility on this till now.

- ❖ The Working Group on steel industry for the 12th Plan had recommended inclusion of the development of CRGO steel as a high-value project of national importance. What has the government done to promote this special grade of steel?

Even though a number of representations and meetings were held with the concerned officials over the past few years on the need for a CRGO plant in India, nothing much as happened. However, we understand that the government has recognised the need and is looking for organisations overseas for technology share but there is no clarity on the progress.

- ❖ What sort of technology hurdles is being faced?

The technology for converting hot rolled (HR) steel into electrical steel involves growing of grains in oriented fashion (north/south orientation like in a magnet) and is considered more of an art than science. We understand that RSP had acquired the technology in the early 1980s from Russia. However, the same could not be successfully deployed to produce CRGO steel of the desired quality.

- ❖ What stops India from developing its home-grown technology for this segment?

This is a closely held proprietary technology that is currently in the possession of about 14 manufacturers across the globe. It is well guarded by these select manufacturers. We understand that talks are on with some of them for acquiring this technology.

- ❖ What initiatives is IEEMA taking to address the issue?

IEEMA has held a number of meetings with the concerned ministries and government departments to help resolve this critical issue. Industry representations too have been made over the last few years. We are waiting for the government's initiatives to bear fruit.

Source: Steel Insights

International Conference & Exhibition on Galvanizing

India Lead Zinc Development Association organized an "International Conference & Exhibition on Galvanizing" at New Delhi during 6-7 Dec 2013. The event was supported by M/s Hindustan Zinc Ltd as well as a number of Indian and overseas sponsors namely Hindustan Zinc Ltd, G.M Gruppo Maccabeo Srl, Jindal Steel & Power Ltd, Kalpataru Power Transmission Ltd, Metals & Chemicals Tech Sdn Bhd, Amitasha Enterprises Pvt Ltd, L&T Ltd, Shilpa Steel & Power Ltd and Valmont Structures P Ltd. Metal World, Minerals & Metals Review and Steel & Metallurgy were the Media Partners. Mr.L Pugazhenthly, Executive Director, ILZDA commenced the programme with his Opening Remarks and Mr.V R Sharma, Chairman, Indian Galvanizers Assn & Dy MD-CEO, JSPL delivered the Welcome Address. The conference & the exhibition were inaugurated by the Hon'ble Union Minister of State for Commerce & Industry, Dr E.M.S Natchiappan while Dr.T.Ramasami, Secretary, Dept of



Science & Technology was the Guest of Honour and delivered Special Remarks. Mr. Akhilesh Joshi, President of the ILZDA Board of Mgmt and CEO, Hindustan Zinc Ltd, delivered the Presidential Address. M/s Don Smale, Secy Genl, International Lead Zinc Study Group, Stephen Wilkinson,

Executive Director, International Zinc Assn and Barry Bebb, Chairman, Asia Pacific General Assn, felicitated ILZDA on this occasion and wished the conference all success.

Technology, Markets & Environment were the focus areas. Twenty one thought-provoking technical presentations were made by overseas and Indian speakers: several worldclass companies namely Arvind Anticor Ltd, Metals & Chemicals Technology Sdn Bhd, Shilpa Steel & Power Ltd, G.M Gruppo Maccabeo Srl, Gimeco Impianti Srl, Western Technologies, Jindal Steel & Power, Sirio Group, Dipl.Ing Herwig GmbH, Hindustan Zinc Ltd, Zinc Korner GmbH, Lbtec Indufinish B.V, L&T Ltd displayed the latest in technology as well as plant & equipment. About 200 delegates participated at the two day event. Three ILZDA awards were presented to M/s V.R Sharma, R.K Agarwal and Lokendra Singh for outstanding and significant contributions at the Inaugural Session by the Hon'ble Minister; the Hon'ble Minister also presented the IIM-HZL Gold Medal to Mr. Akhilesh Joshi, CEO, Hindustan Zinc Ltd at the Inaugural Session for his outstanding and significant contributions to the Indian nonferrous metals industry.

The conference concluded with a Panel Discussion on the second day.

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Country wise Crude Steel production estimates for 2013

World crude steel production in 2013 for the 65 countries reporting to the world steel is estimated, by www.steelguru.com, about 1.574 billion tonnes, with 84.4% coming from top 10 countries and balance 15.6.% from 55 countries.

The estimated crude steel production for 2013 for these countries and YoY change along with their share is given below.

SL		Total '13	Total '12	Change	Share
1	China	773105	708784	9.10%	49.10%
2	Japan	110488	107235	3.00%	7.00%
3	United States	86939	88599	-1.90%	5.50%
4	India	78588	76715	2.40%	5.00%
5	Russia	68892	70609	-2.40%	4.40%
6	South Korea	65863	69321	-5.00%	4.20%
7	Germany	42842	42662	0.40%	2.70%
8	Turkey	35067	35884	-2.30%	2.20%
9	Brazil	34230	34682	-1.30%	2.20%
10	Ukraine	32580	32912	-1.00%	2.10%
11	Italy	24422	27227	-10.30%	1.60%
12	Taiwan	22144	20656	7.20%	1.40%
13	Mexico	18363	18178	1.00%	1.20%
14	France	15821	15607	1.40%	1.00%
15	Iran	15446	14463	6.80%	1.00%
16	Spain	14047	13628	3.10%	0.90%
17	Canada	12422	13725	-9.50%	0.80%
18	United Kingdom	11816	9819	20.30%	0.80%
19	Poland	7957	8368	-4.90%	0.50%
20	Austria	7939	7421	7.00%	0.50%

21	South Africa	7428	7119	4.30%	0.50%
22	Belgium	7131	7386	-3.50%	0.50%
23	Egypt	6781	6627	2.30%	0.40%
24	Netherlands	6676	6867	-2.80%	0.40%
25	Saudi Arabia	5282	5202	1.50%	0.30%
26	Argentina	5223	4995	4.60%	0.30%
27	Czech Republic	5206	5071	2.70%	0.30%
28	Australia	4698	4894	-4.00%	0.30%
29	Slovakia	4498	4403	2.20%	0.30%
30	Sweden	4458	4326	3.10%	0.30%
31	Finland	3522	3758	-6.30%	0.20%
32	Kazakhstan	3268	3850	-15.10%	0.20%
33	Venezuela	2246	2555	-12.10%	0.10%
34	Byelorussia	2195	2743	-20.00%	0.10%
35	Luxembourg	2172	2232	-2.70%	0.10%
36	Chile	1326	1683	-21.20%	0.10%
37	Colombia	1292	1324	-2.40%	0.10%
38	Peru	1090	973	12.00%	0.10%
39	Greece	1056	1254	-15.80%	0.10%
40	Hungary	902	1543	-41.50%	0.10%
41	New Zealand	897	912	-1.60%	0.10%
42	Uzbekistan	746	737	1.20%	0.00%
43	Bosnia-Herzegovina	721	700	3.00%	0.00%
44	Slovenia	629	632	-0.50%	0.00%
45	Trinidad & Tobago	623	608	2.50%	0.00%
46	Norway	597	683	-12.60%	0.00%
47	Morocco	574	529	8.50%	0.00%
48	Ecuador	557	536	3.90%	0.00%
49	Bulgaria	520	632	-17.70%	0.00%
50	Serbia	441	345	27.80%	0.00%
51	Algeria	429	506	-15.20%	0.00%
52	Guatemala	375	334	12.30%	0.00%
53	Cuba	313	317	-1.30%	0.00%
54	Moldova	196	329	-40.40%	0.00%
55	Macedonia	118	216	-45.40%	0.00%
56	Croatia	114	29	293.10%	0.00%
57	El Salvador	112	102	9.80%	0.00%
58	Uruguay	90	139	-35.30%	0.00%
59	Paraguay	45	44	2.30%	0.00%

In '000 tonnes

Source: Steel Guru

MOU BETWEEN IIM DC AND ITEI ON MMMM 2014

The Delhi Chapter of IIM has been organising MMMM (Minerals, Metals, Metallurgy & Materials) event every two years since 1996. This is the flagship activity of Delhi Chapter. This event consists of organising an International Conference and Exhibition in the area of MMMM.

While it is the responsibility of Delhi Chapter to organise the International Conference, the responsibility of the exhibition rests with the exhibition organising agency. So far the Delhi Chapter has organised nine such Events. The last two editions of MMMM held in September 2012 and February 2011 were held successfully in association with the International Trade and Exhibition India (ITEI) Ltd.



The next edition of MMMM will be the tenth event of the Conference and Exhibition (MMMM 2014).

A Memorandum of Understanding (MOU) was signed at New Delhi between the Delhi Chapter of IIM and ITEI on 11th January 2014 on organising MMMM 2014 event. The event is scheduled to be held from 4th to 7th September 2014 at Pragati Maidan, New Delhi. Besides Indian companies, a number of overseas organisations are expected to participate in the Exhibition and International Conference. The Conference / Exhibition enjoys the Sponsorship Support of Ministries of Steel, Mines, Commerce, External Affairs, Heavy Industries & Public Enterprises, Earth & Sciences, Council of Science & Industrial Research. The Theme of the Conference is “Emerging Trends in Metals and Mineral Sectors”.



While ITEI will take necessary action to hold the Exhibition, the International Conference will be organized by the Delhi Chapter. However both the parties (The Delhi Chapter of IIM and ITEI) will co-operate each other for promotion of the Exhibition and International Conference. Like previous events, the Delhi Chapter and ITEI expect good participation from Indian Companies and overseas organizations in the forthcoming Exhibition/Conference slated to be held in September 2014.

CONGRATULATIONS

The Delhi Chapter of IIM organised Chapter-level NMD function at its premises in New Delhi on 21st December 2013. On this occasion it was decided to felicitate the following luminaries of the Chapter with suitable awards for their outstanding contribution in the Metallurgical profession and Industry.

- i) Shri SK Roongta, Former Chairman SAIL and MD Vedanta Aluminium
- ii) Shri SD Kapoor, Former CMD MMTC
- iii) Shri BD Jethra, Former Advisor, Planning Commission, Govt. of India
- iv) Shri BR Thukral, Former GM, Hindustan Zinc Ltd

Dr Sanak Mishra, Past President IIM and Former MD, Rourkela Steel Plant, was the Chief Guest of the occasion.

The above awardees addressed the gathering narrating their experiences in the metallurgical industry. However, Shri SK Roongta, owing to his last-minute official pre-occupation, could not attend the function.

The audience missed his presence in the event. The contributions of Shri Roongta in the metallurgical sector were read out by Chairman IIM DC. The audience recalled the services rendered by him in the Steel Sector and his contributions in other fora. Subsequently, arrangements were made to hand over the award to him. The Chapter conveys its congratulations to Shri Roongta for this Award.

The Chapter wishes him all the best and expects his continued support.



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Visit to YOGIJI - DIGI Faridabad (18Jan.2014) – A Brief Review

The Indian Institute of Metals – Delhi Chapter regularly organizes visits to eminent industries in and around NCR, for benefit of its members. In this series, a team of IIM-DC members visited Yogiji - Digi, Faridabad on 18Jan.2014, on initiative taken by some of IIM-DC members. The visiting members went around their modern facilities at Village Dudhola (Palwal), Head Quarters and Design Office at Sector 58 Faridabad, and had extensive deliberations with the Promoters and other senior officials. All the top officials took the trouble of personally making a presentation about different activities and taking around Team members & explaining working of different Units.



Yogiji - Digi is a unique association between two Companies – Yogiji Technoequip (P) Ltd. & Digi Drives (P) Ltd. who are now providing highly efficient, technically superior & affordable turnkey solutions to setup Cold Rolling Mills & allied equipment in India & abroad.

Digi Drives made a humble beginning in 1993 to manufacture small DC drives. Yogiji Technoequip was conceived in 2008 and YOGIJI-DIGI associated to supply turn-key Flat Steel solutions. In a short span of 5 years of this association, the group has successfully supplied & commissioned One 1250 & Two 1000 mm wide High speed Cold Rolling Mills in Nepal, Zambia & Uganda. Another Cold Rolling (CR) mill is already in the Erection & commissioning stage in India & three more are currently being manufactured at the state of the art Heavy machine shop in the NCR.

INFRASTRUCTURE

YOGIJI-DIGI has excellent manufacturing facilities, equipped with modern and high precision machine tools capable to produce critical equipment (viz. mill housings, tension reels, mae-west blocks, chocks etc.), in house.

YOGIJI-DIGI, a unique association of vision & know how, youth & experience has resulted in infrastructure with the best technology equipment coordinated team work. This single source full capacity organization has a suite of experience in the fields of mechanical, electrical, automation, hydraulics, erection and production. The mix of available equipment is comparable in yield and quality to the best in the world.

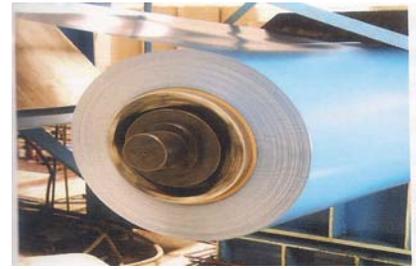


A few of facilities available are Floor & Table type Horizontal Boring Machines, Plano Miller with four functional heads, Bed type Milling Machine, Bed type CNC Milling Machine, Moving Column Milling Machine, Double Head Moving Column Milling Machine, Vertical Turning Lathe, Vertical Surface Grinder, Radial Drilling Machines, Lathe Machines, Slotting Machines, Shaper, Sand Blasting Machine etc.

RANGE OF PRODUCTS

Yogiji-Digi supplies a varied range of products viz. Cold Rolling Mills (Single and two stand 4/6 Hi Reversing Mills, Aluminum Rolling Mills & Skin Pass Mills); Galvanising Lines (Zinc Coating Lines, Aluminum Zn Coating Lines & HR Galvanising Lines); Colour Coating Lines (to coat Galvanised carbon steel, Aluminum strip and Stainless steel); Tension Levelling Lines (for widths ranging from 350 mm to 1250 mm & thickness ranging from 0.12 – 1.2 mm for mild steel, stainless steel and Aluminum); Pickling Lines (Continuous, Semi-continuous and Push Pull type); Slitting Lines (both for hot and cold rolled ferrous and non-ferrous rolls, width range 300-1200 mm and thickness range 0.12-6.00 mm); Cut to Length Lines (width range 400-1500 mm and thickness range 0.12-6.00 mm); Electrical and Automation Systems (LT & HT distribution, AC & DC drive systems, DCS & PLC, Instrumentation, levels 1 & 2 software, automatic gauge control systems, automatic Flatness Control Systems, Integrated Electric & Automation Solutions) and Automatic Gauge Control (in collaboration with PSI of USA).

A high degree of sophistication is the hallmark of Company's operations. During interactions, a live situation in one of the Rolling Mills, installed by Yogi-Digi, was demonstrated for undertaking on-line adjustments.



INTERACTIONS WITH SENIOR OFFICIALS

Activities of IIM Delhi Chapter were discussed. Copies of IIM-DC Monthly Newsletter, IIM-DC Brochure and MMMM2014 Information were handed over. Senior as well as working level officials of Yogiji-Digi were invited to participate in various activities of IIM Delhi Chapter. It was learnt that they are participating in the Exhibition being organized at MMMM2014 Event during 04-07Sept.2014 at Pragati Maidan.

The visit to Yogiji-Digi, Faridabad, ended with thanks to their senior officials for facilitating this visit.

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SUGESTIONS FOR BROAD BASING IIM ACTIVITIES

The Chapter level NMD celebration was organised at IIM DC on 21st December 2013. The Executive Committee of the Chapter unanimously decided to award the following members of the Chapter for their outstanding contribution in the field of metallurgical profession and industry.

- i) Shri SK Roongta, former Chairman SAIL and currently MD Vedanta Al.
- ii) Shri SD Kapoor, former CMD MMTC
- iii) Shri BD Jethra, former Adviser, Planning Commission, Govt. of India
- iv) Shri BR Thukral, former GM, Hindustan Zinc Ltd

Dr Sanak Mishra, Past President IIM and Former Managing Director, Rourkela Steel Plant, was the Chief Guest of the function.

The above awardees except Shri Roongta who could not attend the function owing to last minute official pre-occupation shared their views on the occasion.

Shri S D Kapoor in his address to the audience gave a number of useful suggestions to broad-base the future functioning of The Indian Institute of Metals. The notable suggestions are as under:



- ❖ More thrust needs to be given by IIM in the area of Metallurgy and and Material Sciences. This assumes greater significance when Maharatnas and mini-ratanas are to set apart mandatorily a specified amount of their profit after tax on R & D activities.
- ❖ IIM should interact with educational institutions with the objective of
 - Identifying institutions with zeal for doing research and environment that creates a passion for undertaking such research. Increased dialogue between IIM and educational institutions would also help in identifying the specific needs of the Metal sector and create adequate academic faculties.
 - Priorities areas of research keeping in mind practical problems that nation, industry and government face.
 - Playing role of an integrator between scientific research and development into detail designs and manufacturing processes.
- ❖ Forging of ideal bridge between IIM and the academia which converts research into viable economic manufacturing processes.
- ❖ Study of all metals by IIM giving adequate space to base metals, noble metals, rare-earths and all futuristic materials.
- ❖ Promotion of building innovation factories.
- ❖ Help industries to produce high value added product & services.
- ❖ Identification of areas of deficiencies in the metals/mineral sector
- ❖ Facilitate global R & D networking in the metallurgical sector Development of challenging benchmarks for enhancement of production/productivity, efficiency and competitiveness in the metal sector.
- ❖ Evolving suitable incentive schemes for rewarding performers and innovators.

- ❖ Assist Government in formulation of policies to encourage investment in the metal sector.
- ❖ Preparation of suitable approach paper on each metal and provide policy options to the Government.
- ❖ Improving visibility of IIM and highlighting its contribution to the society and stakeholders.
- ❖ Coverage of R & D work done by industry/institutions of learning and regional laboratories in IIM's various publications.
- ❖ Facilitate creating a forum to bring Government/Industry and the Academia on the same page to evolve meaningful policies for the overall benefit of the Society.

The above suggestions were profoundly appreciated by the audience in the NMD function.

A loud applause was given to Shri SD Kapoor by the audience for making the thought provoking ideas.

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Indian steel makers want speedy clearances from government

Business Line reported that private players, such as Monnet Ispat, Jindal Steel and TATA Steel whose captive coal blocks have been taken away by the Government after they failed to start production within the stipulated time frame, feel the parameters are not in sync with ground realities. The companies said that "Development of captive coal blocks has suffered because of increasing difficulty in obtaining land use and environmental permits, leading to regulatory uncertainty for infrastructure and other large-scale projects, the Government should help the miners get clearances on time." Mr Sandeep Jajodia CMD of the Monnet Group said that "No policy can be true, where nearly 80% of companies are failing to deliver". On December 17th the government issued an order to de-allocate Urtan North coal block allocated to Jindal Steel and Monnet Ispat on September 12th 2009. According to the Coal Ministry, there had been a delay of up to 3 years in approval of the mining plan. Environmental clearance, grant of mining lease, land acquisition, mine opening permission and coal production are still pending.

According to Mr Jajodia, there are practical problems that hold up the captive miners, such as a district collector may take months to hold a public hearing for land acquisition. The forest and environment clearance procedure starts from the district level and goes to the State and finally to Ministry of Environment. He said that "Over the past many years, we were pushed to make investments and set up end use plants. Since we couldn't get environment and forest clearance within two years for the coal mine, it was deallocated." Amarkonda Murgadangal block in Jharkhand allocated to JSPL and Gagan Sponge Iron Private were also de-allocated on December 23rd. More than 10 mines allotted to private and Government companies have been de allocated in the past few months. Mr Ravi Uppal MD and CEO of JSPL said that "The Government should take up these issues in a time-bound manner, rather than unilaterally announcing de allocation. We have downstream projects streamlined with mines. We have mobilised contractors. Lot of commitments have been made and there is no cognisance of that. We appeal to the Government to give proper audience to private players." Most of the de allocated blocks face the additional problem of getting prospecting licenses and mining leases by State Governments. Mr B Muthuraman, Vice Chairman of Tata Steel Ltd said that "Instead of de allocation, the Government should have strengthened the institutional mechanism to expedite clearances."

Source: Steel Guru

Extend AD duty to all stainless steel products – FICCI

Business Standard reported that with Chinese imports rising, industry body FICCI has asked the commerce ministry to take immediate steps to extend anti-dumping provisions on imports of all stainless steel flat products. Currently, it is imposed on 600 to 1250 mm category only. In a letter to Mr S R Rao, Secretary of ministry of commerce and industry, FICCI Director Mr Arnab Kumar Hazra said

that a large scale of circumvention of anti-dumping duty is happening through imports in other shapes such as stainless steel circles and outside the range of 600 to 1250 mm. The circumvention trends are mostly from China from where imports of stainless steel flat products grew by 486% from 2013 to 14 at 14209 million tonne from 2009 to 10 at 14209 million tonne. The scenario is hurting domestic industry which has both capability and capacity to supply cold rolled stainless steel flat products in complete width range of 0 to 1650 mm. Flat products account for 70% of the total steel market. Currently, India is the fourth largest producer and third largest consumer of stainless steel in the world.

Source: Steel Guru

Chinese steel makers beat Indian counterparts – EEP

Business Standard reported that Chinese steel makers have managed to beat their Indian counterparts by procuring basic raw material at a much lower price. EEP India said that "The international market for steel has been witnessing a turmoil Indian steel-makers have not been able to remain competitive amidst sharp depreciation of rupee." It said that "What is even more worrying is the fact that domestic steel production will not be able to keep pace with Chinese output. According to estimates, India's production would grow at an annual 6.3% to reach 104 million tonne by 2017 from 78.6 million tonne in 2012." After dropping from a peak in February 2011, the prices of flat/long hot rolled coils have started shooting up again since August 2012 with a sharp price disadvantage accruing to the Indian user industries such as engineering goods manufacturers. It said that "Almost all steel makers have raised price between INR 1,000 and INR 1,500 per tonne with effect from January 1st 2014." EEP India chairman Mr Anupam Shah said underscoring the need for a national raw material policy which is amongst the top contributor to the country's overall export basket that "The cost of steel and pig iron, essential raw material for products is among the major disadvantages faced by Indian engineering user industries." After recording smart increase upto October, India's engineering exports fell in November by over 14%. The shipments aggregated USD 4.78 billion in November compared to USD 5.6 billion in October.

Source: Steel Guru

Classification of Steel Plants by Ministry of Steel

Steelmakers have approached Ministry of Steel for certificate that can testify their status from a Non-primary or Secondary to a Primary Steel plant. Ministry is presently in discussions with a Kolkata based Joint Plant Committee for the classification of Steel plants and issuing certificates to these companies. Steel plants and producers are classified on the basis of vintage, process route, size, level of integration etc. Some of the commonly used classification of Steel plants is Primary Steel Plants, Secondary Steel Plants, Integrated Steel Plants, Electric Arc Furnace (EAF) Unit, and Electric Induction Furnace (EIF) Unit. Ministry of Steel has released guidelines to add clarity in the classification of Steel producers in the private as well as public domain released on 23 Dec, 2013. Guidelines as follows:

- (1) On the basis of Process Route or Adopted Technology
- (2) On the basis of Size or Capacity.

Steel plants on the basis of process route/technology adopted can be further classified as:

- a) Primary Steel Producers:** Steel Producers who begin production of Iron i.e. production of Hot Metal or Sponge iron, using Iron ore (virgin or processed) are known as Primary Steel producers. They produce Crude Steel of standard specifications, with or without rolling/processing facilities for Iron production.
- b) Secondary Steel Producers:** Steel producers comprises of those with EAF and EIF regardless of rolling process facility for Crude Steel production and those processors of Hot-rolling mills, Cold-rolling mills, Galvanizing units etc are Secondary Steel Producers.

Steel plants on the basis of size and capacity are also classified as Integrated Steel plants and Mini Steel plants. Primary Steel producers with rolling facilities having a minimum capacity of 1 MnT pa in

terms of Crude Steel in a single location and capable of producing Steel products as per standard specifications are Integrated Steel producers. While, Steel producers with a capacity less than 1 MnT pa are the Mini Steel plants. Ministry of Steel has issued notifications regarding certification and stated that certificates will be issued on the above mentioned guidelines on a specific request by Steel plants or companies.

Source: Steel 360

Research and Development in Indian Steelmaking

Strategic plans and an investment of at least about 1% of company's turnover are basic needs, for Research and Development in Indian Steelmaking.

Research and Development is an integral activity in Indian Steelmaking to stay updated, like any other sector. Steel, as a product is changing slowly in terms of technology, raw material availability and specifications. As consumer is becoming aware, companies are encouraged to invest further to have in depth understanding of Steel for development of country. It's in the news that RINL has allocated a budget of about INR 3.3 billion for 12th Five Year plan into various R&D projects related to product upgrades, process improvements, technology updates, productivity optimization. There have been investments on new product development, quality improvements by companies. Also, to improve the overall efficacy of a plant, companies are investing to study optimization of energy consumption and a better environment management.

	2013-2014 in billion (INR)		2012-2013 in billion (INR)	
	Budget	Expenditure	Budget	Expenditure
SAIL	0.7 (till Sept.)	0.9 (till Sept.)	1.4	1.5
RINL	0.05	0.03 (till Nov.)	0.03	0.03

In a contrasting point of view, average investments of these companies are about 0.15-0.25% of their turnover, which by far in comparison to world's average (1-2% of their annual turnover) is very low. To meet with the global competition, Parliamentary Standing committee has suggested guidelines for PSU and Private sectors for taking R&D activities by spending at least 1% of their sales turnover. A further follow up by Ministry of Steel has been formulating a few strategies for R&D which can be found here. India as we know is ranked 4th in countries with highest Steel production in the world. With an infrastructure that can produce about 93 MnT of Steel, India was able to utilize about 84% of its installed capacity. Competition is closing in from various other nations and perhaps it's the time for India to stay focused and strategize the overall R&D expenditure to anchor its position in these turbulent times.

Source: Steel 360

Steel makers raise price by upto Rs 1,500/tonne

Hoping demand for steel to pick up, domestic producers have raised its price by up to Rs 1,500 a tonne to offset rising input costs and higher freight charges. "Almost all steel makers have raised price in the range between Rs 1,000 and Rs 1,500 per tonne. This is to tide over rising input and freight costs and aimed at improving falling margins," an official from a private sector steel maker said. Following the hike, the price of hot rolled coil (HRC), the benchmark steel product, went up to Rs 39,500 a tonne from Rs 37,500 per tonne earlier. Steel makers generally hike prices in tandem to remain competitive. But, it could not be confirmed individually as to whether all of them have effected the hike this time also in the same range. Steel makers had previously hiked the price in September by up to Rs 2,500 per tonne, but held on to it since then despite the NMDC hiking iron ore price by Rs 100 a tonne and the Railways imposing peak session charge from October. The subdued market conditions, as a result of poor demand from end-use segments such as construction and white goods, also prevented them from jacking up the price. India's steel demand grew by just 0.4 per cent during April-November period of the current fiscal. "The price hike is primarily to offset the increased cost of iron ore and Railway freight. These together inflated cost of steel production by around Rs 700 per tonne," the official said.

Barring Tata Steel and Steel Authority of India, domestic steel makers mainly source their iron ore requirements from NMDC. An additional hike of Rs 200 a tonne in December by the PSU has impacted private sector steel makers. It generally takes 1.6 tonne iron ore to produce a tonne of steel. The cost push went up further by around Rs 200 per tonne with the Railways imposing its annual busy season charge on freights from October. "Steel makers have been rolling over prices since October this year. It has now started to pinch their bottom lines. Hence steel prices are expected go up by around Rs 1,000 per tonne," he added. Steel makers have also found a new reason to pass-on the inflated costs to consumers as their share of exports are on the rise leading to overcapacity situation in the domestic market being reduced. Most of the leading domestic producers including SAIL, Essar Steel, Jindal Steel and Power and JSW Steel had raised prices in August and September, expecting a revival in demand.

Source: Business Standard

India emerges net exporter of steel in April-Dec period

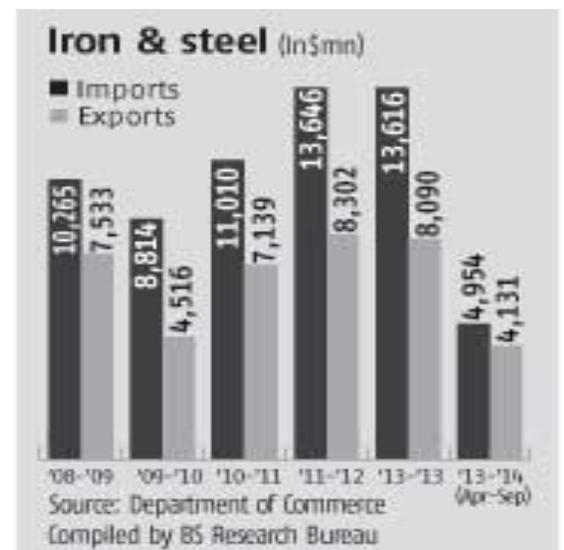
India has become a net exporter of steel in the first nine months of the present fiscal, mainly due to subdued domestic demand. If the trend strengthens during the January-March period, the country may end up being a net exporter of steel for the entire fiscal, 2013-14, after a gap of five years. "India emerged as a net exporter of total finished steel in December 2013 as well as during the April-December period," said Joint Plant Committee (JPC), a unit of Steel Ministry. Exports went up by 9.5 per cent during the April-December period to 4.136 million tonne (MT), but imports in the same period registered 29.2 per cent decline at 4.09 MT. In December, exports rose by 13.7 per cent to 0.54 MT while imports nosedived by 46 per cent to 0.37 MT. India has been a net importer of steel since 2007-08. In the last fiscal also, it imported 7.9 MT against its exports of 5.2 MT. Before 2007-08, however, India used to export more than imports. The surge in exports during the April-December period is a result of rupee volatility, different economic conditions, impact of global downswing and depressed domestic demand, JPC said in its latest report. It attributed the dip in imports to slowdown in domestic economy, exchange rate volatility, relative prices, global downswing and bilateral agreements among others. Almost all domestic producers have had a good growth on the export front in the present fiscal so far. Steel Authority of India (SAIL) clocked a 122 per cent growth in exports to 177,000 tonne during October-December quarter alone and it is eyeing doubling last year's volume to 700,000 tonne this fiscal. Rashtriya Ispat Nigam Ltd (RINL) recorded 142 per cent growth in its export revenue during the April-December period at Rs 519 crore. Rising exports have also helped them raise domestic prices and reduce inventories. Steel makers have raised prices by up to Rs 1,500 per tonne. Impacted by economic slowdown, India's steel consumption grew by just 0.5 per cent to 53.789 MT during April-December period of the current fiscal.

Source: Business Standard

Indian steel companies to benefit as China cuts exports

Less than a year ago, several brokerages discontinued actively tracking industrial and cyclical stocks as demand weakened and economic growth plummeted to a 10-year low. These sectors are now seeing a revival of interest as the belief is that a combination of global and local factors will see a revival in demand.

According to Credit Suisse, the cyclical defensives price-to-book gap in India is the biggest in the region. While not all cyclicals are showing promise in equal measure, analysts are betting big on steel stocks. Goldman Sachs initiated coverage of three steel stocks — Tata Steel, JSW Steel and Steel Authority of India — in December as it believes that India will benefit from the improved global steel outlook. The brokerage expects global steel consumption to rise by 4.7 per cent to 1.5 billion tonnes in 2014, driven by rising demand from Europe and China.



There are several domestic as well as global factors that are likely to aid the profitability of select steel players in India. For starters, global steel prices have strengthened through 2013. In the fortnight ending December 30, CIS Black Sea export prices gained 0.9 per cent to \$537.5/tonne, while hot rolled sheet prices remained intact at \$559/tonne. Long product prices in India also strengthened in December. JSW Steel is expected to raise steel prices by Rs 700-1,000/tonne, claim analysts. Even though underlying demand in India remains weak, Goutam Chakraborty of Emkay Global believes that a weaker rupee and some supply constraints have helped domestic steel prices. There's good news even on the raw material side. In the last week of December, 62 per cent grade iron ore prices have dipped and they are unlikely to see an upward movement in 2014. India is going to turn into a net exporter of steel in FY14 as higher capacity additions and flat demand will force many companies to look at overseas markets. A weak currency and slowing exports from China are expected to aid Indian exports. Due to environmental concerns, China is slated to cut steel capacity by 8 per cent by FY17. China is estimated to have exported 52 million tonnes of steel in 2013 and this is expected to decline by 11 million tonnes by FY15 to 41 million tonnes. This would be an opportunity for Indian steel makers. With global demand for steel increasing and China cutting exports, Indian steel makers like Tata Steel, JSW Steel and SAIL stand to gain. JSW could be a major beneficiary of this as its capital expansion phase is over and the company is expected generate free cash flows from FY15.

Source: Business Standard.

Tata Steel's Odisha expansion to be complete by FY'15

Tata Steel's upcoming 3 mtpa Kalinganagar steel plant in Odisha is likely to be completed by end of FY 2015 (FY'15), the management told analysts during a meeting. However, there is no clarity on clearance of regulatory hurdles on iron ore mines which will be required to feed the blast furnaces. Analysts believe timely clearances for expansion of iron ore mines is critical for the plant. The company aims to make value-added steel products at the new facility in Odisha where the blended realisations could be potentially higher than existing products. "We have completed the 3 million tons (mt) expansion in Jamshedpur, taking our capacity in Jamshedpur to 10 mt and should commission the first phase of our 6 mt steel plant in Kalinganagar in Odisha towards the end of the next financial year," TV Narendran, Managing Director, Tata Steel, India & SE Asia, said, according to media reports. Narendran added, "the emotional connect between our employees and the company is one of our greatest strengths and this, coupled with the relationship that we have with our customers, distributors and other partners and service providers, is one of the reasons why we feel confident that we can deal with all challenges that come our way."

Also, staff costs per ton for the Odisha plant would be lower vis-à-vis its Jamshedpur works. The company's Odisha plant is highly automated and will require fewer employees per ton compared to its Jamshedpur facility, analysts said. In fact, analysts feel Tata Steel's debt level is likely to increase as it draws debt for its Odisha expansion. Substantial reduction in debt can only be seen after FY'15 unless the company delays the second phase of this expansion. The company has not drawn any debt for the project until September 2013. As on September 30, 2013, it has already incurred a capex of Rs 12,600 crore (Phase-I total capex is pegged at Rs 25,000 crore) on the project, Meanwhile, the company plans to focus on the domestic market and sell incremental sales volumes from its Jamshedpur expansion mainly within this space.

Source: Steel Insights

Mr. P Madhusudan assumes charge as new RINL CMD

Mr. P Madhusudan, Director (Finance), RINL, has assumed charge as the 9th Chairman-cum-Managing Director of Rashtriya Ispat Nigam Limited, the corporate entity of Visakhapatnam Steel Plant. Mr. Madhusudan joined RINL as Director (Finance) in 2009 and played a significant role in financial performance of the company and pioneered introduction of e-payments to customers/supplier which was widely acknowledged in the entire Indian steel industry. Mr. Madhusudan will be at the helm of affairs at RINL for the next five years, as the company is planning

to expand capacity to reach 11-12 mtpa and aspiring to become a "Maharatna" company soon.

While addressing a gathering of senior officers in Ukkunagaram on the occasion of the New Year, Mr. Madhusudan said 2014 will be the most happening year in the history of RINL. He observed that the expansion and modernisation of the units, the commissioning of finishing mills and the early stabilisation; ramping up of production (beyond rated capacity) from the new blast furnace and steel making shop; timely completion of category-1 capital repairs of BF-1 & its stabilisation; modernisation of SMS-1; preparing BF-2 for category-1 capital repairs; timely order placement for modernisation of sinter plant-1; order placement of coke oven to battery-5; augmentation of power generation to meet the enhanced requirements, etc are some of the major challenges and expressed confidence that RINL has the potential to deliver.

The new CMD said utmost priority shall be given to adopting cost control measures across the plant. He said, with the slowdown in the economy, there is a tremendous squeeze on the margins of RINL, and he called upon all the HODs to sensitise the "cost culture" across the organisation to improve the bottom-line. Mr. Madhusudan, a chartered accountant, played an effective treasury management role, including obtaining low cost funds to RINL both in working capital as well as long-term funds required for capital expenditure during the expansion of the Navratana company. He was instrumental in hedging the forex risks and ensured minimum impact of the rupee/dollar fluctuations.

Source: Steel Insights

Union Steel Secretary inaugurates new Oxygen plant at SAIL RSP

Business Standard reported that union steel secretary Mr G Mohan Kumar has inaugurated a new Oxygen Plant at Rourkela Steel Plant an integrated Steel Plant of India target blank Steel Authority of India. The Oxygen Plant, which became operational recently, has been set up as a part of an agreement between SAIL-RSP and M/s LINDE for Supply of Oxygen, Nitrogen and Argon gases by operation of the plant on Build Own & operate basis at Rourkela Steel Plant. Official sources said that "The plant has an installed capacity of producing 2x700 tonne per day of Oxygen, High pressure Nitrogen, Low Pressure Nitrogen and Argon. The purity of the gaseous oxygen will be to the tune of 99.6%." The new Oxygen plant will be fulfilling the additional gas requirements for the new units being installed as a part of the massive modernisation and expansion projects.

Source: Steel Guru

Iron ore, coal sourcing key challenge for steel makers

The Government's effort to ease the supply of coal and iron ore will help brighten prospects for steel companies in the coming year. Though the Supreme Court has lifted the mining ban on category 'A' mines in Karnataka, the production ramp-up is very slow, said sources in the industry. Moreover, the proposals to open up production in category 'B' mines continue to be stuck, awaiting approval from the Government. The complete ban on iron ore mining in Goa has not only hit the steel industry, but also the State Government's revenue. Apart from tourism, the mining industry is considered a money spinner for the Goa Government. The ban on mining in Goa and Karnataka has resulted in job loss for about 1,00,000 people, sources said. Jayant Acharya, Director, JSW Steel, told Business Line that steel companies in Karnataka continue to suffer due to the shortage of iron ore, as production at category 'B' mines was delayed. "The quality of iron ore currently sourced from other States is also an issue. Production cost has gone up substantially due to the poor quality of iron ore," he said.

DEMAND OUTLOOK

The recent economic slowdown has cast a gloom on the demand front, even as steel companies are fighting to secure their raw material needs. Steel consumption in the first 11 months of the year registered a growth of a mere 1.8 per cent. In fact, demand has slowed down since the last fiscal, when it grew just 3.3 per cent to 73.3 million tonnes. Incidentally, in the case of automobile sector, which is a key indicator of steel demand, sales dipped 18 per cent in November to 1,526,438 units as against 1,858,386 units recorded in October. Industry observers said the revival of steel demand depends on the procurement from sectors such as automobile, real estate and construction. There

appears to be no immediate recovery in key steel consuming sectors, going by the meagre 1.2 per cent growth in the Index of Industrial Production between April and October, with October recording a fall of 1.8 per cent in growth.

EXPORTS LOOK UP

However, the recent revival in export demand has turned out to be a major consolation for steel companies. "We are witnessing good demand from the US and few European countries. We expect this to sustain as we target our exports to grow to 3 million tonnes from 2 million tonnes," said Acharya. Industrial production in the US has improved 3.2 per cent in October, while that of Japan and UK increased 4.7 per cent 3.2 per cent.

Source: Coaljunction

Iron ore production by NMDC up 37% in Oct-Dec

State-owned NMDC produced 7.3 million tonnes of iron ore during the quarter-ended December 31, 2013, up 37 per cent over the same quarter last year. Last year it produced 5.3 million tonnes during the same quarter. The despatches registered whopping 40 per cent increase to 7.4 million tonnes during the October-December quarter against 5.3 million tonnes in the third quarter of last fiscal, according to official sources. "Total production up to December 31 stood at 20.3 million tonnes and despatches recorded at 21.24 million tonnes this fiscal," sources said. In December, the miner added 2.8 million tonnes of iron ore production and 2.7 million tonnes of despatches to its kitty, they added. A senior official of NMDC indicated that the PSU would end up between 27-28 million tons of production by the end of the present fiscal. "We are concerned more on despatches front rather than production side. Ore evacuation is challenging one," the official said. The company has a total production capacity of 32 MT per annum at its mines in Chhattisgarh and Karnataka. It targets to achieve 40 million tonnes capacity by 2014-15.

Source: Business Standard

Iron ore production set to cross 150 mn tonnes mark in FY15

India's iron ore production is set to witness a moderate growth of 10-12% to touch a level of 150 million tonnes in 2014-15 after witnessing a minor decline in the fiscal ending March 2014. The growth in production during the next year is likely to come from Karnataka and Goa, while production cap in Odisha will restrict further growth. According to miners and analysts tracking the sector, the majority of growth will be seen in Karnataka, where several mines are in the final stages of securing regulatory approvals. The biggest among all, Sesa Sterlite started production towards the end of December 2013. While other mines like NMDC is gearing up to increase its production and many other companies like Mineral Enterprises Limited is awaiting renewal of its mining lease. "Unless Goa restarts mining, though partially, we cannot expect big jump in iron ore production next fiscal. Many more mines are set to restart in Karnataka and the total production is unlikely to exceed 20 million tonnes. There is a big suspense over production caps in Odisha based on the Shah Commission recommendations. In total, we can expect around 150 million tonnes of production next fiscal," Basant Poddar, senior vice president, Federation of Indian Mineral Industries (FIMI) said.

Production of iron ore in 2013-14 is likely to remain flat at around 135 million tonnes, same as the previous year, or it might even decline by 3-5% said analysts.

"The output will be flat year-on-year basis in 2013-14 as Goa was out of business. Jharkhand and Chhattisgarh have more or less remained flat in the current year till now. In Karnataka too, the production is yet to pick up as many leases are still awaiting clearances," said Mr. Ritesh Shah, Senior Analyst with Espirito Santo. He said the production in 2014-15 could go up to 150-153 million tonnes mainly due to opening up of more mines in Karnataka and partial resumption in Goa. OreTeam Research, the Delhi-based iron ore research firm has pegged the production for FY15 in excess of 150 million tonnes. "OreTeam forecast for 2014-15 indicates a better yield in production but not with a bigger margin as production caps could compensate for the increase in mining activity in various parts of the country. Moreover, the mining expansion plans of various miners would also be slow to

get through on the back of the political uncertainty at the Centre," Prakash Duvvuri, Head of Research, OreTeam said. New mining leases would be hard to come by and the most expected Karnataka's auctioning system is still awaited by the industry, he said. Ore Team, however, projects 5-6 million tonnes of increase in iron ore production to cross the 150 million tonne mark for 2014-15. "Looking into the future beyond 2015-16, the production should increase with a greater intensity and breach the 165 million tonnes mark. A lot would depend on the situation in Goa and Karnataka and the role of Supreme Court in allowing the necessary changes," Duvvuri added.

State-wise production of Iron ore (in million tonnes)

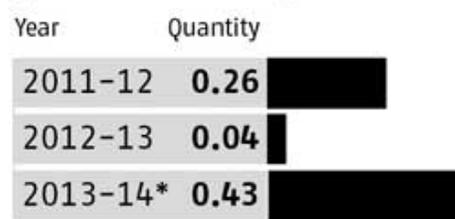
	2009-10	2010-11	2011-12	2012-13	2013-14*
Chhattisgarh	26.21	29.32	30.45	27.94	30
Goa	38.13	35.56	33.37	10.57	11
Jharkhand	22.54	22.28	18.94	17.97	19
Karnataka	43.16	38.98	13.18	11.22	15
Odisha	80.89	76.12	67.01	64.19	50
Others	7.62	4.89	4.33	3.96	4
Total	218.55	207.15	167.28	135.85	129

Source: Business Standard

Pellet exports surge 11 times in 7 months

Taking the benefit of export duty exemption, India's iron ore pellet exports have surged almost 11 times to 435,000 tonnes in the first seven months (April-October) of the current financial year compared to 40,000 tonnes exported in 2012-13. When compared to overall iron ore exports, pellets constitute just five per cent of the total this year. During the same period, India exported 8.43 million tonnes of iron ore, showing a decline of 43.5 per cent over the same period last year. The industry expects the total exports of pellets during the current financial year to touch a level of 800,000 tonnes. Industry analysts attribute the steep surge in export of pellets this year to better prices in the international markets, low consumption of steel in the domestic market and extra capacities built in by the new plants. Some of the exporters of pellets this year include JSPL, Essar Steel, Ardent, Stemcor, Godavari, Arya Pellets and KIOCL (formerly Kudremukh Iron Ore Company Limited). State-owned KIOCL has returned to export market after a gap of two years. The company recently finalised a tender for 60,000 tonnes, trade sources said. "There are some new pellet plants that have become operational this year like Stemcor and expansion of JSPL's capacity, which have exported pellets. These companies had to find new markets overseas because there was not much consumption of steel in the local market. Pellets also commanded a premium of \$30 per tonne over that of iron ore fines. Indian pellets have been sold for a higher price of \$162 per tonne CFR in China this year," Prakash Duvvuri, senior analyst with OreTeam Research, a Delhi-based iron ore research firm said.

**PELLET EXPORTS
(in million tonnes)**



*From April-October
Source: OreTeam Research

In the domestic market, pellets are traded at Rs 7,000 per tonne, while the export market fetches around Rs 9,900 per tonne. There was a good demand for Indian pellets in the Chinese market, he said. Currently, 36 pellet plants are operating in India, with a combined capacity of 63 million tonnes per annum. Total expected capacity expansion and new plants together will add another 72 million tonnes capacity by 2016-17, which will take the country's total pellet capacity to about 135 million tonnes per annum. Major pellet producers include Essar Steel, JSW, JSPL, Tata Steel and Stemcor

among others. Even as pellets accounted for five per cent of India's total exports of iron ore in the first seven months of the current fiscal, various chambers of industry and steel makers have been making a strong pitch for imposition of 30 per cent export duty on pellets. Recently, Assocham, Indian Chamber of Commerce and Bangalore Chamber of Industry and Commerce have appealed to the finance and commerce ministers to impose 30 per cent duty on pellets, so that the domestic steel industry can be assured of higher supply of raw material for their plants. According to the chambers, there is no significant value addition in making pellets. "Iron ore exporters are taking advantage of zero export duty on pellets. Increasing exports of pellets are further aggravating the already worse scenario of iron ore availability in the country," Assocham said in a memorandum to the finance minister. Pellets made from iron ore fines are used by the domestic steel industry. In such a scenario, if pellet exports are allowed it would only add to the shortfall in the domestic market since it would lead to indirect export of iron ore, said steel industry sources.

Source: Business Standard

India's SAIL, ONGC to collaborate in CBM development

India's oil exploration and production (E&P) major ONGC and Steel Authority of India Limited (SAIL) were planning a collaboration to explore coal bed methane (CBM) gas in captive coal blocks allocated to the steel producer.

According to an ONGC official, SAIL was seeking to increase CBM use to reduce energy costs as it was already sourcing CBM from ONGC's coal block in eastern Indian province of Jharkhand, although coal blocks allocated to the steel producers for captive consumption were yet to be identified where CBM projects could be undertaken. SAIL has already started development of two coking coal blocks of Tasra and Sitanalla and has finalised the appointment of a mine developer and operator (MDO) for the Tasra block. In the first phase, the steel producer planned production of four-million tonnes a year from the Tasra block estimated to have a reserve of 117-million tonnes entailing an investment of about \$370-million. The neighbouring Sitanalla block had an estimated reserves of about 45-million tonnes. The Tasra and Sitanalla reserves were originally owned by Coal India Limited (CIL), but were subsequently taken over the Indian Iron and Steel Company Limited (IISCO), Burnpur in the East Indian province of West Bengal. The two coking coal reserves were part of the legacy received by SAIL when the company took over the near defunct IISCO in 2006. In the last week of December, the Indian cabinet approved extraction of CBM by CIL from coal blocks held by it, thereby ending the confusion on whether the development of coal gas resources would be under the purview of the Coal Ministry or Petroleum and Gas Ministry. This would be followed up over the next few weeks with a policy for development of CBM by private and government-owned companies, apart from CIL, for the development of coal gas resources in blocks allocated to various user industries in steel and power for captive consumption, a government official said. However, this was expected to face opposition from section in the Coal Ministry even though the Petroleum and Gas Ministry favoured development of CBM from captive coal blocks. According to the Coal Ministry, captive coal blocks had been allocated to user industries through a nomination process and not through auction, for specific purpose of mining coal for captive use and license to explore CBM would go beyond terms of allocation of the block.

Source: Miningweekly.com

Coal Imports into India cross 140 million tonne mark in 2013

Based on preliminary data from major ports, imports of various types of coal and coke into India during 2013 have totalled 141.509 million tonnes.

While thermal coal import, estimated at 107.8 million tonnes, accounted for about 76%, coking coal import is estimated at about 30.7 million tonnes. The other products like met coke, pet coke and coke nut accounted for about 2%. Australia remained the top supplier of coking coal with about 84% share. For thermal coal Indonesia was the major supplier with about 75% share. For met coke, Chinese dominance at about 56% was somewhat diluted with supplies coming from 9 other nations. The highest monthly imports took place in July 2013 at about 13.4 million tonnes with monthly average

for 2013 at 11.79 million tonnes per month. Ports on Western Coast received about 69 million tonnes, followed by Eastern Coast at about 50 million tonnes and Southern Coast at 21 million tonnes. The highest imports occurred at Mundra 33.1 million tonnes, followed by Krishnapatnam at about 18.6 million tonnes, Ennore at 10.4 million tonnes, Paradip at 9.3 million tonnes, Haldia at 7.7 million tonnes, New Mangalore at 7.3 million tonnes, Mormugao at 7.3 million tonnes, Dahej at 6.9 million tonnes, Vizag at 6.4 million tonnes and Kandla at 5.2 million tonnes. The balance 14 ports accounted for 29.2 million tonnes.

A total of about 2300 number of vessels were unloaded ie about 50 per week at various ports with an average cargo size of 60,000 tonnes per vessel

Source: Steel Guru

As automakers use more aluminum, can providers expand fast enough?

DETROIT (Reuters) - With automakers' demand for aluminum growing explosively as they seek to improve fuel efficiency, aluminium providers are selling out their automotive capacity almost as fast as they can build new plants, raising the question of whether some car makers could be caught short in the future. The U.S. market for aluminium sheet is expected to be up fivefold this year from 2012 with the development of vehicles like Ford Motor Co's next generation F-150 full-size pickup truck. Demand is expected to continue its surge as automakers look to slash vehicle weights to boost fuel efficiency, industry executives and analysts said. "The one thing that has proven itself to be accurate is that any forward forecast of the use of aluminium in automotive will change upward," Phil Martens, chief executive of aluminium provider Novelis Inc said in a telephone interview. The U.S. market for aluminium sheet, which stood at less than 200 million pounds in 2012, is expected to hit 1 billion pounds this year, and then double from there by 2020 and reach 3.2 billion to 6.4 billion pounds by 2025, according to independent industry analyst Lloyd O'Carroll. Other vehicles using a lot of aluminium include Land Rover's Range Rover SUV, Volkswagen's Audi A8 sedan, Daimler's Mercedes Benz CLA sedan, General Motors Co's Chevrolet Corvette sports car and Tesla Motors Inc's Model S electric sedan. Novelis, along with Alcoa Inc dominates the U.S. aluminium market, a trend that should continue for the time being as both companies pour hundreds of millions of dollars into expanding capacity to meet demand.

Analysts and industry officials said growth in the United States is exponential because consumers' preference for bigger engines and larger vehicles at a time of rising fuel economy requirements and lower emission standards has forced automakers to push for greater weight reductions in their vehicle designs than they can get from high-strength steel alone. "If you really want to save a lot of weight, like on a pickup truck, you really have to go with something lighter than steel to take 700 pounds out," said Dick Schultz, managing director of the auto practice at research firm Ducker Worldwide. U.S. government standards mandate that by 2025, automakers must increase corporate average fuel economy (CAFE) to 54.5 miles per gallon, up from 35.5 mpg by 2016. The key question is whether the industry can keep up with demand, industry officials and analysts said. If not, some automotive customers could be caught short, lacking sufficient aluminum for their next-generation of lighter-weight cars and trucks. Aluminum executives said they need two to three years advance notice to meet demand to give them enough time to expand existing plants or build new ones. If automakers do not effectively communicate their needs, shortages could develop, analysts and industry officials said. "You could have pinch points develop if all of a sudden the auto industry rolls out a set of designs that are heavy in aluminum, if this transformation that we see taking place gradually occurs more quickly," said John Mothersole, director of research for the pricing and purchasing service at IHS. Nevertheless, Mothersole and others do not see it becoming a long-term problem.

"If the automakers make the decisions quickly, then it will work. If the automakers delay the decisions too long, then some could have issues," said Pierre Vareille, CEO of Dutch aluminum products maker Constellium NV (CSTM.N), which intends to announce its plans for entering the U.S. aluminum auto market in the first quarter. Constellium has an aluminum plant in West Virginia that serves aerospace customers. Certainly, the aluminum suppliers' customers have faith. "As we work to lightweight our

vehicles, our use of aluminum and other materials continues to grow," said Doug Parks, vice president of GM's global product programs. "We stay very close to our suppliers to be sure they can meet our growing needs, and we're comfortable they will." The growth in demand has Novelis and Alcoa spending big. Last month, Novelis said it would invest \$205 million to build aluminum finishing lines at plants in New York and Germany. The company also is finishing construction of a plant in China this year. Novelis expects the auto industry to account for 25 percent of its business in two years, up from 6 percent two years ago as it shifts away from aluminum beverage cans, Martens said. Down the road, that could hit 50 percent. Alcoa is on the cusp of completing a \$300 million expansion dedicated to the auto sector at its Iowa plant. It also is building a factory in Saudi Arabia this year and will finish a \$275 million expansion at its Tennessee plant next year. "We're in constant communication with automakers about available capacity," said Alcoa's head of global marketing for automotive, Randall Scheps. "Every customer wants to know how much they can have." Customers are clamouring for more, as the aluminum suppliers have already sold virtually all of their added capacity even if those plants are not yet online. "The era of 'Build it and they will come' is over," analyst O'Carroll said. "Companies are not going to add capacity with volume and (profit) margin commitment."

Source: Reuters

SEMINAR ON CHALLENGES AND ADVANCES IN DIE CASTING



Sri Balaji College of Engineering & Technology organised a two-day Seminar on “Challenges and Advances in Die Design” at Jaipur on 17th and 18th January 2014. The Seminar was attended pan India by professors, doctors, students and industry representatives. The Seminar was interactive and informative and widened the perspective of the participants in the area of die-casting. The Seminar

was attended by about 70 participants.

Shri M P Sharma, Honorary Joint Secretary, Delhi Chapter of IIM, also attended the Seminar. He was a member of the Advisory Committee which was responsible to organise the Seminar. He was invited to deliver a talk on “Methods of Aluminium Metals Processing” in various industries. He gave a videography presentation on the above topic. He suggested that such Seminars should also be attended by the budding engineers to enable them to discharge higher responsibilities.



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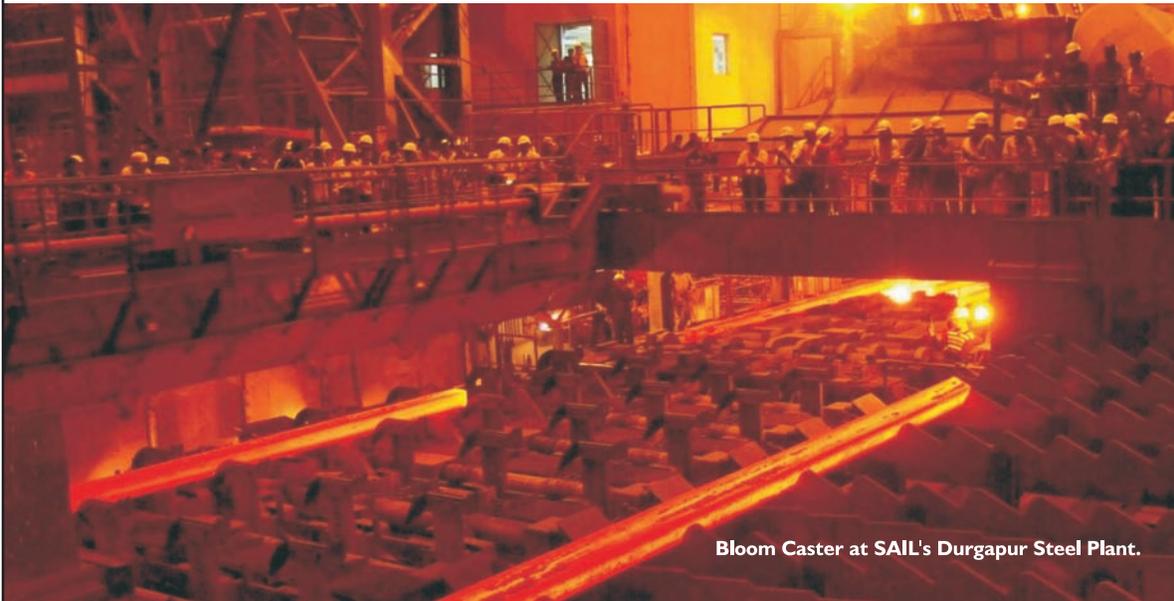
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 Mob: +91-9810036183
 Email: gagan.sahni@itei.in

Varun Sharma, Project Head
 Tel: +91-11-40828208 (D)
 Email: varun.sharma@itei.in

Pallavi Roy, Manager (Sales)
 Tel: +91-11-40828207 (D)
 Email: pallavi.roy@itei.in



SAIL - A Maharatna Company



Bloom Caster at SAIL's Durgapur Steel Plant.

Steel Authority of India Ltd. (SAIL), owns and operates five integrated steel plants at Bhilai, Durgapur, Bokaro, Rourkela and Burnpur; three special steel plants at Salem, Durgapur and Bhadravati; and a ferro alloy plant at Chandrapur. SAIL also produces iron-ore. It has its own captive mines that fulfil its iron ore requirements. SAIL has been awarded the prestigious status of a *Maharatna* by the Government of India.

- All its production units are ISO 9001:2000 certified.
- Current annual production of crude steel is around 14 Million Tonnes (MT). Produced over 350 million tonnes of crude steel since its inception.
- SAIL's product basket comprises Flat products, Long products and Pipes, including branded products such as SAIL TMT, SAIL JYOTI GP/GC Sheets.
- Supplier to strategic sectors like defense, atomic energy, power, infrastructure, heavy machinery, oil & gas, railways, etc.
- Supplier of rails to the Indian Railways.
- Major production units are ISO:14001 certified.

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