

# The Scrap Recycling Industry: Ferrous Scrap

Steel is the most recycled material both in the United States and worldwide. In the United States alone, 74 million metric tons of ferrous scrap was processed by the scrap recycling industry last year: more than 55% of the volume of all domestically processed material. 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% of total raw steel produced in the United States, predominantly at electric arc furnaces. In addition, the United States exports ferrous scrap to approximately 90 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 FERROUS SCRAP INDUSTRY

In 2010, the U.S. ferrous scrap industry, was valued at \$26.4 billion.

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

In 2010, the U.S. scrap industry recycled more than 54 million metric tons of ferrous metal.

Steel produced by predominantly scrap-fed electric-arc furnaces accounted for nearly 60% of the total raw steel produced in the United States in 2010—nearly 55 million metric tons.

The United States is the largest exporter of ferrous scrap in the world. In 2010, more than 19 million metric tons of ferrous scrap—valued at more than \$8 billion—was exported to approximately 90 countries, including China, South Korea, Turkey, Taiwan, Canada and India.

530 million metric tons of ferrous scrap were consumed globally in 2010

By using ferrous scrap rather than virgin materials in the production of iron and steel, CO<sub>2</sub> emissions are reduced by 58%.

Top exports include:

- 7,438,729 metric tons of shredded steel scrap
- 5,646,271 metric tons of #1 heavy melting steel
- 1,024,206 metric tons of #2 heavy melting steel
- 937,158 metric tons of stainless steel
- 916,105 metric tons of alloyed non-stainless steel

Recycling steel requires 60% 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 nearly 14 million cars in 2009, supplying an estimated 14 million tons of shredded scrap.

2009 Recycling Rate

- for cars: 106%
- for appliances: 90%
- for steel cans: 66.8%
- for structural steel: 98%
- for reinforcement steel: 70%

Sources: ISRI, AISI, BIR, USGS, USITC, ISRI, other industry sources

© 2011 Institute of Scrap Recycling Industries, Inc. All Rights Reserved Rev. 7/11



Steel is the world's most recycled material.



Voice of the Recycling Industry

Institute of Scrap Recycling Industries, Inc.



1615 L Street,  
NW, Suite 600  
Washington, DC  
20036

Visit us at  
[www.isri.org](http://www.isri.org),  
find us on  
 and   
at Institute of  
Scrap Recycling  
Industries, Inc.,  
and follow us  
on  @isri



Cert no. SPP-COC-002553  
www.fsc.org  
© 1996 Forest Stewardship Council