

ALL INDIA INDUCTION FURNACES ASSOCIATION



AIIFA

INDUCTION FURNACE NEWSLETTER

Vol. No. XV

Issue No. 9, 10, 11

Sept., Oct., Nov., 2016

EDITORIAL BOARD

Sandeep Jain
President

Gopal Gupta
President, Emeritus

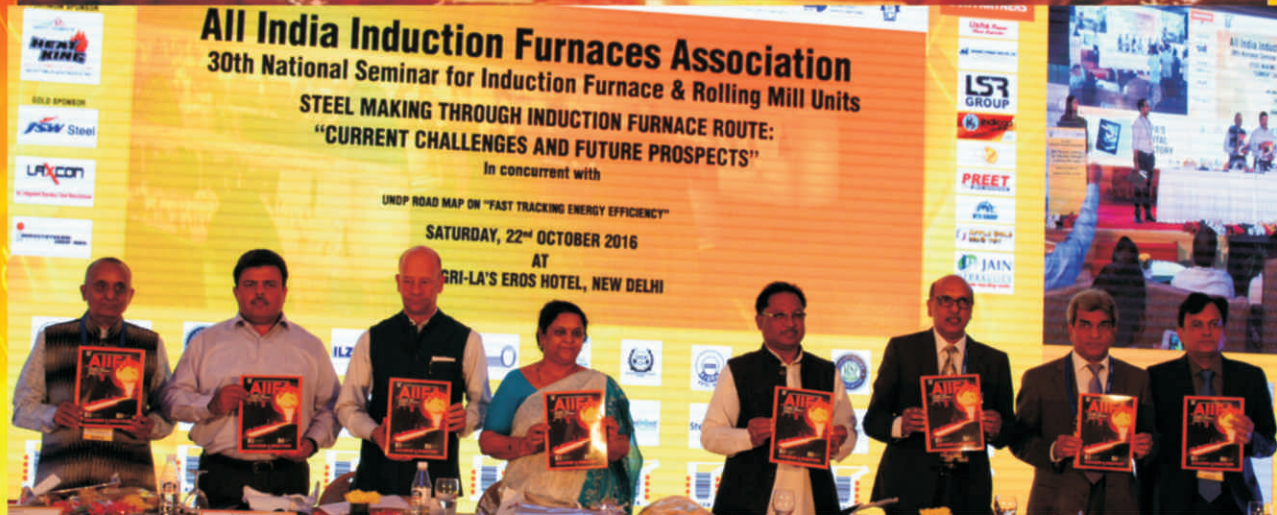
Kamal Aggarwal
Hon. Secretary General

A.K. Aggarwal
Hon. Secretary General

Ashok Garg
Sr. Vice-President

Ashok Surana
Sr. Vice-President

Satish Chand Goel
Sr. Vice-President



What's Inside

- ❖ AIIFA Introduction
- ❖ Re-Categorization of Foundries using Induction Melting from Red to Orange
- ❖ Brainstorming Meeting on Fast-tracking Energy Efficiency in Electric Induction Furnace (EIF) association.
- ❖ AIIFA's 30th National Seminar on "Steel Making Through Induction Furnace Route: current Challenges and Future Prospects"



AIIFA'S DIGITAL DIRECTORY



AIIFA INITIATIVE



"More Steel with Less Energy"

"One Nation, One Grid, One Tariff"

"GREY HELPS GREEN"



"Recycle of Steel is the only Option to Make Earth Green"

AIIFA SECRETARIAT:

504, Pearls Omaxe, Tower - I,
Netaji Subhash Place, Pitampura,
Delhi - 110 034

Tel: 011-2735 1346/1347

Mobile: 9810410186

Fax: 011-2735 1345

Email: aaiifa6@gmail.com

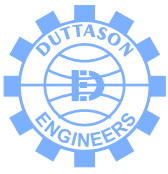
website: www.aiifa.org

facebook A/c :

aiifa1987 or 9810410186

twitter A/c :

aiifa1987@gmail.com



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 ; duttason@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.

SHRADHA THERMO TIPS

Our Speciality In Steel Plant



THERMO TIPS MINI



THERMO TIPS MARK-III



THERMO SAFE TIPS



LARGE DISPLAY UNIT



THERMO TIPS MARK-VII



THERMO TIPS REUSABLE MINI



THERMO TIPS BMD



SHRADHA GROUP

A PRADEEP THAKUR VENTURE

PETROLEUM | THERMO SENSORS | CONSTRUCTION | FOUNDRY | WAREHOUSE

SHRADHA THERMO SENSORS

Gat No. 95, Alandi-Markal Road, A/p Solu, Taluka Khed, Dist. Pune - 412 105

Email: shradhathermosensors@gmail.com, instrument@shradhagroup.com

purchase@shradhagroup.com, account@shradhagroup.com

Mobile: 9623555655, 9822883536

www.shradhagroup.com

www.shradhathermosensors.com



EROS ENVIROTECH PRIVATE LTD.
(Formerly Eros Consultant)
Air & Water Pollution Control Systems

**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:

- ✓ Centrifugal Fans
- ✓ Pulse Pleat Based Mini Bag Houses
- ✓ Water Cooled Heat Exchangers
- ✓ Air Lock Rotary Valves
- ✓ Heat Recovery Systems
- ✓ Sand Reclamation Systems
- ✓ Effluent Treatment Plants
- ✓ Sewage Treatment Plants

Registered Office

109-110, 1st 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

ALL INDIA INDUCTION FURNACES ASSOCIATION

INTRODUCTION

- **All India Induction Furnaces Association (AIIFA)** was established in the year 1987. It is a premier industry association in the country, representing a significant section of the small and medium enterprises steel units, which produce steel through Electric/ Induction Furnace route.
- The Association has **seven regional branches**, located at Chennai, Hyderabad, Mumbai, Indore, Cuttack, Jaipur Bhiwadi, Mandi Gobindgarh, Ludhiana and Raipur.

OFFICE BEARERS

- Shri Gopal Gupta – President Emeritus
- Shri Sandeep Jain – President
- Shri Kamal Aggarwal – Hon. Sec. General
- Shri AK Agarwal – Hon. Sec. General
- Shri Ashok Garg – Sr. Vice President
- Shri Ashok Surana -- Sr. Vice President

ADDRESS

504, Pearls Omaxe, Tower-I, NetajiSubhash Place, Pitampura, Delhi-110034

Tel No. 011-27351346/1347, **E-mail:**

aaiifa6@gmail.com, **Web:**www.aiifa.org

AIMS OF THE ASSOCIATION

- To protect the interest of the Induction Furnace units
- To deal with Ministries and Government departments on various issues concerning to Induction furnace units
- To take up the issues with Bureau of Indian standards for amendment of BIS Standard and also for the registration of Induction Furnace units under BIS Certification Mark Scheme
- To interact with research laboratories for getting know-how of the new development for mitigation of energy consumption in Induction Furnace units as well as for production of quality steel

INDIAN INDUCTION FURNACE INDUSTRY-AN OVERVIEW

Number of operating Induction Furnace	1350			
Installed Capacity	36.79 Million tonne			
Furnace Size	1 to 30 tonne			
Input Raw Material	Sponge Iron, Steel Melting Scrap			
Production of Sponge Iron ('000 tonnes)	2011-12	2012-13	2013-14	2014-15
Gas Based	5166	3940	2683	2354
Coal Based	19805	19067	20189	21889
Import of Melting Scrap ('000 tonnes)	2013-14	Rs. Crores	2014-15	Rs. Crores
	4926.71	15131.4	5784.34	19019.84
Grade of Steel Produced	Non-Alloy, Alloy Steel, Stainless Steel, Special Steel for Defence and Space			
Crude Steel Production	2012-13	2013-14	2014-15	2015-16*
	25.68MT	27.58MT	28.28MT	21.09MT
Capacity utilization	76%	76%	77%	
Contribution of IF units in domestic steel production	45%			
Contribution towards Finished Steel Long Products	65-70%			
Employment Opportunities	Direct		Indirect livelihood	
	10 Lakh people		15 Lakh families	

*April- December 2015-16

ADVANTAGE OF RECYCLING OF STEEL SCRAP – AT A GLANCE

Recycling of one tonne of steel scrap saves	Iron ore	1.2tonnes
	Coal	0.7 tonnes
	Lime stone	0.5 tonnes
	Oil	287 litres
	Landfill	2.3 cubic meters
	Water	40% less
	Reduction in CO2	58%

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 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

Demand and Supply 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) formaking 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.

Operation 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**.

Re- Categorization of Foundries using Induction Melting from Red to Orange

All Industries are classified into four categories i.e. Red, Orange, Green & White based on their Air /Water emission levels and as per the Hon CPCB order No **B-29012ESS (CPA)/2015-1 dated 7th March 2016** notification all the Units (Steel Melting & Foundries) having Furnaces with a melting.

Revised Classification of Foundries as per TNPCB Guidelines dated 02.08.2016

Type Code	Category	Industry Sector-Types
2063	Orange	Steel and Steel products using various furnaces like blast furnace/ open hearth furnace/ induction furnace/ arc furnace/ submerged arc furnace/ basic oxygen furnace/ hot rolling reheated furnace

Table below shown only for reference is for melting using coal/ coke as media and it is natural to define so due to inherent nature of the process-SPM/ Flue gas emission.

Type Code	Category	Industry Sector - Types
1067	Red	Industry or processes involving foundry operations having capacity of 5 MT/hr and more as such units require coal/ coke are more than 500 kg/hr
2042	Orange	Industry or processes involving foundry operations having capacity less than 5 Mt/hr and more as such units require coal/coke more than 50 kg/hr

Brainstorming Meeting on Fast-tracking Energy Efficiency in Electric Induction Furnace (EIF) Association.

UNDP in association with **AIIFA** organized a brainstorming meeting in the evening of **21st October 2016** to explore the possibilities of fast-tracking energy efficiency in the Electric Induction Furnace (EIF) sector in India. The meeting was chaired by **Shri S. Abbasi, Joint Secretary, Ministry of Steel, Government of India**. The panel of speakers consisted of **Dr. S. N. Srinivas**, Programme Officer, UNDP, **Mr. A.C.R. Das, Consultant, Ministry of Steel** and **Shri Kamal Aggarwal, Hon. Secretary General, AIIFA**. The welcome address for the event was delivered by **Ms Manisha Sanghani, Programme Associate, UNDP**.

While delivering the welcome address **Ms. Sanghani** stressed on the importance of the transformation brought in by the efforts of the steel project in the sector. Followed by this was the address given on behalf of the association by **Mr. Kamal Aggarwal**. During his remarks, **Mr. Aggarwal** specially congratulated the efforts taken by UNDP in transforming the Indian steel sector.

Following this, **Dr. Srinivas** presented the outcomes of the **Phase 1** and **Phase 2** of the project. The results in terms of energy saved, monetary savings and other impacts were discussed upon during his presentation. The next presentation was on the technology implemented in **4 Model Electric Induction Furnace units** and the benefits achieved, made by **Mr. K. Shanmuganathan, Project Associate, UNDP**. During his presentation, **Mr. Shanmuganathan** highlighted the different energy efficient technologies implemented by the units. As part of the meeting, **Mr. Gopal Gupta, MD, M/s Laxcon Steels Limited, Ahmedabad** presented the success story of the project intervention in his plant.

Followed by this was the remarks given by **Mr. Abbasi**, wherein he stressed on the growing needs to energy efficiency for becoming sustainable. Mr. Abbasi also highlighted that the Ministry of Steel is committed towards supporting the secondary steel sector to grow in the Indian steel market

The meeting ended with a vote of thanks offered by **Mr. Kamal Aggarwal**.

SNAP SHOTS AT A GLANCE



AIIFA's 30th National Seminar on "Steel Making Through Induction Furnace Route: current Challenges and Future Prospects"

BACK GROUND

As you are kindly aware that, with its crude steel production reaching **109.85 Million tonnes** (MT) by **2014-15**, India stand high in the global steel market with an ambitious target of the government producing **300 Million tonnes** (MT) by **2025**. Being the third largest steel producer in the world, the steel sector in India contributes to **nearly 2%** of the country's **gross domestic product**.

There are over **1300 Induction furnace units** and over **1700 steel rolling mill units**, scattered across different geographical locations across all states in the country. The sector accounts for direct employment of over **10 lacs people**, ensures direct or indirect livelihood opportunities' to over **15 lacs families** contributing **28.24MT (2014-15)** of steel annually, which is **57%** of the domestic crude steel production every year.

Huge scope for growth is offered by India's comparatively low per capita steel consumption (about **61.9 Kg** in 2015-16) and the expected rise in consumption due to increased growth predominantly in infrastructure, construction, automobile and railway sectors among others. Steel industry and its associated mining and metallurgy sectors have seen a number of major investments and developments in the recent past.

Amidst the lucrative national figures and rising importance of India in global steel market, the volatile market of the small and medium size enterprises remains a fact. The manufacturers of steel through the induction furnace route forms a significant link to the Indian steel industry contributing over **65-70%** of the production of finished steel **long products** in the country. However, most of these small and medium enterprises have faced huge losses in the recent years. A number of the companies are experiencing difficulty to survive and are on the verge of collapse.

The reason for such declining conditions of the small and medium enterprises steel units can be sighted to a number of reasons like demand deficiency, decline of trade competitiveness and surge in imports, financial fragility, excessive taxation, low availability of skilled

manpower, among others. The future of steel manufacturing through induction route will be at threat, unless the entire fraternity **comes together** and face the **road-blocks** under **joint capacity**.

With this idea in mind, AIIFA organize its 30th National seminar on "**Steel Making through Induction furnace route: Current Challenges and Future Prospects**" held on **22nd October, 2016** at **Hotel Sangri-La's Eros, New Delhi**, in order to create awareness among this sector.

The seminar was focused mainly on the deliberation on important Techno-Economical issues focusing on problems, challenges and its solutions to the industry. Considering the economic turmoil facing by the country at present on many aspects, the topic of the Seminar focused mainly on Sustainability, R&D on Technology, Open Access of Power and Energy Efficiency.

Eminent speakers from the Government organization as well as also from secondary steel producer specialized in different areas were invited to share their valuable inputs, expertise and experience in the Seminar and to present their technical papers on latest technological developments and energy efficiency measures for the secondary steel sector.

More than **250 Participants** comprising the personalities from Steel Industry especially from Public Sector units, Central Government officials, R&D Institutions related to Steel and Steel Products, Rolling and Re-Rolling Mills Industries, Sponge Iron/DRI Producers, Ferro Alloys Producers, United Nations Development Program (UNDP), CSIR-NML, NISST, JPC and other eminent industrialists including members of AIIFA from various parts of the country attended the Seminar.

Majority of the participants were either owners, CEOs or belonged to the top management team of their respective organizations. Others too were sufficiently experienced and belonged to the senior management level of their respective organizations. This participant profile helped in having energetic and attractive discussions.

INAUGURAL SESSION

Shri Sandeep Jain, President (AIIFA) welcomed the dignitaries on the dais and participants attending the Seminar. The dignitaries on the dais were facilitated with flower bouquets by the AIIFA. In his welcome address, **Shri Sandeep Jain** gave a background about the conceptualization of this Seminar.

He said that Induction furnace technology has been accepted by many countries, across the globe, with numerous plants being set up in African and Middle-East region. Today, India proudly possesses some of the leading equipment manufacturer from the sector; who are recognized beyond boundaries. Government of India's support to the industry has always been a morale booster to the industry.

The sector is huge consisting of almost 1300 active Induction furnace units and around 1700 rolling mill units. The consistency of operation of this sector is determined by many factors; predominantly the demand of steel. In addition to this, the sector is bounded by many national and state level policies. Rising power tariff; reducing demand of steel and rising raw material costs, in the recent past, has worsened the situation of the steel units. In such an acute situation, it is all the more important that the steel fraternity and the Government jointly work towards a sustainable and better future for the steel industry.

He also said that, this Seminar discussed not only the readiness of this sector but also the issues and challenges faced by the steel industry and in particular the secondary steel sector. He hopes that, the Seminar provided a good platform for the steel producers in the secondary sector to identify the right set of opportunities and discuss answers to the issues faced by the industry.

Shri Kamal Aggarwal, Hon. Sec. General (AIIFA), gave a brief on present scenario of Secondary Steel Sector. He said that, as 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 10 years 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** as we have seen by 2025. India has become the third largest steel producer in the world

and envisions being the second largest producer soon.

He said that, India is looking to triple its production capacity from **110 MT** presently to about **300MT** in the next **10 years**. Huge scope for growth is offered by India's comparatively low per capita steel consumption (about **61.9 Kg** in **2015-16**) and the expected rise in consumption due to increased growth predominantly in infrastructure, construction, automobile and railway sectors among others. Steel industry and its associated mining and metallurgy sectors have seen a number of major investments and developments in the recent past.

Since the steel sector is a core sector for the economy and has a multiplier of **6.8 per cent** to the **GDP**, therefore, the Ministry of Steel, Government of India, in the recent past has duly acknowledged the importance of the sector by initiating some key policies and development activities in favour of the sector. He highlighted some of the major initiatives taken by Ministry of steel to boost up this sector:

- a) Bringing Primary and Secondary steel producers in a single platform. This historic decision was long awaited and would provide a vital motivation for the small and medium enterprise units to come forward and compete equally with the bigger counterparts.
- b) Enforcement of Quality Control Order to produce quality steel as well as to generate confidence level of industry to face the global competition.
- c) In process to implement an end of life for vehicles, which could bring a big transformation in terms of raw material security for the steel sector.
- d) In process to develop new flux compatible with neutral lining which is more economical to the industry as against dephosphorisation of steel while making through this route.
- e) In process to bring Sponge Iron under Mandatory Quality Control Order to produce quality steel as per BIS Standard.
- f) Considering the long pending demand of State Chhattisgarh towards re-opening of ICD's at Raipur to import HMS I & II Metal scrap.
- g) Launching of **MSTC Metal Mandi "M3"** to

improve the marketing potential of Medium and small scale steel producers.

- h) Imposition of MIP, Safe guard duty and Anti-dumping duty on steel products to curb steel import

He also said that the increase in frequency of dialogues and discussion between Ministry of steel and the steel producers/association shows the intensity with which even Government is putting effort for the development of this sector. AIIFA stands committed for supporting all such positive initiatives by the Government and strongly feels that the target of producing **300 MT steel by 2025** is possible with efforts of all.

With the ambitious target of higher production of steel on role, the demand for steel also needs to increase. The current level of infra-structural development across sectors is not sufficient enough to increase steel demand. Increase in per capita consumption of steel can be brought by more innovative and holistic approach. Use of steel needs to be embedded with the developmental strategy of the country. Increase in use of steel structure in multi-storied buildings, multi-level parking's, beautification of parks and footways; cross-over bridges; heavy infrastructure like roads ,bridges and canals etc., will lead to a prospective demand-supply balance in total steel production of the country.

However, there are some key issues which are causing hindrances for the Indian private steel sector to grow. Some of them are as follows:

1. **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. Till that time, the quality control order for steel may be kept in abeyance.
2. As countries like USA, Europe, UK, Australia, China, Thailand, Pakistan etc. there is no basic custom duty on import of steel melting scrap therefore, recommendations of Joint Plant Committee (JPC), towards abolition of basic custom duty on import of steel melting scrap should be considered.
3. 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

4. Assessing **custom duty** on the **invoice value** instead of **notional value**
5. 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**.
6. As decided by the Ministry of Steel for **setting up of 2 testing cum training centres at Bhiwadi and Raipur**, the approval of these centers may be accorded immediately to get the facilities of testing of raw materials and quality of steel produced to need based cluster. The cost of land and building shall be borne by the Association in that cluster. The Ministry of Steel is requested to expedite the action required in this regard.
7. Since, fuel is the main cost of conversion in this sector, therefore, if the specific energy cost is reduced substantially, it will have direct bearing on the cost of productions and there by the improvement in bottom-line of the units. 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. Therefore, it is requested that, Ministry of Steel, in association with UNDP should take initiatives **to promote Energy Efficient Technology**, at least in **300 to 400** Induction Furnace units.
8. In order to promote state level industrialization, most of the State Governments across the country, are providing lucrative incentives to industries in their schemes in the form of capital subsidy, interest subsidy, wage/employment subsidy etc. These incentives are being provided with an aim to motivate/attract entrepreneurs to make more investment towards modernization / expansion / diversification etc., which in-turn has a significant advantage in building the State's economy. Ministry of Steel is requested to kindly **release the definition for Rolling and Re-Rolling Mills**, based on the **committee's report**, so that eligible members can avail benefit.

9. The industrial trial carried out earlier by CSIR-NML and NISST, it was observed that phosphorus content in treated steel using the flux developed by CSIR-NML was within the desired limit and the product was conforming to BIS Standards. However, the **lining erosion pattern** during the trials **were not satisfactory** and the expected lining life was **only 5 to 6 heats** which makes the process **uneconomical** because flux developed for de-phosphorisation in silica lining is uneconomical due to low lining life. Hence, the **flux and process** cannot be transferred to industries. Therefore, Ministry of steel is requested to engage CSIR-NML to develop a completely new flux **compatible with neutral lining** which is **more economical** to the industry.

10. **EIF industry** is charged one of the highest tariffs in India in the name of **power intensive units**. Whenever there is power shortage our industry is first to force upon power regulatory measures thus restricting production and increasing fixed expenses. Getting power through open access of power has also been dashed by the power coms of various states by imposing cross subsidy and surcharges and wheeling and transmission charges so as to make open access of power unviable

In reality induction furnace industry is the most stable and balanced load and is also the **highest revenue generating per kilowatt of connected load**. The central government should intervene and **power ministry** should be requested to make **some by-laws** so that the states are **restricted to put restrictions on open access of power** in the form of **cross subsidy and other charges**.

These barriers are leading to decline in the interest of the investors to increase capacity of existing plants or go in for green-field units. The last few years has already seen a decline in the total production trends from the small and medium enterprises. It is prudent to mention here that more and more units are coming up in African and Middle-East countries; which have conducive environment for the growth of steel. In order to stop the brain drain and decline of growth in country's steel private production; it is important that immediate steps are taken to motivate the indigenous companies to increase their level of investment in the

country. Removal of the barriers for accelerated development of the small and medium enterprise units is the call of the day.

The small and medium enterprise units carry with it a unique legacy of being flexible and user friendly. While the big steel plants run in long batches, the small sector is flexible enough for easy change over besides being capable of making any section and size. The flexible nature of these businesses coupled with their presence across the nations, provides them a unique upper hand to become cost competitive for users.

AIIFA strongly feels that the sector along is capable of catering to the country's need and demand for long steel products. The country can prosper in a large way when the big steel plants concentrate on flat steel production leaving the long steel products to their small counterparts. This will increase the productivity of the country at a high-speed level.

The presence of Hon'ble State Minister steelin this Seminar validate that this government is whole heartedly committed to make in India initiatives and we are very sure that the issues raised by AIIFA will be addressed over a period of time.

Shri B. B. Singh, CMD, MSTC Ltd., in his address said that, as you may be aware that MSTC Ltd is a **Mini Ratna Category-I PSU** under the **administrative control** of the **Ministry of Steel, Government of India**. MSTC is engaged in diverse business activities including e-commerce and Trade & has emerged as a major player for promoting e-commerce in the country. It has been noticed that e-Commerce is gaining popularity world over because of its inherent ease of transaction, promptness, transparent and fair system. Over the years, MSTC has grown into a full-fledged e-Commerce service provider with list of clients as diverse as Ministry of Defence, Govt. of Andhra Pradesh, Govt. of NCR, Prime Minister's Office, Supreme Court, major PSUs like ONGC, BHEL, IOCL, CIL, NTPC, State Road Transport Corporations, State Electricity Boards, etc.

MSTC, due to its sheer performance and competence, has been chosen by the Government of India on nomination basis for a number of prestigious projects like Coal Blocks allocation, RLNG procurement for stranded gas based power plants, procurement of items for its flagship rural electrification project under DDUGJY, Online power purchase (DEEP) etc. You will be glad to know that

MSTC has successfully executed each of these projects to the complete satisfaction of all its stakeholders. In addition, product portfolio includes e-auction of forest produce such as Red Sander, Sandal wood, Timber, various types of Minerals and ores, Coal, Human hair etc.

Today, we witness yet another milestone in the e-Commerce sector, the launch of **MSTC METAL MANDI "M3"**, a step towards Digital India Initiative. This event is significant because it paves the way for the development of e-commerce using internet technology in the ferrous & non-ferrous sector. Let me first of all; take this opportunity to extend my heartiest congratulations to all of you for extending your valuable support & feedback to MSTC for successfully pioneering the implementation of the **"MSTC METAL MANDI"** portal.

We hope to bring the market closer, especially to small & medium producers and to potential buyers through this initiative. We have the technical expertise to do so and we hope to extend it in future to platforms based on mobile phones. Stakeholders' meeting has already been conducted in Raipur, New Delhi, Ludhiana, Ahmedabad, Kottayam, and Nagpur. The project is being touted as the first "Just- In –Time" marketing initiative in the country and is proposed to provide competition against imported steel products, which have been flooding the market.

The endless possibilities and potential of "MSTC METAL MANDI", shows us how far we can advance. So let this be just a beginning as we continue, with the aid of technology, to strive towards building a market place that is truly dynamic and always relevant.

Shri S. Abbasi, Joint Secretary, Ministry of Steel, Government of India, in his address, said that, unless and until, without addressing the issues of Secondary steel sector, the steel sector cannot grow. He also said that, one thing is very –very clear in our mind that steel sector has to be equal importance to both Primary steel producer as well as secondary steel producer.

He said that, Secondary Steel producer has certain inherent advantages such as land intensive as compared to integrated steel producer, small scale in terms of Finance, self-motivated guys etc. They have mobilize their finance from their own business and therefore they are not concentrated in one area. Looking at the importance of this sector, the Steel

Ministry cannot ignore this sector and has to lot of things for this sector so that this sector can grow. He said that, this sector as whole is in distress and I would like to say that, the strength of the industries comes out only in the time of crisis. Since, this is a transient phase and how well we address this transient phase that will be our strength. Let us motivate each other to find out the workable solution.

He assured governments support to secondary steel producers and encouraged participants to convey their concerns with clarity, find ways and means to increase production generate employment opportunities and find sustainable solutions.

Shri Yuri Afanasiev, UN Resident Coordinator and UNDP Resident Representative of India, in his address congratulated India for taking the lead in ratifying the Paris Agreement on climate change. He highlighted that the execution of the agreement would not have been possible without India joining the league. He congratulated the Indian Government led by **Hon'ble Prime Minister** for fast-tracking the developmental initiatives in the country.

Shri Yuri, while making his remarks on the initiative in the Steel industry, highlighted that UNDP in association with the Ministry of Steel is leading towards creating an innovative model to diffuse energy efficiency, which will be adopted by other ministries and countries in near future. In his remarks, he stated that the **phase 1 and phase 2** of the project has been able to transform close to **321** small and medium enterprise units; leading to reduction in energy by **30% (average)** and corresponding **GHG emissions by 40% (average)**. He also highlighted that the proposed **3rd phase** of the project aims to support **1200 units**, from different sub-sectors for the secondary steel industry. The cumulative initiative will lead to a transformation in **almost 50%** of the secondary steel units which is considered to be the critical mass. Once these 50% of the industry adopts energy efficiency, the rest 50% will be able to automatically adopt the same.

Dr. Aruna Sharma, Secretary, Ministry of Steel, Government of India, in her key note address said that, Indian steel industry witnessed very tough time due to unprecedented slow down coupled with stagnant demand, low price realization and various other factors. All these affected the bottom line of the steel plants and downstream steel processing units very adversely.

Our per capita consumption is still hovering at around **60 Kg** as against the international average of around **250 Kg**. Even in our neighbouring country, China has achieved unprecedented success in both steel production and consumption.

We all know, in the early years of **1950s**, we were ahead of China at around of **1.5 million tonne**, but today they are the world number **1** not only in **production** but **also in consumption**. I am told that China consumed more than **600 million tonnes steel**. But we are only still at consumption level of around **80 million tonnes** only. This is an issue, which I think should draw the highest attention of not only the producers but also the various associated including the Government.

Along with meeting domestic demand, we should also pay our attention to the opportunities in the export market. You are aware Government has set up a target to enhance steel production capacity up to **300 million tonne by 2025** and as per present statistic, Induction furnace based steel capacity may be up to **32%**.

Economic & Industrial liberalization in the country has exposed the steel industry to international competition both in the domestic market as also in the global market. Since steel is under deregulated sector, therefore, to sustain in the global world, we have to constantly up-grade technologies and resort effective cost cutting measures in all areas starting from raw material to finishing operation to ensure not only production of world class steel but also at internationally competitive cost. While we may not be averse to use of imported inputs – whether raw material of technology in specific areas; we should endeavor at utilization of domestic resources and manpower. She said that, Indian steel industry is already in the process transforming the industry to be a high quality, low cost producer by adopting technology up-gradation and modernization. Today we have a some world-class steel plants, whose products are highly cost competitive but this standard needs to be achieved by the whole of the industry.

I believe that there is tremendous scope for improving present technology level. Smaller plants with outdated technology have less chance to survive in today's highly competitive scenario. Other plants with minimum economic capacities have no option but to continuously update their technology to face fierce competition.

Many of you are aware that the R&D efforts of iron and steel industry, National Research Laboratories, Academic Institutions and others are supplemented by financial assistance from the Ministry of Steel. I call upon the industry and the scientists to avail this opportunity to make Indian Steel industry **more efficient and cost competitive**.

Coming back to the theme of today's conference you are aware that liquid iron is produced all over the world through Blast Furnace route. However, we are also have large number of induction furnaces which are producing construction steel using Direct Reduced Iron (DRI) and steel scrap. I am told that the quality of steel has problem of phosphorous removal during melting. In this regard Ministry of Steel has taken several steps to overcome this problem through R&D for development of flux, which has reduced phosphorous **upto 0.06% from the present level of 0.085%**. I hope Induction furnace steel production units will take the advantage for producing quality steel as per BIS standard. I personally feel that industrialist and scientist gather here will come forward for new innovation to produce quality steel without much additional burden.

Shri Vishnu Deo Sai, Hon'ble Minister of State, Ministry of Steel, Government of India, in his inaugural address said that, the theme of the seminar is very relevant in the present context, since the steel industry is passing through a phase of either stagnation or low growth. As you may be aware that, India has produced **89.6 Million tonnes** of crude steel during the **2015-16** and has achieved **3rd rank** among the steel producing nations in the world (**China being number 1 and Zapan being number 2**)

However, the per capita steel consumption in India is still quite low i.e. around **60 kg** as compared to the **global average of 220 kg**. This shows that the country has to go in a long way to achieve a reasonable level of steel consumption.

While the existing integrated steel plants have gone for major modernization cum expansion to increase the production of crude steel. The secondary steel sector consisting of **Electric Arc Furnace (EAF)** and **Induction Furnace (IF)** have remained either stagnant or on the down trend.

You may be also aware that, this sector is contributing about **67% of the total crude steel production** and has large potential to enhance the same. Since, it has

a number of advantages such as **low investment cost, located nearby consuming Center** could produce **small quantities per the needs of the client** etc., therefore, a special thrust is required to be given to look in to the barriers which are coming on the way for increasing the production from this sector.

As we know, India is increasing GDP around 7.5% which is the highest in the world, it will have a big impact on the demand of steel in the various sector like Housing, Infrastructure, Defence, Rural Sectors etc. Our Hon'ble Prime Minister, special thrust on **"Make in India"** drive is going to create an **enormous opportunities** in all the above sectors, where large investments are already in **pipelinethrough FDI** and domestic investments. Therefore, as far as the demand is concerned, I have no doubt that in a very near future, it is going to increase substantially in all sectors of the economy.

However, the industry needs to gear up and be prepared to produce quality steel as per the needs of the consumers. I understand that this sector has a number of other problems related to availability and quality of raw materials, lack of innovations to make improvement in the process of steel making, lack of trained man power etc. I suggest that the Induction Furnace Association in consultation with Ministry of Steel should look in to each and every aspects of these problems and resolved to move forward and create a healthy industrial environment in the country. I also welcome suggestions from industry experts to improve steel production and consumption in the country and I shall be always available for any consultation as you need.

LAUNCHING OF MSTC METAL MANDI "M3"

Beginning of an online market place for medium and small scale steel manufacturers and traders

Advantage to Seller:

- Enjoy the wider market exposure and expand your business capital investment
- Enjoy selling in a digital platform and reduce tedious and cumbersome paper work
- Save operation costs for advertising/branding/promotional publicity
- Increase in productivity of the organization

Advantage to Buyer

- Start shopping in an open, competitive digital platform and avail the best market price

- Avail relevant details of product, quantity, and price information within a minute
- Enjoy the larger spectrum of operation to compare and select the cheaper and better products

RELEASE OF HANDBOOK OF INDIAN STEEL SECTOR

A handbook of Indian Steel Sector was released by AIIFA on this occasion which will contain Technical papers, Steel statistics and State-wise/Cluster-wise comprehensive Directory of contacts for the steel sector of India which will broadly cover the sector viz; Induction Furnace, Rolling Mills, Re-Rolling Mills, Sponge Iron, Pellet, Ferro Alloys Plants, Composite units etc. Beside this, it will also cover some additional information such as list of consultant, Equipment Manufacturers and suppliers, Experts from individual sector etc.

AWARD DISTRIBUTION

The following companies were given prestigious **Dhatu Nayak Award 2015** along with Citation in recognition of attaining excellence in productivity, quality, energy efficiency, technology development, and overall reduction of GHG emission etc.,

- ❖ **M/s MTC Group, Mumbai**
- ❖ **M/s Apple Sponge & Power Ltd**

The following companies were given the **Ispat Udyog Ratan Award 2015** along with Citation. The companies were given the Award for excellence in production, product development, technology upgradation, entrepreneurial skill, and overall reduction of GHG emission

- ❖ **M/s Rathi TMT Saria (P) Ltd., New Delhi**

Vote of thanks was delivered by Shri Gopal Gupta, President Emeritus, AIIFA. He said that, On behalf of the entire National Council of AIIFA and my own behalf, I take this opportunity to thank Shri Vishnu Deo Saiji, Madam Dr. Aruna Sharma, **Shri Yuri Afanasievji**, Shri S Abbasiji, Shri B. B Singhji and all the distinguished guests who made it possible to attend this Seminar.

I also thank the outstation speakers who have taken pains to come all the way from far off distances to Delhi and shared their valuable inputs/views for the benefit of the industry. I once again thank you all for sparing your valuable time to attend this important event and making this event a successful one.

Last but not the least I sincerely thank all the sponsors and the advertisers without whose support this event would have not been possible.

After the end of inaugural session, a Technical Session on "**Steel Making through Induction Furnace Route: Current Challenges and Future Prospects**" was held and eminent experts from their respective field presented papers suggesting

various possibilities of improving the technology development of Induction Furnaces. There was **two technical session** i.e. Technical **Session –I** and Technical **Session –II**. The technical session - I was chaired by **Dr. Susmita Dasgupta, Jt. Chief Economist, JPC** and Session –II was chaired by **Dr. S.N. Srinivas, Programm Officer, UNDP India**. The following papers were presented during the technical session I & II.

<i>Power generation through renewable energy: Prospects and Challenges</i>	<i>Dr. S. N. Srinivas Programme Officer, UNDP</i>
<i>Install, Implement and Save – Solutions for producing steel economically</i>	<i>Bharat Tank Head Business Development E&P Division, Electrotherm (India) Ltd</i>
<i>Policy Measures for boosting up steel demand in India</i>	<i>Shri Sushim Banerjee Director General, ISDG</i>
<i>New generation refractory lining for coreless induction furnace</i>	<i>Shri Sarup Vidosh/Shri Sandip Samaddar M/s Saint Gobain</i>
<i>The Future of Scrap based Electric Steel Production in India</i>	<i>Dr. Susmita Das Gupta Jt. Chief Economist, JPC</i>
<i>Save Energy</i>	<i>Shri M. Pandey CEO, M/s Usha Capacitors Ltd</i>
<i>Development of a new cost effective lining material for In- Furnace refining in induction furnace- R & D Approach</i>	<i>Shri R. K. Bagchi Director, NISST</i>
<i>"Energy efficiency for a sustainable steel industry"</i>	<i>Shri Bala subramanian MB, CII</i>
<i>BIS Mandatory Act: Current Status, Impact, Issues and Solutions</i>	<i>Er. P. K. Jain, Consultant, BIS</i>

CONCLUSION:

Through this seminar, an effort was made to create awareness towards the initiatives taken by the Government for production of Quality steel through this route as well as latest technological developments and energy efficiency measures for the secondary steel sector. Equipment and process technology of Induction Furnaces is the major cost component and has the direct bearing on the financial performance of this sector. Through the different presentations, effort was made to create awareness about the technological changes taking place in the Secondary Steel Sector.

SNAP SHOT AT A GLANCE



















हार्दिक अभिनंदन

वंदन ... आभार.

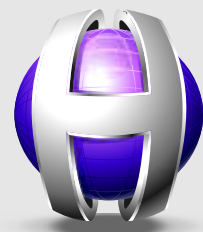


SECONDARY STEEL SECTOR, THE BACK BONE OF CHHATTISGARH ECONOMY

- 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

विनीत : छत्तीसगढ़ मिनी स्टील प्लांट एसोसिएशन
एवं समस्त सदस्यगण, रायपुर (छत्तीसगढ़)



HI-TECH
PIPES LIMITED



Shaping Steel for Life



India's Leading Manufacturer of

- ERW BLACK & G.I. STEEL TUBES
- HOLLOW SECTIONS
- PRE-GALVANISED TUBES
- C.R. COIL

AN ISO 9001 : 2008 CERTIFIED COMPANY

Regd. Office - 505, Pearl Omaxe Tower Netaji Subhash Place, Pitampura, New Delhi - 110034
Tel : +91 - 11 - 48440050, Fax: +91 - 11 - 48440055

Works- Sikandrabad U.P. & Sanand, Ahmedabad



1239 : 2004
1161 : 2014
ISO 2001:2002
COMPANY 4923 : 1997
3589 : 2001

E-mail : info@hitechpipes.in **Website** : www.hitechpipes.in



**RECTIPHASE
CAPACITORS**

CAPACITORS FOR INDUCTION FURNACES

(Suitable for Electrotherm, Inducto therm, 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.
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

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

www.rectiphaseindia.com



... Enhancing the power of Induction !

SARU

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



ISO 9001 : 2000
Quality Management System
Cert. No. 1378

TECHNICAL COLLABORATION WITH

M/s. AIKOH CO. LTD. JAPAN

M/s. NIPPON THERMO CHEMICALS LTD. JAPAN

CREATED A WORLD CLASS 70 MVA FURNACE TRANSFORMER



IN RECOGNITION OF EXCELLENCE
BREAKTHROUGH TECHNOLOGY
DISPLAY AWARD 2016
FROM UNION MINISTER OF STEEL,
GOVT. OF INDIA

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



MADE IN INDIA

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

THE POWER OF **WE**



VISIT US AT:



ISO 9001:2008 • ISO 14001:2004 • BS OHSAS 18001:2007

FLEXI HOSE™

DRIVING INNOVATION IN THE
RUBBER HOSES INDUSTRY



CABLE COOLANT/ CARBON FREE HOSE

Two kinds of Protective Cover:

★ **Asbestos Cover** ★ **Fiberglass Cover.**

MAX. WORKING PRESSURE	17.2 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", 2-1/2", 3", 4"

OTHER SIZES AVAILABLE

22 mm, 35 mm, 40 mm, 42 mm, 45 mm, 60 mm, 65 mm, 70 mm, 90 mm
and other customized sizes also available.*

High Quality Synthetic Compound for Best Life

* Reinforcement Available:

- Braided Type
- Textile Fabric Type

Lengths Available	Upto 1"	: Upto 100 Mtrs.
	1-1/4"-2"	: Upto 40 Mtrs.
	Above 2"	: Upto 20 Mtrs.

VARDHMAN® HYDRAULIC HOSES PVT. LTD.

AN ISO 9001 : 2015 COMPANY

Regd. Office and Works

F - 621, Phase - 1, RIICO Industrial Area, Bhiwadi - 301 019, Rajasthan. INDIA.

Web : www.vardhmanrubber.in

For Dealership Enquiries, contact on +91-8094002350

BRAND



YES!
BRAND DEVELOPMENT IS AS LIKE
GLACIER FORMED IN OCEAN!!!

IT'S TIME TO GROW!
 Partner with the "IMMORTALS"
 Escalate your Brand & Market

Interested in Brand Development? Contact us at anytime
 Consulting is always free* for serious Brand Makers,

Our Product Range

- 
- Ferro Manganese (Low Carbon)
 - Ferro Silicon
 - Ferro Manganese (High Carbon)
 - Silico Manganese (High Carbon)
 - Ferro Chrome
 - Ferro Manganese (Medium Carbon)
 - Silico Manganese (Medium Carbon)
 - Ingots & Billets

Authorised Dealers of :-

- Maithan Alloys Ltd. • Anjaney Ferro Alloys Ltd.
- Castron Technologies Ltd. • Shivam Iron & Steel Co. Ltd.
- Singhal Energy Ltd. • Singhal Enterprises Ltd.
- Times Ferro Alloys Ltd.

***Branches : Haryana, Rajasthan, Uttar Pradesh,
Tamil Nadu, Delhi***

Contact Person:-

Mr Ashwani Daruka - 9899112273

Mr Saket Daruka - 9811599912

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 ...



S T E E L

STEEL & ENERGY

ARS ENERGY

ARS STEEL & ALLOY INTERNATIONAL PVT. LTD.

D-109, 2nd & 4th Floor, LBR Complex, Anna Nagar East, Chennai - 600 102.

Phone: 044-4560 6700, Fax: 044-4350 0597

Email: Power: sales.power@arsmetals.com

Steel: sales@arsmetals.co.in Website: www.arsgroup.in

FOR NEW AGE CONSTRUCTIONS

— ARS LSP —

500D
TMT BARS

NOTHING MATCHES THE PURITY & DUCTILITY



**INDENTING HOUSE FOR
IMPORTED
SHREDDDED 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



ELECTROTHERM®

*"The most preferred
Steel Plant maker
up to 1 Million Ton / Annum"*



Power Management with PDLM...



Electrical power is a raw material for steel making through induction furnaces. India still is a power deficit country. Programmable Dynamic Load Managers can help both steel makers and electricity boards to save and optimally manage power without compromising on productivity from the steel plants / foundries and revenues for the boards.

Hundreds of customers have been benefited by installing the PDLM in their plants in various ways...

- More/improved production from same power
- Similar production from reduced power
- Flexibility of operation with variety of input power supplies like grid supply, captive power generation, open access supply etc.
- High load factor – load factor incentives
- Reliable and trouble free operation

Advantages of PDLM

- a) Tripping free power management
- b) Complete plant load management that may comprise of a combination of any make of furnaces, furnace related auxiliary items, billet casters, continuous casting machines, pollution control systems, sponge iron plants, refining furnaces, rolling mills and mini-blast furnaces
- c) Freedom from "peak-hour" penalties
- d) Cyclic demand control with fixed kWh
- e) Improved load factor (>90%)

PDLM ensures closest compliance with kVAh billing cycle thereby ensuring your electricity bills are the lowest.



ELECTROTHERM
FURNACES
India's best; globally admired

ELECTROTHERM® (INDIA) LIMITED

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

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

Website: www.electrothermenp.com

