INDUCTION FURNACE NEWSLETTER



All India Induction Furnaces Association

EDITORIAL BOARD

Sandeep Jain President

Gopal Gupta
President, Emeritus

Kamal Aggarwal
Hon. Secretary General

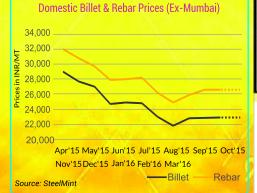
A.K. Aggarwal Hon. Secretary General

Ashok Garg
Sr. Vice-President

Ashok Surana Sr. Vice-President

Satish Chand Goel Sr. Vice-President

DOMESTIC STEEL PRICES ANALYSIS



AIIFA Secretariat:

504, Pearls Omaxe, Tower - I, Netaji Subhash Place, Pitampura,

Delhi - 110 034

World Leader in Induction Technology

- Steel & Alloy Steel melting
- Grey & Ductile Iron melting
- Non Ferrous melting
- Precious Metals melting
- Steel Ingot & Billets making
- Investment Casting









It is easy to understand why the best melt shops select Inductotherm equipment.

- Faster Melt Rates
- Lower Energy Consumption
- Lower kVA Requirement
- Higher Power Factor
- Lower Harmonic Distortion
- . Higher level of built-in safety features
- · Higher Reliability
- Provision for technological upgradation
- · Ability to track full power from start to finish
- Worldwide Support Network



Inductotherm (India) Pvt. Ltd. Ambli-Bopal Road, Bopal, com Ahmedabad 380 058

 $Retain your competitive edge. \ Call \ Inducto therm \ now \ at \ +91\ 2717\ 231961 \ or \ visit \ us \ at \ www.inducto thermindia.com$



Leading Manufacturers of Melting, Thermal Processing & Production Systems for the Metals & Materials Industry Worldwide.



Smillifilial: Admostlati Personal Protective Equipment (PPE) must be worn by anyone in proximity to motion met



DUTTASON ENGINEERS

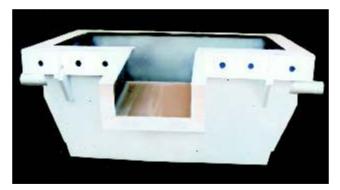
CONSULTING ENGINEERS & STEEL FABRICATORS

G. T. ROAD, DHANDARI KHURD, LUDHIANA - 141 010 (INDIA) Ph.: (O) 0161-2510714, 2510715 Fax.: 91-161-2510716 E-mail: duttason_ers@hotmail.com; dutason@dataone.in Website: www.duttason.com





Ladle



Tundish for Continuous Caster



Charging Bucket



Ladle Preheater



Ladle

Leading Manufacturer and Exporter of Ladles for Steel Plants & Foundries (Lip Pouring & Bottom Pouring), Tundish for Continuous Casters, Ladle Pre-Heaters (Vertical & Horizontal) Scrap Charging Buckets (Multi Leaves & Clam-Shell Type), Water Cooled Panels (Tubular & Plate Type) Water Cooled Roof for L.R. Furnaces, Fume Extraction Systems, Fabricated Sheet Metal Components, Machinery Parts, All types of Fabrications in Mild Steel, Stainless Steel & Aluminum.

SCRAP LIFTING MAGNET

We Provide You With:

- Steel Plant Project Engineering
- Continuous Billet Caster
- Scrap Lifting Magnet
- Hot Billet Inline Shear
- Baler Shear
- Hydraulic Grab
- Hot Crane





ISC Udyog Ltd.

ISC Compound, Janta Market, LBS Marg, Bhandup (W), Mumbai - 400 078 India. Cell: +91 98690 13934 h.: +91 22 6580 3945 Fax: +91 22 2594 0553









www.iscudyog.com

sales@iscudyog.com



EROS ENVIROTECH PRIVATE LTD.(Formerly Eros Consultant)

RANGE OF POLLUTION CONTROL SYSTEMS FOR STEEL & CASTING INDUSTRY

FOR INDUCTION FURNACES

FOR STEEL ROLLING MILLS







BAG HOUSE BASED

SCRUBBER BASED

FOR COAL FIRED

FOR OIL FIRED

Other useful products and solutions from eros include:

- ✓ Centrifeugal Fans
- ✓ Pulse Pleat Based Mini Bag Houses 🗸 Sand Reclamation Systems
- ✓ Water Cooled Heat Exchangers
- ✓ Air Lock Rotary Valves

- ✓ Heai Recovery Systems

 - ✓ Effluent Treatment Plants
 - ✓ Sewage Treatment Plants

Registered Office

109-110, Ist Floor, Savitri Complex-1, Data Motors Building Kalsi Nagar, G.T. Road, Ludhiana-3, Punjab (INDIA) Telefax: +91-161-2542109/2542110 Contract for Trade Enquiry:

RAJESH MAHESHWARI, Managing Director,

Mob.: 98141-01638.

Email: maheshwarieros@gmail.com

Works: Sidhwan Bet Road, VPO Hambran, Ludhiana, Punjab (INDIA)

Website: www.erosenvirotech.com

E-mail: info@erosenvirotech.com, sales@erosenvirotech.com

SECONDARY STEEL SECTOR-OPPORTUNITIES AND CHALLENGES

BACKGROUND

Asyou are aware, steel is the integral part of the growth of Indian economy. The per capita consumption of steel in India has been steadily increasing and steel production has doubled in last 10years from 43.44 MT in 2004-05 to 88.12 MT in 2014-15. The steel sector contributes nearly 2% of country's GDP and the secondary steel sector is an important contributor to the vision of reaching the capacity of 300MT.

India became the 3rd largest producer of steel in the world in Jan.

2015, leaving behind US as the 4th largest producer and expected to become the world's second largest producer of crude steel in the next **10 years**, moving up from the third position, as its capacity is projected to increase to about **300 MT by 2025**. Huge scope for growth is offered by India's comparatively low per capita steel consumption (around **60 kgs**) and the expected rise in consumption due tonew Government's initiatives like Make in India, Housing for All, Developing 100 Smart Cities, growth of infrastructure, modernization of Indian Railways etc.,

Production '000 tonnes

CATEGORY	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
BF-BOF ROUTE	29832	30646	31226	33349	35596	37947
EAF	16180	17085	19129	19381	18451	22063
INDUCTION FURNACE	19827	22941	23936	25685	27494	28240
GRAND TOTAL	65839	70672	74291	78415	81541	88250
% CONTRIBUTION						
BF-BOF ROUTE	45%	43%	42%	42%	44%	43%
EAF	25%	24%	26%	25%	22%	25%
INDUCTION FURNACE	30%	33%	32%	33%	34%	32%

Source: Annual Report 2013-14 (MoS)

The Indian steel industry is currently working at a **110 MT** capacity level. However, the capacity utilisation is only 80%. In order to achieve the target of **300 MT** which we have seen, we will be able to produce only around **240 MT** by following the current ratio. In this regard, it may be noted that, in **2013-14** the ratio of contribution of the **BF-BOF** and **EAF/IF** was **43%:57% respectively.**

Further, assuming this ratio to be **70:30**, the production of crude steel through BF-BOF and EAF/IF will be **168MT** and **70 MT** respectively. Therefore, from the current production of around **45MT to 70 MT** by **2025** it is important to understand the sectors dynamics and vision to take Indian Steel production from the present level of **110MT to 300 MT** cannot be realized without the active and equal participation of secondary steel producers along with major steel producers.

GLOBAL STEEL INDUSTRY

The global crude steel production stood at 1665 MT in 2014. China occupied first position in the world by producing 822.7

million tonnes. Its share has increased from 25.6% in 2004 to 29.4% in 2014. India contributes approximately 5% to the global crude steel production.

India was the only country among the major steel producing nations of the world which recorded a positive trend in steel production and consumption in 2015. First 11 months of 2015, steel production vis-a-vis2014, India showed a growth of 2.8 %, and world steel production registered decrease of 2.8 %. India's steel production capacity has increased by 6 % in 2015.

LEADING STEEL PRODUCING COUNTRIES

The top 5 countries (China, Japan, United States, India and South Korea) account for 70% of the global crude steel production. India occupies a central position on the global steel map with the establishment of new state-of-the-art steel mills, acquisition of global scale capacities by players, continuous modernization and up gradation of older plants, improving energy efficiency and backward integration into global raw material sources.

World Crude Steel Production (in million tonnes)					
Country	201	4-15	·	2013-14	
	Rank	Tonnage	Rank	Tonnage	
China	1	822.70	1	822.00	
Japan	2	110.70	2	110.60	
United States	3	88.20	3	86.90	
India	4	86.25	4	81.30	
South Korea	5	71.50	6	66.10	
Russia	6	71.50	5	69.00	

INDIAN SECONDARY STEEL SECTOR

Broadly, steel is produced through BF-BOF and DRI-EAF/IF route. Steel producers having capacity more than 1 million tonne termed as integrated steel producers. However, less than 1 million tonne capacity are either termed as primary steel producers or secondary steel producers depending on the use of basic raw materials for steel production.

In India, the contribution of secondary steel producers is about

55% of steel produced adopting the electric steel making process using scrap or from sponge Iron. India enjoys a unique position in steel making where about **32% steel** is produced in Electric Induction Furnaces. The units covered under the secondary sector produce either a product that serves a basic raw material to steelmaking such as pig iron or sponge iron or they use a semi-finished or intermediate steel product to convert the same to another product of higher value.

India is a Unique Country in the world where almost 50% steel is produced from the secondary steel sector which includes Electric arc Furnace, Induction Furnace and Rolling and Re-Rolling mills. Although, the no. of Electric arc furnaces are not very large say around 50, almost 1350 Induction Furnaces and more than 1800 re-rolling mills are in operation. With the growth in EIF, India acquired a unique position i.e. as the world's largest DRI manufacturer. The production from Secondary Steel Producers has now increased to about 70% of the total crude steel in India. Therefore, this sector has a great contribution in the Indian

Economy as well as on employment opportunity and other social related impacts.

The liberalization of industrial policy and other initiatives taken by the Government of India have given a definite impetus for entry, participation and growth of the private sector in the steel industry. The existing units are being modernized/ expanded, a large number of new production capacities are being added, both in large scale integrated steel plants as well as small and medium scale steel plants to produce steel, required to meet the growing demand of the country.

	SIGNIFICANCE OF THIS SE	ECTOR
	Primary/Integrated Producer	Secondary Producer
INPUT RAW MATERIAL	Integrated steel producers have generally captive mines for iron ore and coking coal, as it required in large amounts in the production of Iron and steel. Since, the domestic availability of metallurgical grade of coking coal has high ash contents and limited resources therefore, this sector is heavily dependent on imported low ash coking coal to meet its requirement.	Secondary steel producers are used indigenous steel scrap imported scrap and Direct Reduced Iron (DRI) as raw material in order to produce semi-finished products such as ingots, billets and blooms etc. As recycling of one tonne of steel scrap, saves 1.2 tonnes of Iron ore, 0.7 tonnes of coal, 0.5 tonnes of lime stone, 287 litres of oil, 2.3 cubic meters of landfill, 40% less water and subsequently 58% Reduction in CO ₂ emission. Thus these steel producers not only making substantial contribution in crude steel production, it is also conserving precious mineral resources of the nation and also maintains social and ecological balance
TIME AND RESOURCES	The large Integrated steel units take considerable time and huge resources (approx. Rs. 6500/- Crore for setting up one million tonne/annum capacity) which makes it difficult to set up more units.	As these units have small and medium industrial configurations therefore requires relatively lesser time and lower resources approx. Rs. 3500/-Crore for setting up one million tonne/annum capacity. This sector has an inherent advantage that they have mobilize their finance from their own business has become market oriented and therefore they are not concentrated in one area
LAND REQUIREMENT	Require huge land	Require lesser Land
WATER REQUIREMENT	Large amount of water is required (5M³up to per tonne of crude steel production and 8-9 M³ per tonne for Finished product + CPP + township). Therefore factories are generally located near rivers or lakes and near coal or iron-ore mines.	Lesser amount of water is required
DEMAND & SUPPLY	As coal and iron-ore are required in huge amounts, therefore, the industry is, located either near coal producing areas or iron-ore producing areas which is far away from the consuming centres and therefore not able to cover the needs of small consumers living in rural areas.	Due to small industrial configuration these units are located nearby the consuming centers, (which is not possible in case of Integrated steel plant) thereby swiftly catering to the needs of the millions of smaller consumers (living in rural areas) for making availability of the steel at cheaper rate. As compared to large integrated steel plant, which require considerable time for setting up, the gap between the demand and supply is bridged by the secondary steel sector.
EMPLOYMENT OPPORTUNITIES IN RURAL AREAS		Provide greater opportunity of employment in Rural Areas and prevent unnecessary migration of people towards Metropolitan city.

SLAG GENERATION	The slag generated from integrated steel units is not easy to dispose of due to the presence of free lime and high percentage of iron oxide	Slag generated through secondary route can be utilized as a By-Product e.g. in making Brick Blocks, Cement Industry etc.
POLLUTION	A majorenvironmentalhazard associated with integrated steel mills is the pollution produced in the manufacture of coke, which is an essential intermediate product in the reduction of iron ore in a blast furnace.	The production of liquid steel from Secondary route, only solid charge materials such as scrap, sponge iron, pig iron etc., are used which does not contain any carbonaceous material . Therefore, production of Ingot/Billet from this route will not cause any appreciable pollutants
OPERATION	In BF-BOF based integrated steel plant, Blast furnace cannot be easily started or stopped . If it stops due to some technical fault, it costs cores of investments to restart the furnace.	The electric arc/induction furnace can be easily started and stopped by seeing market demand. Such furnaces can be operated for 24 hours when demand is high and stopped when sales is lower .
PRODUCTS	Final products made by an integrated plant are usually large structural sections, heavy plate, strip, wire rod, railway rails, and occasionally long products such as bars and pipes.	Final product from secondary steel sector is bar, rods and medium structural such angles, channels, pipe, and light rails

CHALLENGES OF THE SECONDARY STEEL SECTOR

As you are aware, the Indian Steel industry is passing through a difficult time due to various constraints specially the strong competition from the neighbouring steelmaking nations. At this juncture, the Indian industry is working on a two-pronged model – on one hand, a strategy to cut cost (due to high input cost, freight and port handling charges, multiple levis and high interest rates etc.) and on the other, demanding conducive policies from the government. It is a battle of survival especially for the smaller units and traders.

While the prospect for steel industry in India is very bright, it will have to tackle a number of issues related to infrastructure, raw materials, energy conservation, skilled manpower, environmental issues etc. As this sector play a vital role in achieving the target of 300MT steelmaking capacity it is

necessary to find out a workable solution to the various problems cited below and give a breather to the secondary steel industry

A. Raw Material

Since, Induction furnace used **indigenous steel scrap, imported scrap/sponge iron** as a basic raw material in order to produce semi-finished products such as ingots, billets and blooms etc. As, the availability of domestic scrap is very scarce therefore, import of melting scrap has all the more become necessary because of the BIS Standards enforced on the steel industry and ISI marked steel cannot be produced by using substandard quality of sponge iron is being supplied by its manufacturer (having its lot of disadvantage with respect to its use in EIF as mentioned below) due to their technological limitations.

Major Disadvantages to use of Sponge Iron in EIF				
Yield from sponge Iron	Yield from Sponge iron depends on the metallisation percentage. Better yield requires lower power consumption and better productivity			
Slag	Slag plays a vital role as it affects power consumption. A 2% increase in slag might increase power consumption by about 5% but this is not a proportional increase, it varies with increasing quantity of slag. Slag consumes almost 2.5 times more power than metal. It also decreases the lining life of furnaces			
Highly Hygroscopic	DRI absorbs atmospheric moisture, which lower its quality			
Highly Exothermic	Absorption of moisture generates heat which increases the temperature of DRI during storage, leading to fire and total damage of DRI			
Low shelf life	Storage and transportation of DRI is hazardous, it affects metallization.			

In order to achieve the target of 300 MT which we have seen, we need to procure more and more scrap with infrastructure facility for the same so that the quality of steel as per BIS standard to be produced by this sector. However, there are numerous hurdles placed in imports of metal scrap such as:

Imports of Metallic waste and Scrap

Abolition of basic custom duty on import of steel melting scrap

Since last so many years there was no import duty on the metal scrap but suddenly vide **notification no. 26/2013** dated **8**th **May, 2014** issued by Ministry of Finance, Department of Revenue,**2.5% import duties** on metal scrap have been levied which is making imports unviable for scrap importers.

In this context, we would like to say that, countries like USA, Europe, UK, Australia, China, Thailand, Pakistan etc. there is no such duty applicable on import of scrap. To support the indigenous secondary steel industry which is dependent up to 60% of their raw material requirements on imports, this duty should be abolished in order to make them competitive to cheap imports.

Suggestion

Recommendations of a Joint Planned Committee (JPC), towards abolition of basic custom duty on import of steel melting scrap should be considered.

2. Pre Shipment Inspection Certification (PSIC)

As you are aware, India annually imports approximately 6 Million tonnes of Ferrous and Non-Ferrous Scrap of which approximately 0.5 million tonnes comes in bulk ship loads of scrap. The balance 5.5 million tonnes comes in containers with an average load weight of 25 metric tonnes. Presently for every scrap consignment, there is pre-shipment inspection being done by agencies approved by DGFT, and a certificate is accordingly provided which is necessary for customs clearance. In this context, it may be noted that, the number of containers that will need to be individually inspected by inspectors worldwide will be approximately 220,000.

The net outflow towards this inspection costs is estimated at **Rs. 1100 crores** annually, which makes our final products uncompetitive in global markets. Recently DGFT made provision under PN# 23 to allow clearances of processed scraps under self-certification of shippers, supported by guarantees from importers. However the Ports & Customs are not able to comply with this notification.

AlIFA is of the opinion that PSIC should be completely withdrawn on metal scrap imports, as it is adding to the cost of importers. No other country in the world has such requirement. To mitigate any risk, there should be a disposal policy formed by government.

In the interim, DGFT should ensure that P.N. 23 dated 30th June, 2015 is implemented in totality, with Customs & Port authorities in agreement. The responsibility of the exporter & the importer should also be re-drafted.

We trust that as per standard operating practice worldwide, scrap imports are compulsorily scanned at destination for radio activity and identification of material. However, it is observed that, the Government has installed scanner at few ports in India, but these are not working and therefore, importers of scrap are forced to pay inspection charges from out of pocket to the tune of Rs. 1100 crores.

Suggestion

In spite of spending Rs. 100 Crore per month as against inspection charges by importer or exporter for such a low value

item the efforts have to be taken by Ministry of Commerce / Ministry of Finance/Ministry Steel to procure scanner and install the same at every existing port and PSIC should be abolished

3. Custom description and valuation of scrap

The custom officers do not differentiate between various types of scrap i.e. light steel scrap, turning scrap, heavy melting scrap etc. The prices of different types of scrap vary significantly according to the type as per present international market trends. Same is the case with low alloy and alloy steel scrap, where the price is according to the percentage of alloys (Nickle, Chromium, Molybdenum, Vanadium etc.) present in the scrap which even if mentioned on the import invoice is not considered.

The added problem of higher assessable value is that our members are left with unused CENVAT credit because of higher ACD (12.5%) and CVD (2%), whereas the excise duty payable on finished product is 12.5%. So the industry which is already facing losses is also facing financial hardships due to blocked funds. Above that, the local excise office asks for duty payment in PLA (Cash).

Suggestion

Assessing custom duty on the invoice value instead of notional value

4. Shipping Lines charges issue

The secondary metal industry is pre-dominantly relying on imported scraps. At present there is no shipping trade practice bill in India governing the shipping lines. There are three main Container Shipping Lines, Maersk, MSC and CMA-CGM covering around 80% of the market share for movement of metal scraps from around the world, to India. The charges levied by Shipping Lines are unilateral, with lacks of transparency.

The cost levies by Shipping Lines at destination are very complex and opaque. There is no government authority to overlook these charges, and importers are forces to pay them to Shipping Lines as per demand.

Suggestion

There is a specific need from the Government side to introduce a Bill covering every aspect of Shipping Lines services, and costs levies thereof, to ensure fairness and transparency.

5. Lack of Facility of Inland Container Depot

India is importing more than <u>8.00 million tonnes</u> per annum of Ferrous and Non-Ferrous metal scrap from overseas countries. In order to achieve the target of 300 million tonnes of steel production by 2025, we will need to procure more and more raw materials from the international market. As the facility of ICD is available at only 24 ports (as per the foreign trade policy 2004), therefore, the industries (where such facilities are not available) are compelled to obtain the scrap from the nearest ports/ICDs, located outside the boundary of their cluster which is not only <u>time consuming</u> but also **not economically viable** due to high logistic charges, duties and taxes. Also, there is no provision kept in foreign trade policy **2015-20** towards open more ICD in unrepresented areas which is the demand of the day.

Further, we would like to bring to your kind notice that, in January, 2004 there was a blast in scrap at Bhusan Strips Ltd., Delhi and subsequently, these ICDs are banned and ICD Raipur is also one of them. After passing of 2 years, it was again reopened but unfortunately, ICD Raipur was not considered. State Chhattisgarh, Raipur had a long demand to include the ICD Raipur in ICD Renewal Policy 2014-19 but not succeeded.

Suggestion

Open more ICDs in unrepresented areas as well as reopen the closed ICDs and all grades of metal scrap should be allowed for clearance at all ICDs

6. Sponge Iron Should be brought under Mandatory Quality Control Order

Since, sponge iron is one of the basic raw materials of Induction

Furnaces for making billet/ ingots which are the feed material to rolling mills. Therefore, there is a specific need to produce quality sponge iron to maintain the percentage of elements in the final product as per BIS standard.

Comparative chart showing the usage and different quality requirement of both the products are as under:			
SPONGEIRON	INGOT		
Semi-Finished Product	Semi-Finished Product		
Used in EAF and IF	Used in Rolling Mills		
Cannot be used as an end Product	Cannot be used as an end Product		
Not under Mandatory BIS Registration	Under Mandatory BIS Registration		
BIS Marking not yet required	BIS Marking Required		

It is apparent from the above, that both the products (i.e. Sponge Iron and Ingot) are semi-finished product in nature and having similar and usage in steel making process and both cannot be used as end product. However, Ingot has been brought under mandatory BIS registration and marking even though in case of Sponge Iron, it has been excluded from the same as on date.

This sector had a long demand to bring BIS standards on sponge iron with sulphur and phosphorus limits of 0.040 maximum, so as, the BIS standards can be adhered to in finished steel. It was admitted by the SIMA but high cost was cited as one of the factors for not making sponge iron with stipulated Sulphur and Phosphorus. On one hand they (SIMA) are demanding increase in customs duty on import of melting scrap and on the other hand are unable to provide quality sponge iron. After, a lot of discussion with competent authority of Ministry of Steel and BIS respectively, it has been unanimously decided in the 23rdMeeting of Sponge Iron and Smelting Reduction Sectional Committee MTD 30, held on 2nd February,2016 to enforce marking clause on Sponge Iron and the document is sent for printing.

Suggestion

Therefore, the efforts have to be taken by the Ministry of steel to bring Sponge Iron under mandatory Quality Control Order at the earliest, so that Induction furnace units could also be capable to produce quality steel as per BIS standard.

B. POWER

Open Access of power in steel sector

The major input of the Induction furnaces is power which accounts for more than 50% of the conversion cost but during the last decade various states have put this industry under Power Intensive Units category and are charged one of the highest tariffs whereas it is the largest revenue paying industry per KW of connected load. Above that various state electricity corporations have put direct or indirect restrictions on Open Access of Power which otherwise could have been an oxygen for the already on ventilator industry. There should be one centralised open access policy for all States for fair competition and for secondary steel industry to be internationally competitive.

C. Section 4A of Valuation Rule 8, 9 and 10

Many of our member-units have their own Furnaces and Rolling Mills as separate entities with common Directors/Partners. The Induction Furnace units sell the final product "Ingot" to Rolling mills (being the feed material) at market price. However, the units are being asked to pay duty on 110% of the cost of production as per section 4A of Central Excise Act, thus causing a lot of problems and unnecessary litigation, whereas, the whole

exercise is revenue neutral as both of the units are registered under Central Excise and availing CENVAT credit.

As per Notification No.14/2013 dt. 22/11/2013 made effective from 01-12-2013 where by "In case of clearance to related unit, earlier valuation gets affected only if whole of the clearance is to related unit. But now, this clause applies even if part of production is cleared to related unit and part is cleared to independent parties, then the clearing unit has to clear the goods on 110% of cost of production." This has further complicated the issue.

We have been emphasizing that this whole exercise is revenue neutral where both the units are covered under the central excise and the buying unit is selling its finished products to independent buyers and paying duty on transaction value. So this rule will be just a paper exercise.

Besides problem of valuation over and above the market value, payment of additional vat and local taxes, income tax assessments etc., there will be huge unutilized Cenvat credit with the buying unit.

Further, while calculating the cost of production, the cost of raw material (scrap) is also taken in to account. On calculating assessable value as per Section 4A, as 110% of the cost of production, assessable value becomes much higher than the market value. In this context, it may be noted that, across the country, the steel industry do not have 10% rate of return.

Suggestion

Our suggestion is that, exclude the definition of related person for the excisable inter-connected undertaking i.e. where both the selling and buying units are registered with Excise Department and are availing the facility of CENVAT credit.

Finally, considering the high potential of the secondary steel sector for the overall growth of the domestic steel industry as well as for economic development of the country, this sector hopes from the Government, to consider and resolve the genuine problems/issues faced by this sector for its natural survival, otherwise the projected demand of 54 million tonne of long products and total requirement of 140 million tonne of crude steel by the terminal year of 12th Plan (2016-17) shall be jeopardized.

D. Credit on certain categories of iron & steel scrap

According to the provision of Rule 13 of the Cenvat Credit Rule 2004 the Central Government has empowered to notify goods for deemed CENVAT credit. Earlier, till 1987, deemed credit facility was available on iron and steel products.

The Iron Steel Scrap which is generated from non-excisable units such as cycle industry, sewing machines, SSI engineering, and other SSI units making steel based products, and units located in tax free zone are excise duty paid. On the other hand, the procurement of scrap through imports, CENVAT Credit is available on the basis of Countervailing Duty (CVD) paid.

But, for cycle, are under ambit of SSI units. Also, the indigenous steel melting scrap procured by kabaries from small manufacturing unit is available without any excise documents. Therefore, no such Excise document can be submitted to the Excise Authority. In view of the above, the Induction Melting Furnace units are not able to get CENVAT Credit on steel products made out of this type of scrap.

Suggestion

We would like to suggest that, kindly consider deemed duty paid on steel scrap and allow for availing CENVAT credit which was available to this industry till 1987.

E. BIS Mandatory Certification Mark on 16 Steel Products

As you are aware, the 15 items of Steel products for which notification is issued earlier by Ministry of Steel has made it mandatory certification under BIS which warrants that all the notified products must conform to the relevant Indian Standard is finally going to be implemented w. e. f 17th March, 2016. AIIFA take a serious note on this issues and request Ministry of Steel, Government of India to extend the date of enforcement of Proposed Quality Control Order at least for a period of six months keeping in view of the facts stated below and give breather to this already ailing sector.

In IS 7283:1992 in point no. 4.3, the reduction ratio for hot rolled bars from ingots is given as 16.1, which is practically impossible. Since, across the country, generally the size of rolling mill is between 12" to 14" who use ingots of size 4" to 5" as raw material. However, there are only few whose size is above 14". Therefore, with the enforcement of such standard, most of the rolling mill up to size of 14" producing steel for the above mentioned purpose will be automatically scrapped as they will not be able to manufacture rolled products above 1" cross section with the given reduction ratio for ingots.

Similarly, the requirements mentioned under point no. 3.2, most of the re-rolling mills will not have facilities to test grain size, harden ability, inclusion content, decarburization etc. Moreover, most of the dealings with the actual user or trader are verbal on accepted quality parameters. Sometimes, the order lot size is as small as 1 MT, so keeping record of mutual agreement between the purchaser and the manufacturer for all the orders is virtually impossible. To develop such a documentation system in the unit is very time consuming and long process.

The mechanical test under point no. 9 of IS 1875:1992 like tensile test, hardness test, macro structure, ultrasonic test, magnetic particle testing facility etc. are rarely available with secondary steel sector (particularly with the Re-Rolling mills) because of heavy investment and operating costs involved. The chemical testing facility which is essentially available with the plants having melting facility is not at all available with 95% of the standalone rolling mills.

In order to upgrade or install the above mentioned facilities in their units some time would be required by them to place order for the required machinery as well as to arrange finance and then later on employ technical staff for the same.

Suggestion:

Extend the date of enforcement of Proposed Quality Control Order at least for a period of six months.

F. Setting up Centralised Testing cum Training Centres across the country in PPP mode

For sustainable growth and development of this sector, there is a specific need for setting up such Centralized Testing cum Training Centre where testing of ferrous materials and other materials is to be carried out as per the BIS standard and specification, in order to improve the quality of the product and also help the consumers to know the products that they are procuring and hence may drive growth in consumption of steels. Further, it may be noted that, most of the IF units have already setup in-house manual chemical test facilities for testing of their products but in-case of any disputes among the purchaser and manufacturers related to quality of materials, there is a need to have a third party laboratory to resolve the issues.

Since, across the country, there is no adequate laboratory approved by BIS for this purpose. Although, there are NABL laboratories in the country but it will take 2-3 months to get material tested which is not only time consuming but also not viable. Hence, setting up of such type of centre shall play a vital role to in achieving the targets of 300 MT by 2025.

Suggestion:

 Approval of these laboratory may be accorded immediately to get the facilities of testing of raw materials and quality of steel produced to need based cluster. The Ministry of Steel is requested to expedite the action required in this regard.

G Acceptance of ISI marked product

There is a need to create level playing field whereby identical quality finished products manufactured by Primary and Secondary Steel Producers are treated equally by the Government procurement agencies. Presently, most of the government procurement institutions procure steel products such as TMT bars and mild steel sections only from the primary producers though same BIS Norms are applied on similar products from Secondary Steel Producers.

In this regard, **the point no 2** of the **notification no. 4(8)/2010-SD-1 dated 24th April, 2015** issued by Ministry of Steel, clearly states that the categorisation of steel producers should in no way be seen as a certification of the quality of steel produced. Quality certification would be as per the Bureau of Indian Standards (BIS) or any other designated authorities as per the BIS Act.

Suggestion

- The Governments both State as well as Central should treat similar quality of steel in an equal manner while making purchase decisions and adherence should not be given to total production capacity or route of the producers.
- Ministry of Steel should also take initiatives with the help of BIS to promote and educate the buyer for acceptance of ISI mark product without specifying any route.

H Requirement of Environmental Clearance

Since, Induction Furnace, used electricity as a source of energy as against use of fuel such as coal, furnace oil, gas etc., in other type of furnaces which emits **Enormous amount of pollutants** both **solid** as well as **gaseous** material in to the environment. The production of liquid steel from IF furnace, only solid charge materials such as scrap, sponge iron, pig iron etc., are used which **does not contain** any **carbonaceous material**. Therefore, production of Ingot/Billet from the above furnaces will not **cause** any **appreciable pollutants**.

In today's time a project of <u>30000 TPA</u> production of Billet/Ingot is not viable because of **Economy of Scale**.

Therefore, in order to increase the capacity **beyond** 30000 **TPA** for production of Billet/Ingot, the environmental clearance is required from **Central Pollution Control Board**, which is not only time consuming but also one of the major barriers for modernisation /expansion of existing unit as well as for commencement of new project.

However, for project **less than 30000 TPA**, having in the name of different directors but in the same premises may be allowed by the State Pollution Control Board. Overall the impact of pollution in both the cases remain **constant** in that cluster

The minimum requirement of the project which considered to be viable is **100000 TPA** and above and such unit may be either standalone units on integrated with continuous casting and Rolling Mill to produce final rolled product through the Direct Rolling Technology.

Suggestion

The Government should limit the capacity of furnace (Induction and Electric Arc Furnace, submerged Arc furnace) to **100,000 TPA** and above for the environmental clearances.

I Classification/Definition of Rolling and Re-Rolling Mills

Most of the State provides financial assistance to this sector in the form of subsidy in order to promote Rolling Mill in their cluster. In the absence of clear cut definition on Rolling and Re-Rolling Mills, most of units operated in that cluster are not capable to avail the benefit as provided under the scheme and their applications are still pending with the department due to confusion that whether the unit established by them is treated as Rolling Mill or Re-Rolling Mill.

As a result the existing units are not willing to go for further expansion/modernization and accordingly new unit does not come forward to established and operated in that state. Hence, contribution towards production of total crude steel by that cluster would not increase as expected. Accordingly other units will also be motivated to increase capacity of their units and vision 2025 (i.e. production of 300 MT), which we have seen can be easily achieved.

Suggestion

Ministry of Steel may kindly approve the exact classification of Rolling & Re rolling mills at the earliest so that steel industry can run smoothly

J To promote energy efficiency in Induction Furnace units

In order to bring down the specific energy consumption in SMEs Sector, Ministry of Steel, Government of India had taken a project for re-rolling mill sector which was financially supported by Global Environment facilities (GEF), USA through UNDP. This project was very successful and wonderful results are achieved such as:

- Specific Coal Consumption reduced from 50-80%, in case of pulverized coal fired furnace.
- Specific furnace oil consumptions is reduced by 20-25%
- Burning losses have been reduced more than 50%

Further, any such efforts have a great bearing on the conservations of national resources and also direct impact on reduction of CO2 emissions, which will bring down Global warming and save the Mother Earth.

Suggestion

Ministry of Steel, in association with UNDP should take initiatives in this regard and replicate Energy Efficient Technology, at least in 300 to 400 Induction Furnace units

Others

- As Integrated steel producers generally avail the facility of captive mines for iron ore and coking coal as well selfpower generation which are not available to the secondary steel sector, therefore, at least 4% rebate in Excise duty should be allowed to Secondary Steel Sector on finished product.
- To provide financial assistance to secondary steel sector in the form of interest subsidy and for this government should create a Steel Up-gradation Fund (SUF) as is available to textile industry under TUF.



Conditions of Oversupply in the Indian Steel Industry 2014-15

Dr. Susmita Dasgupta, Joint Chief Economist, Economic Research Unit, Joint Plant Committee, Ministry of Steel, Government of India,

The article presented below is a set of very simple arithmetic calculations from the data on production et al in the JPC Diary of 2015. The data pertains to the year 2014-15, collected and published by the JPC in its capacity as the official body for collecting data on the Indian steel industry. According to the data in the dairy, India's production for sale of mild steel, our prime concern in matters of policy interventions is 83 million tonnes while the consumption for the same period is 70 million tonnes, a

clear over production of 13 million tonnes of steel. About 5 million tonnes of steel is exported leaving us with a net surplus of 8 million tonnes of steel; to this another 7 million tonnes is added inflating our excess supply to 15 million tonnes, which is 20% of the total production. This is a large percentage.

Disaggregating the above picture, we obtain similar stories for all the major categories of steel produced in the country.

Table 1: State of Excess Production in various steel segments in India in 2014-15

in thousand tonnes for 2014-15	Bars and Rods	Plates	HR Coil/Strip	HR Sheets	CR Coils/Sheets	GP/GC Sheets
Production for Sale (JPC)	32251	4700	20205	1138	7509	6892
Apparent Consumption (JPC)	31081	4770	20543	1113	8295	5554
Excess Production	1170	-70	-338	25	-786	1338
Mitigation through Exports (JPC)	392	559	1320	55	585	1629
Net Surplus Production	778	-629	-1658	-30	-1371	-291
Imports (JPC)	854	732	2006	79	1713	444
Total Supply	32713	4873	20891	1162	8637	5707
Excess Supply = Supply less Consumption	1632	103	348	49	342	153
variation in Stocks (JPC)	1632	103	348	48	343	153

Source: JPC and Calculations

The above table is self-explanatory and reveals excess production for the bars and rods and GP/GC sectors. Here not imports but excess production perhaps through excess capacities seem to be more damaging. However, GP/GC sheets are hectically exported to overseas countries especially the EU and the US, leaving us with a mitigated surplus production. But in

case of bars and rods, this is unfortunately not the case, and we end up with inflated unsold stocks. HR sheets appear to be the most balanced though plates, HR strips and CR Coils and Sheets are overproduced. The problem of excess production therefore is a problem with bars and rods.

Presenting the data in neater ways we get the picture as follows:

Table 2: State of oversupply in selected categories of steel in India 2014-15

in thousand tonnes for 2014-15	Bars and Rods	Plates	HR Coil/Strip	HR Sheets	CR Coils/Sheets	GP/GC Sheets
Excess Production	1170	-70	-338	25	-786	1338
Imports (JPC)	854	732	2006	79	1713	444
Excess Supply = Supply less Consumption	1632	103	348	49	342	153
Variation in Stocks (JPC)	1632	103	348	48	343	153

Source: Table above

Here we observe that plates, HR Coils and CR Coils have been under produced and leaves scope for increase in the installed capacities either through brownfield or Greenfield expansions. But the valiant imports leave little scope for additions of

capacities whereas bars and rods need a scaling down of capacities. Despite excess production being the highest in the GP/GC sector, it is one sector where high exports and moderate imports mitigate the situation.

Table 3: Ratios of domestic price to landed cost in India for selected steel items

Price ratios to landed costs	Bars and Rods	Plates	HR Coil/Strip3.	HR Sheets	CR Coils/Sheets	GP/GC Sheets
	TMT Tor 12mm	10 mm	15 mm	HR Coils 2mm	0.63 mm	0.63 mm
Kolkata	0.88	0.90	1.27	0.65	0.82	0.96
Delhi	0.92	0.88	1.23	0.62	0.76	0.85
Mumbai	0.82	0.90	1.29	0.65	0.75	0.92
Chennai	0.87	0.89	1.31	0.66	0.80	1.04

Source: JPC Bulletin, October 2015 and author's calculations.

We observe from the above table that despite a situation of glut, and perhaps because of it, the domestic prices of bars and rods are lower than the landed costs. Plate prices are lower too. But in terms of price competitiveness it seems that the HR sheets are doing the best followed by CR Coils and sheets. This is perhaps because of the protection offered to the products in these categories. HR coils are in the danger zone, combined by voracious imports at cheaper imports, this segment's survival is

indeed threatened and especially given the fact that some marginal capacities could be added here.

Bars and rods are naturally protected against threat of imports and together with a proliferation of capacities reveal the absolute and unchallenged competitiveness of this sector in the Indian steel industry. There should be a consolidated effort at exporting more and more bars and rods from India.

3rd International Conference of MRAI on Indian metal recycling held on 22-23 Jan 2016 at hotel Leela, Gurgaon.

The conference was a timey organized & productive event and we hope that the event will blaze a trail of progress in the metal recycling industry with direct benefits to the economy, the society and the environment.

The event also appeared to have been very successful in making all the concerned to understand the problems existing in the process of importing the metallic scrap/wastes which are valuable resources. It has also been very successful in

conveying the large benefits of the secondary metal production over the production of metals through the metallurgical route.

The issues of the import duty, the time delays in the transboundary movement, the custom clearance of the containerized metal waste cargo, the requirement of scanning the containers for radio activity etc were well elaborated by the expert speakers.

The event was a blend of the most appropriate and representative participation from almost all the concerned major international (Chinacmra, BIR, EMR, ISRI etc) as well as the National (ILZDA, MSRTC, AIIFA, MNFMAL, etc) organizations/agencies.

Implications & consequential effects of BIS Mandatory Gazette Notification for Steel Sector

By Er. P K Jain, B Tech IIT Delhi

– Principal Consultant for BIS matters

Introduction

First of all we would like to introduce Er P K Jain who has recently joined with us as an Associate member of AllFA. Mr. Jain is engaged in Certification & Standardisation Services for Bureau of Indian Standards mainly for all Engineering Products for the last 26 yrs. He has specialized in all types of difficult cases. He starts from where others end. Several Rejected + Pending + Disputed cases of Home Manufacturers have been successfully closed. He handles cases upto Tribunal Level. The success Rate is above 98%.

He has travelled to China, Korea & Thailand several times for inspection under Foreign Manufacturers Certification Scheme (FMCS) of BIS. He has got an excellent collection of Worldwide Standards.

Knowledge + experience + method of cracking a problem are main tools for his success. It is expected that his credentials will be an asset for Member Mills of AIIFA and will go a long way in helping & simplifying the guidelines for Member units to obtain BIS licence without hassle & pain.

Er P K Jain is a member of several Professional Bodies & International Chambers of Commerce. He can be contacted at pkjainconsultants@gmail.com.

Mr. Jain agreed to provide free consultancy services with regard to Problem solving approach for Two Hours (once in a month) for bonafide members of AIIFA at Delhi based AIIFA headquarter.

As per the recent **Gazette Notification dated 18-12-2015** issued by the Ministry of Steel, 15 items of Steel of common use have been put under Mandatory Certification of BIS. The Order shall come into force **w.e.f. 18-03-2016** thereby **making it Mandatory** not to sell, store, manufacture or distribute steel and steel products covered under the scope of Gazette Notification. Mills will **essentially have to obtain a BIS license** for the above mentioned purpose. That means in simple language, Mills will essentially have to obtain BIS licence to manufacture and sell down the line. A Trader **cannot buy non-ISI** Marked material henceforth for the purpose to resell.

It is **advised** in the common interest of the Trade that there will not be any leniency/mercy for defaulting Units as had been happening in the Past. The present Government is fully aware of the consequential effects of this Order.

Need for such an Order:

It had been observed and noted that some kind of Regulatory Control was necessary to make the Steel Industry understand that quality compliance to Indian Standards formulated by Bureau of Indian Standards- an Apex Body in India for Product / Services Quality Control which effects a common man at large, is necessary. With this concept in mind, such an Order which is covering Grades / Varieties which are widely used by a common man, needs to follow some statutory control.

Although such an Order issued is the last recourse left for the Govt. but it becomes all the more imperative that some unscrupulous and greedy people Mill Owners make a mockery of the system and trust reposed in the quality compliance expectations from the Industry. In addition to above, a Third Party Assurance of Quality gives more confidence in the market for international buyers, as well. Thereby increasing the

confidence of International Trade in Indian Industry. This brings lead players from Industry to focus on cost-cutting + improved technology + better Management–Labour relationship for better and higher yield with the same inputs. This improves the financial health of Industry at large.

Methods of compliance with the Order:

Industry at large will be expected to make some investment in checking and ensuring minimum quality compliance of BIS Standards which have to be essentially followed and observed. This will generate employment for educated University Graduates looking for jobs. In addition, it will also open doors for fairer sex to join the industrial team force and become a part of nation building measure.

It is important to note that investments in R & D, Inventions, Patents, Quality Compliance like ISI / ISO etc., are 100% deductible from Gross Receivables and the units do not lose anything from their pockets.

It may be a point worth noting that our learned Prime Minister Shri Atal Behari Vajpayee commented during a visit to China that a sizable part of our educated + talented man-power called females are wasting their energies in the 4 walls of the house to garner and up-bring the family. In case we can make use of this talent which is nothing less than almost 40% - 45% of our employable educated job-seekers, it may bring wonders. .A lot of our Public Money is spent on women in education + talent building + skill development which goes waste for nothing and the country does not benefit from it.

I have personally seen during inspections in China, Korea, Thailand etc. that young ladies running Milling Machines, Lathe Machines, EDMs, SPMs etc. which is un-imaginable in India. Why can't we change this mind set. We only require zeal and determination to do.

Licencing Control:

In order to obtain a licence from BIS for marking your product with the Standard Certification Mark, you may require assistance of qualified professional to make the process smooth. It is not essential to hire professionals but can be done by member units themselves based on their experience and talent. The only limiting factor, at times, is the paucity of time for senior level executives. Alternatively, your Association can play a vital role in this area. There can be a collective bargaining for cheaper alternatives.

Implications & its consequential effects:

The Third Party Inspection Agency will conduct surveillance on the licenced units for their adherence to the minimum stipulated statutory quality compliance. Mills will be expected to issue inhouse Test Reports with each consignment despatched establishing that material has been checked & tested for Quality Compliance.

Material found to be non-compliant with Quality norms will attract penal provisions of law of the land. Genuine and honest Mill owners will stand to gain by way of un-interrupted production schedules with least interference from Govt.

This entire process is little time consuming and in-house Laboratory cannot be created over-night. Allow a minimum time-frame of 06 months for the entire process to complete.

Clarifications & FAQs

Refer to IS 1786: 2008

The items are untouched and prevailing practice will continue. That means TMT Bars of dia below 8 mm will continue to be exempted.

2. Refer to IS 2062: 2011

Earlier Round & Square Bars of dia / size below 6 mm were exempted. But now with the introduction of IS 432 (Part 1): 1982, sizes specified herein are also covered by the Gazette Notification. That means Round & Square Bars of dia / size 5 mm are also covered.

IS 432 (Part 2): 1982 covers Hard drawn steel wire of dia 3, 4, 5, 6, 8 & 10 mm—as Preferred Sizes will be covered under Mandatory Certification. However non preferred sizes 2.65, 3.15, 3.55, 4.5, 4.75, 5.3, 5.6, 6.3, 7.1, 7.5, 9.0, 9.5, will continue to be covered by the Standard till further revision of the Standard. Efforts should be made to use only Preferred Sizes.

Minimum Import Price (MIP) on Iron and Steel

As you are aware, the Government has imposed a minimum import price (MIP) vide notification **No. 38/2015-2020 dated 5th February, 2016** issued by Directorate General of Foreign Trade, Ministry of Commerce & Industry, Department of Commerce, on

Iron and Steel under Chapter72 of ITC (HS), 2012-Schedule-Iranging from\$341 to \$752 per tonne on 173 steel products to provide relief to local steel makers hurt by an increase in cheap imports of these items

MIP Fixed on Semi Finish & Finish steel Products

Particulars	Fixed MIP in USD/MT	Current Import Price	Imports in FY (April'14-Mar'15	Imports in FY16 (Apr'15-Jan'16) Qty in MnT	% share in FY16 Total imports
Ingots & Billets	362	275-280	` '	, ,	· ·
Blooms	352	265-270	0.36	0.52	6%
Slabs	341	240-245			
Finish Flat					
HRC/Plates	445-500	290-300	2.18	3.38	38%
CRC	560	360-370	1.23	1.22	14%
Galvanised steel	643-752	470-550	1.15	1.21	14%
Electrical sheets	445-750	350-750	1.97	1.61	18%
Finish Long					
Re-bar	449-455	290-310	0.16	0.24	3%
Wire rod	455	290-310	0.76	0.73	8%
Total			7.80	8.91	100%

Source : DGFT

The MIP conditions are valid for six months from the date of the notification (5th February, 2016) or until further orders, whichever is earlier. However, the MIP will not be applicable on imports under advance authorisation scheme and high-grade pipes used for pipeline transportation systems in the petroleum and natural gas industry. The notification also states that imports/shipment contracts (under Letter of Credit) entered into before 5th February, 2016 shall be exempted from the MIP conditions.

In fact, this move will ensure a level-playing field to Indian steel industry which has been adversely affected by dumped imports from various sources and we are thankful to the Ministry of Steel and Directorate General of Foreign Trade, Ministry of Commerce & Industry, Department of Commerce, Government of India for considering our (AIIFA) request **not to include metallic waste and scrap** under said notification.

While going through the notification it is observed that there is a lot of confusion to this notification and therefore, AIIFA requested to DGFT office to Clarify some of the quarries (as mentioned in our letter) at the earliest in order to facilitate smooth application of the new notification. The pointwise clarification made by DGFT against the quarries raised by us are as under:

Question1: Whether Imports below the USD unit value specified in the Notification are restricted for imports?

Answer: Imports effected on or after 5.2.2016 below the USD unit value specified in the Notification will be restricted from entry into India.

Question2: What must be the landed unit cost of the Importer?

Answer: Landed unit cost must not be below the specified MIP.

Question3: Whether it is possible to import items covered under Notification No. 38 (2015-2010) having a unit CIF import price below the MIP by paying custom duty on the MIP unit value specified in the Notification?

Answer: No. It is not possible to import items covered under Notification No. 38 (2015-2020) whose unit CIF import price is below the stipulated MIP by paying custom duty on the MIP specified in the Notification. The imported items must have a unit CIF value equal to or above the MIP.

Question4: Import shipments are in Transit and shipped (B/L Date) before 5th February, 2016 from China. As the Notification facilitates only LC holders, what happens to importers doing business on DA/TT basis?

Answer: Importer are governed by provisions as in Para 2.17 of Handbook of Procedure (2015-20) which inter-alia lays down that the date of reckoning of "Import" is decided with reference to date of shipment/dispatch of goods from supplying country as given in Para 9.11 of Handbook of Procedure; and not the date of arrival of goods at an Indian Port. Accordingly, imports effected on 5.2.2016 and thereafter will be governed by the Notification No. 38 dated 5th February, 2016.

Question5: Whether imports on letter of credit issued on 5th February, 2016 will be permitted for clearance?

Answer: No, In the Notification it is clearly stated that import shipments under letter of credit entered into before the date of the Notification shall be exempted from the Minimum Import Price condition subject to Para 1.05(b) of the Foreign Trade Policy 2015-20.

Question6: Will the letter of credit required to be registered? If so, with which authority?

Answer: As per Para 1.05(b) of the Foreign Trade Policy 2015-2020, for operationalizing irrevocable letter of credit, the applicant/importer will have to register the Letter of Credit with jurisdictional Regional Authority (RA) against computerized receipt, within 15 days of the imposition of any such restriction or regulation.



CAPACITORS FOR INDUCTION FURNACES

(Suitable for Electrotherm, Inductotherm, Megatherm, ABB, ABP, G.A. Danieli, GEC, Pillar, AJAX & all other brands of Induction Heating & Melting systems.)



TECHNICAL SPECIFICATIONS:

OUTPUT : Upto 8,400 kVAr.

VOLTAGE : Upto 4,000 Volts AC.

FREQUENCY : Upto 20,000 Hz.

FREQUENCY : Upto 20,000 Hz.

TAPPINGS : Tapped / Untapped.

PHASE : Single Phase.
COOLING : Water Cooled.
MOUNTING : Horizontal / Vertical.
CASING : Aluminum / Brass.

CASE DESIGN : Isolated (Dead) / Live Case.
PROTECTION : Thermal & Over Pressure.
STANDARDS : IEC & EN:60110-1/2, ISS:9251

RECTIPHASE CAPACITORS

Marketing: A-16, Gool Mahal, 10-Sleater Road, Grant Road (W), Mumbai - 400 007, INDIA.

Telefax : (+91-22) 2381 9886 / 2597 4042. Mobile : (+91) 93222 29993 / 99207 14448

www.rectiphaseindia.com

E-MAIL: sales@rectiphaseindia.com / powerthermsales@gmail.com



... Enhancing the power of Induction!

Teeming Compound

For Bottom Pouring of Alloy Steel & Stainless Steel Saru Pagrett is used by more than 90% Steel Makers

Get the Best Results.









THE SERVICES OF OUR ENGINEERS ARE ALWAYS AVAILABLE FOR ANY TECHNICAL GUIDANCE REQUIRED

SARU AIKOH CHEMICALS LTD.

Regd. Office & Works:

A-2, Industrial Estate, Partapur, Meerut-250 103 (U.P.) INDIA Ph.: +91-121-2440641, 2440636 Fax: +91-121-2440644 E-mail: info@saruaikoh.com, sales@saruaikoh.com

Visit us at : www.saruaikoh.com



Quality Management Syster Cert. No. 1378

TECHNICAL COLLABRATION WITH

M/s. AIKOH CO. LTD. JAPAN

M/s. NIPPON THERMO CHEMICALS LTD. JAPAN

With Best Compliments From

MEENAL CRAMICS PVT. LTD.

Office: C-334, SIDDHI VINAYAK TOWER, B/H DCP OFFICE,

AHMEDABAD - 380 015, GUJARAT, INDIA

Email: inquiry@meenalceramics.com, navneetsp@yahoo.com

Mobile: 09810081598

We Manufacture Complete range of:

- * High Alumina Refractories for EAF Roof, Ladle Linings, Concast Refractories.
- Fire Clay, High Alumina Refractories & Monolithics for Reheating Furnace of Rolling Mills which includes press made Hanger & Shoulders.
- Fire Clay & High Alumina Refractories for Cement Rotary Kilns.
- * Fire Clay & High Alumina Refractories for Sugar Industries.
- * Fire Clay & High Alumina Refractories for Other Misc Industries.

Our Plant:

Plot No. 226, Vadawswami Village Nr. Chhatral, Ta-Kalol, Dist - Gandhinagar, Gujarat

transformerindia.com

RANSFORMER

THANKS TO "YAZD STEEL-YAZD IRAN" **FOR CONFIDENCE** REPOSED IN US.



MADE IN INDIA

THE POWER OF WE



FURNACE, POWER AND DISTRIBUTION TRANSFORMERS UPTO 1000MVA, 1200kV CLASS

- Furnace Transformer (up to 200MVA)
- Rectifier Transformer
- Power/Distribution Transformer
- Generator Transformer
- Auto Transformer
- Special Purpose Transformer

THE **POWER** TO **TRANSFORM**



VISIT US AT:



13-15 September, 2015

Hall No.: 06 Booth No.: M 03



Survey No. 427 P/3-4, & 431 P/1-2, Sarkhej-Bavla Highway, Moraiya, Tal.: Sanand, Dist.: Ahmedabad 382 213, Gujarat, INDIA. 🖂 indltrafo@transformerindia.com

हार्दिक अभिनंदन

वंदन ... आभार.

SECONDARY STEEL SECTOR, THE BACK BONE OF CHHATTISGARH ECONOMY

- 75+ Sponge & Integrated Steel Plant
 200+ Mini Steel Plant (Melting Furnaces)
- 180+ Re-Rolling Mills 35+ Ferro Alloys Manufacturing Units.
- Biggest Consumer of CSPDCL (500 MW Per Day)
 Total Employment above 1.25 Lacs.
- Total Existing Capacity above 8 Million Tons Total Investment above ₹25,000 Crores.

अध्यक्ष : अशोक सुराना महासचिव : संजय अग्रवाल कोषाध्यक्ष : अंकित सिंह

छत्तासगढ़ ामना स्टाल प्लाट एसा।सएशन विनीत: एवं समस्त सदस्यगण, रायपुर (छत्तीसगढ़)



POWERING PROGRESS™



THE VALUE CONNECTION IN FURNACE COOLANT APPLICATIONS

CARBON FREE HOSE

Electrical resistance: Conductivity less than 20 micro

Recommended for:

With excellent low leakage current less than 20 Micro Amp. at 6000V D.C., Gates Carbon Free Hose is recommended for Furnace Coolant & Electrical Cable Coolant Applications in Steel Industry and other nonconductive applications.

Max. Working Pressure	17 Bar	14 Bar	10 Bar
HOSE I.D.	3/8", 1/2", 3/4 ", 1", 1-1/4", 1-1/2"	2", 2-1/4", 2-3/8", 2-1/2", 2-3/4", 3", 3-1/2"	4"

^{**}Also available in ceramic/fiberglass cover

SAVE ON DOWN TIME

Key Features

- First Choice of OEMs
- Superior Synthetic Rubber Compounds for Long Life
- Low Leakage Current
- Available in Long Lengths of 30 mtrs. in sizes above 2"I.D.

PLANT MASTER® CF CABLE COOLING HOSE

Minimum Resistance of Tube and Cover R >10° Ohm

Recommended for:

Light weight water hose for industrial application where Non-conductive hose is required.

Max. Working Pressure	10 Bar
HOSE I.D.	3/8", 1/2", 5/8", 3/4", 1", 1-1/4", 2"

**Also available in ceramic/fiberglass cover

To know more visit:

GATES INDIA PVT. LTD.

Ambala-Chandigarh Highway, Lalru-140501 (Punjab) Customer Care: 01762 506888/89

Fax: 01762 506833

E-mail: customer.care@gates.com

SALES & SERVICE

Kolkata

 Ahmedabad
 98980
 52814
 Delhi
 98187
 00044
 Faridabad
 81463
 55440

 Hyderabad
 98660
 34568
 Indore
 94250
 66374
 Jaipur
 97998
 12767

 Bangalore
 98457
 04587
 Mumbai/Pune
 94228
 65515
 Chennai
 87544
 90332

98317 04712



S. A. ALLOYS PRIVATE LIMITED SHREE SALASAR STEEL & TRADERS

(Deals in Ferrous & Non Ferrous Metals, Iron & Steel)

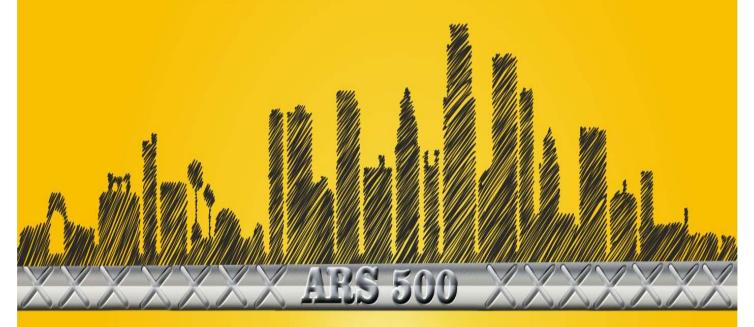


Office: 2/103 , ASHISH COMPLEX , NEW RAJDHANI ENCLAVE , VIKAS MARG, DELHI – 110092. Ph.22444286, 42440412, 43015650. Email : saalloyspvtltd@yahoo.co.in

Our USP: Consistent Quality & Timely Delivery ...

POWER OF CONSTRUCTION





ASSURED REAL STRENGTH



Fe 500
MADE FROM BILLETS

ARS STEELS & ALLOY INTERNATIONAL PVT. LTD.

D-109, 2nd & 4th Floor, Anna Nagar East, Chennai – 600 102. Phone: 044-4560 6700, Fax: 044-4350 0597

ARS 500D

LAUNCHING SOON
FROM THE PIONEER'S IN TMT BARS

Email: arstmtsales@gmail.com, sales@arsmetals.co.in Website: www.arsgroup.in

INDENTING HOUSE FOR IMPORTED SHREDDED STEEL SCRAP, HMS 1, HMS 1 / 2 & PNS.



Cellpap India Private Limited

302, Vishwa Nanak, ICT Link Road,

Chakala, Andheri (East), Mumbai – 400 099 (India)

Phone: 022-2838 1705 / 2838 1706 / 2838 1707

Fax: 022-28356650

E-mail: metals@cellpap.net

Website: www.cellpap.net



DCR Technology



Modular Caster

The only solution for direct rolling



Continuous Billet Casting Machine

Upcoming Events: - Please visit us

- IFEX-2016 Coimbatore 29-31 Jan Hall-D, Stall J-10
- Metal & Steel Middle East- Cairo, Egypt-18-20 Feb Hall-2, Stall-A-11
- Metal & Steel Saudi Arabia, Riyadh-1-4 May Stall-A-10

Engineering & Projects (E&P) division of Electrotherm is a leading designer and manufacturer of wide range of metallurgical equipment for melting, refining and casting, with related auxiliary machineries for mini steel plants, foundries and heat treatment industry. Due to high level expertise and vast experience, Electrotherm (E&P) is the most preferred steel plant maker from Iron Ore to Rolling Mill up to 1 MTPA capacity through various alternative routes.

Electrotherm took initiative to develop Modular and Compact Billet Casting and DCR Technology for direct rolling to meet needs of existing ingot making units willing to migrate to billet making and new mini steel plants. It is suitable for casting heat size as small as 5 ton and modules are available for casting section from 80 mm x 80 mm to 150 mm x 150 mm reduced operating cost and casters that are simple and safer to operate.

- Complete "Melt to Cast Solutions"
- Minimum transition time from existing ingot making to billet plant making almost without affecting existing plant production
- The required casting platform size is 6 m x 9 m for single strand and suitable for existing ingot making plants
- Flexibility of operating each strand independently for optimized caster usage according to availability of molten metal
- Flexible configuration with possibility of up gradation and expansion by adding modules
- Substantial saving due to reduced scale generation
- Complete support for direct rolling

Product Range

| Induction Melting Furnaces | Electric Arc Furnaces | Electrotherm Refining Furnaces (LRF) | Metal Refining Konverters (AOD) | Continuous Casting Machines | Coal based Rotary Kiln (Sponge Iron) Plant | Coal based Tunnel Kiln (Sponge Iron) Plant | Turnkey Projects for steel making | Turnkey Projects for Integrated Plant through DRI – SMS route | Material handling equipment like hydraulic Grab, Vibratory Feeder, Lining Vibrator... | Plant design and engineering | Plant Automation | Productivity Improvement Equipment (PIE) for improving plant productivity, end product's quality and plant efficiency.



ELECTROTHERM (INDIA) LTD.

72 Palodia, Via Thaltej, Ahmedabad-382115, Gujarat, India Phone: +91-2717-660550 Email: mkt@electrotherm.com Website: www.electrotherm.com