

Methodology

India Domestic Steel Scrap Price Index

DAP*, Gobindgarh Mandi,
Punjab



*DAP- Delivered at Plant Site

Why Scrap Index?

India's National Steel Recycling policy mentioned that the efficient use of scrap for steel production becomes very crucial for India as 35-40% share has been envisaged from scrap-based steel production in the journey of 300 mn t pa

by 2030. This shall increase the requirement of steel scrap sharply from the present level of around 30 mnt.

About Assessment

SteelMint's assessment of melting scrap reflects the different grade of HMS generated and traded in domestic market. SteelMint gathers and verifies information from buyers and sellers active in the physical spot market. The

data obtained by SteelMint, are normalized for quality, dimensions, delivery timing, location and other terms of trade to the specifications.

Methodology overview for India steel scrap index DAP Gobindgarh Mandi, Punjab

Mandi Gobindgarh in Punjab has a rich concentration of induction furnace (IF)-based steel producers which source steel scrap from Punjab-based and out-of-state scrap traders and producers as well as imports.

Steelmint conducts daily assessment of different grades of melting scrap steel cargoes that are sold on a delivered at plant (DAP) basis in Mandi Gobindgarh. The melting scrap is mostly produced by scrapping auto-component, plants and building, with a mix

of discarded household, white goods and automobile. Typically HMS scrap has a metallic yield of around 90-98% in the furnace with a 2-3% variation.

As with all Steelmint assessments, analysts and management are equidistant from all market participants and do not favour or disfavour any transaction or market participant.

Assessment Specification

Particulars	Specifications
Index	India Domestic Steel Scrap Price Index(End Cutting), DAP Gobindgarh Mandi, Punjab
Other Assessments	Old Scrap, HMS (80:20) Selected, CR Sheet Cutting
Dimensions	Length up to 3 Ft.
Packing	Loose
Quantity	50 MT - 100 t
Delivery Terms	Delivered at plant (DAP), (Induction Furnace) site located in Mandi Gobindgarh, Dist. Fatehgarh (Punjab)
Payment Terms	Immediate after delivery
Delivery Period	Within 3-5 days
Assessment Frequency	Daily
Data Submission (IST)	11.00 AM to 4.30 PM
Publication (IST)	1.00 PM & 5.00 PM

Key Study*

There are four categories of scrap traded

- **HMS (Old Scrap)** this item is generally not available nor traded but consider as a base price to calculate the different higher grades of scrap. If considered for purchase by furnace it's a lightweight scrap with a yield of 88-90% majorly tin plate, cycle parts, etc.
- **HMS 80:20 (Selected)** this is heavy selected scrap with yield of 94-96%, items include auto scrap, tin plate, house hold steel scrap wastage etc. Ideal truck load is ~20 mt.
- **End Cutting**(Index) also referred as blue steel its mainly waste of finish steel product like round, rebar, structure, wire, pipe etc, with yield 98% - (+/-1%)
- **CR Sheet Cutting** wastage of CR auto/ /white goods grade scrap with high quality chemistry, generally used in making alloy steel. Its yield is similar to End cutting but the chemistry property is superior.
- Two key **consuming** scrap regions are **Mandi Gobindgarh** and **Ludhiana**. There are about 110 furnaces with a yearly melting capacity of over 40,00,000 t.

- Total scrap **consumption** in Punjab is about 30,00,000 t per annum. Most of which is consumed by Induction furnaces located in Mandi gobindgarh & Ludhiana
- Punjab imports around 10,00,000-11,00,000 t scrap, mostly from Africa origin as well as Middle East (Including – ICD Ludhiana and Chawapayal/Samralain FY'20)
- Domestic generation is around 10,00,000-12,00,000 t per annum which is generated largely through automotive, their ancillary units, engineering companies along with wastage of finished steel and most of the deals reported between plants to plants.
- Scrap procurement from other states around 10,00,000 t scrap like UP, Haranya, Rajasthan, West Bengal & Delhi/NCR region.
- Furnace producers in mandi buys scrap around 30,00,000 t per annum and about 14,00,000 t Sponge Iron.
- Ideal payment term is immediate payment after delivery. Price of cargo is delivered at plant location (DAP)

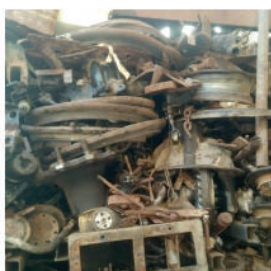
*Last updated: Oct 2020

Melting scrap grades (Punjab Market)

Scrap Type Name	Yield	Spread (Difference from Basic)
HMS Old Scrap	88-90%	Basic
HMS 80:20 (Selected)	94-96%	Basic + 2,000-2,500
End Cutting (Structure/Rebar)	97-98%	Basic + 3,700-4,000
CR Sheet Cutting	98%	Basic + 4,700-4,900

Note: The spread is not fixed and changes as per demand & supply

HMS 80:20 (Selected)



End Cutting (Round)



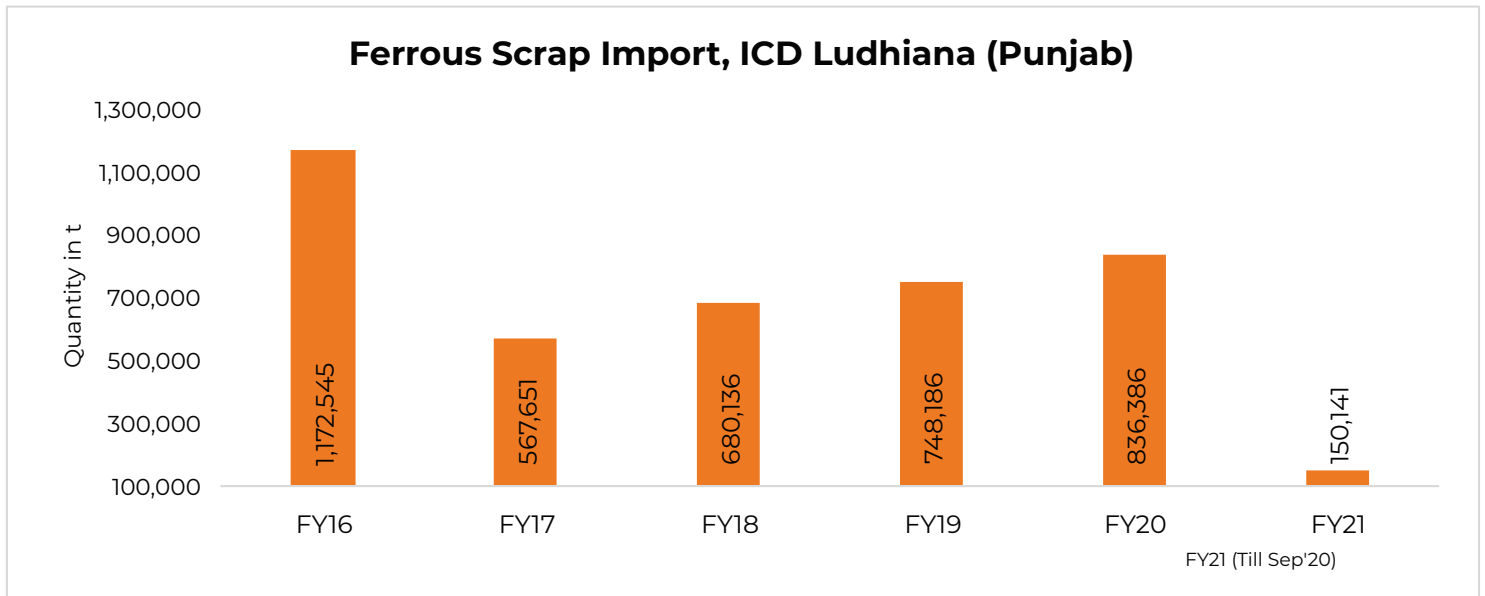
End Cutting (Structure)



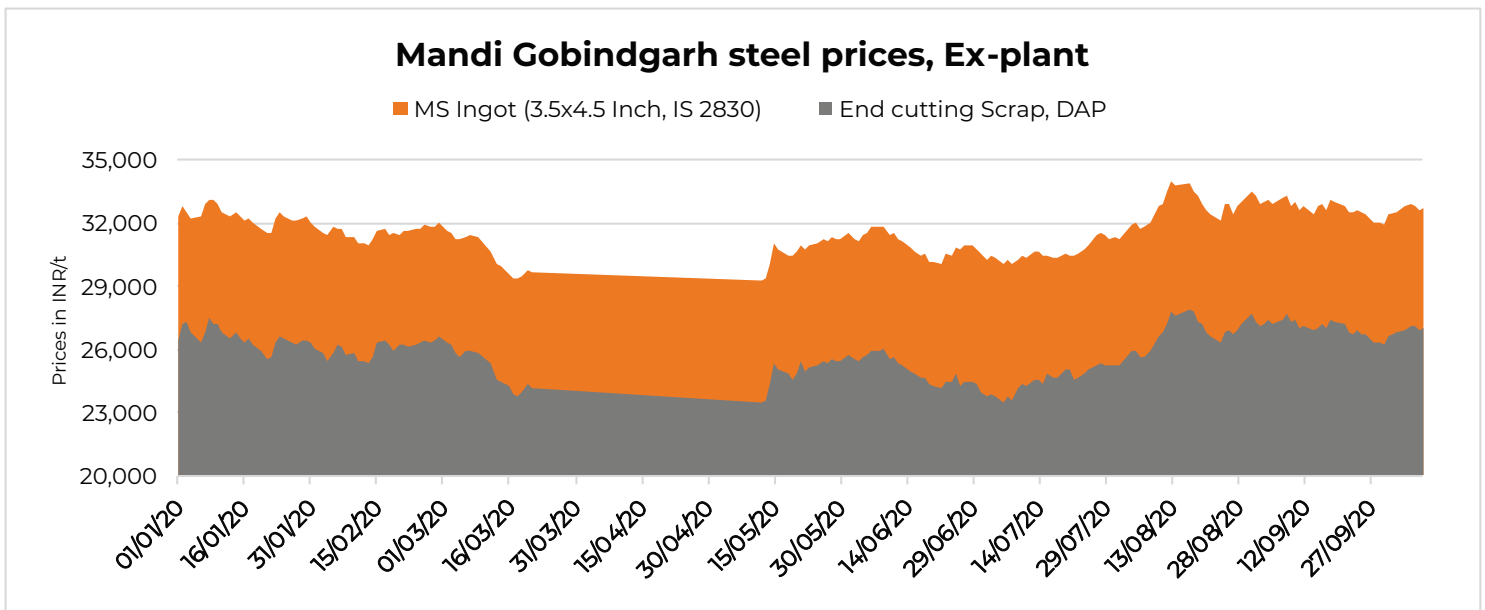
CR (Sheet Cutting)



India's Ferrous Scrap Import (ICD Ludhiana)



Melting Scrap & Ingot Prices, Mandi Gobindgarh



Data collection

Steelmint analysts contact the widest range of market participants, including induction furnace mills in Mandi Gobindgarh and scrap traders and producers in Punjab and neighbouring states.

There is a continuous review of the credibility and timeliness of information provided by various market participants with

unreliable information providers weeded out of the data collection process. Analysts reach out to contacts through a variety of means such as telephone calls, email and messenger platforms such as whatsapp. Market participants are also encouraged to provide relevant trading information to Steelmint electronically or via a phone call.

Hierarchy of data

The highest importance in the price calculation process is assigned to confirmed deals received in the trading window where either a buyer or seller has provided details of the transaction. Deals provided by reputed and trustworthy buyers and sellers of scrap are included in the price collection and

calculation process. Confirmed bids and offers are also considered valuable for the pricing process. In periods when market activity is sluggish, analysts will poll market participants for indicative or tradable price levels for that day.

Transaction data threshold

Steelmint does not impose a minimum transaction threshold for arriving at an assessment as the steel scrap market is quite opaque with buyers and sellers often hesitant in revealing deal

details. But Steelmint makes strenuous efforts to reach as many contacts as it can daily to get accurate information on deals.

Frequency of assessments

The scrap assessment is conducted daily with a timestamp of 5pm. No market data received after 04:30 pm is included in the

price calculation.

Normalization for different grades of scrap

Scrap pieces with different dimension and different yield than SteelMint specifications are considered for price calculation at a discount or premium. IF mills have to resize larger scrap pieces to fit the furnace burden, hence traders would often sell these at a discount. The current market

rates of discount and premium for larger-sized scrap and different yield are given below for illustration purposes. These rates often change given market demand and supply conditions and are not set to any mathematical formula.

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Price calculation process

Prices are calculated as a simple average of normalized prices, with data points being assigned to either T1 or T2 categories. All confirmed deals are assigned T1 classification with a simple average of T1 normalized prices assigned a 50% weightage in the

final price. Other prices such as bids, offers and indicative prices are classified as T2 with an average of normalized prices assigned a 50% weightage in the final calculation.

Exclusion of market data

Steelmint analysts will exercise judgment in excluding market data when a deal, bid, offer and indicative price is significantly higher or lower than average price in the market in that week.

Landed price of similar scrap cargoes imported from Dubai are also referred to occasionally to check if the domestic bid/offer/deal price lines up with the imported price, as Gobindgarh mills use a mix of domestic and imported scrap in the furnace burden. If a domestic price seems to be much higher than the Dubai price, it may be excluded as long as other

domestic data points are largely in line with the import price. Dubai cargoes typically land in India within a week and have smaller lot sizes that make them quite similar to domestic scrap supplies in pricing and delivery terms.

Exclusions are not automatically done based on any set formula but are made only in cases when the feedback from the market and application of mind by Steelmint's experienced analysts justifies such a change.

Rationale publication

A rationale for the assessment which will include a summary of the type and number of data points considered for price calculation. Reasons for exclusion of deals and premium for

atypical cargoes, if any, are published on the day of publication of prices to provide transparency to the assessment process.

Correction of assessments

Steelmint will publish corrections of assessments if an error has resulted due to faulty entry of data or an unintentional omission of data point in the price calculation process. However, prices

will not be corrected or updated in any manner if new deals or bids/offers become available after the weekly timestamp.

Record keeping

Records of price sheets used in assessment, calculation, rationale and notes taken by reporters during the data collection and discussion process with contacts are stored

securely in physical or electronic forms for a reasonable period of time.

Methodology review

The basic purpose of any pricing process is to accurately reflect market fundamentals and as such the methodology is open to review as market conditions, specifications and modes of trading and pricing contracts change. Once editors and the management decide to review the methodology, sufficient time

will be provided to external stakeholders to comment on the proposed methodology changes via email or other appropriate communication tools. Any final change to the methodology will only be made after completing an external consultation process.

SteelMint's scrap assessments for other Indian markets*

Place	Grade	Delivery Terms	Time (IST)	Frequency
Mandi	HMS (Old Scrap)	DAP	13:00, 17:00	2
	HMS(80:20)	DAP	13:00, 17:00	2
	End Cutting (Structure/Rebar)	DAP	13:00, 17:00	2
	CR Sheet Cutting	DAP	13:00, 17:00	2
Ludhiana	End Cutting	DAP	13:00, 17:00	2
Durgapur	HMS(80:20)	DAP	13:00, 17:00	2
Raipur	End Cutting	DAP	13:00, 17:00	2
	HMS(80:20)	DAP	13:00, 17:00	2
Ahmedabad	HMS(80:20)	DAP	13:00, 17:00	2
Ex-Alang	HMS(80:20)	Ex-Yard	13:00, 17:00	2
Jalna	HMS(80:20)	DAP	13:00, 17:00	2
Kandla	HMS(80:20)	DAP	13:00, 17:00	2
Mumbai	HMS(80:20)	DAP	13:00, 17:00	2
Chennai	HMS(80:20)	DAP	13:00, 17:00	2
Hyderabad	HMS(80:20)	DAP	13:00, 17:00	2

* Daily assessments

Last update on Saturday is done at 16:00

DAP- Delivered at Plant Site

Payment - Immediate after delivery (0-3 days)

We invite your participation

SteelMint's Scrap index will enable industry participants to base their trades on a benchmark price and we encouragingly invite your active participation to reflect a wider and more representative set of fundamentals. Please do send your feedback by writing to us at info@steelmint.com or contacting the support team on **+91 97700 56666**.

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