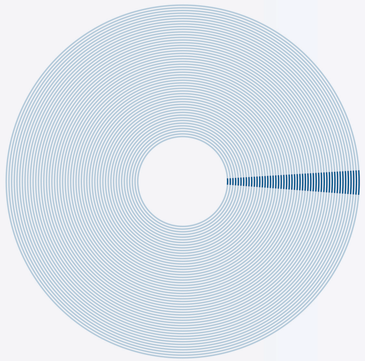
The Future of Steel

Steel is the most widely used metal. New steel products made from EAFs[3] contain up to 90% recycled steel, and those made from BOFs[4] contain up to 30% recycled steel, and all are infinitely recyclable.

~630 million net tons of steel are recycled annually, making it the world's most recycled material.[5]

Different types of steel serve different functions:

+ Advanced High-Strength Steels (AHSS) provide an optimized blend of high strength and high formability to build stronger and lighter vehicles and machinery.
+ Non-grain-oriented electrical steels have electrical properties optimized for motors, including those for electric vehicles.
+ Grain-oriented electrical steels are primarily used in electric transformers.



2%

of steel industry raw materials end up as waste.

The steel industry's co-products are also nearly entirely reusable, including in construction, road materials, heat generation and chemical manufacturing.

*See diagram on **page 46***

Steelmaking has undergone huge advances:

It now consumes

40%

of the energy per pound it did in the 1960s. Our operations are leveraging computers and advanced process modeling, including predictive analytics and artificial intelligence.

Our mini mill, which can produce nearly all the products in our portfolio, can manufacture steel using up to

90%

recycled steel, versus no more than 30% in more integrated steelmaking processes.

AUTOMOTIVE

Specialized steel is required for making electric-vehicle motors, and recycled steel is instrumental in the construction of new vehicles.

FOOD PACKAGING

U. S. Steel is the largest producer of tin-plated steel in the U.S., used for recyclable food-product cans.

RENEWABLES

Steel is a major component of solar power installations, wind turbines and transformers for electrification — all helping companies to reach net-zero emissions.

HOUSING

U. S. Steel produces long-lasting, durable steel roofing and siding. The steel from five recycled cars can make the frame for a home.

Reducing Steel's Impact on the Environment

In 2023, 2 billion net tons of crude steel were produced globally, accounting for about 8% of global GHG emissions.[6] Steel industry experts recognize that reducing the amount of fossil fuels used to produce steel is crucial to combating climate change, and U. S. Steel is actively working on ways to lessen steel manufacturing's environmental footprint.

[3] Electric arc furnaces.
[4] Basic oxygen furnaces.
[5] https://worldsteel.org/about-steel/steel-facts/
[6] https://worldsteel.org/media-centre/press-releases/2024/december-2023-crude-steel-production-and-2023-global-totals/