

Remanufacturing Is a Superior Choice

Save Money, Save the Environment With Remanufactured Cartridges

by Recharger Magazine staff

What is remanufacturing? It's reusing and refilling ink and toner printer cartridges so they can be used again. Used cartridges are collected from consumers and businesses and sorted by remanufacturers. The cartridges are disassembled and cleaned, and any necessary replacement parts are added. New toner or ink is added, and the cartridges are tested and packaged for distribution.

Remanufactured cartridges contain high-quality components and give excellent printing results. One-third of businesses nationwide use remanufactured printer cartridges, reported Clean and Green for Business. Businesses today trust the quality and reliability of remanufactured cartridges for their day-to-day printing needs as well as for their most important projects.

Remanufacturing and the environment

Every year, more than 350 million plastic printer cartridges end up dumped in landfills in the United States and

around the world. While we can never completely stop the cycle of cartridges entering the waste stream, we can at least stem the flow.

The printer consumables market is a billion-dollar industry. According to Lyra Research, worldwide revenue of printer cartridges totaled \$74 billion dollars in 2010. Of this, the aftermarket claimed 20 percent of the desktop inkjet revenue and 15 percent of the toner cartridge revenue.

Millions of cartridges are manufactured every year; this is why remanufacturing matters. Every cartridge remanufactured is one that does not go directly to the landfill. For every remanufactured cartridge purchased, it's one less new cartridge that needs to be produced, saving it from entering the waste stream and from draining the planet's natural resources.

In fact, many printer cartridges end up dumped in places you'd never expect — like China, Nigeria and India.

Save money and get quality

Of course, many companies want to be environmentally sensitive, but the main reason companies use remanufactured cartridges is to save money. Most remanufactured cartridges cost considerably less than OEM cartridges and are of comparable quality and reliability. In fact, many remanufactured cartridges last longer, as they often have up to 20 percent more toner than OEM cartridges.

In short, printer cartridges don't need to be so expensive. In order to protect their profit margins, the OEMs often claim that non-OEM cartridges might damage your printer. No manufacturer (or remanufacturer) can guarantee that a cartridge will never fail, but there is little chance that a toner or ink cartridge could ever affect the functionality of a printer or fax machine. Plus, many remanufacturers offer guarantees, promising to repair any possible related damage; due to the excellent quality of remanufactured products, this is an offer they almost never have to make good on.



Customers deserve a choice

The way many OEMs design their cartridges discourages reuse and remanufacturing. It would benefit both the environment and consumers for the cartridges to be designed so that they can be reused more easily.

No car manufacturer would be allowed to require consumers to buy its own brand of gasoline. Consumers deserve a choice, and third-party suppliers and remanufacturers provide that option.

Plus, many remanufacturers are small businesses, employing workers from local communities. Today, there are more than 5,000 cartridge remanufacturing companies around the world that employ more than 100,000 people.

Environmentally friendly

The reason that many remanufacturers got into the business is to help the environment. Reducing the number of cartridges that take up limited landfill space is good, and remanufacturing saves natural resources as well. When cartridges are remanufactured, not only is pollution prevented from going into landfills, but fewer new materials must be produced. The plastic in each toner cartridge takes three and a half quarts of oil to produce, and each new inkjet cartridge requires two and a half ounces of oil. Half a gallon of oil is conserved for each laser cartridge that is returned for remanufacturing, industry sources say.

Save energy

Also, reusing cartridges saves energy. It requires significantly less energy to remanufacture a cartridge than to produce a new one, saving energy and the natural resources used to produce power. Remanufacturing also reduces the greenhouse gas emissions that contribute to climate change.

It even takes less energy to remanufacture products than it would to recycle them. Why? Recycling converts components back into raw material, which is used to manufacture an original product, while remanufacturing captures a large percentage of resources from the original product, including the added value of labor, energy and capital.

Reduce waste

The average toner cartridge weighs 3 to 4 pounds — mostly of plastic, which is the main material in many cartridges. Unfortunately, it's plastic that's not very recyclable and will take more than 100 years to biodegrade in a landfill. Many consumers are familiar with the number system used to indicate recyclability of plastics. These numbers range from one, the most recyclable, to seven, the most difficult to recycle. On many products, including shampoo and water

bottles, the number is stamped into the plastic on the bottom of the container. PET plastic bottles, such as two-liter soda bottles, are fairly easy to recycle and are given a rating of one. Most laser cartridges are rated seven because they contain mixed resin plastics; estimates indicate that only 5 to 10 percent of the plastics in this category are recycled. In addition, the toner residue can seldom be completely separated from the cartridge's plastic, contaminating the plastic and making the cartridges even less likely to be recycled.

A better choice

That's where remanufacturing comes in. Remanufacturing is the best way to save products from landfills. However, remanufacturing can only take place if aftermarket companies have access to empty cartridges.

Many consumers are still throwing cartridges away. In Lyra's 2009 U.S. Home Printer User Survey and 2010 Western Europe Home Printer User Survey, a combined 64 percent of home printer users in these two regions said they simply throw away their empty inkjet cartridges. Thirty-seven percent of laser users also throw away their empties.

Recouping these discarded empties presents a great opportunity to keep cartridges out of landfills and continue the remanufacturing business.

Many dealers have recycling collection programs that end users should be encouraged to take advantage of. This will not only ensure that cartridges are in the hands of remanufacturers and legitimate recyclers but will also help keep cartridges out of landfills.

"Although recycling of toner cartridges does have a number of benefits, remanufacturing is a superior choice, both environmentally and economically. In most cases, recycling of plastics has not proven to be economically viable," said a report facilitated by the U.S. Department of Energy Office of Industrial Technologies.

"Toner cartridges are particularly difficult to recycle because they are composed of several different types of plastics and must be completely dismantled and sorted. In addition, the cartridges are dirty, dusted with toner and contain non-plastic parts, which require disposal," the report said. "Remanufacturing, on the other hand, calls for cartridges to be cleaned, inspected and refilled, reusing the majority of the original plastic parts. For every cartridge that is remanufactured, over a pound of plastics is withheld from the waste stream."

Choosing remanufactured products is one way to reduce the environmental impact of printer cartridges while getting a high-quality product and saving you and your business money. **R**