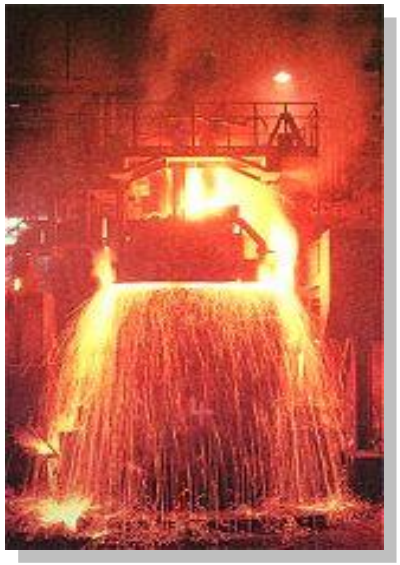
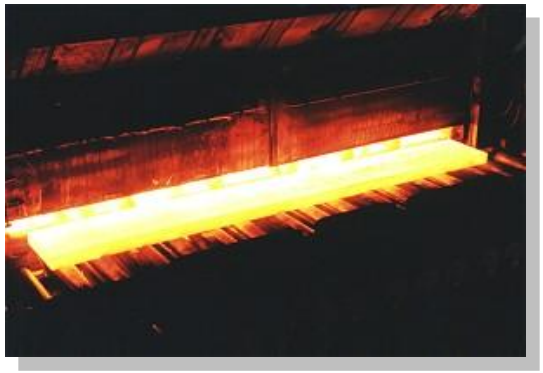
Steel



Steels are alloys of iron and carbon, widely used in construction and other applications because of their high tensile strengths and low costs. Carbon, other elements, and inclusions within iron act as hardening agents that prevent the movement of dislocations that otherwise occur in the crystal lattices of iron atoms.

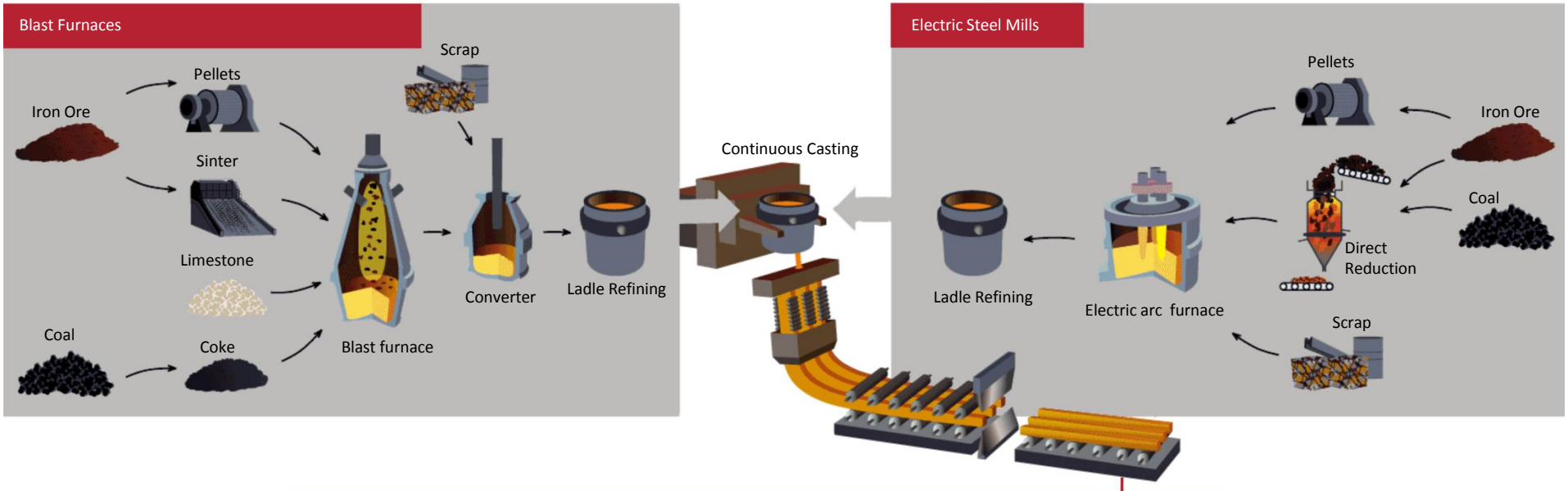
The carbon in typical steel alloys may contribute up to 2.1% of its weight. Varying the amount of alloying elements, their formation in the steel either as solute elements, or as precipitated phases, retards the movement of those dislocations that make iron so ductile and weak, and thus controls qualities such as the hardness, ductility and tensile strength of the resulting steel. Steel's strength compared to pure iron is only possible at the expense o ductility, of which iron has an excess.

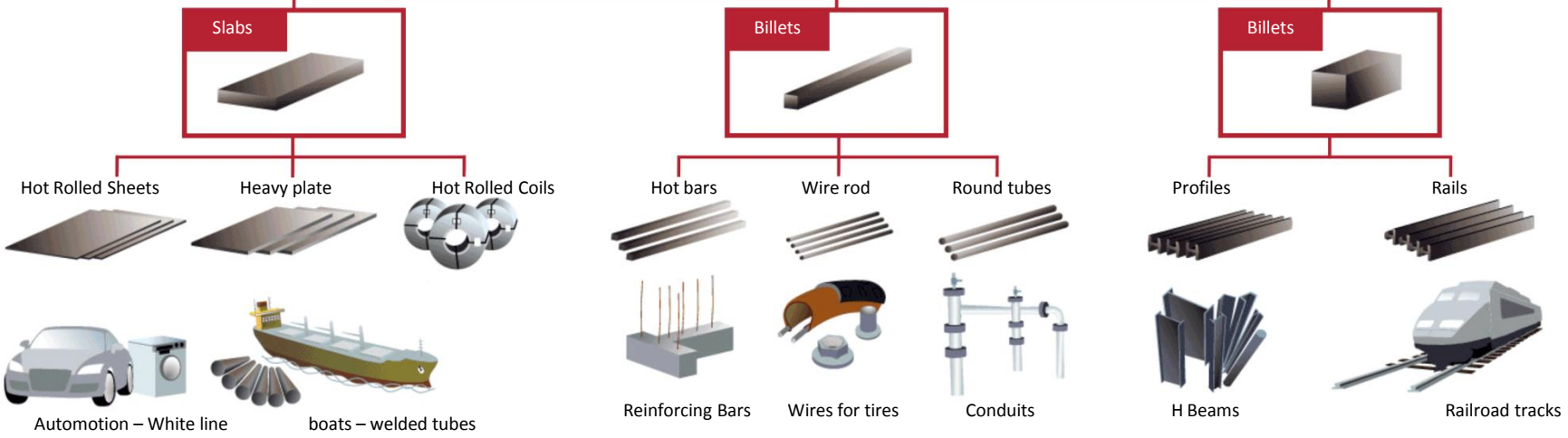
Above you may find a diagram of the different procedures to create steel and its products.



The Steelmaking process

The Steel process, products and applications





Hot Rolled Coil

Hot roll is the most used product internationally due to its great range in thickness applicable to a diverse use in the industry and construction sectors.

Applications: Metallic structures, containers, tubes, construction, shipping and automobile industry.

Hot Rolled Coil, Pickled & Oiled

This is a hot rolled product processed in a continuous pickled line coated with protective oil.

Applications: Automobiles wheels and other applications such as cold rolling.

Full Hard

A deriving product from the cold rolling process. Its main characteristics are the extreme mechanical resistance and the surface coated with oil residuals coming from the rolling process.

Applications: This material is for galvanize or annealing purpose and afterwards used as cold rolled or tin coated product.

Cold Rolled Coil

Hot-Rolled material passes the process of cold-reduction through a cold roll mill. By this, the product gains higher precision (surface quality, gage control, etc.) than HRC. Reaching a thickness below 2 mm ready to produce material with an added value.

Applications: Metal plates, automobiles, tubes, construction, electric motors, metallic furniture, household appliances, etc.

Tin Mill Black Plate (TMBP)

A cold roll annealed product to which a skin pass finish is applied. This product outstands for its thickness, its mechanical properties and its adaptable surface to the customers necessities.

Applications: This material is mainly used to be tin or chromium coated. It is also used for oil drum lids, paints, etc...

Galvanized Steel

Galvanized steel is obtained when coating a steel sheet with a layer of zinc on both sides. It is a steel combined with zinc coating which makes a product capable for the manufacturing of corrugated products, highly resistant to corrosion.

Applications: Automobile industry, roofing for industrial warehouses, air conditioning channels, structural frames, panels, household appliances, etc.

Galvalume

This type of steel is coated with aluminium-zinc alloy and silicon steel. Its differential chromated appearance as well as a special treatment given to the surface makes this product very resistant to corrosion.

Applications: Construction, air conditioning equipment, household appliances, pipes, etc.

Pre-painted

This is a product with very special characteristics. Although it is aluminium-zinc alloy and silicon coated, a pre-painted process is applied giving a considerable added value to the product as it is practically ready for its purposes.

Applications: Construction, automative components, household appliances, etc.

Tin Free Steel

Tin Free Steel is a thin sheet of steel coated with a metal chrome film and chromium oxide and protected by a thin oil film.

Applications: Crown corks, tops and can ends, etc.