



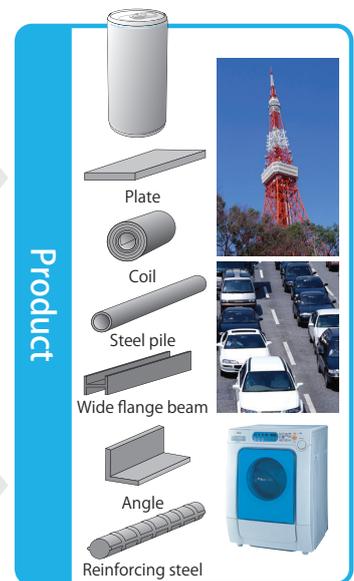
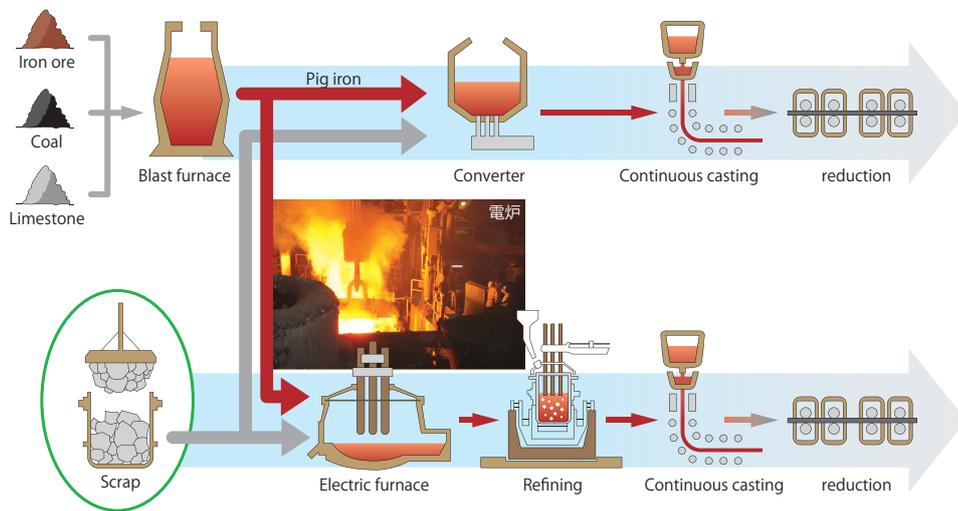
II Present Conditions for Steel Can Scraps

2. How is Scrap Iron Recycled?

- The annual production of iron in Japan is approximately 107,300,000 tons in FY2012. Blast furnace and electric furnace methods are available to manufacture iron and steel. In Japan, 77.2% of Iron and steel is manufactured by blast furnaces and 22.8% by electric furnaces.
- Iron that remains from use in construction, automobiles, machines, can containers, etc. are recycled at iron and steel manufacturers (blast furnaces, electric furnaces, casting makers, etc.) as iron scrap.
- Iron scrap that is traded in the Japanese market (commercial scrap) amounts to 27,120,000 tons (decreasing 2,540,000t from the previous year). And 9,080,000 tons were exported in FY2012 (increasing 3,120,000t from the previous year).

	Production Method	Number of makers and plants
Electric furnace maker	Iron scrap is melted in electric furnaces (by discharge heat from electrodes) to manufacture steel.	50makers with 71plants
Blast furnace maker	Iron scrap is inserted when pig iron reduced from iron ore in a blast furnace is supplied to a converter to manufacture steel.	4makers with 18plants

A Production Process of Steel and Scrap Recycle



Domestic Iron Scrap Supply and Demand (FY 2012)

Export 9,080,000 tons

Industrial scrap by the steel makers
13,350,000 tons

Domestic purchased scrap
27,120,000 tons

Factory scrap
6,280,000 tons

End-of-life scrap
20,840,000 tons

of which, Steel can scrap
640,000 tons

Note: The amount of domestic purchased scrap (for domestic iron makers) is the value added to the past correction value to the sum of the factory scrap and the end-of-life scrap

(Unit: 1,000 tons/year) Source: The Japan Ferrous Raw Materials Association

Technical Terms

[Electric furnace]

A heating chamber with a discharge heat to melt scrap iron

[Blast furnace]

A furnace used to produce pig iron from iron ore, coal and limestone

[Converter]

A furnace used to produce steel from melting pig iron and blowing oxygen into it. It is able to rotate 360 degree.

[Steel]

An iron contains less than 2% of carbon

[Pig iron]

An iron contains more than 2% of carbon

[Industrial scrap]

Scrap generated in rolling process, and consumed inside of factories

[Purchased scrap]

Scrap transacted in the scrap market

[Factory scrap]

Scrap generated in processes using steel as a material (e.g. cars, machines and shipbuilding)

[End-of-life scrap]

Scrap from dismantled buildings, disused cars, disused domestic electric equipments, and steel can scrap.