

Steel Drums and the Circular Economy

Steel is the most recycled material on the planet and for that reason steel drums by design fit perfectly into the new circular economy model.

CIRCULAR ECONOMY MODEL¹



REDUCE

Decreasing the amount of material, energy and other resources used to create steel and **reducing the weight of steel** used in products.



REUSE

Using an object or material again, either for its original purpose or for a similar purpose, **without significantly altering the physical form** of the object or material.



REMANUFACTURE

Restoring durable used steel products to as-new condition.



RECYCLE

Melting steel products at the end of their useful life to create new steels. Recycling alters the physical form of the steel objects so that a **new application can be created from the recycled material**.

What is a circular economy comprised of? According to World Steel, "A sustainable circular economy is one in which society reduces the burden on nature by ensuring resources remain in use for as long as possible. As a permanent material, steel is fundamental to achieving a circular economy. It is easy to reduce the weight of steel products, and steel components can be effectively reused, remanufactured, or recycled."

Each year more than 26 million new steel drums are produced in North America and more than 254 million² worldwide. They're used to safely and reliably transport and provide short-term storage of both hazardous and non-hazardous materials such as chemicals, coatings and food. After steel drums have been used and emptied, several options exist.

Some are collected by reconditioners who clean, restore, test and certify that the steel drums are ready for reuse. Each year in the U.S., almost as many steel drums are reconditioned as produced.³ Others are directly collected from consumers by scrap dealers, an important part of the circulatory recycling model.

Europe Strengthens Focus on Circular Economy

In Europe, the focus on the circular economy has been strengthened recently with a newly revised directive on

packaging waste. The provisional agreement would amend the European Union's (EU) Directive 94/62/EC on packaging and packaging waste. The overarching goal is to improve waste management in the EU in order to preserve the environment, protect human health and better utilize resources. The top priority of this directive would be the prevention of waste while the next would be reuse, recycling and other forms of reducing packaging waste. To that end, the new recycling target for steel would be 70 percent by 2025 and 80 percent by 2030. These targets are not expected to be a problem in most EU countries. For example, Germany already recycles steel at a rate of 76.8 percent.

A similar commitment to the recycling and reuse of steel drums is taking place in Japan. While the reuse rate for drums in 2017 was 59.6 percent when drums for environmental conservation were excluded, the resource-recycling rate in essence was 100 percent, according to the Japanese Steel Drum Association.

Though the U.S. has no specific plans in place yet regarding the circular economy, according to the American Iron and Steel Institute, "Each year North American steelmaking furnaces consume nearly 70 million tons of domestic steel scrap in the production of new steel." With proper collection procedures or reuse, steel drums fit well with the circular economy model.

¹<https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics>

²2017 estimates from ISDI, SEFA and JSDA

³RIPA