Keeping the shine at Sunshine

Sunshine Linen Services has always explored ways to save water. As the business grew, washer extractors were used more, prompting owner Robert Herz to investigate water efficient technologies. One innovative solution was using ozone as a cleaning agent in washer extractors.

Sunshine carried out a four week ozone technology trial focusing on a 90 kg washer extractor. A sub-meter monitored the water flow into the washer extractor for two weeks before introducing ozone and using it for two weeks. This showed a remarkable 42% reduction in water used for each kilogram of linen.

In addition to water savings, the trial achieved promising results for energy savings, chemical use and commercial business factors. (See Table 1)

'Our aim was to see if we could copy the cleaning performance of a traditional hot wash formula, and take advantage of the water, energy and production economies promised by ozone. We determined that this was possible,' Robert Herz said.

	Change in percentage with ozone
Average washes a day	30% ↑
Average kilograms washed a day	30% ↑
Average litres water used per kg linen	42% ↓
Average wash time in minutes	40% ↓
Energy used in kWh per wash	42% ↓
Boiler gas used in MJ per day	58% ↓
Chemicals used in $ per wash	26% ↓

Table 1. Results from using ozone technology in a washer extractor.

'These results suggest that using ozone technology on all 11 washer extractors could save about eight million litres of water a year,' Robert said.

The trial helped Sunshine Linen and the EDC Business Program understand the potential for ozone technology use in the laundry sector. Both are keen to explore further trials together to continue to save water.

If your laundry would like to trial ozone technologies, contact your EDC representative.

Sunshine's owner and Managing Director Robert Herz.

How does ozone technology work in the laundry?

Ozone is a powerful oxidizing agent. It dissolves soil on contact at ambient water temperatures.

Ozone technology in laundries provides a number of benefits:

- Ozone's powerful disinfecting properties reduce the use of water, energy and chemicals in the sewer and therefore reduce costs.
- Using ozone reduces the average number of water fills from six to four, increasing productivity.
- Removing chlorine and hot water reduces linen replacement through wear and tear.

There are a number of ozone technologies on the market for laundries. This trial used an advanced direct injection system, where small amounts of ozone were continuously fed into the washer extractor. Other technologies inject high concentrations of ozone into the water line during the wash cycle.