



photo credit: Safety-Kleen

## Recovering, recycling oil filters is a huge environmental win

An amazing volume of automotive oil filters is not only diverted from landfill each year, it is transformed into hundreds of thousands of litres of new, high-quality lubricant and tonnes of scrap metal.

That's the circular beauty of the oil filter recycling operations of Safety-Kleen and other AMS service providers.

Here's how it works.

At thousands of car dealerships, auto service centres, quick-lube shops, factories and fleet maintenance sites across the province, used oil filters are tossed into recycling containers for pick-up by registered AMS haulers.

Safety-Kleen Canada, one of the largest companies providing recycling for automotive service materials in Ontario, collects used oil filters through two methods: by box truck, when containers are full; or by bulk oil filter truck, which is a specialized vehicle, similar to a front-end garbage truck, that was designed to efficiently pick up bulk oil filter bins for larger quantity generators.

Safety-Kleen's 20 Ontario drivers collect materials from different regions in the province and deliver it to Brampton where the materials are weighed, manually sorted and then crushed.

"Everything is dumped into a hopper and cascades onto a conveyor, where sorting staff pick through the stream for items such as aerosol cans, plastics or debris," explains Paul Smith, manager of the Brampton site. "Then it travels on to the crusher. This is a hydraulic press, approximately 5 metres by 5 metres, that comes down on top of the sorted oil filters and compresses it all."

Used oil is squeezed out of the filters and recovered underneath the crusher, while the metal casings are transferred into a scrap metal bin and sold.

Residual oil from the old filters is pumped to a storage tank and then shipped to Safety-Kleen's re-refinery in Breslau, Ont., near Kitchener. Smith describes the Breslau facility as a scaled-down version of a petroleum refinery where used oil is turned into new lubricant. "Our refinery utilizes used oil as a feedstock and produces a base oil with very high quality and performance characteristics. The base oil from the re-refinery is sent to our blending and packaging facility where high-quality additives are used to create an API (American Petroleum Institute) approved lubricant."

What makes this process so good for the environment is that used oil can go through this cycle an infinite number of times.

Aside from the oil and scrap metal recovered at the Brampton facility, the company recovers and recycles collected plastics and aerosols.

"The process is not glamorous, but it's a terrific environmental story, given the quality of our products and the amount of oil and metal diverted from landfills," said Smith.

### By the numbers

In 2020, Safety-Kleen's Brampton facility produced the following recyclable materials\* every week:

- 50,000 kg of scrap metal
- 15,000 kg of recovered oil for re-refining
- 335 kg of other recovered materials (plastics and aerosol cans)

\*numbers have been rounded