ALL INDIA INDUCTION FURNACES ASSOCIATION

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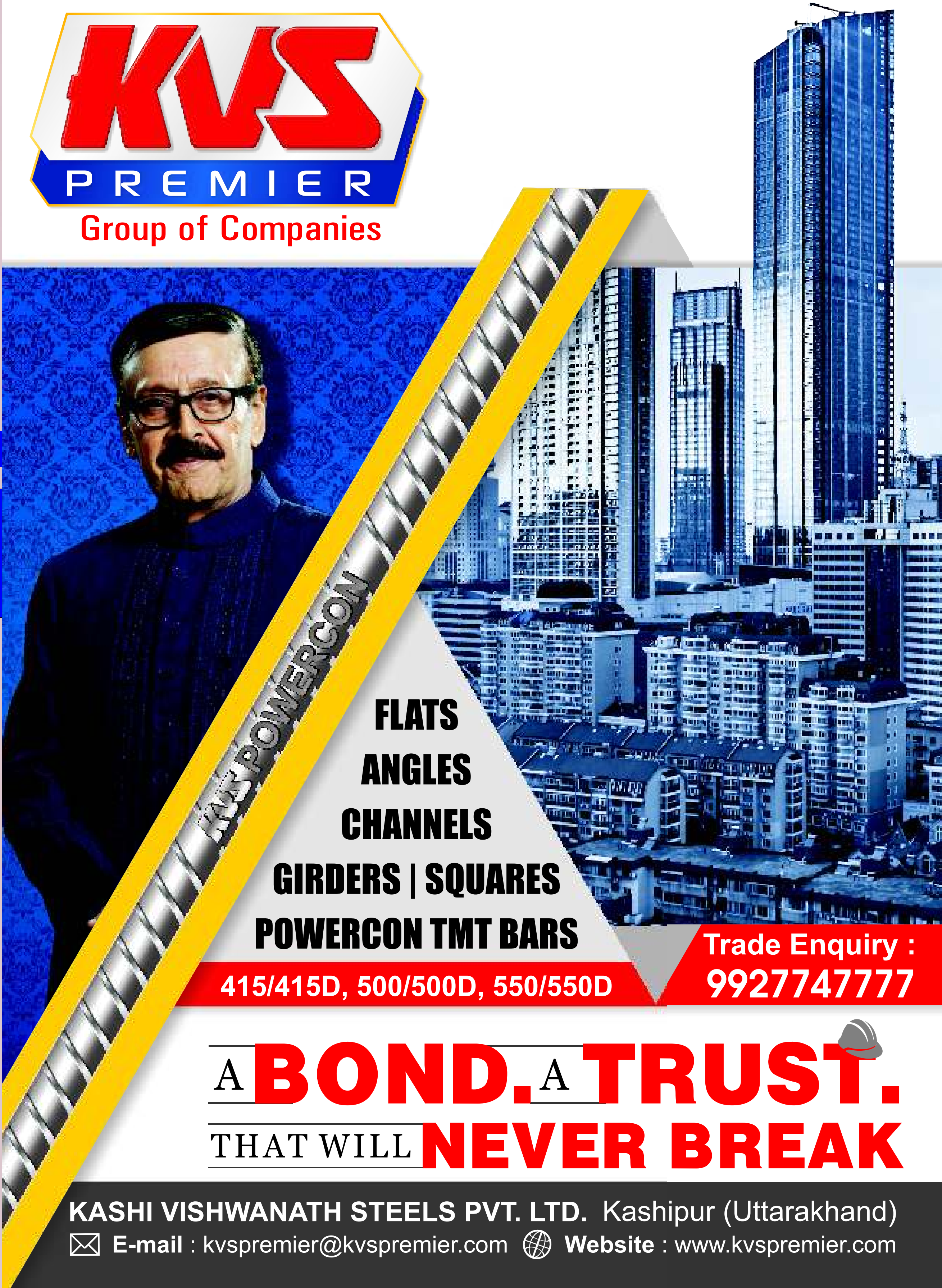
What's Inside



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Hot Rolling of High Strength Low Alloy & Micro Alloy Steel

Kamal Aggarwal
Hon. Sec. General,AIIFA
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Introduction: To achieve better mechanical properties, resistance to atmospheric corrosion than conventional carbon steels, good workability and better fabrication characteristics, High strength low alloy and micro-alloyed steel have been developed and gaining popularity in engineering and manufacturing industries. HSLA steels have yield strengths greater than 275 MPa, chemical composition of specific HSLA steel may vary for different product thicknesses to meet specified mechanical properties requirements for different applications.

Nowadays, it is a trend to replace conventional structural steels by using high-strength low alloy (HSLA) steels in order to reduce the weight of the structures. Usage of the HSLA steels instead of conventional carbon steels enables to save up to 20% of the structure weight while maintaining the high strength, stiffness and toughness of the structure. However, since the HSLA steels are based on ferritic microstructure, they are also attacked by common types of corrosion and therefore need to be protected in order to reach prolonged service life..

The low cost micro-alloy steels (MA), property wise fall in HSLA group contains small amounts of alloying elements (0.05 to 0.15%), including niobium (Nb), vanadium (V), titanium(Ti), molybdenum(Mo), zirconium (Zr), boron (B) and few rare-earth metals. They are used to refine the grain microstructure facilitating precipitation hardening.

Process Metallurgy:

In order to produce adequate formability and weldability, they have manganese content up to 2.0%. Small quantities of chromium, nickel, molybdenum, copper, nitrogen, vanadium, niobium, titanium, and zirconium are used in various combinations. High-strength low-alloy steels include many standard and proprietary grades designed to provide specific desirable combinations of properties such as strength, toughness, formability, weldability, and atmospheric corrosion resistance. These steels are not considered alloy steels, even though their desired properties are achieved by the use of small alloy additions.

HSLA steel in melted in either EAF or Induction Furnace and initial shaped by ingot casting to be rolled as billet/ bloom or continuous casting as billet/ bloom. Continuous casting billet/ blooms result in good surface. The billets are rolled in rolling mill and cooled in normal condition. In case, hardness is specified by customer as annealed hardness , annealing treatment may be given to products. Since, HSLA steels are classified as a separate steel category, which is similar to as-rolled mild-carbon steel with enhanced mechanical properties obtained by the addition of small amounts of alloying elements, perhaps, special processing techniques such as controlled rolling and accelerated cooling methods may be given .

HSLA steels can be divided into six categories:

1. Weathering steels, containing small amounts of alloying elements such as copper and phosphorus for improved atmospheric corrosion resistance and solid-solution strengthening.
2. Microalloyed ferrite-pearlite steels, which contain very small (generally, less than 0.10%) additions of strong carbide or carbonitride forming elements such as

niobium, vanadium, and/or titanium for precipitation strengthening, grain refining and transformation temperature control

3. As-rolled pearlitic steels, which may include carbon-manganese steels but which may also have small additions of other alloying elements to enhance strength, toughness, formability, and weldability

4. low-carbon bainitic steels, which are low-carbon (⩽ less than 0.05% C) steels with an excellent combination of high yield strengths, (as high as 690 MPa) weldability, formability, and good toughness

5. Dual-phase steels, which have a microstructure of martensite dispersed in a ferritic matrix and provide a good combination of ductility and high tensile strength

6. Inclusion-shape-controlled steels, which provide improved ductility and through-thickness toughness by the small additions of calcium, zirconium, or titanium, or perhaps rare earth elements so that the shape of the sulfide inclusions is changed from elongated stringers to small, dispersed, almost spherical globules These categories are not necessarily distinct groupings, as an HSLA steel may have characteristics from more than one grouping.

All the above types of steels can be inclusion shape controlled. Microalloyed ferrite-pearlite steel may also have additional alloys for corrosion resistance and solid-solution strengthening. s compositions of some HSLA steels covered in ASTM/ DIN/En steel specifications.

Hot Working by Re-Rolling: It is not exaggeration even if it is said that the quality became stable and pushed up market competitiveness to the first place in the world, because the system was well able to follow new steel grade or totally new rolling condition, which became a flexible computer controlled system. A rolling technology is not only a rolling technology, and it goes without saying that it consists as synthesis technology such as hardware techniques of rolling mills or rolling rolls, measurement techniques to observe the rolling state, metallurgy-based software techniques to elaborate materials, control techniques to get highly precise thickness and shape even of rolled strips, and lubrication techniques to realize extension of roll life and reduce rolling load.

The most widely used metal forming process employed to shape steel ingots/ CC billets at temperature 1250-1300˚C to shape products like blooms, billets, sheets, plates, strips etc. by rolling. On the other hand, in re-rolling process, the shaping operation after heating in re-heating furnace the stock like bloom/ billet/ slab etc. from rolling at hot working temperature in rolling mill..

Rolling and Rerolling Concept: Rolling mill is a much larger unit compared to a re rolling mill in terms of variety of products like structural products e.g. channel, joist ,rail & track, rods etc. products. Volume of ingots with large cross section casting about 600x600mm or even more which are rolled into' blooms' (150x150 to 400x400). Further such blooms are rolled to billets (40x40 to 150x150) in the same mill. These billets, normally, are input for re rolling mills which usually produce the mild or alloy steel rods/ wires, flats, squares/ rounds etc. Those products are mainly used in civil construction work and also alloy steel in engineering / various manufacturing industries. The process of rolling however remains the same for rolling & re rolling. Some re rolling units, however, use the induction furnaces to prepare their own small ingots termed as pencil ingot to be rolled into rods, square etc. here the size of the unit is very small compared to rolling mills.

Hot re-rolling process of steel is shaping stock by roll pressed at very high temperature over i.e. 850/ 900˚C as finishing temperature depending upon steel grade (rolling temperature varying from 1200 to 950˚C) depending on steel grades), which is above the re-crystallization temperature. For most steels rolling the rolled products are easier to form in these temperature range, and resulting in output that are easier to work with. In case of alloy steels, the re-rolling temperature is 1180/1150 – 950/900˚C. To process hot rolled steel, re- rolling starts with a large, rectangular length of stock, called a billet or bloom which are heated and then sent for pre-processing, where it is flattened into a large roll. From there, it is kept at a high temperature and run through a series of rollers to achieve its finished dimensions. The white-hot strands of steel are pushed through the rollers at high speeds. For other forms, such as bars, flats or section products. Steel shrinks slightly as it cools.

Since hot rolled steel is cooled after processing, there is less control over its final shape, making it less suitable for precision applications. Hot rolled steel is often used in applications where minutely specific dimensions aren't crucial. Railroad tracks and construction projects often use hot rolled steel. Hot rolled steel can often be identified by the following characteristics:

A scaled surface—a remnant of cooling from extreme temperatures may be above 1300˚C. Slightly rounded edges and corners for bar and plate products (due to shrinkage and less precise finishing). Slight distortions, where cooling may result in slightly trapezoidal forms, as opposed to perfectly squared angles

Hot rolled steel typically requires much less processing than cold rolled steel, which makes it a lot cheaper. Because hot rolled steel is allowed to cool at room temperature, it's essentially normalized—meaning it's free from internal stresses that can arise from quenching or work-hardening processes.

As overall material strength, and where surface finish isn't a key Hot rolled steel is ideal where dimensional tolerances aren't as important concern. Where surface finish is a concern, scaling can be removed by grinding, sand blasting, or acid-bath pickling. Once scaling has been removed, various brush or mirror finishes can also be applied. Descaled steel also offers a better surface for painting and other surface coatings.

The best rolling technology in the world was not realized only with the rolling theory, but it was stimulated with advancement of the neighboring techniques and it was made up technically. The role of the rolling theory is introduced to decide a pass schedule (including a draft schedule and the pass number) to get the aimed thickness/ shape from a certain thickness of stock, the methods are to decide by looking for the pass schedules from the past data and another one is a method to decide by calculating a pass schedule with the rolling theory. The former is a Western method, and the latter is the method that our country adopted.

Re-rolling in different grades of carbon, alloy steel and stainless steel based on the percentage of carbon and other alloying elements and mainly classified as:.

- Low-carbon, or mild steel contains 0.3 % or less carbon by volume.
- Medium-carbon steel contains 0.3% to 0.6% carbon.
- High-carbon steels contain more than 0.6% carbon,
- High strength low alloy steels (HSLA), Cr-Mo, Cr-Mo-Ni steel, Ball bearing steel
- Stainless Steel in types Austenitic, Ferritic, Martensitic, Duplex stainless steel,
- Tool (HW,CW, Dimensionally Stable steel/Die Steels of different grades .

Small amounts of other alloying materials such as Cr, Mo, Ni, Mn, W etc. are also added to produce many more grades of steel. These alloys modify the properties of the steel, such as tensile strength, ductility, malleability, durability, and thermal and electrical conductivity etc..Hot rolling also involves forming and rolling the steel slabs into a long strip while heated above its optimum rolling temperature. The red-hot slab is fed through a series of roll mills to form and stretch it into a thin strip/ sheet. After forming is complete, the steel strip/ sheet is water cooled and then wound into a coil. Different water-cooling rates develop different metallurgical properties in the steel.

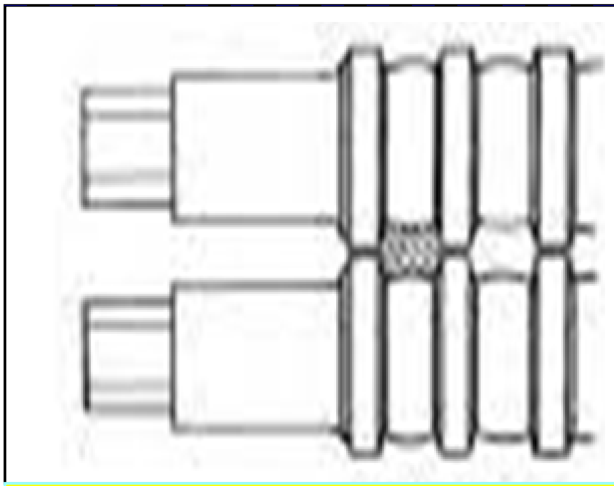
Normalizing hot rolled steel at room temperature allows for increased strength and ductility. Annealing of rolled product is also done by heating rolled products to above the recrystallization temperature, soaking at that temperature and then cooling it in the furnace. Heating of the steel during annealing facilitates the movement of steel products, resulting in the disappearance of dislocations and formation of growth of new grains of various sizes. For specific grade products where both hardness, strength and impact properties are required, hardening & tempering is done. Hot rolled steel is typically used for construction, railroad tracks, sheet metal, automobile and different engineering / manufacturing industries.

Problems in Rerolling Mill – Indian Steel Re-Rolling mills often Face Problems as -→ Mostly Operates with Old Equipments & Technology → Resource Shortage → Higher Cost of Input → Input Quality → Limited Product Range → Low Yield → High Energy Consumption → Products mostly Serve Local Market → Absence of Information Technology in the process → Lack of Standard Operating Practice → Inadequate Quality Control System → Low Profit

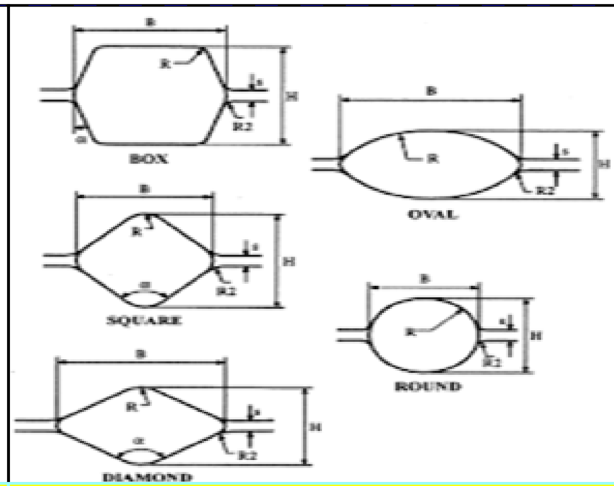
Roll Pass Design in Re-Rolling Mill: Stock movement in rerolling mill in hot condition takes shape during path movement of steel products between the working rolls and rolling pass. The roll pass design generally means the cutting of grooves in the roll body through which steel to be rolled is made to pass sequentially to get the desired contour and size. Roll pass design is a set of methods for determining the dimensions, shape, number, and type of arrangement of rolling mill passes The quality and productivity of hot rolled bar steel products strongly depends on hot rolling parameters such as strain, strain rate, temperature, groove design and rolling sequence. It influences the metal deformation behavior within the pass and mill load requirement apart from roll wear.

A pass schedule is calculated near the capacity limit of a rolling mill by using rolling load and torque, and decided to adjust the calculated pass schedule so that the output does not worsen the flatness degree when it becomes thin near the last pass during flat/ strip rolling. Pass schedule shows a strength for the rolling condition in the range where it had a past experience at all, but it is not helpful in the case that a totally new steel grade and product are considerably different from the past experiences. However, it is a strength by the latter method that it can be done so without a problem in this case.

The metal flow behavior in a hot rolling process is a complex phenomenon, which is complicated due to tensorial stress distribution that is influenced by the material properties and deformation parameters. The knowledge of the in-process deformation and micro structural changes is critical for the optimization of the pass design, the pass schedule and ultimately, the properties of the as rolled product. Computer based FEM simulations incorporating deformation models can be used to develop optimum process sequences to obtain steels with sound quality, desirable microstructure and mechanical properties by controlling the hot rolling process parameters of bars, sections, flats etc. In the hot rolling of bars, the material characteristics, rolling load, angle of bite, the roll groove geometry and roll pass sequence etc influence metal deformation and properties.



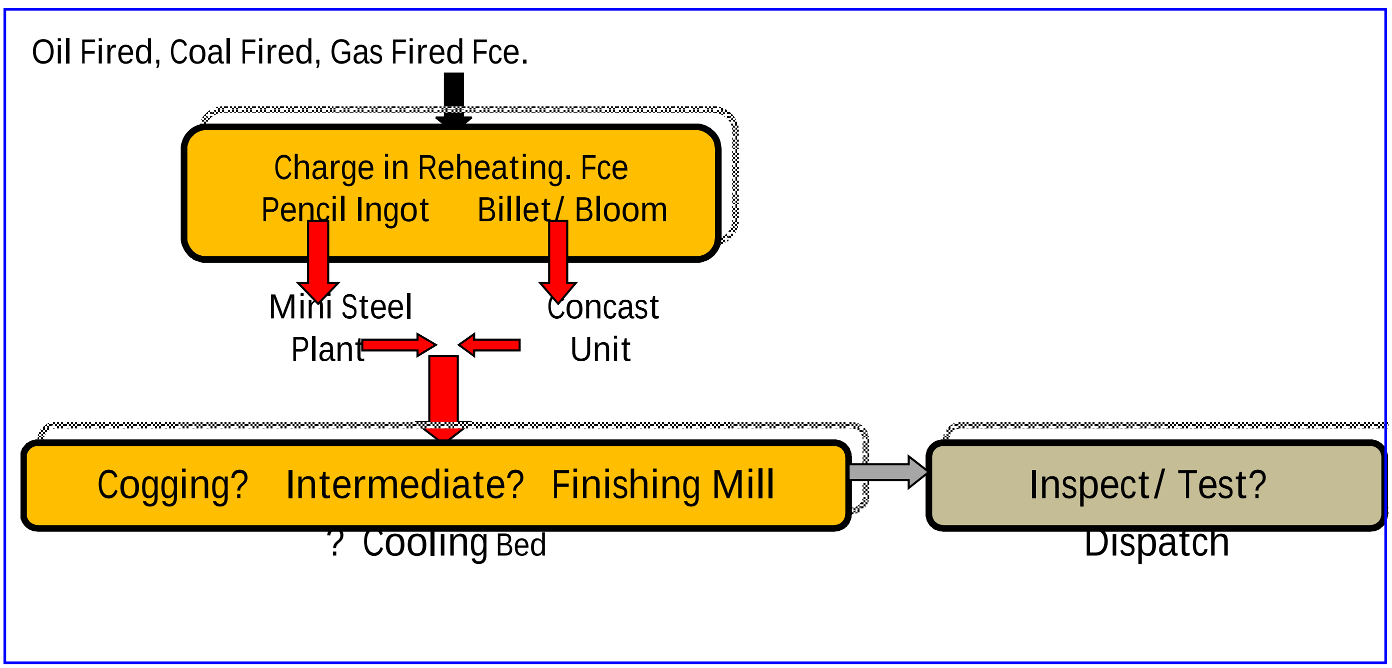
Open Pass Design



Shape Rolling of Round Bar

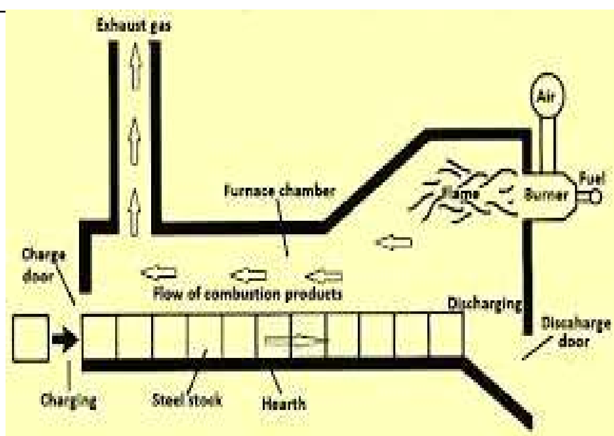
Status of Rerolling at Different Periods (1990): Indian Steel re-rolling mills started production as low economic growth in the 1980s. It is seen that the remarkable environment change surrounded the Japanese society or steel industry in Japan in the middle of the 1990s and the international competitiveness was being lost so that the continuation of the company was asked which was not experienced conventionally. The technological innovation relating to production technology with cost competitiveness in India was felt to be urgently needed besides the appropriate response as the manufacturing industry came to be demanded for the environment change to surround the steel industry including the social need to the issues of earth environment, energy, and resources recycling.

Material Flow in Re-Rolling Mill- Flow Diagram shows Heating of Input in Reheating furnace, Re-rolling and finishing of products



In the ingot casting route, individual molds are filled with molten steel to produce steel ingots. The continuous casting method has a lot of benefits compared to the older ingot casting methods. Companies in the highly polluting steel-rerolling sector in India are introducing measures to improve energy efficiency as a result of a partnership between UNDP and the Ministry of Steel. In doing so, they are demonstrating that the industry can become more energy efficient, more environmentally conscious and more profitable. Mr. Haoliang Xu, Assistant Administrator and Regional Director, UNDP visited one such success story in Jaipur, Rajasthan and saw first-hand how the company has innovated to improve productivity and reduce specific fuel consumption.

Indian re-rolling units completed the crown-shape control technology in the 1980s. The concept for the crown-shape control is to make a strip crown into the target crown without strip shape disturbance simultaneously by predicting the strip shape with formulas to express the strip crown change and the shape change. As for the strip crown, the way to introduce the transcription rate and the heredity coefficient are well used in the hot strip rolling.) The transcription rate means how much the strip crown formed under the uniform rolling load transcribed into the strip crown after rolling, and the heredity coefficient means a constant to express how much the strip crown at the entry of the roll gap influences that after rolling. In the cold strip rolling, the strip crown at the entry of the roll gap is inherited approximately 100% except the edge-drop region of strip width. However, when there is non-uniformity in the width direction such that the length at some region of strips comes to be larger than that at other region after rolling, the longitudinal tensile stress of the former becomes smaller, and the rolling load per unit width grows bigger, and the roll deformation grows bigger too.



Entry & Exit of Stock in Reheating Fce.

Typical Re-Heating Furnace

Re-Rolling Mill

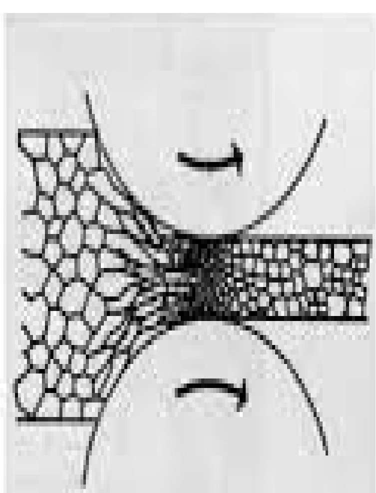
Operation in Re-Rolling Mill

Inputs for Steel Re-Rolling Mills & Rolling Process: Smaller size Ingot (pencil ingot), Bloom or Billets produced from Continuous Casting Units come out as output after hot rolling as input in re-rolling mill converted as output in shapes as Round, Square, Flat, TMT Bar, Wire & Rod, sections like Angle, Channel , Joists etc. Few products mostly flats are Cold Rolled in shapes against requirements.

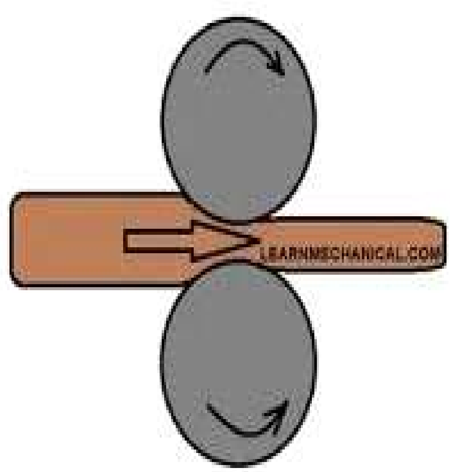
Currently, secondary steel producers have a cumulative share of more than 70% in the rolled long product market. The role of the re-rolling industry in the overall production of the secondary steel sector for the supply of finished products is thus very important for country's industrial development and economic growth. Presently there are nearly 2000 working steel re-rolling mills in India that are adding strong muscles to the Indian steel sector. Maximum SRRM in India are running as family businesses or MSMEs/ SMEs. In India, the re-rolling sector began in Kanpur in 1928, with no substantial technical development in most units. As a result, the re-rolling industry in India is not very energy efficient and also has high level of emissions. Re-rolling mills contribute more than 10% of the overall emissions from the steel industry.

The production volume of long steel products across India was **approximately 48 million metric tons** in the fiscal year of 2019, steadily improving continuously as 2016 – 42 MT, 2017 – 44, 2018 – 45MT, 2019 – 48 MT, but production affected due to COVID-19 in 2020 and also first few months in 2021. Out of total tonnage, 70-75% long products come from secondary steel sectors. In terms of value, the long product steel market size is estimated to be USD 527.0 billion in 2020 and projected to reach USD 636.7billion by 2025, at a CAGR of 3.9% from 2020 to 2025.Increasing construction and infrastructure activities, industrialization, and rising population levels are the major factors responsible for the growth of the long steel market

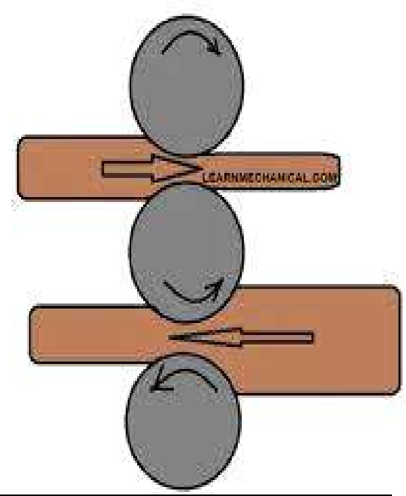
Normally, basic rolling mill consists of two opposing rolls termed as a two-high rolling mill where rolls have different diameters in different ranges. In 2-high mill, configuration can be either reversing or non-reversing. In the non-reversing mill, the stock always passes through from the same side. The reversing mill allows the direction of roll rotation to be reversed, so that the work can be passed through in either direction permitting a series of reductions through the same set of rolls, simply by passing through the work from opposite directions multiple times as shown below in image-



Hot Rolling



2-High Hot Rolling Mill



3-High Hot Rolling Mill

The disadvantage of the reversing types is the significant angular momentum possessed by large rotating rolls and the associated technical problems involved in reversing the direction. To achieve a series of reductions, the stock can be passed through from either side by raising or lowering the bed after each pass. The equipment in a three-high rolling mill becomes more complicated, because an elevator mechanism is needed to raise and lower the work. As several of the previous equations indicate, advantages are gained in reducing roll diameter. Roll-work contact length is reduced with a lower roll radius leading to lower forces, torque, and power.

Mainly pusher type furnaces are used with coal as fuel. The major steps involved in steel re-rolling process are as follows. The steel re-rolling process is a very energy-intensive process and this leads to losses in whole manufacturing process which is the area of research. distortion etc.

	
Re-Rolled Long Prodcts	Rolled Strip/ Sheet Products

There are two types of losses in steel re-rolling process: 1. Direct Losses, 2. Indirect losses. Improper heating profile of the furnace and improper burning of fuel leads to direct losses impacting the heating of steel, burning of coal leading to environmental pollution, and low productivity in the process. These direct losses are the base for the indirect losses - Improper heating profile of furnace leads to material losses increasing the cost of production. The resultant losses are - Scale formation - Decarburization - Surface melting etc.

Major Defects in Re-Rolled Products originated from concast products: Defects of the continuous cast steel billet/ bloom are formed due to several factors which include material related factors, casting speeds and temperatures, mould oscillation, casting powder, segregation coefficient of solute elements, phase transformation, and mechanical and thermal stresses. Lap in re-rolled products is a surface defect causes by folding over, but not welding, the hot metal during the rolling process when sharp overfill or fin forms and is rolled back into the surface causing lap formation on surface and appear as crevice run lengthwise on the re-rolled steel products . Seems may be present in the input billet before bar rolling as a result of non-metallic inclusions in steel, cracking, tears, subsurface cracking or porosity. During continuous casting, loss of mold level control result in out-of-control conditions which can reseal while in the mold but leave a weakened surface.

The possible reasons for billet cracking during hot rolling such as a low Mn/S ratio, high casting speed, high degree of superheat, and high inclusion content in steel are appeared associated with large surface/internal defects, axial porosity, off-centered cavities/porosities, off-centered cracks, and inclusion bands. To prevent such defects in continuously cast steel billets and to reduce/eliminate split end problems. The casting parameters should include: (a) Mn/S ratio >35, (b) degree of superheat <60 °C, and (c) casting speed: <3.0m/min, where roll radius and initial thickness of the workpiece should be optimized.

Actually, three problems associated with the production of high-alloy steel bar and rod by rolling in hand-operated mills which is taken place in India. In such mill, defects are mainly cracking, seam, laps split ends, and decarburization. Careful selection of pass sequence, taking into account all the manufacturing and product requirements, is essential in order to control the rate of rejection of rod and bar with these defects

Since the rolling operation is often the last process step, the rejection/scrap at rolling stage is very costly and hence the quality control of rolling process is very important. Severe competition in Indian steel re-rolling industries urges quality improvements in rolling processes. Among all the quality concerns, the surface integrity is an extremely important quality characteristic of the rolled products. Products with severe surface defects have to be scrapped. Therefore, it is highly desired to detect, reduce, and eventually eliminate the surface defects if possible. Unfortunately, the surface defects remain as the most troubling problems in the hot rolling process.

Major challenges in the surface quality control fall into two aspects. Effective surface sensing system to measure the surface condition in real-time during production environments (high temperature, high speed, noise, and dirty conditions) is not available. Surface defects have been a long-standing troubling issue in hot rolling processes due to the ineffectiveness of existing detection methods. The root causes of surface defects in hot rolling processes are very complicated, surface defects could be originated from multiple sources like non-metallic inclusion in raw material as mill input as the nonmetallic impurities in the billet/ bloom during solidification as well as the mechanical failures in the rolling mills are all important potential sources of surface defects, moreover inclusions are stress raisers causing defects.

Indian Steel Re-Rolling mills produce the much needed functional items of everyday steel products and its chief clusters are mainly located in Raipur, Howrah, Ludhiana etc. Key products that rolling mills manufacture are Thermo Mechanically Treated (TMT) Bars, Structural steel products like angles, plates, channels, rounds etc. Re-rolling mills serve the purpose as Secondary Steel Sector and as a complement to the primary steel producers.

The main objective of rolling is to decrease the thickness of the stock making desired profile. Rolled products are used for different engineering, constructional & fabrication purposes. As steel is not ductile at room temperature, heavier reductions require it to be heated to high temperatures 1200-1300◦ to make it ductile by converting its crystal structure from BCC to FCC. In re-rolling mills, this operation is called reheating process and is carried out in reheating furnaces.

Energy Efficiency in Steel Rolling Mill & Reduction of Green House Gases: Hot rolling operation is always preceded by reheating operation. This entire process of Rolling is associated with various safety hazards like hit / entanglement with moving stock, burns, slip & fall, exposure to dust, noise, heat & gas etc. Most hazards in rolling process arise from coming in contact with moving hot material, falling etc. Second threat is from emissions of reheating furnaces which contain toxic gases such as carbon monoxide, Sulphur dioxide, NOx etc. Also leakage of fuel gas like producer gas, Piped Natural Gas (PNG), Coal Bed Methane (CBM) etc is a constant threat.

The global development objective of the project was to increase the end-use efficiency of the re-rolling sector, thereby effecting a reduction in

GHG emissions by the sector. To achieve this, the immediate aim of the project was defined as rapidly facilitating the adoption of EETs by rolling units by removing the barriers that inhibit technology upgrades in the sector. To accomplish this goal, the PMC first quantified the objective into specific targets that the project must meet. These are listed in Table 2. As Table 2 illustrates, the project aimed to considerably lower consumption of energy, targeting a 40% decrease in coal consumption alone, which is significant not only because coal is one of the largest sources of GHG emissions, but also because a vast majority of SRRM units – particularly the smaller ones – use coal as the primary source of energy.

Energy Efficiency Target in Re-Rolling Mills From Existing Level

Energy Cons. & Other Imp. Parameters of Re-Rolling Units	Present Status	Target Set-Up
Oil Consumption Litre/T	42-45	<30
Coal Consumption Kg/T	70-80	45-55
Gas Consumption NM3/T	48	30
Scale Loss %	2.5-3.5	< 1
Power Cons. KWH/T	90-120	60-80
Yield %	89-93	94-95
Utilization %	65-70	80-85

Project of Energy Efficiency Program in Partnership Way : Government of India supported by Aus-Aid aims to upscale energy efficient interventions in the steel re-rolling mills sector and other sub-sectors of the small scale steel industry in India which will enable mitigation of GHG emissions leading to productivity improvement reducing cost from using energy in more efficient ways at all stages. The highlight of the Steel Up scaling Project is the overwhelming participation from secondary steel unit owners from across the country setting up target and achieving the same.

Conclusion: Energy-efficient production in steel re-rolling mill is simply reducing energy consumption in production, CO_2 emissions and linking energy consumption, volume of production and control measures taken. For Govt. and for re-rolling mills, global warming, rising energy prices, and customers' increasing ecological awareness have pushed energy efficient production to the top of the agenda. Governments and industries are both striving to identify the most effective measures to increase energy efficiency in production processes supported by necessary funding in the identified areas making road mapping projects.

Scrap steel industry seeks 'reverse charge mechanism' in GST

Feb 17, 2023

Reverse charge means the liability to pay tax is on the recipient of supply of goods or services

The scrap steel industry, which sources its raw materials mostly from unorganised scrap dealers, has sought rationalisation in GST structure through a 'reverse charge mechanism' where the liability to pay tax would be on manufacturers.

All India Induction Furnaces Association (AIIFA), a body of scrap steel manufacturers, on Thursday urged the GST Council to consider their demands for bringing the steel scrap recycling industry under a reverse charge mechanism in line with the transport services.

What changes to GST laws means

Under the Goods and Services Tax (GST) system, generally, the supplier of goods and services is liable to pay tax. Reverse charge means the liability to pay tax is on the recipient of the supply of goods or services.

Sudhir Goyal,?a member of All India Induction Furnaces Association, said, “a large number of scrap dealers have been found guilty of claiming fraudulent input tax credit. Tax authorities ultimately catch manufacturers.”

Goyal said the reverse charge mechanism would help solve the issue of fraudulent input tax credit claims by scrap dealers. GST is levied at a rate of 18 per cent on steel scrap.

AIIFA recommendations to the GST council include exempting the supply of metal scrap from GST when it is sold by various scrap dealers, except for the last leg of the chain when it is sold to manufacturers. In that case, the GST would be collected from the manufacturers through a reverse charge mechanism, where the manufacturers would be responsible for paying the tax rather than the scrap dealers.

The association has also suggested the introduction of separate entries in the GST schedules and HSN (Harmonised System of Nomenclature) codes for the old scrap and new scrap.

Old scrap is already taxed at the time of the original product's sale and the reverse logistics involves only collection and reuse. New scrap, however, is generated from a definite economic activity. Therefore, the two types of scrap should not be treated equally from a tax perspective, the association said in a statement.

Union Steel Minister Jyotiraditya Scindia earlier this month said around 22 per cent of steel in India is produced through recycling. The government has set a target to increase the share of steel produced through recycling to 50 per cent in overall steel production in the country.

“The current GST system is resulting in a lot of litigation and making doing business very difficult. Reverse charge mechanism will lead to increase in revenue to the government as it will help plug leakages and it will save us from unnecessary litigation,” said Mohinder Gupta, President of?nduction Furnace Association Mandi Gobindgarh, Punjab.

Danish Goyal, AGM (Sales & Marketing) of Punjab-based Madhav KRG Limited, said a lot of local scrap dealers bill scrap on fraudulent GST bills, collecting GST from manufacturers along with the material bill, but not depositing the funds with the department.

There is currently no mechanism available on the GST portal to verify the deposit of GST or the authenticity of bills. As a result, frequent raids and notices from tax authorities are sent to manufacturers seeking details of scrap purchased from scrap dealers, Goyal said.

Source: Metal Junction

Steel prices up ?500/tonne on high raw material cost

Feb 27, 2023

After two successive weeks of decline, hot rolled coil prices (HRC) increased by ?500 a tonne to ?59,700 on high coking coal cost and robust global steel prices.

Spot spread (difference between spot and contract prices), however, continues to languish at an eleven-month low level. Going ahead, traders expect a price hike of ?1,000-1,500 a tonne for March owing to favourable import parity and much-improved export realisation. Primary rebar prices continue to stay at a premium to HRC.

In China, HRC appears to be on a stronger footing with declining inventory amid expectations of favourable policies, said Amit Dixit, Research Analyst, ICICI Securities.

Besides, he said market participants expect steel prices to remain supported owing to the cost push and recovery in China demand.

Source: Metal Junction

स्टील कंपनियाँ अगले महीने रु 1,000 प्रति टन तक कीमतें बढ़ायेंगी

स्ओील कंपनियों ने मार्च में कीमतों को रु 800-1000 प्रति टन तक बढ़ाकर रु 64,000धटन करना तय किया है, कच्चे माल की कीमतों में तेज वृद्धि की बदौलत। यह वृद्धि इस महीने रु 500/टन तक वृद्धि करने के बाद आई है, ठोस मांग घरेलू और अंतर्राष्ट्रीय बाजार दोनों में। लागत के मोर्चे पर, एनएमडीसी ने आयरन ओरु फाइन (84 प्रतिशत एफई) की कीमत बढ़ाकर रु 3,910 प्रति टन फरवरी में कर दिया है। जनवरी में रु 3,410 प्रति टन के विरुद्ध, जबकि लम्प (65.5 प्रतिशत एफई) को बढ़ाकर रु 4,400 प्रति टन उसी अवधि में 4,300 के विरुद्ध कर दिया है। कोकिंग कोयले की कीमतें आस्ट्रेलिया के लिए 7 महीनों में सबसे उच्च +346 प्रति टन बढ़ा दिया है।

स्रोत : बिजनेश लाईन, 28 फरवरी 2023

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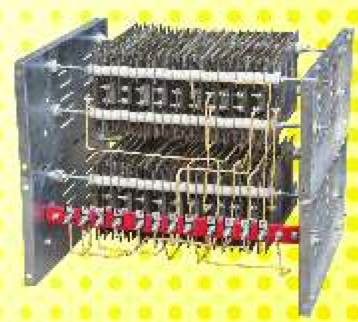

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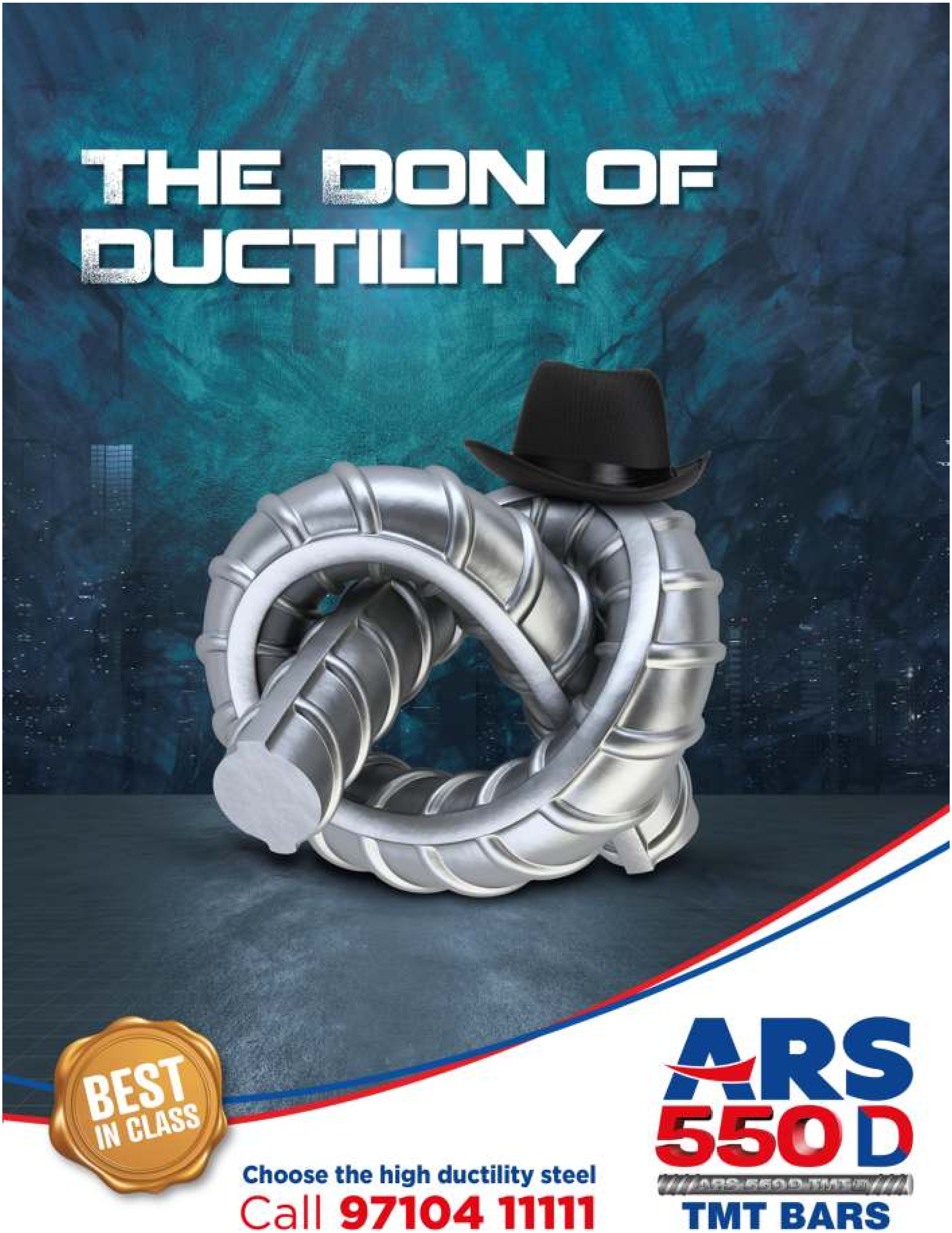
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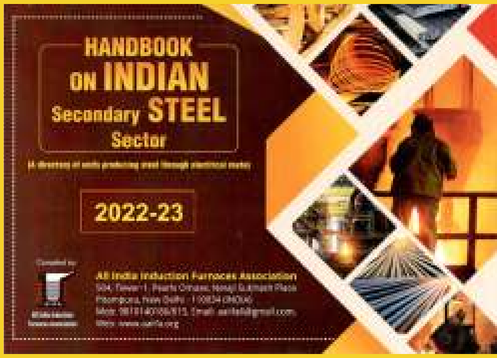

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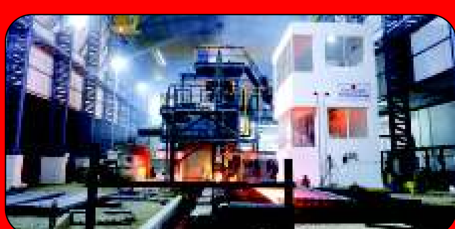

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