## Manufacturing Process Stage 1 - The melt shop



The production of steel begins by **melting scrap**: stainless steel is recognized as a reference for **sustainable development**. At the **melt shop** the chemical composition of the stainless steel grade is determined: Stainless Europe has the benefit of highly competitive plants with a capacity of 2 million tonnes.





The raw material - recycled stainless steel and ferro-alloys - is transformed into molten metal in an electric arc furnace with a melting capacity up to 160 tonnes.

The molten metal is then transferred to the **converter**. Alloying elements are added in the converter to obtain the chemical composition. **We can produce all of the standard grades**.

The ladle metallurgy consists of adding some alloying elements to obtain **the exact chemical composition** and the correct temperature before the continuous casting process.

Then the liquid steel is poured, cooled and solidified during the **continuous casting process**.

At this stage the maximum width is determined. The solid steel is cut with an oxygen flame into slabs up to 30 tonnes in weight, up to 12 m long, 200 mm thick and up to 2 m wide.

Some slabs are then ground to remove surface defects before all of them are shipped to the hot rolling mill.