

**Company:** Scandi-Toner AB  
**Location:** Karlstad, Sweden  
**Type:** Independent Remanufacturer (IR)  
**In reman:** Since 1993  
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## Product

Toner cartridges

## Core Sourcing

Around 90% of the used toner cartridges are collected through Scandi-Toner's own return system and the rest (10%) is bought from partners in Europe.

## Business Model

The remanufactured toner cartridges are sold through retailers (around 300) who also retrieve empty cartridges from the market. Return-boxes are distributed by Scandi-Toner. Upon arrival to the remanufacturing facility the empty cartridges are sorted, disassembled, cleaned, refilled, reassembled, and tested. Different toner cartridge remanufacturers collaborate in Europe about technology improvements but also when buying and selling cores to each other. Also, technical information about products are shared in order to be able to remanufacture the toner cartridges in a good manner. Scandi-Toner is also a member of ETIRA, European toner and inkjet remanufacturers association.

A driver for conducting remanufacturing is that it is possible to remanufacture the products used on the market. The cores work as raw material for the remanufacturing process. The 300 retailers sell both new and remanufactured toner cartridges in the same store for the same customers. The parts of the remanufacturing system which is crucial and important are:

- the reverse logistics system,
- the technologies used within the remanufacturing process, and
- the right staff competence.

The value for the customers is that they get price-worthy remanufactured toner cartridges to a lower price than a new one. In general the toner cartridges are sold to 40% of a new toner cartridge with a 24 month warranty, which is equal as for newly manufactured toner cartridges. The quality of the remanufactured toner cartridges should be the same as the newly manufactured toner cartridges have. The warranty given on the remanufactured toner cartridges is important since it needs to be the same or better than newly manufactured toner cartridges. However, the actual length of the warranty period (24 months) is not such a big deal since almost all toner cartridges have been used within the warranty time.

## Economic Benefits and Challenges

The biggest challenge is the newly produced compatible cartridges manufactured in China. These cheaper versions of the OEM toner cartridges knock out the price view on the market. Some of these are remanufacturable and some are not. Some of the compatible toner cartridges are violating existing patents. To remanufacture these would be illegal in some countries. From an environmental point of view it is not preferable to use the compatible toner cartridges since they are illegal to perform remanufacturing on and can only be used once in comparison to OEM toner cartridges. Another challenge is that the market for the Scandi-Toner, which is the Nordic countries, is the smallest in Europe which is much smaller than for example the markets in Germany and or Italy. Finally, the biggest challenge is get customers – therefore more investments in marketing are needed.

## **Environmental Benefits**

The company holds an ISO14001 certificate and use Nordic Swan labels. Several environmental calculations have been made. One says that 80% less oil is used when using remanufactured toner cartridges in comparison to a new produced toner cartridge which uses 3-5 litres of oil per cartridge. In comparison with both OEM and imported cartridges, the total CO<sub>2</sub> impact is also lower since the whole process is locally conducted within a region/country.

## **Social Benefits – Jobs, Upscaling, etc.**

Today there are 10 employees and 80% of the process is manual. The products are too complex and different to each other which makes automation hard to make.

## **Advanced Materials Recovery**

The materials recovered by the toner cartridge remanufacturing process are aluminium and steel.