## 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, 66 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 more than 75 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.



### Steel is the world's most recycled material.

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

In 2017, ferrous scrap processed in the U.S. was valued at \$15.9 billion.

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

In 2017, the U.S. scrap industry processed 66 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 2017.

The United States is the largest exporter of ferrous scrap in the world. In 2017, more than 13 million metric tons of ferrous scrap—valued at \$4.1 billion—was exported to approximately 75 countries, including China, South Korea, Turkey, Taiwan, Mexico and India.

600 million metric tons of ferrous scrap were consumed globally in 2017.

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

#### Top 2017 exports include:

- 5,328,990 metric tons of shredded steel scrap
- 4,337,360 metric tons of #1 heavy melting steel
- 685,012 metric tons of #2 heavy melting steel
- 514,233 metric tons of cutplate and structural
- 703,843 metric tons of alloyed non-stainless steel.

Recycling steel requires 60 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 2014.

2014 Recycling Rate

- for cars: nearly 100 percent
- for structural steel: 98 percent
- for rebar and reinforcement steel: 71 percent



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