



AIIFA

INDUCTION FURNACE NEWSLETTER

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- ✓ Numero Uno position in e-Commerce with 500+ Principals and 50,000+ Buyers
- ✓ Created history through successful conduction of Coal Block Auction in 2014-15
- ✓ Mastered providing seamless and hassle free services in e-auction and e-procurement
- ✓ Launched MSTC Metal Mandi "M3" a virtual B2B and B2C Market place for Metal sector

Features of M3

- ✓ An initiative of Ministry of Steel. Govt. of India, M3 is an effort of Central Govt. towards convergence of "DIGITAL INDIA", "MAKE IN INDIA" and "EASE OF DOING BUSINESS"
- ✓ M3 portal offers BIS certified metal products
- ✓ MSTC has tie-up with various banks and NBFC's for extending Credit facilities
- ✓ M3 provide a transparent secure and user friendly interface
- ✓ Wide range of Non-Ferrous Metal Products

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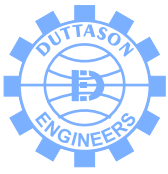
- ✓ Enjoy the wider market exposure and expand your business and customer portfolios
- ✓ Enjoy selling on a digital platform and reduce tedious and cumbersome paper work
- ✓ Saves operation cost towards advertising/branding/promotional publicity
- ✓ "MSTC Metal Mandi" platform supports "pull" type supply management, where a business process starts, when an order comes from a customer and uses just in time manufacturing process. Thus it increases the productivity of the organization
- ✓ Options for price change available on 24X7 basis
- ✓ Opportunities for MSMEs

Advantage to Buyer

- ✓ Shopping in an open, competitive and fully transparent digital environment to get the best price
- ✓ Get detailed information on product, quantity and price at a simple click of the mouse
- ✓ Enjoy the larger spectrum of products to compare and select the cheaper and better "Made in India" type
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- ✓ 24X7 support service. Operate at any time, from anywhere, about any product
- ✓ Option of door delivery



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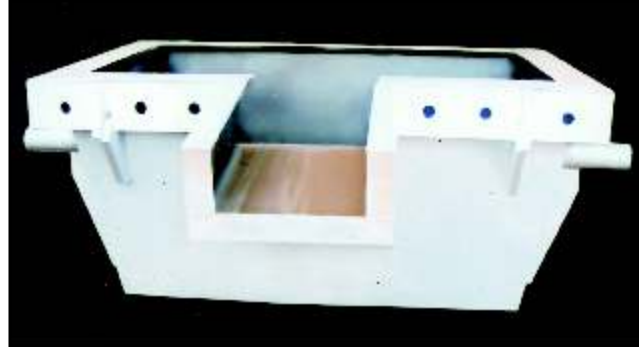
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It is a well-accepted fact that the steel industry across the world has over capacity anywhere between 300 and 500 million tonnes per annum. This overcapacity in the steel industry is due to the low entry barriers to the steel industry on account of stagnation in technology. Technology developments in the steel industry have long ceased to be dramatic and much more disruptions are taking place in other kinds of sectors of the economy; steel appears to have entered into a steady state of zero growth.

In a situation like this, steel producers reduce tonnage produced to match up to levels of demand and this leaves the world with unutilized plant capacities. The unutilized capacity is carried as high fixed costs making steel plants asset heavy.

Sometimes, in order to manage high fixed costs steel firms try to actually integrate backwards in order to curtail costs. More of backward integration means more assets and larger fixed costs. Integrated plants necessarily must have very high holding powers, for costs are likely to be recovered over decades than over years.

Many go as far back as to buy mines so that raw materials which constitute over 40% of the costs of producing steel is under the control of the firm. But mineral assets add to the fixed costs and further increase the burden of firms; with excess capacities prices are depressed, current incomes are low, and if assets are heavy, it leads to bad debts and non-performing assets.

There is forward integration as well into the markets; steel companies are investing into the real estate businesses, into infrastructure projects, imagining that were the user industries to use their steel, they would do well. But the worth of steel in the total value of infrastructure is only 6% and for automobiles, it is only 12%. Forward integration thus bloats assets even further. Indeed, the most indebted steel firms in India, namely Monnet Ispat, Lanco Steels, Abhijit, GMR or GVK steels have invested in real estate, power, ports, and airports in India and even in railway lines in Australia!!

Heavy assets squeeze out technology, nothing kills innovation more than investments in fixed assets. This is the thesis proposed by Thomas Piketty in his book, *Capital In The 21st Century*. Servicing fixed assets

takes away the orientations from innovations; no wonder then most disruptive technologies since the oil shock of 1973 took place in the electric steel making, Nucor's thin strip casting was most eventful among them. India's post melting steel refining in ladle furnaces attached to induction furnaces was indeed yet another path breaking innovation. Even today, the greater emphasis is on the electric steel route manufacturing smaller quantities of steel with special alloying of materials targeted closely at end user applications. Indeed, metallurgy is now more likely to produce hybrid metals which are crossovers between steel and aluminum and so on; pure carbon steel may soon be over.

In times of overcapacity in the steel industry, two areas of innovations are usually not pursued; one is development of large dimensions of mild steel that are manufactured in bulk tonnages and the other is the blast furnace. Large scale, dependence on coking coal, bulk production of mild steel are getting increasingly risky investments.

We live in the age of technology innovations; the system of capitalist production is technology based. Joseph Schumpeter in his thesis on the laws of capitalist development has said that industries grow only when technologies grow for without the growth in technology industries cannot grow. When India rose from the position of the 8th largest steel producing economy to the 3rd largest economy since 1991 to the present, it grew on the might of its technology. The steep climb of the steel industry took place through the proliferation of the secondary producers namely the induction furnace sector which could produce steel in small scale and low costs and with post melting refining it could achieve a fair degree of product standards. The other sterling discovery was the manufacture of sponge iron through the rotary kiln based on coal. These two innovations, almost never acknowledged in India as innovations nonetheless were vital steps in reducing the scale of steel making units. Capacities proliferated in the small sector.

Technology for industrial production can broadly be divided as change in scale of production, development of new products, use of new kinds of cost reducing machinery principally through management of waste and the use of different kind of raw materials. If we observe the pattern of technology

innovations across the world, we may find that EU is concentrating on the management of the environment, reduction of use of coke and coke emissions, management of heat into the system. The developments in the EU are incremental and not revolutionary for the new revolution is led by Iran and China.

The crux of innovations in the Middle East is in Iran which is steadily climbing in steel production through its manufacture of the DRI using natural gas. Technology innovations from China mainly hover on the management of lower grades of ores through beneficiation and the greater use of friable ores; this set of technologies has helped China to refashion the

blast furnace into accepting a flexible range of raw materials and also change the face of the ferro alloy industries. The above are going to emerge as the path breaking and future making of steel technology. Interestingly all of the above pertain to changes in raw materials for steel production. Saudi Arabia is investing in finding path breaking use of energy by cracking the CH₄ compound, which if possible will reduce the energy consumption in steel to a new low.

Where does India stand in all of this? What will India innovate? Who will innovate that? These are the questions which should preoccupy the National Steel Policy and the Technology Mission under the aegis of the Ministry of Steel.

CREEP RESISTANT STEEL PRODUCTION IN INDUCTION FURNACE

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Introduction: Power or electricity has been identified as the key enablers for the country's economic development all over the world and this sector needs to grow for sustainable economic growth and development of various other sectors because economy is propagating with the rise of increasing demand for energy. Indian power sector is a major consumer of energy with its significant impact on economic developments and social welfare. To generate power, Indian power sector producing power from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to other viable non-conventional sources such as wind, solar, and agriculture and domestic waste.

Creep resistance steels play the most important role in various types of plants for the power generation units, chemical & petro-chemical industries. Modern boilers and related accessories in the power plants have become larger in size and the temperatures, as well as the pressure, have increased. Products should be of good forgeability/rollability/ machinability with low density, low thermal coefficient of expansion. Boilers of power plants are designed using allowable stress under creep conditions, which is usually determined on the basis of a 100 000 h creep-rupture strength at the operating temperature, and sometimes also 200 000 h to 500 000 h creep-rupture strength.

Demand of Electricity: The global demand for electricity is mostly met from thermal power plants at the level of more than 40% of world's current electricity production which is growing rapidly for industrial development in different countries. Coal reserves are more widely dispersed around the globe than other

fossil fuels. At today's level of power generation in power plants, the coal reserves will last, hopefully, for more than 130 years.

India's per-capita electricity consumption is very low at only about 960 kWh per year, compared to a world average of about 2,700 kWh per year. Therefore, there is a huge unmet demand for electricity in India which needs to be rapidly met in the coming years. Thermal power generation capacity based on coal and gas is about 187 GW (164 GW of coal and 23 GW of gas), that is about 69% of India's power generation capacity of about 272 GW (Ref.CEA, May 2015) . In terms of actual generation, thermal power's contribution was even greater, at over 79%.

Sector	Power capacity(MW)	Percentage (%) of Total
State	96,963.20	36.23
Central	72,521.16	27.10
Private	98,152.99	36.67
Total	267,637.35	100

The installed capacity of utility power plants is 267,637 MW as on 31 March 2015 and the gross electricity generated by utilities is 1106 TWh (1106 billion kWh) including auxiliary power consumption of power generating stations. The installed capacity of captive power plants in industries (1 MW and above) is 47,082 MW as on 31 March 2015, Sector-wise break up of installed capacity shown in the table.

Development of Creep Resistance Steel: Actual demand of creep resistance steel could be seen at fast rate during and after World War II. At the initial stages, a large fraction of the annual requirement of special

creep resistance steels required by power plant industry in India was being met by imports from developed countries. Later on, it was urgently felt to develop such steel grades and use in new and existing power plants to improve the operating efficiency, performance, reliability, availability, maintainability and operability. Materials development has rich traditions and capabilities in the country. ASP, MUSCO developed creep steel grades jointly with NML, BHEL, Central Boiler Board, Power Ministry in mid-70s meeting all property requirements, and since then products are used.

[NML has the largest creep testing facility in South-East Asia with a total of about 200 creep testing points. Out of these 61 units are 3T single creep points with a maximum temperature capability of 950°C to 1100°C and 11 units are multi creep points in which 12 specimens can be tested simultaneously in each unit at a temperature of 900°C, Mini steel plants, if needed, may like to contact NML scientists Head of Materials science and Technology, Dr Narayan Parida and Head Business Development Dr Indranil Chattoraj and scientist Mr Narayan Parida.]

Designation.	C	Si	Mn	Ni	Mo	Cr	V	Ti	B	Others
1CrMo	0.15	0.25	0.5	-	0.6	0.96	-	-	-	-
1/4CrMoV	0.15	0.25	0.5	0.05	0.50	0.30	0.25	-	-	-
1/2Cr1/Mo1/4V	0.12	0.25	0.5	-	0.60	0.45	0.25	-	-	-
1CrMoV	0.25	0.25	0.75	0.70	1.00	1.10	0.35	-	-	-
2 1/4Cr1Mo	0.15	0.25	0.50	0.10	1.00	2.3	-	-	-	-
2 1/4Cr1Mo Mod	0.10	0.05	0.50	0.16	1.00	2.3	0.25	0.03	0.0024	-
3Cr1.5Mo	0.10	0.20	1.00	0.10	1.50	3.00	0.10	-	-	-
3.5Cr1NiMoV	0.24	0.01	0.20	3.5	0.45	1.70	0.10	-	-	-
9Cr1Mo	0.10	0.60	0.40	-	1.00	9.0	-	-	-	-
9Cr1Mo Mod	0.10	0.35	0.40	0.05	0.95	8.75	0.22	-	-	Nb0.08, N.05, Al<0.04
9Cr1/2MoWV	0.11	0.04	0.45	0.05	0.50	9.0	0.20	-	-	W1.84, Nb0.07 N.05
12CrMoV	0.20	0.25	0.50	0.50	1.00	11.25	0.30	-	-	-
12CrMoVW	0.20	0.25	0.50	0.50	1.00	11.25	0.30	-	-	W.35
12CrMoVNb	0.15	0.20	0.80	0.75	0.55	11.50	0.28	-	-	Nb.30, N.06

[Certification is mandatory from Central Boiler Board constituted under Sec 27A of the Indian Boilers Act 1923 who is responsible for regulations for laying down the standards of materials, design, construction, as well as for registration and inspection of boilers. The Board comprises of representatives of Central & State Govt, Union Territories, BIS, Coal India, Boiler Manufacturing / Ancillary industries, Steel Manufacturers, User of Boilers & other interests connected with Boiler Industries. The Secy, Dept of Industrial Policy and Promotion, ND is the ex-Officio Chairman and Technical Adviser (Boiler) is the ex-Officio Member Secy of the Board.]

Creep resistant steels with high creep strength

designed for power plant applications should be reliable for use over long periods of time in severe environments exhibiting properties like good corrosion and crack resistance as well as good weld ability ensuring thermal efficiency effectively at specific temperature and the pressure of steam. The most important issue of good quality creep resistance steel, is the working of different components made from this grade working at the temperature range of 550-750°C in power plants. As such, those components should have creep resistance properties i.e. the resistance to deformation or damage from cracking at elevated temperature and constant stress over time period. Any failure/s of components before

the specified period is referred as creep failure or stress rupture which are most unsuitable in the application areas of high temperature environments in petro-chemical, chemical industry, thermal power plant, boiler industry where actual operating stress, slowly, starts at high temperatures.

Effects of Common Alloying Elements in Creep Resistance Steel: The elements that make the composition of creep resistance steels have specific functions, even though there may be interaction among them. Increasing or decreasing the amount of elements, usually C, Mn, Ni, Co, Bo, Cu, Cr, Si, W, V, Mo, Ti, Nb, Ta, Al, and N, in search of better creep steel hinges on the understanding of their specific roles in the alloy system. Elements such as Mn, Mo, Cr, V, W, Ti, and Nb can both form stable carbides and be found in solid solution within the ferrite. The steels used in power sector show that Cr, W, and Mo provide solid solution strengthening.

Chromium, the important alloying element in creep resistance steel, increases depth of hardness. In large quantities, possesses a remarkable resistance to oxidation, corrosion and erosion in conjunction with other alloys.

Molybdenum, the other important alloying element in creep resistance steel, raises hot strength with good creep resistance and helps steel resist softening at elevated temperatures.

Nickel increases strength and toughness and has good fatigue resistance. Steels with nickel usually have more impact resistance than steels where nickel is absent.

Tungsten promotes red hardness and hot strength in addition to producing dense grain and a keen cutting edge.

Vanadium, a strong deoxidizer and promotes fine grain structure, helps steel resist softening at elevated temperatures and seems to resist shock better than steels without it.

Niobium The short-term creep properties are improved by Nb addition due to the enhanced MX precipitation. However, Nb addition deteriorated the steel's long-term stability resulting in an even shorter creep-rupture life than the original alloy.

Process Metallurgy & Quality Control: Creep resistance steel should be melted in Electric Arc Furnace or Induction Furnace and refined through VD, LRF to ensure high purity steels minimizing residual elements and freedom from non-metallic inclusions. Homogeneous and sound ingots with minimal segregation, delta ferrite, non-metallic inclusions and porosities should be made with a homogeneous

distribution of chemistry throughout the casting process. In forging process, a sufficient forging effect at the centre of large diameter in the ingots and forging blocks needs to be attained to consolidate the porosities in the ingots and sufficient forging strain should be given to the ingots to eliminate the solidification structure (e.g. dendrite) and promote formation of equiaxed grain through dynamic recrystallization.

In the process of heat treatment of products, the heat treatment effects need to be exerted to develop the required properties at the surface and centre of the forged or rolled products. A fine grain microstructure needs to be obtained to assure sufficient detectability of defects. The microstructure of steel depends on its composition and the heat treatment given to it which has been heavily exploited in the design of steel for power plant applications. To obtain steel that can function at the higher temperature where power plants operate without failure for extended life, heat treatment is needed to produce fine and highly stable dispersion of carbides, nitrides, and intermetallic compounds in the microstructure of the material. A significant contribution also comes from solid solution strengthening by substitutional solutes.

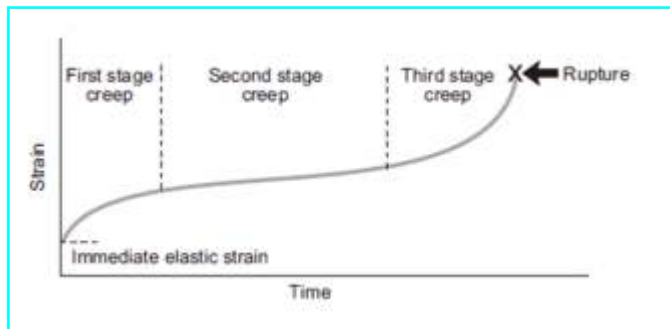
Creep tests can be conducted either at constant load or at constant stress. For experimental convenience, most frequently the creep tests are conducted at constant tensile load and at constant temperature. The test results can be plotted as creep curves, which represent graphically the time dependence of strain measured over a reference or gauge length.

Creep resistance properties, the essential prerequisites for safe operation of plant/ equipment in specific environments, depend on specific alloy additions in steel which are to be ensured by the steel makers and processors. However, failures, even, in its creep range or beyond the period can not be avoided after a certain time but can be controlled by proper grade selection, melting, rolling or forging and heat treatment, product micro-structure, product size, quality. The strength of a boiler tube depends on the level of stress as well as on temperature when the tube metal temperatures are in the creep range. Because an increase in either stress or temperature can reduce the rupture time. Therefore, attention must be given to both factors during investigation of a failure by a stress-rupture mechanism.

The boiler tubes are made from the following steel grades: EN 10216-2: P195GH, P235GH, P265GH, 16Mo3, 14MoV6-2, 14MoV6-3, 10CrMo5-5, 13CrMo4-5, 10CrMo9-10, 11CrMo9-10, 25CrMo4, T2, T24, T5, T91; ASTM A 106: Grade A, Grade B, Grade C. Additional steel grades according to DIN

17175, BS 3059-1, BS 3059-2, BS 3602-1, BS 3604-1, NFA 49-211, NF A 49-213, UNI 5462, GOST 8731, GOST 4543, GOST 20072 and PN-H 74252.

At some places seamless tubes and pipes in carbon, special alloy (12% Cr alloy steel) and stainless steels are used for coal or gas-fired boilers and heat recovery steam generators satisfying properties like-high creep resistance, micro structural stability over time, thermal fatigue resistance, low oxidation rate, simple manufacturing (casting, forging, bending, welding), corrosion resistance, steam oxidation resistance etc.



Creep curve (constant stress and temperature)

Creep strength is commonly expressed as the stress to produce a 1% creep rate in 10,000 hours at a certain

elevated temperature. The stress to produce rupture of a material over a certain amount of time, at a certain temperature, is called rupture strength. Thermal fatigue strength is the ability to survive cyclic temperature changes. Thermal shock resistance is the ability to survive rapid temperature change. Erosion and wear resistance are important factors in abrasive or moisture-laden environments. Corrosion and oxidation resistance are of primary importance, since high temperature materials must not deteriorate quickly at high temperatures.

Conclusion : Most of the mini steel plants running with the new generation induction melting furnaces for producing varieties of alloy & special steels successfully in last couple of years. The development of flexible, constant power-tracking, medium-frequency induction power supplies has resulted in the widespread use of the batch melting methods in mini steel plants in cost-effective ways. The induction furnace steel making units are in a position to produce different grades of creep resistance steels meeting quality and other properties. In view of growing demand of equipments manufactured from creep resistance steel products, Induction furnace units having secondary refining facilities should come up in a big way to meet the indigenous requirement and also entering in the export market .

Indian Steel Industry Needs To Become Highly Competitive and Develop Benchmark Parameters as World-Class Steel Producer

Steel Minister Chaudhary Birender Singh Addresses Second Regional Conference on 'Make in India-Make in Steel' in Ludhiana Punjab



The Union Steel Minister Shri Chaudhary Birender Singh inaugurated the second regional conference on 'Make in India-Make in Steel' and 'Doubling per capita Steel Consumption' in Ludhiana Punjab today. The north region conference organized by Ministry of Steel was held in the presence of the Minister of State for Steel Shri Vishnu Deo Sai, Dr. Aruna Sharma, Secretary Steel, Shri P.K. Singh, Chairman SAIL and dignitaries from Indian Steel Association and representatives from private steel sector. Considering the presence of industrial hub in North India including two-wheelers & cycle manufacturing, pipes and

tubes, re-rolling mills, engineering goods & equipments, strong farm based economy and hilly terrains; northern region assumes importance for steel industry in terms of both production and consumption. Addressing the conference Steel Minister Chaudhary Birender Singh said, "Northern region accounts for 40% of steel consumption and more ideas on steel demand enhancement will be generated at the Ludhiana Conference. Domestic steel industry, which contributes 2% to the GDP, has huge potential, but there is need for diversification and innovation to generate demand in the steel industry. The Indian steel industry has to become highly competitive and it has to benchmark the parameters for becoming a world-class steel producer."

The Minister added that steel industry needs to compete and fight with other industries supplying substitution materials for steel. Shri Birender Singh while outlining the unique qualities of steel including life cycle cost, recyclability, reusability, strength and

durability said that, "Steel structures have a longer life span, are low on maintenance and provide smart solutions as well. Steel can be used for making bailey bridges; steel reinforced pavements, Pre-fab structures, furniture etc. and it can also find usage in making food-storing silos, water pipes for transporting drinking water and tanks for storing it. These are safer options and will last longer." He said that FCI has plans to construct 100 lakh tonne steel silos by 2020 and northern states can contribute largely to it. Shri Singh praised the secondary steel industry in Northern states which use scrap intensive steel making thus reducing coking coal dependence and is also cost effective. He added that, "Steel industry's landscape has undergone wide changes and more plants using melt and manufacture technologies should come up."

Speaking on the occasion, the Minister of State, Shri Vishnu Deo Sai said, "While the ministry targets to escalate production to 300 million tonnes, the demand creation for this volume and marketing it, is the biggest challenge." The Secretary Steel, Dr. Aruna Sharma said that, "The target is to substantially increase the per-capita steel consumption from the current 60 kg. The 2017-18 Central budget has given boost to steel consumption in various infrastructure sectors specially Railways, Defence and highways." The delegates in the conference explored various modern options like use of Light weight high performance steel, pre-fab steel structures, steel use in ROBs, flyovers, crash barriers on Highways, silos, water pipes, agro tools etc. at a time which is most appropriate to showcase the immense advantages of

use of steel in various applications. During the conference, various initiatives taken by the Ministry of Steel for steel promotion in Northern India were showcased. Low cost housing projects, steel-based sports stadia, other infrastructure for hilly terrains/ seismic zones, development of low cost steel frame houses and pre-fab steel intensive dwelling units suiting the needs of the terrain of eastern India are some of them.

Addressing the conference, Chairman SAIL, Shri. P.K. Singh said that, "steel consumption in India will increase as a result of 'Make in India-Make in Steel' initiative. Both urban and rural consumption is bound to increase due to various government initiatives. SAIL with its efforts in the direction of offering more value added and ready to use products is supporting this move." The conference was attended by representatives from several other decision makers in projects in central and state Governments, architects, structural designers and consultants, project financiers, contractors, fabricators, erectors, Faculties from Metallurgy, Mechanical and Civil Engineering departments, representatives from large infrastructure industry, steel engineers/ architects associations.

NMDC has raised the prices of higher grade iron (lumps) by Rs 100 per tonne to Rs 2,325 per tonne for the current month.

The state-run firm also raised prices for iron ore fines, which are inferior grade ore, by Rs 100 to Rs 2,085 per tonne for the month of February.

Source: Press Information Bureau

STEEL SECTOR NEWS

Policy to Ensure Availability of Cheap Iron Ore within a Month

The government is working on a policy initiative to ensure the availability of iron ore at a cheaper price and will come out with details within a month.

The development comes at a time when the steel sector is reeling under the impact of high raw material costs.

"What policy steps we need to take to ensure that iron ore is plentifully and cheaply available is something which we are working on and there could be various formulations to that," an official privy to the development said.

"We are examining those and hopefully in a month or so we would be able to say that these

are recommendations," the official said, adding that "Niti Aayog has been mandated to examine that. They will examine that and come and give us the suggestions".

As a basic principle "...prices of raw material resources should be cheap because that gives us (Steel Ministry) a competitive advantage because we are involved in many schemes," the official said.

NMDC is the country's single-largest iron ore producer.

Steel Minister Chaudhary Birendra Singh had earlier said an expert group that would be formed by the government to study sale of iron ore by

NMDC will also analyse the mining giant's ore pricing and auction.

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The state-run firm also raised prices for iron ore fines, which are inferior grade ore, by Rs 100 to Rs 2,085 per tonne for the month of February.

Source: Economic Times

'Made in India' Steel to Get Preference in Infrastructure Projects: Steel Secretary Aruna Sharma

The Ministry of Steel is taking a three-pronged approach to support the domestic industry, which has faced low demand and the influx of cheap imports. It is also trying to lower input costs, steel secretary Aruna Sharma told ET in an interview. Efforts are under way to mandate the use of 'Made in India' steel in government tenders to boost consumption. Edited excerpts:

Indian steel companies have been affected by an influx of imports. Will the government continue to protect them?

We are not against imports but we have to protect Indian steel against dumping. We will also not take any measure that is not WTO compliant.

Since August 2016, anti-dumping measures have been initiated and now 124 items are covered under it.

What steps are being taken to lower input costs for steel companies?

We are trying to improve the logistics network for movement of both raw material and products. For instance, the cost of transporting fines is the same as finished products – Rs 400. One solution is transporting it through slurry pipelines. Now, the railways have agreed to give right of way along railway tracks. We have got a map from pellet makers as to where they want to tap the fines both on the east and west coasts. NMDC will construct the slurry pipelines, which will be underground. Transport costs will thus come down to Rs 50 per tonne. Railways are joining hands in this since it is part of their business and they will also provide protection.

What about key inputs like iron ore and coking coal?

We are discussing reclassification of iron ore, which is under freight class 165 and shifting it to 145, the same as coal or 145A, which attracts a lower rate. We have also urged for reduction of the 2.5% customs duty on coking coal. Also, the coal ministry will invest in washeries to reduce the ash content of local coking coal from 17-18% to an average of 13%. Consequently, imports will reduce by 30%...

Also, the pricing mechanism of natural resources like iron ore/coal/gas is being looked into by the Niti

Aayog. PSUs in these sectors should be profit-making, not profiteering. Energy costs, especially power, remain a critical issue. For this, the power ministry is considering whether a combined bunch of smaller user industries can be allowed to take up 26% stake in a power venture to get the tag of a captive user. Alternative energy sources like liquefied natural gas are also being explored. Duty on LNG was cut down by half in the budget to 2.5%. The petroleum ministry is working on long-term contracts to ensure assured supplies. Pellet makers have already assured us that if gas is available, their entire production can shift to gas, which is cleaner and greener.

The National Steel Policy 2017 is looking at 300 million tonnes of capacity by 2025, but consumption remains low. What steps are being taken to boost it?

Our consumption is 60 kg per capita, while China is at 489 kg per person and the global average is 208 kg. We have a long way to go and are taking serious steps towards it. We are in the final stages of amending the General Financial Rules (GFR), which decide all government tenders. We are bringing the concept of lifecycle cost in GFR. So, if the desired quality is available, 'Made in India' or locally produced steel will get preference for big-ticket infrastructure projects and for instance, bridges and drinking water projects, etc. Builders will be encouraged to use steel, which is earthquake resistant.

Will you coordinate your efforts with other ministries, too?

Yes. The commerce ministry is coming up with a generic policy on this. The steel ministry is also talking to other ministries, which are big spenders on infrastructure, about the advantages of steel usage. While cost-effectiveness will remain the key, the focus will be on lower lifecycle cost of steel while evaluating projects. It took seven years for our per capita steel use to cross from 50 to 60 kg. However, we want to go from 60 to 70 kg per person in three years. If domestic consumption goes up, then with lower input cost, protection against dumping and market enhancement, our steel industry should be fortified against global upheavals.

Steel Ministry Asks Its PSUs to Share Resources, Interact More

The Steel Ministry has directed its PSUs like SAIL and NMDC to work as a team and share resources among them to cut costs after finding that the top management of these PSBs hardly interacted with one another. The message to steel PSUs has been delivered barely a fortnight after Steel Minister Birender Singh expressed displeasure over their poor show and minced no words by saying they should perform or perish as complacency would not be tolerated anymore. "I was surprised to see that the top management of these PSUs rarely interacted with the other PSUs. There are areas like storage space for material where under-utilisation can be overcome if they share resources," the Steel Minister told PTI. The minister has directed to constitute a high-level coordination committee comprising CMDs and top ministry officials for pooling and sharing of resources among PSUs. "If the PSUs combine their requirement of stores and spares and procure them collectively, they will definitely have better bargaining power. More interaction and coordination would mean they will not have to reinvent the wheel every time they face a problem. They can learn from each other," the minister said. "After all, they are all part of a big team and that is how they must work," he said adding, "I am confident that this committee would result in cost savings and better productivity." In a recent meeting of top management of steel PSUs, Singh had asked the

PSUs to iron out their differences. "To the outside world, you should be seen as a cohesive team, and not as a blame-game team. You cannot afford to work in separate compartments and point fingers at other departments. As a manager, it is your duty to get things done. You need to set high standards of professionalism and work culture," he had said. Singh said pooling of resources among PSUs will lead to aggregation of demand and economies of scale and formation a coordination committee would minimise areas of overlap, duplication and communication gaps and help in harnessing the potential for financial savings. In today's fast-paced business world, it is essential to work together to retain the competitive edge, he said. The objective of the committee is to derive benefits of economies of scale by pooling of resources, as also sharing of best practices. Terms of Reference of the committee included common procurement portal using MSTC Metal Mandi, common marketing and distribution/storage facilities, common research and development, employee welfare issues and payment settlement mechanism. Singh has issued instructions for immediate action to be taken on formalising a mechanism of coordination among PSUs, which include industry leaders like SAIL, NMDC, RINL, MOIL, MSTC and MECON.

Source: Moneycontrol.com

Flush with Funds' Banks Keen to Fund Steel Industry: Minister Birender Singh

Despite the recent crisis that the domestic steel industry is fast recovering from, its long-term potential is huge and it is more than feasible its capacity would increase dramatically from 120 million tonnes (mt) at present to 300 mt by 2030-31, steel minister Birender Singh said on Wednesday. Speaking at the Indian Express Group's Idea Exchange programme, he said that banks, which are "flush with funds", have now become favourably disposed to giving fresh loans to the steel industry.

Hit by cheap imports, reduced pricing power and tepid demand growth, domestic steelmakers had a share of more than a quarter of the banks' stressed assets in 2015.

"Our banks are sitting on deposits of over Rs 15 lakh crore and are paying 4% interest on savings accounts. So it is natural that most of them are now looking for (borrowers)," the minister added.

According to Singh, protective steps taken by the government — like the minimum import price (which existed on a clutch of products until last month) and anti-dumping duties (which as many as 120 products are currently subjected to) — were not of a permanent nature, adding that the industry would not need such hand-holding for long.

He said that "due attention" would be paid to the secondary steel sector which produces steel at much cheaper costs than the primary steelmakers. Secondary steel producers, who also make steel and add value to both domestic and imported steel, account for over 55% of the steel produced in the country at present. "The contribution of secondary producers will grow faster in the coming years," the minister said. However, analysts said that secondary steel-making is more reliant on imports.

Steel imports dipped 37.8% during April-January of the current fiscal year to 6 mt. During this period, export of steel products was up by a whopping 71% to 5.86 mt, providing the industry much-required relief and helping firms repay loans. Although investments are still to pick up in the economy, steel consumption is expected to rise soon, helped by government funding of infrastructure projects and the incentives

being given to the affordable housing sector.

India, the world's third largest producer and consumer of steel, produced 89.32 mt of the alloy last fiscal, clocking just 0.4% growth over the previous fiscal. The industry had, for the last two years, been passing through one of its worst phases in many years.

Source: Financial Express

Iron ore industry demands market driven price

Just when the domestic [iron ore industry](#) has started recovering from a slowdown in demand, the central government is planning to cap the price of the natural resource in order to make cheaper raw material available to the [steel industry](#). But the iron [industry](#) wants prices to be market determined.

Over-supply of [iron ore](#) from [China](#) had kept prices muted in the past. However, with the improvement in demand from China, prices have seen an upward movement.

According to sources, the central government is planning to cap the price of iron ore, which would enable steel producers to procure the raw material at a cheap cost.

[Niti Aayog](#) has been mandated to examine the proposal.

The move will help the [steel industry](#) further after expiration of the minimum import price that cushioned the domestic sector from cheap steel imports mainly from China, for one year.

The raw material is a major cost component in steel making. For small steel producers who follow the blast furnace route, [iron ore](#) comprises 18 per cent of the total cost on an average, while for sponge iron producers it is 20 per cent, according to [industry](#) estimates.

Prices should be left to the market forces, according to Basant Poddar, Vice-Chairman, Federation of

Indian Mineral Industries (FIMI).

About 90 per cent of [iron ore](#) mining leases will expire in 2020, and steel producers can bid for the mines then to secure raw material supplies, he argued.

Poddar said the domestic [steel industry](#) never showed any interest in bidding for the mines as [iron ore](#) was always a buyer's product because of low prices.

Indian [iron ore](#) miners are claiming that they are severely crippled with high royalty, various state-level taxes, high export duty, export restrictions and cap on production. Any further restriction and regulation of [iron ore](#) pricing will adversely impact the survival of the mining [industry](#).

At present, high [coking coal](#) price is a bigger burden than [iron ore](#) for merchant pig iron and other blast furnace-based steel producers, an expert said.

[Iron ore](#) in the Indian domestic market is actually priced cheaper and does not have a major bearing on even the smaller steel units in the country. It is the cost of [coking coal](#) and other expenses, and inherent inefficiency that are impacting the profitability of the steel industry, he said. The domestic [iron ore industry](#) is of the view that since the price of steel is completely market driven and unregulated, [iron ore](#) prices should also be allowed to be freely determined by the demand and supply principle of market and no restriction should be imposed.

Source: Business Standard

Centre to unveil new steel policy soon: Minister

The government will soon unveil a new steel policy to boost production and consumption of the commodity, Union Minister Chaudhary Birender Singh said. Addressing a regional seminar here, the Steel Minister said the government would organise a national conference of steel producers and consumers. This conference would discuss the issues related to the sector, including quality, price and problems faced by stakeholders, he said. The government has decided to increase the production of steel to 300 million tonnes by 2030 from the present

level of 126 million tonnes. He added that the government plans to double the country's per capita steel consumption of 61 kg, which is a big challenge. The global per capita steel consumption stands at 208 kg. The minister also asked the industrialists to change their mindset and adopt modern technologies instead of sticking to traditional forms of production. The new steel policy would bring about a balance between production and consumption in the country, he added.

Source: Money control

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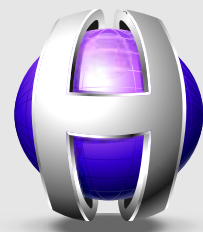


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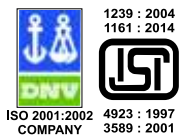
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