ALL INDIA INDUCTION FURNACES ASSOCIATION

AIIFA

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What's Inside

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ENVIRONMENT FRIENDLY STEEL

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MEMORANDUM

A delegation from AIIFA Comprising of Shri Kamal Aggarwal, Hon. Sec. General, Shri Sandeep Jain, Immediate Past President, Shri K K Garg, Past President and Shri P. Mishra, Sr. Executive Director had met with Hon'ble Union Minister Steel and welcomed him for assuming the chair of union steel minister. The delegation apprised him about the problems being faced by the secondary steel sector and requested him to take proper attention on the same so that this sector will also grow.

Shri Ramchandra Prasad Singh
The Hon'ble Minister of Steel

On behalf of entire steel fraternity and on own behalf, we would like to congratulate you for taking charge in Steel Ministry as Union Steel Minister, when India is poised to ride the steel super cycle for the next few years. Today, if this sector is achieving the new height and dimension, it is crystal clear that credit will definitely go to your government. We express our faith in your brilliant and dynamic leadership and hope that, **"Make in India"** initiatives and vision to take Indian Steel production from the present level of **110 MT to 300 MT** by 2030-31 can easily be achieved under your dynamic leadership. Now, first of all we would like to brief here about this industry.

The Indian steel industry is structured in between three broad categories based on route wise production viz. BF-BOF, EAF and IF. BF-BOF route producers have large integrated steel making facilities which utilize iron ore and coking coal for production of steel. Unlike other large steel producers, the Indian steel industry is also characterized by the presence of a large number of small and medium steel producers who utilize sponge iron, melting scrap and non-coking coal (EAF/IF route) for steelmaking. There are **308 sponge iron producers** that use iron ore/ pellets and non-coking coal/gas providing feedstock for steel production; **47 electric arc furnaces &1128 induction furnaces** that use sponge iron and/or melting scrap to produce semi-finished steel and **1392 re-rollers** that rolls out semi-finished steel into finished steel products for consumer end use.

1.0 All India Induction Furnaces Association (AIIFA) being the premier steel industry association of Electric Induction Furnaces in the country represents a major section of steel units, producing steel through this route. The role of AIIFA is to act as a bridge between the Government and the industry for driving various schemes, participating in the Government's research programs and ensuring capacity enhancement of its units. It also play a vital role to bring various issues of the industry with various related Ministries and concerned Departments and also create awareness of programs and policies of Central/State Government among the

members of the association so that their knowledge could be enriched and also could help to adopt latest route of steel making/processing (EIF-Continuous Casting of Steel- Direct Rolling of Hot Billets into finished products) for production of quality steel and also for mitigation of GHG emission.

Now, as you are aware that, steel sector will play an important in achieving the government's ambitious target of making India a **$5 trillion economy**. However, there are some major hurdles as being faced by this sector and needs your proper attention:

A Severe crisis of raw materials hits secondary steel sector hard

According to the data published by Joint Plant Committee, Ministry of Steel, Government of India (Annual Statistics Report-**2018-19**), India produced over **110.92 million** tonnes of steel through **BF-BOF (45%), DRI-EAF (25%) & Scrap/DRI-EIF (30%) route**. In other words, **50 MT** of steel produced through oxygen route (**BF-BOF)** and remaining **60.92 MT** of steel produced through electric route (**DRI-EAF & Scrap/DRI-EIF).**

Out of **60.92 MT**, about **28 million** tonnes was supported by **sponge iron** as feed material. This leaves about **33 million tonnes** of steel to be served by way of **steel scrap**. At **1.1 tonnes** of scrap per tonne of crude steel, one may expect that to produce **33 million** tonnes of steel, one would need **36 million** tonnes of scrap. India imports about close to **7 million tonnes** of scrap and domestic generated scrap is around **15 million tonnes** which would leave us with a need to internally generate **over 14 million tonnes** of steel scrap annually and subsequently this figure is growing to grow three-fold by **2030.** The increase in sponge iron production will help in reducing the scrap imports and will make every step of further value addition viable and efficient.

In India, most of the sponge iron producers do not have captive mines of any of the raw materials like hematite, non-coking coal and limestone, which are used for sponge iron production. Therefore, they fully depend upon other agencies to get their raw materials. Now, the major constraints being faced by these industries are high price and non-availability of quality raw material. The right grade hematite of proper size has become scarce and very costly. Most of the high-grade non-coking coal has been earmarked for thermal power plants and only inferior grades like 'F' and 'G' are available, that too, in a limited quantity. Most of the units are producing sponge iron much below their capacity mostly due to want of proper raw materials.

It may be noted that, Odisha and Chhattisgarh put together have nearly 136 sponge iron ore units with a capacity of close to 24 million tons and a production of roughly 13-14 million tons. However, amidst the current raw material crisis situation the production is likely to cut down to as low as 7-9 million tons towards the end of the year. Many units have already shut down and others are operating at below 53% capacity. This has already lead to a huge workforce being displaced or working without with meagre salaries.

The whole value chain of secondary steel sector can revive only if the raw material is available in domestic market at viable prices. India's export of iron-ore to the neighbouring country during the first six months of the current fiscal was at 20 million tonnes, an eight-year high, and export of iron ore pellets was15 million tonnes, while the domestic secondary steel producers are facing a dearth of raw materials and rising prices of it.

Since Iron ore fines and lumps attract export duty but due to free exports of pellets the large integrated players who are the major exporter of iron ore pellets takes the advantage of free export and are trying to create shortage of the basic raw material and push domestic prices. The use of pellets will result in steady growth of DRI industry as quality product can be produced to replace high grade steel scrap which is costly with fluctuating price.

Suggestion

To sustainable growth of secondary steel industry and to make basic raw material available at affordable prices, we would like to suggest you kindly stop/ban the export of iron ore pellets and sponge iron or impose 30% export duty on the same whichever is possible to save secondary steel units.

B GST Problems because of bogus billing

The main concern is that manufacturers of steel are buying required scrap against tax invoice, but there remains an uncertainty about the deposit of tax paid on purchase of scrap, as; whether it is deposited by the seller with exchequer or not. It is not only resulting into revenue loss in some cases but also portrays the genuine buyers as tainted as far as purchases and Input credit is concerned. **Moreover, option to denial of sale by the so called "*Small Traders*" in the name of fictitious billing in case non-deposit of tax collected on sales has exaggerated the woes for the manufactures (Buyers). Even if the goods have been received by the buyer and output GST has been paid on the final product but because of the denial by the seller, the whole transaction is termed as fictitious.**

Since our major raw material is scrap which constitutes 75% of the cost of the finished goods, we are always at higher risk of any GST fraud as scrap is coming from every nook and corner of the country and personal details and other information about the seller cannot be verified except details about GSTIN. Any non-payment of GST by seller or non-compliance to the GST Law, or missing whereabouts of the seller will make our position vulnerable.

Suggestion(s):

We would like to provide the following suggestions for your kind consideration and perusal to overcome this hardship to the buyers of scrap and tax loss to revenue:

1. **RCM on Scrap purchase:** We have one suggestion that metal scrap of all kinds should be brought under RCM (Reverse Charge Mechanism) under GST Act. This will ensure the Government of due tax deposit and also safeguards manufactures from the loss of ITC due to any defaulting seller.
2. **Reduction of GST rate on scrap:** The best alternative to stem the bogus billing and to avoid hardship to the genuine buyers of steel scrap is that GST on scrap should be reduced to 2.5% so that there is no incentive to the unscrupulous dealers to evade tax. In turn the government will get due GST payment @ 18% from the manufacturers / furnace industry on their final product as output tax.
3. **E-Sales Invoice**: It is also suggested to prescribe e-invoice in case of scrap for invoice value above Rs. 50,000.00.
4. **Purchase Information:** We also suggest that all traders of scrap should provide information of purchase in the invoice as was there in the central excise system.

C To abolish TDS under Sec 194Q and TCS under Sec 206C (1H) for the B2B transactions.

Introduction of Sec 194Q for deduction of TDS @ 0.1% on the purchases is going to create many hurdles for the steel industry. There is one peculiar thing about steel industry is that it has high sale volume but very low margin to the tune of 0.2% to 0.5%. Deduction of TDS @ 0.1% under Sec 194Q will result into blockage of working

capital and also results into high income tax refunds which will take six months to one year after the filing of income tax return.

Besides this the above provision of Sec 194Q has created lot of paper work and complications for industrial enterprises, denting the very concept of ease of doing business.

With the introduction of GST w.e.f. 01.07.2017 the industry was happy to have Good Simple Tax (GST) with "ONE NATION, ONE TAX, ONE MARKET" slogan. But adding TCS/ TDS to this system is uncalled for.

No doubt GST and TDS are two different taxes (indirect and direct respectively) but TDS on sale/purchase is inter-mixing of two tax systems resulting into complexities and making it cumbersome to comply. Anomalies and unintentional errors and mistakes are bound to happen which will result into heavy penalties.

Suggestion

Keeping in view of the facts stated above we would like to request you to abolish TDS under Sec 194Q and TCS under Sec 206C (1H) for the B2B transactions.

D Stream lining of BIS standard for Secondary Steel Sector

We are enclosing herewith HSN Code of various type of steel and abstract of Quality Control Order Dated 12th November 2020. There is lot of over lapping of various BIS Standards as well as confusion in registering under BIS Standards

Our Suggestions:

Our request is to minimise the various BIS Standards related to steel to stop over lapping of standards which will reduce number of registrations under BIS by one manufacturer and save paper work. This should be in line with the HSN Code of various type of steel and not as per use of steel products.

E EIA Notification 2020/ Final Publication

Please refer to notification no. 1071 dated 23.03.2020 published in the official Gazette of India vide CG-DL-E-11042020-219035. This notification was uploaded on the website of Ministry of Environmental and Forest (MOEF) on dated 24.08.2020.

It has been more than eleven months since the publication of draft notification of EIA and date of filing of objections expired on 30.06.2020. Till date the EIA Notification 2020 has not been finally notified in the official gazette. The gazette notification mentions the EIA Notification 2020 as draft only.

Suggestion:

We request your goodself to write to Ministry of Environment, Forests & Climate Change to issue final EIA Notification 2020 may published in gazette as soon as possible as many projects are held up because the same are pending with EAC, MoEF& CC, New Delhi at various stages due to Covid-19. Many of the projects will not require EIA from MoEF with the finalization of EIA Notification 2020.

OPTIMUM ROLL PASS DESIGN – THE NEED

P. Mishra
Sr. Executive Director, AIIFA

Numerous sources suggest that after 2010 the necessary greenhouse gases emission reductions will require major technological changes. Limitations of the socio-technical system and the challenge of climate changes will encourage reductions in the production, distribution and consumption patterns. The concept of systems innovation and transitions to sustainability has increasingly gained attention over the past years in academic and policy areas. This prompts the considerations of radical changes in systems.

Manufacture by Rolling is important in industry because over 90 % of metallics are shaped by rolling, and over 80 % of the world's mechanical products are made of metallic materials. Of this volume, steel products dominate, and over 80 % of steel is at some stage processed by means of hot rolling. Hot steel rolling incorporates large-scale man-made systems that modify the quality of immense volumes of chemo-physical solids and consume significant amount of resources. In particular, this industry triggers numerous issues related to global environmental sustainability (pollution and energy emissions).

In the light of the increasing needs for better utilization of natural resources and decrease in both energy consumption and carbon emission, performance of key industrial systems such as hot rolling of steel must be analyzed in search of further improvements. Criteria for optimizing hot rolling of steel include system efficiency, resource consumption, product quality and ecological sustainability.

Roll Pass Design continues to be a highly analyzed issue in hot rolling industry. Roll wear remains a key performance indicator and requires detailed scrutiny. This is because the rolls can be machined at the same costs to generate quite differing groove geometries with significant consequences for both maintenance and operations.

Roll pass design is a set of methods for determining the dimensions, shape, number, and type of arrangement of rolling mill passes. Roll pass design also includes the calculation of pressing forces and their distribution on the roll passes. Several passes are made for each section; a square or round billet or bloom acquires a specified form on each successive pass. The roll passes are designed to avoid excessive stresses in the steel being rolled, since such stresses can lead to the formation of cracks and other flaws.

However, it may be noted that, improper roll pass designs can lead to either underfill, which results in the formation of hairline cracks on the surface of the finished bars, or overfill, which results in roll overloading and the formation of fins. Hence, it is required to develop a proper Roll Pass Design which ensures the production of correct size and shape of a product with defect free surface and intended mechanical properties, and at the same time ensures maximum output at optimum energy consumption, ease the working conditions of the rolling crew and minimize the roll wear etc. Today computer aided roll design is established for design of roll passes.

OBJECTIVE OF ROLL PASS DESIGN

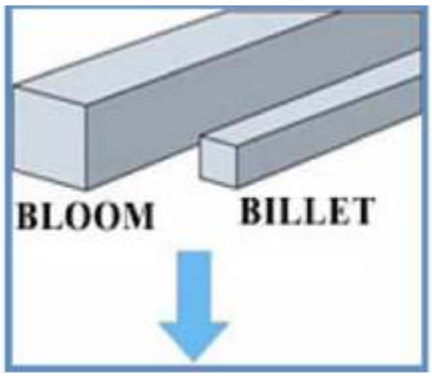
Steel sections are generally rolled in several passes, whose number isdetermined by the ratio of initial input material and final cross sectionof finished product.The cross section area is reduced in each pass and form and size of thestock gradually approach to the desired profile.The primary objective of the roll pass design is to ensure production of a product of correct profile within the tolerance limits, free of defects, with good surface quality and the required mechanical properties. In addition, economic condition must be achieved while rolling the product, for example, maximum productivity at the lowest cost, optimum energy utilization, easy working conditions for the rolling crew and minimum roll wear

ROLLING PROCESS

Steel rolling consists of passing the material, usually termed the stock,between two rolls driven at the same peripheral speed in oppositedirections (i.e. one clockwise and one anti-clockwise) and so spacedthat the distance between them is somewhat less than the thickness ofthe section entering them.In these circumstances the roll grip the material and deliver it reducein thickness, increased in length and probably somewhat increased inwidth.

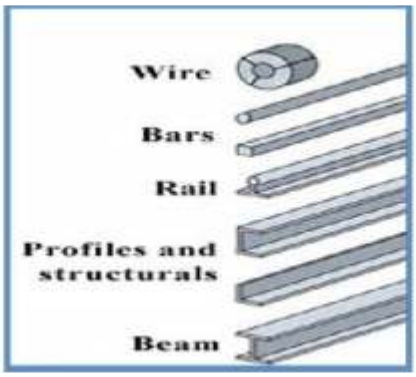
ROLL PASS IS BASED ON

CHARACTERISTICS OF INITIAL INPUT



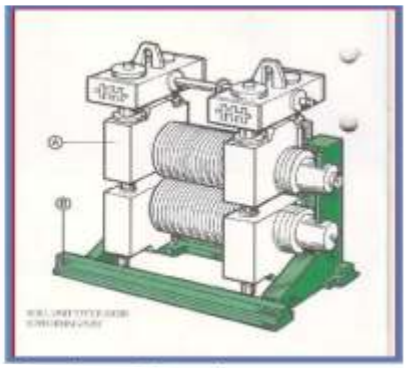
- Dimension and weight of billet
- Grade of steel
- Metal temperature before and in the course of rolling

CHARACTERISTICS OF FINISHED PRODUCT



Dimension of section
Tolerances and specifications concerning to mechanical properties
Surface finish of rolled product

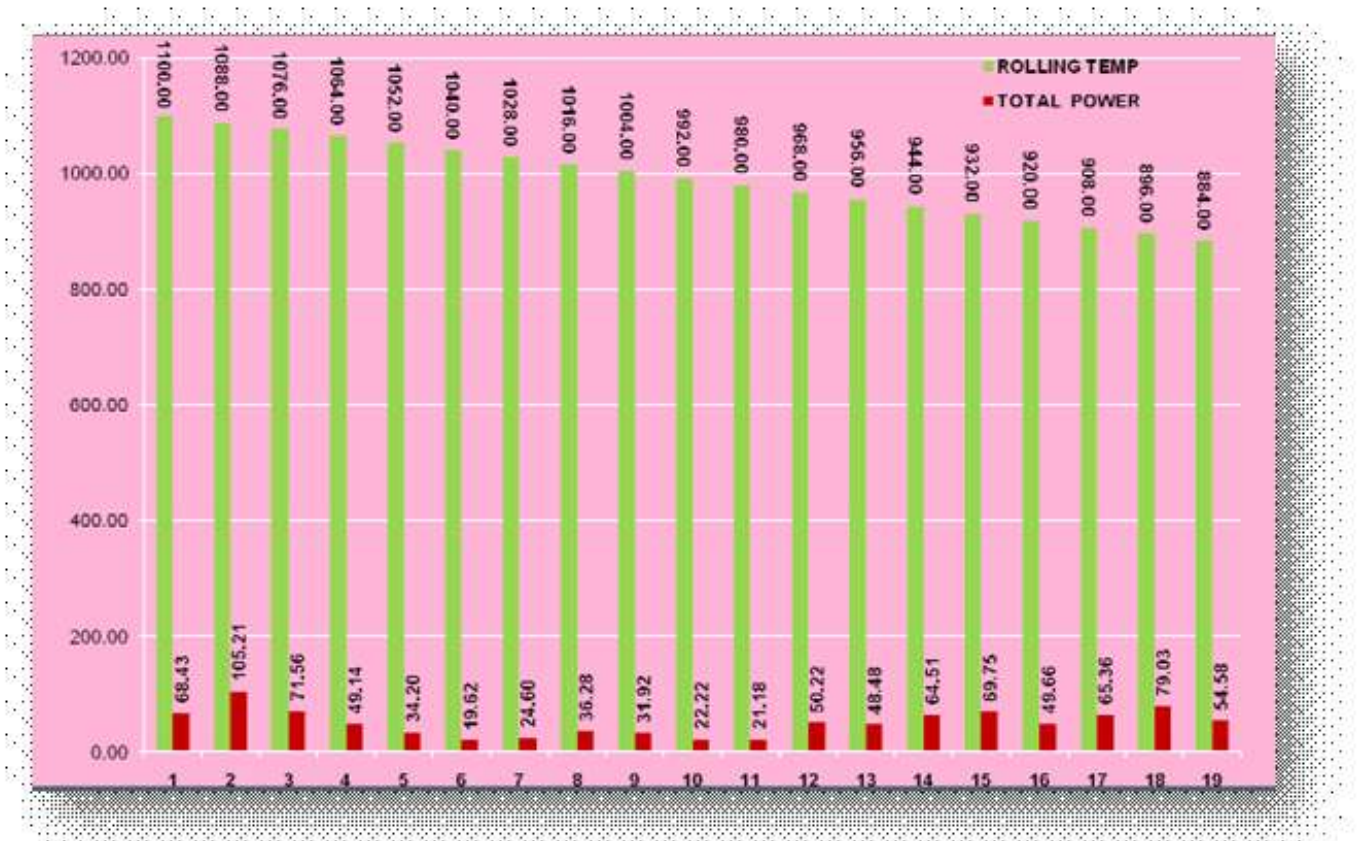
SPECIFICATION OF ROLLING MILL

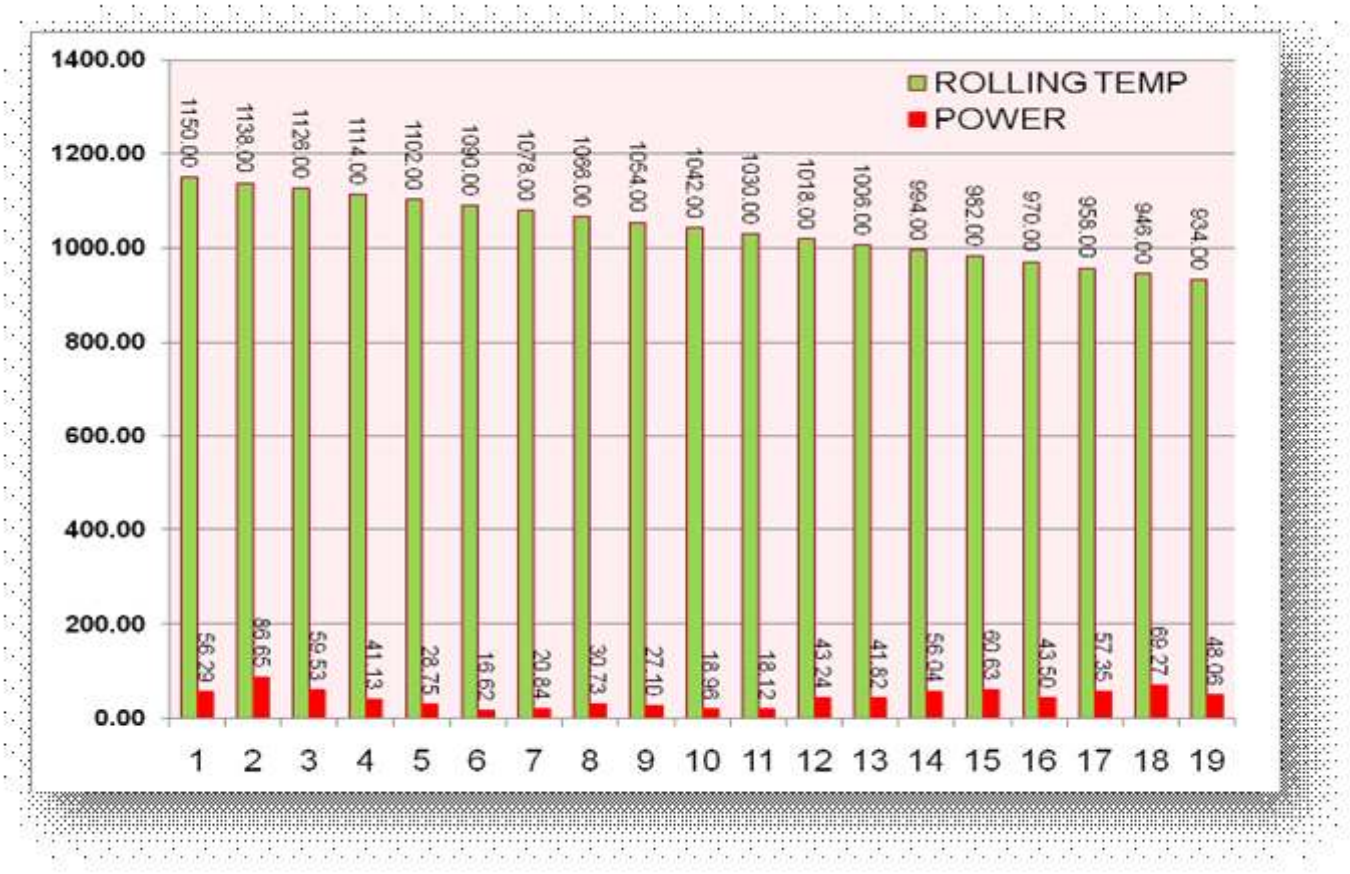


Number of stands
Roll diameter
Rolling speed
Available power of the drive motor
Available mill equipment
Strength of rolls

Other factors which are of important considerations for good roll pass design are rolling load, draft, strain, and rate of heat transfer which do affect the condition of plastic flow of steel material. Further shape of a section in a particular pass must ensure a free flow of steel in the roll gap/groove. Selection of appropriate taper/groove angle in the pass is necessary in order to avoid jamming of steel material in the rolls.

IMPORTANCE OF TEMPERATURE





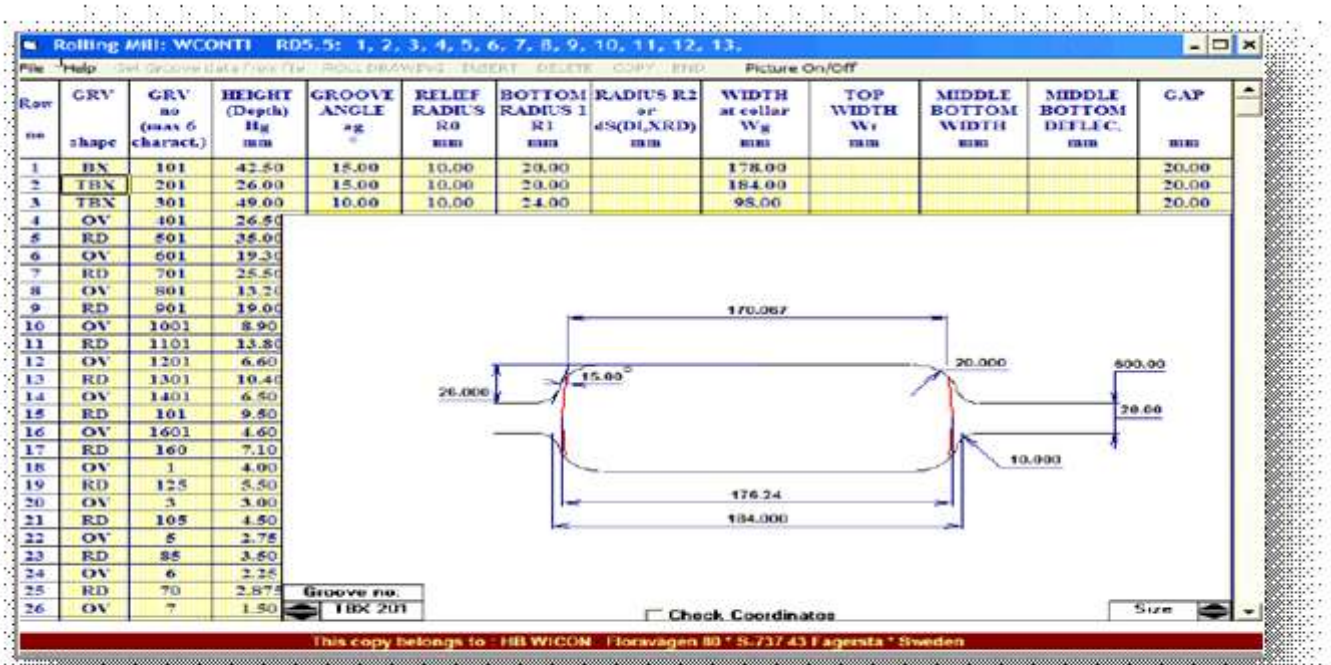
Roll grooves

There are different types of grooves which are used for rolling of sections. Common grooves are rectangular box grooves, diagonal grooves such as squares and rhombic grooves (diamonds), round or false round grooves as well as oval grooves. Grooves can be symmetric, asymmetric and slit. Important parameters of grooves are height (depth), groove angle, relief radius, bottom radius, widths at collar, top, and middle bottom and middle bottom deflection. Usually a combination of grooves is used in the roll pass design.

Thumb rules

Some thumb rules used in roll pass design for groove angle; relief radius, bottom radius, and fitting are given below:

- Groove angle for box pass should be 8 to 10^0.
- Relief radius for box pass should be 10 mm.
- Groove angle for diamond pass should be $>90^0$.
- Relief radius for diamond should be around 18 mm.
- Groove angle for square pass should be 45^0.
- Bottom angle for square pass should be around 90^0.
- Relief radius for square pass should be 5mm .
- Groove angle for oval should be 60^0 .
- Relief radius for oval should be 5mm.
- Groove angle for intermediate round pass should be 60^0.
- Groove angle for intermediate finish round pass should be 30^0.
- Bottom radius for rounds is ½ of dia.
- Relief radius for rounds is $1/5^{th}$ of bottom radius
- Relief radius for rounds in finish pass should be 1.5.
- Fitting from oval to round should be 0.3 to 0.7.
- For ovals width to height ratio should be < 3.0.



BASIC REQUIREMENTS FOR CORRECT ROLL PASS DESIGN

- Shape of sections in a particular passes must ensure a free metal flow in the roll gap/groove.
- Appropriate taper/groove angle in pass must be selected in order to avoid metal jamming in rolls.

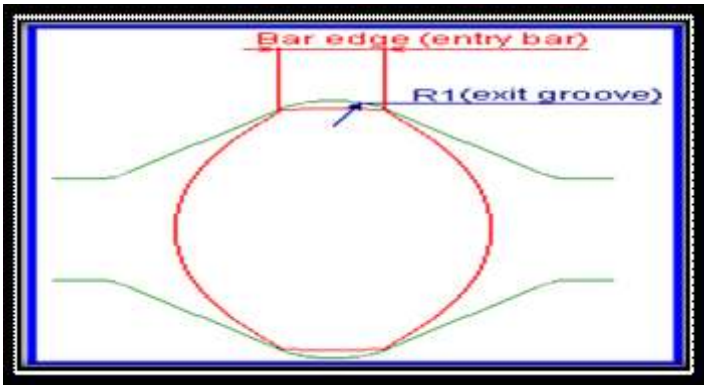
TYPE OF PASS	% TAPER
Roughing pass	6 to 15
Forming pass	3 to 10
Finish pass	0.5 to 3.0%

- The number and arrangement of passes in particular roll stand should assure the most uniform possible exploitation of all the passes in each stand.
- Uniform draught in last passes & different draught in early forming passes of profile , where the section is large & metal is hot.
- Draught should be distributed so as to ensure as far as possible uniform wear and to avoid overloading of drive installations and rolls .
- Rolls should easily grip the material being rolled

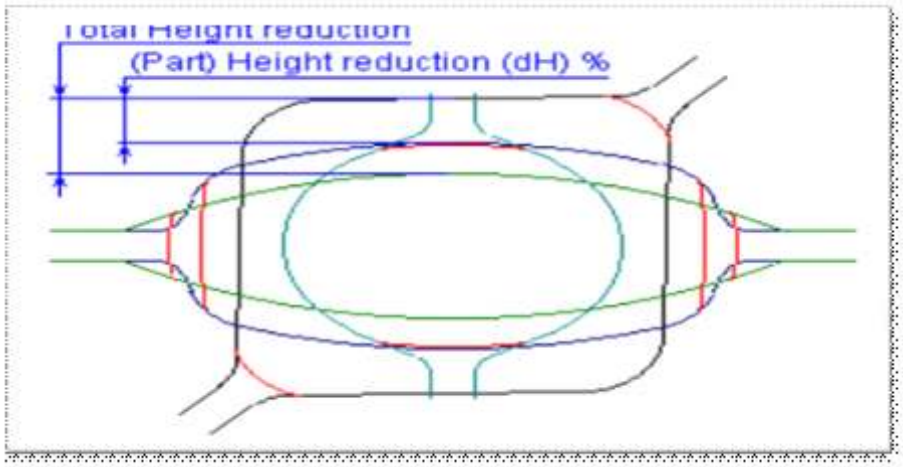
Rolls Finish	Max. Angle of Bite (in degrees) with reference to speed of mill							
	0	0.5	1	1.5	2	2.5	3	3.5
Smooth	25.5	24.5	23.5	22.5	19.5	16	12	9
Edged passes	29	27.5	26	24.5	21	17	12	7
Ragged	33	32	31	30	28	26	24	21

- *Pass filling should be correct.*

$$\text{Fitting} = \text{Bar edge}_{(\text{entry bar})} / 2 * \text{Groove bottom radius}_{(\text{exit groove})}$$



The Fitting parameter should be 0.3 < Fitting < 0.7 to avoid problems with bad surface quality and bad wearing conditions of the groove bottom.



An optimum number of passes should be used. If too greater in number lower the output of the roll stand, similarly, too smaller in number Cause excessive roll wear resulting in danger of Roll fracture or Rolling Defect.

Total Elongation Coefficient λ_t at Different Reductions relative to No. of Passes

Pass No.	λ_t for percentage reduction of 5	10	15	20	25	30	35	40
1	1.053	1.111	1.177	1.250	1.333	1.429	1.538	1.667
2	1.108	1.235	1.384	1.563	1.777	2.042	2.365	2.779
3	1.167	1.372	1.628	1.953	2.369	2.918	3.638	4.63
4	1.228	1.524	1.915	2.441	3.157	4.170	5.595	7.72
5	1.293	1.694	2.253	3.052	4.209	5.96	8.606	12.87
6	1.361	1.883	2.650	3.815	5.610	8.52	13.24	21.5
7	1.432	2.092	3.117	4.77	7.48	12.17	20.36	35.8
8	1.508	2.324	3.667	5.96	9.97	17.39	31.31	59.6
9	1.587	2.582	4.313	7.45	13.29	24.8	48.15	99.4
10	1.670	2.868	5.073	9.31	17.71	35.5	74.06	165.7128
11	1.758	3.187	5.967	11.64	23.61	50.7	114	276.2432
12	1.851	3.540	7.019	14.55	31.5	72.5	175	460.4974
13	1.948	3.933	8.256	18.19	42.0	104	269	767.6492
14	2.050	4.370	9.711	22.74	55.9	148	414	1279.671
15	2.159	4.855	11.423	28.42	74.6	212	637	2133.212
16	2.272	5.394	13.445	35.53	99.4	302	980	3556.064
17	2.392	5.992	15.824	44.41	132	432	1508	5927.959
18	2.518	6.658	18.625	55.51	177	617	2319	9881.908
19	2.651	7.397	21.922	69.39	235	882	3566	
20	2.790	8.218	25.802	86.74	314	1261	5484	
21	2.938	9.130	30.369	108.4	418	1802	8435	
22	3.092	10.143	35.744	135.5	558	2575		
23	3.255	11.269	42.071	169.4	743	3679		
24	3.427	12.520	49.497	211.8	991	5257		
25	3.607	13.910	58.257	264.7	1321	7513		

CALCULATION FOR NO. OF PASSES

Input Size = 200x200 mm

Finish Product = 50x50 mm

λ_t =200x200/50x50 = 16

With 25 % Redn. In every pass after

9th pass λ_t = 13.29 and after 10th pass λ_t =17.71.

10 passes will be sufficient with redn. Somewhtat less than 25 %.

Last pass = 5%, λ_t = 1.053

Preleader =10%, λ_t = 1.111

=1.053x1.111=1.168

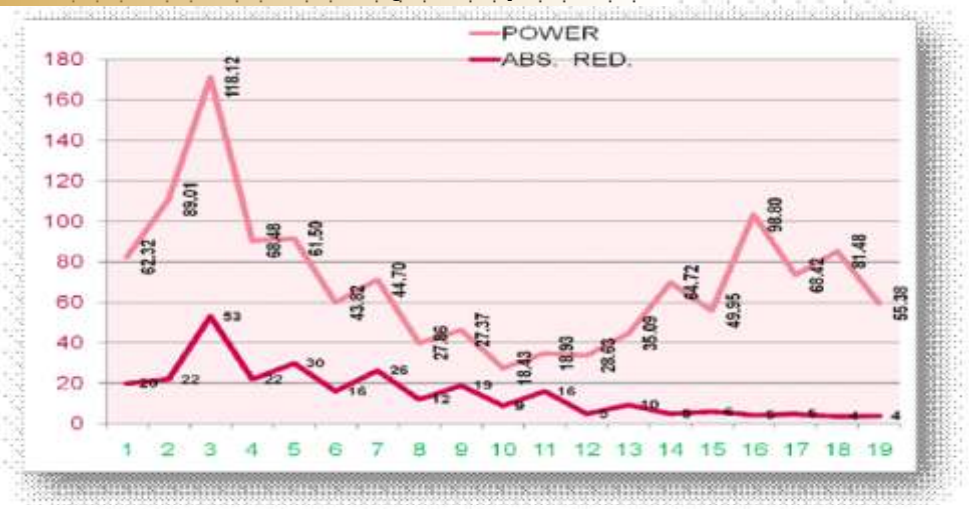
λ_t = 16/1.168 = 13.7

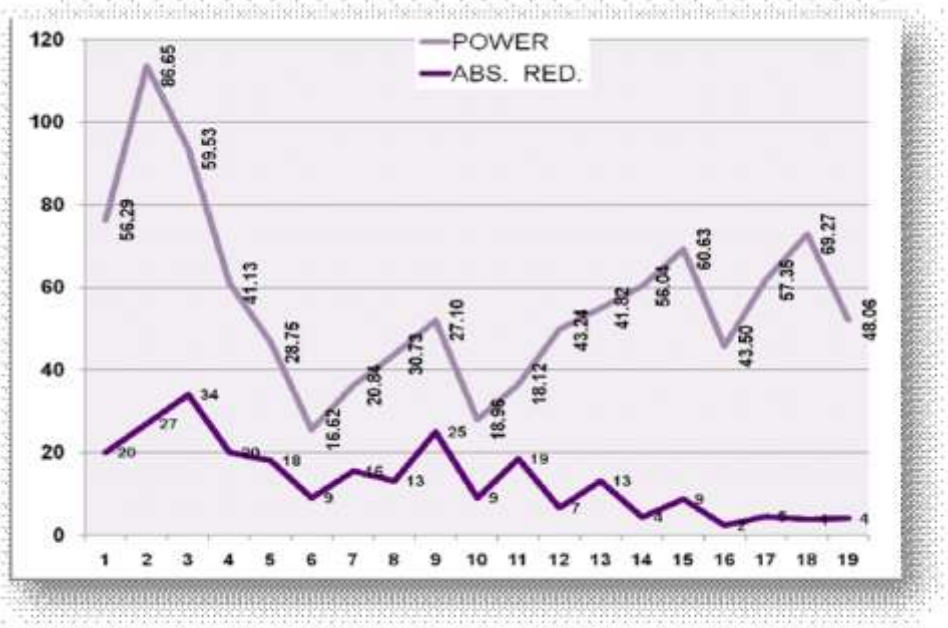
With 30% redn. 13.7 can be achieved after 7 pass or we can say 8th pass.

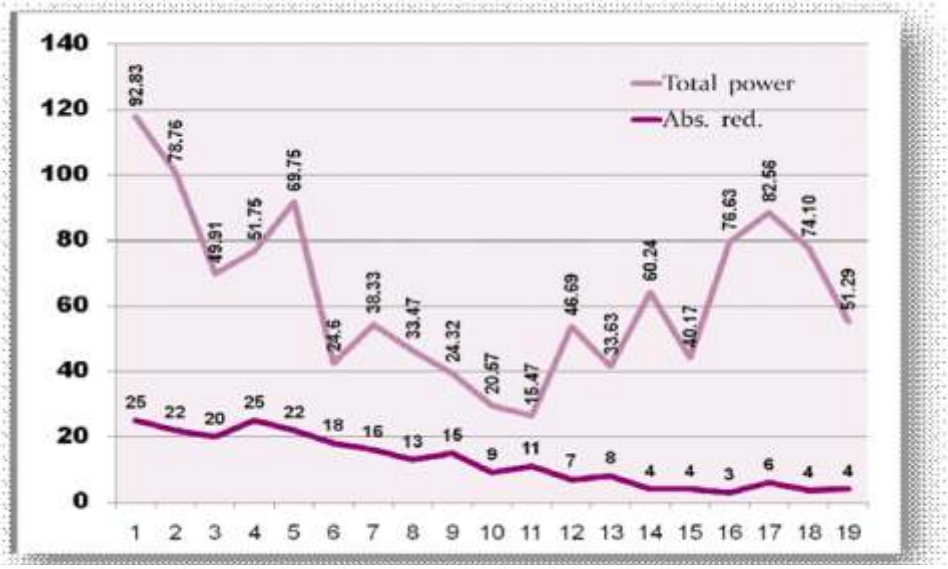
EVALUATION BASED ON ABSOLUTE REDUCTION

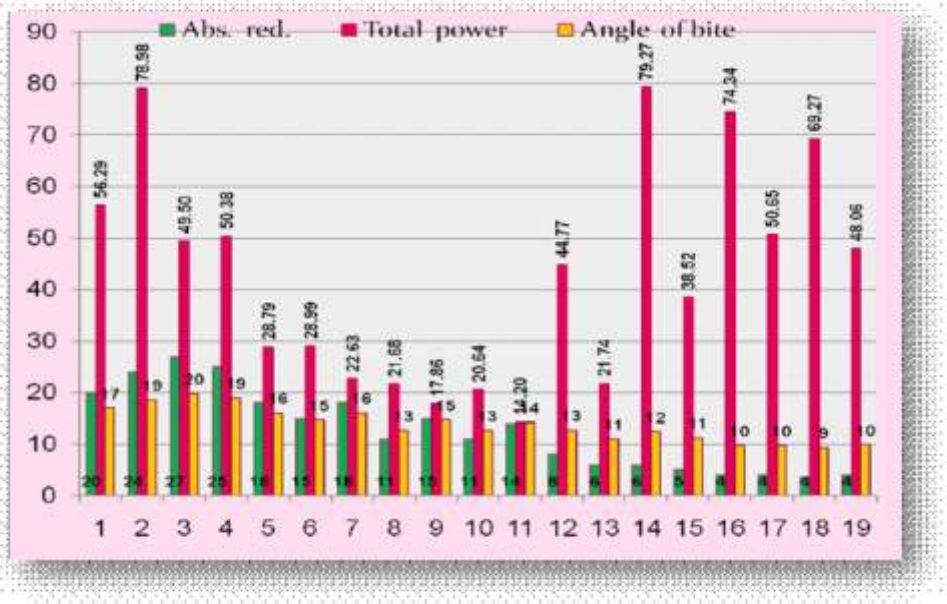
Pass no	Pass Shape	Initial width	Initial height	Initial Area	Final width	Final height	Final Area	Mean width	Abs. red.	Pass wise Power(Kw) Required for Deformation
		B	H	Fo	b	h	F1	Bm	dh	
		mm	mm	mm2	mm	mm	mm2	mm	mm	
1	Box	100.00	100.00	9940.00	110.00	80.00	7920.00	105	20	62.32
2	Box	110.00	80.00	7920.00	125.00	58.00	6525.00	118	22	89.01
3	Square	58.00	125.00	6525.00	72.00	72.00	5184.00	65	53	118.12
4	Box	72.00	72.00	5184.00	86.00	50.00	3870.00	79	22	68.48
5	Square	50.00	86.00	3870.00	56.00	56.00	3136.00	53	30	61.50
6	Box	56.00	56.00	3136.00	66.40	40.00	2376.00	61	16	43.82
7	Square	40.00	66.40	2376.00	40.00	40.00	1600.00	40	26	44.70
8	Oval	40.00	40.00	1600.00	48.00	28.00	1055.04	44	12	27.86
9	Square	28.00	48.00	1055.04	29.00	29.00	841.00	29	19	27.37
10	Oval	29.00	29.00	841.00	36.00	20.00	565.20	33	9	18.43
11	Square	20.00	36.00	565.20	20.00	20.00	400.00	20	16	18.93
12	Oval	20.00	20.00	400.00	24.00	15.00	282.60	22	5	28.63
13	Square	15.00	24.00	282.60	14.50	14.50	210.25	15	10	35.09
14	Oval	14.50	14.50	210.25	18.00	9.50	134.24	16	5	64.72
15	Round	9.50	18.00	134.24	12.00	12.00	113.04	11	6	49.95
16	Oval	12.00	12.00	113.04	15.00	7.50	88.31	14	5	98.80
17	Round	7.50	15.00	88.31	10.00	10.00	78.50	9	5	68.42
18	Oval	10.00	10.00	78.50	12.00	6.30	59.35	11	4	81.48
19	Round	6.30	12.00	59.35	8.00	8.00	50.24	7	4	55.38

ABSOLUTE REDUCTION AND POWER REQUIRED (Kw




POWER
ABS. RED.
120
100
80
60
40
20
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
56.29 86.65 59.53 41.13 28.75 16.62 20.84 30.73 27.10 18.96 18.12 43.24 41.82 56.04 60.63 43.50 57.35 69.27 48.06
20 27 34 20 18 9 15 13 25 9 19 7 13 4 9 2 4 4 4


Total power
Abs. red.
140
120
100
80
60
40
20
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
92.83 78.76 49.91 51.75 69.75 24.6 38.33 33.47 24.32 20.57 15.47 46.69 33.63 60.24 40.17 76.63 82.56 74.10 51.29
25 22 20 25 22 18 16 13 15 9 11 7 8 4 4 3 6 4 4


Abs. red.
Total power
Angle of bite
90
80
70
60
50
40
30
20
10
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
56.29 78.98 49.50 50.38 28.79 28.99 22.63 21.68 17.86 20.64 14.20 44.77 21.74 79.27 38.52 74.34 50.65 69.27 48.06
20 24 27 25 18 15 18 11 15 11 14 8 6 6 5 6 6 6 6
17 19 20 19 16 15 16 13 15 13 14 13 11 12 11 10 10 9 10

ROLLING OBSERVATIONS

- +T Risk of tilting in the next groove due to too large width
- -T Risk of tilting in the next groove due to too small width
- +F The ratio Bar Edge/Groove Bottom Diameter of the next groove is >0.7
- +O Overfilling (Bar width>Groove Width)
- +W Width of finishing dimensions is more than 1.5% TOO LARGE
- -W Width of finishing dimensions is more than 1.5% TOO SMALL
- +D Sb,Db or Hb of finishing dimensions is more than 1.5% Too Large
- -D Sb,Db or Hb of finishing dimensions is more than 1.5% Too Small
- +L Loop Growth by repeater rolling is TOO LARGE. Tension by block rolling is TOO SMALL
- -L Loop Growth by repeater rolling is TOO SMALL. Tension by block rolling is TOO LARGE
- -N Motor revolution is below the base revolution. Full power is not available

TYPICAL HEATING SCHEDULE

GRPOUP	TYPE OF STEEL	TEMPERATURE, 0C
I	Carbon and low-alloy steels (up to 0.45% C)	**1200-1220**
II	Carbon, low-and medium alloy steels (up to 0.65%C)	**1180-1200**
III	Carbon and medium alloy steel (up to 0.9%C)	**1140-1160**
IV	Carbon and alloy steel; tool and bearing steel (up to 1%C)	**1120-1140**
V	Carbon and medium alloy steel; tool and high manganese steels (up to 1.3%C)	**1100-1120**
VI	Nichrome and stainless steels	**1200-1220**
VII	High-speed steels	**1180-1200**

STEEL SECTOR NEWS

Primary mills see rising stocks, smaller units cut production

Production: Themonth ofJuly is expected to see production come under, especially from the smaller mills and in terms of long products. In June, 30-35% of the melting and rolling mills have shut operations, pushed to the brink by negative margins brought on by rising raw material prices. For instance, prices of Odisha iron ore fine are almost touching INR 10,500/t levels while lumps prices are ruling at a little below INR 14,500/t. Consequently, the conversion spread between billets and rebar has narrowed into negative territory.

Consumption: Demand for finished steel has been highly sluggish. Long products consumptionhas been especially hit because of the rainy season while demand for flats is equally sluggish.

Exports: Overseas sales from Indian mills are likely to remain lower than in the preceding two months. There are still limitations of vessels and higher freight rates, which will affect exports in July.Exports volumes in July may touch 1-1.25 million tonnes, lower compared to 1.75 mn t in May and 1.50 mn t in June.

There were expectations that flats exports prices would hover around $970-980/t after coming down from $1,100/t levels in May. However, exports to Vietnam, the second-largest HRC market, has dried up because Russian deals at $855-860/t have spoilt Vietnam prospects at present. Europe was a lucrative flats market but Indian mills have exhausted their annual quota to the European Union in just five months.

Imports: There is no scope for imports from Russia or China and Japan because these countries donot have export allocations and their prices are high. India imports largely from Korea and Japan. Domestic prices are more competitive.

Prices: Indian steel prices fell by at least $18/tonne (t), as the currency depreciated to INR 74.80 to the dollarrecently. According to the sources, a drop of about 2.5 % in the Indian rupee (INR) in the past couple of weeks led to a decline in local steel prices by about 4% w-o-w. Prices will remain under pressure.

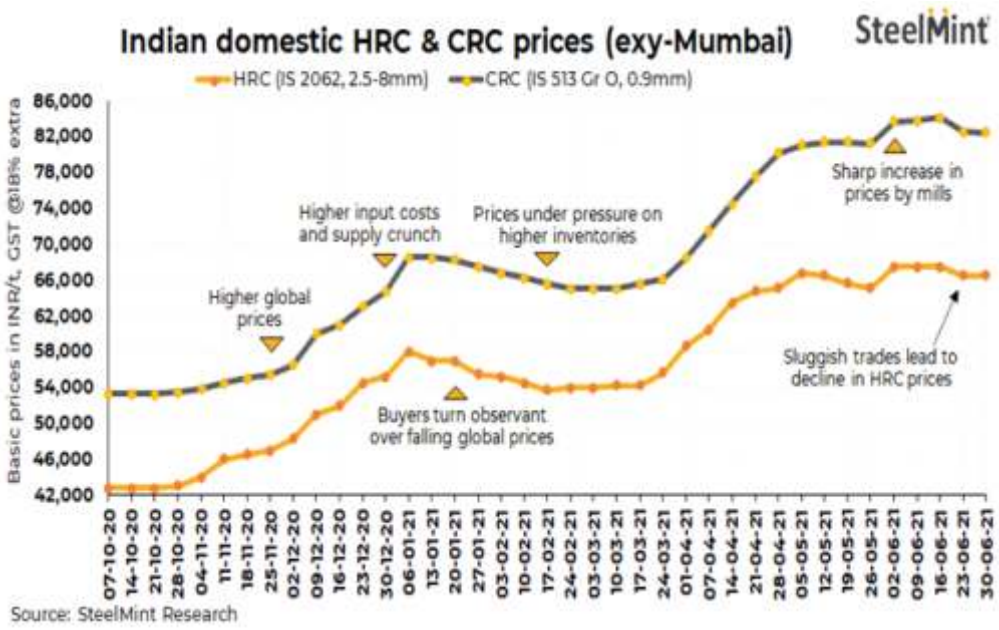
Longs prices may correct by another INR 1,000-2,000/t since inventory is high. Mills would want to wait and watch.

In flats, mills recently cut domestic prices by 1,500-2,000/t on weak demand and lack of exports to Europe and Vietnam.

Therefore, flats prices may not correct immediately but mills are pushing their products in the domestic market because exports have dried up at the moment.

Moreover, mills are watching how the proposed Russian export tax will impact prospects – whether volumes from Russia will increase. That will set the direction for flat prices.

ROLLING OBSERVATIONS



Source: SteelMint Research

Inventory: Larger mills are holding one month's inventory against the usual 10-15 days. For the smaller mills, their maximuminventory holding capacity is also 10-15 days after whichthey need to start cutting down on production since they cannot keep capital blocked for long.

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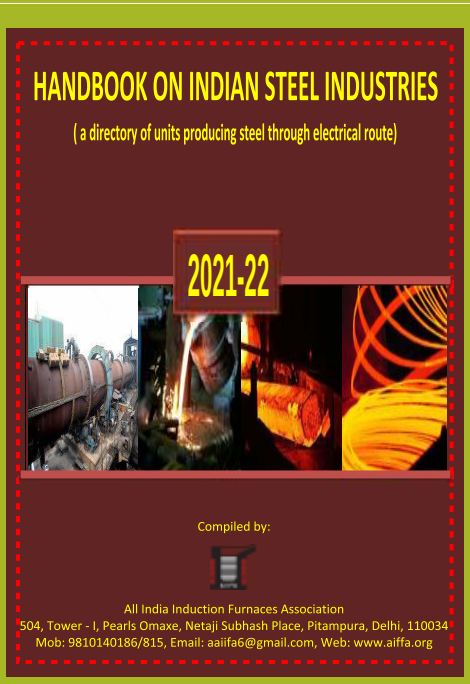

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