

CASE STUDY

Printing & Packaging Industrial Wastewater discharge



**Client: Printing
& Packaging
Manufacturer,
New Zealand**

**Treatment
of industrial
wastewater (inks,
glues, surfactants) for
discharge**

This global company is a leading manufacturer of high-performance packaging solutions with a focus on environmental sustainability. Their headquarters are in Japan, with manufacturing operations in Asia Pacific, New Zealand and Australia.

They develop a wide range of packaging solutions and products from plastic food wrapping to bubble wrap for safe transport of goods to specialist applications in the medical sector.

The Challenge

The company's automated package manufacturing process includes stages for printing and gluing. The company needed to treat the wastewater on site to:

- ▶ Recycle water for washdowns.
- ▶ Dispose of contaminated wash water (high concentrations of printing ink, glue, surfactants) to meet discharge regulations.
- ▶ Reduce disposal costs.
- ▶ Reduce the water footprint to meet global sustainability goals.
- ▶ Improve process efficiency.

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Containerised, compact solution



Filter Bags

Our Solution

After initial testing conducted on site, Infinite Water designed a fit-for-purpose 3KLD solution.

Infinite Water scientists developed a proprietary powder polymer blend to separate suspended solids before being passed through the sludge dewatering filter bag system. The wastewater is then treated through the Hydroxon™ Catalytic Advanced Oxidation (CAO) process.

In the CAO process, high levels of Hydroxyl radicals de-contaminate and disinfect the water.

The Infinite water containerised plant:

- ▶ Delivers an annual ROI of 34%-40%.
- ▶ Reduces the water footprint and facilitates water re-use.

Infinite Water will be providing an ongoing monthly on-site service.

Outcomes

The supernatant liquid is polished to remove traces of colour, degrade organic matter and precipitate heavy metal compounds.

The product water exiting the plant is fully disinfected, with ink, glue, surfactants and colour removed.

