

# The Scrap Recycling Industry:

## Iron and Steel

Steel is the most recycled material both in the United States and worldwide. In the United States alone, 67 million metric tons of ferrous scrap was processed by the scrap recycling industry last year. Obsolete ferrous scrap is recovered from automobiles, steel structures, household appliances, railroad tracks, ships, farm equipment, and other sources. In addition, prompt scrap, which is generated from industrial and manufacturing sources, accounts for approximately half of the ferrous scrap supply.

Both obsolete and prompt scrap are processed by the scrap recycling industry into commodity grade material that is used to produce more than 60 percent of total raw steel produced in the United States, predominantly at electric arc furnaces. In addition, the United States exports ferrous scrap to approximately 80 countries worldwide. Domestic and foreign steel mills, foundries, and other industrial consumers rely on ferrous scrap as a vital, environmentally-friendly and cost-efficient raw material for the production of new steel and cast iron products. Depending on the life-cycle of those finished products, the ferrous scrap once again becomes available for recycling in the months and years ahead.



### THE IRON AND STEEL (FERROUS) SCRAP INDUSTRY

In 2015, the U.S. ferrous scrap industry was valued at more than \$ 18.3 billion.

On average, the United States processes enough ferrous scrap daily, by weight, to build 25 Eiffel Towers every day of the year.

In 2015, the U.S. scrap industry processed 67 million tons of ferrous scrap.

Steel produced by predominantly scrap-fed electric-arc furnaces accounted for more than 60 percent of the total raw steel produced in the United States in 2014.

The United States is the largest exporter of ferrous scrap in the world. In 2015, more than 12 million metric tons of ferrous scrap—valued at \$ 4 billion—was exported to approximately 80 countries, including China, South Korea, Turkey, Taiwan, Mexico and India.

585 million metric tons of ferrous scrap were consumed globally in 2014.

By using ferrous scrap rather than virgin materials in the production of iron and steel, CO2 emissions are reduced by 58 percent.

Top 2015 exports include:

- 4,240,263 metric tons of shredded steel scrap;
- 3,626,453 metric tons of #1 heavy melting steel;
- 655,792 metric tons of #2 heavy melting steel;
- 818,686 metric tons of cutplate and structural
- 549,556 metric tons of alloyed non-stainless steel.

Recycling steel requires 56 percent less energy than producing steel from iron ore.

Recycling one car saves more than 2,500 lbs. of iron ore, 1,400 lbs. of coal, and 120 lbs. of limestone.

The United States recycled the equivalent of nearly 12 million cars in 2013.

2013 Recycling Rate

- for cars: 85 percent
- for appliances: 82 percent
- for steel cans: 70 percent
- for structural steel: 97.5 percent

Steel is the world's most recycled material.



Institute of Scrap Recycling Industries, Inc.

