CASE STUDY

project:	Improved sanitation for process water system
product:	WTS 7-CDS
industry:	Manufacturing
location:	Melbourne

background

A manufacturing plant in Melbourne processing synthetic and natural fibres for personal care products, faced several critical challenges with their process water system.

- **Biofouling & Downtime:** Frequent blockage of jet nozzles by biofouling debris led to excessive downtime and filter cleaning.
- **Microbial Contamination:** Elevated microbial counts in process water and finished products.
- **High Peroxide Consumption:** Continuous dosing of approximately 1500 ppm Hydrogen Peroxide posed supply, logistical and safety challenges.

The client needed a simple trial to validate a new sanitation technology without high capital equipment expenditure.

solution

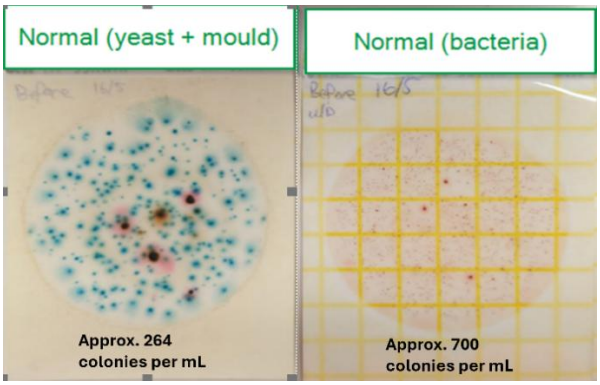
The WTS 7-CDS (pump and go Chlorine Dioxide Solution) was trialled. Prior to trial WTS experts confirmed H_2O_2 degradation of ClO_2 and that the client's process water system was well-suited for Chlorine Dioxide treatment.

The system was modelled to establish optimal dosing rates, ensuring a consistent residual Chlorine Dioxide level (0.2–0.3 ppm) throughout the system.

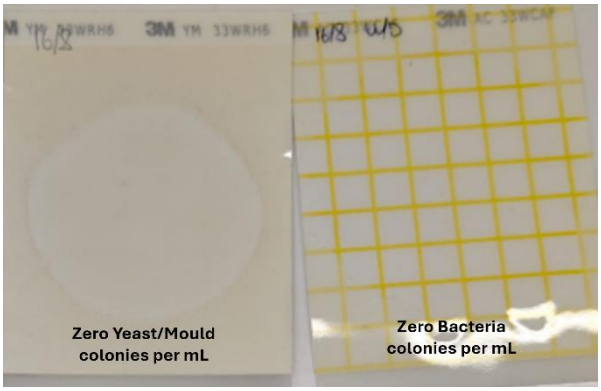
During a scheduled maintenance shutdown, the system was drained to flush out the residual Hydrogen Peroxide. The existing diaphragm dosing pump was repurposed to dose WTS 7-CDS, transitioning seamlessly from the previous chemical.

Continuous dosing was initiated to maintain a steady Chlorine Dioxide residual, effectively curbing biofouling and microbial contamination.

This approach allowed the client to transition to a more effective and safer sanitation system without any additional capital expenditure.



Existing Peroxide system



WTS 7-CDS Chlorine Dioxide Solution

CASE STUDY

project:	Improved sanitation for process water system
product:	WTS 7-CDS
industry:	Manufacturing
location:	Melbourne

results and benefits

- **Downtime Reduction:**

  74% fewer police filter blockages

  19% improvement in bag filter blockages

- **Reduced biofouling:**

  Obvious reduction in biofouling via visual inspection on tanks and pipes

- **Improved Product Quality:**

  Near-zero microbial counts in finished products

- **Cost and Time Savings:**

  No new capital expenditure; rapid implementation using existing infrastructure

- **Operational Efficiency:**

  Simplified logistics by switching from Dangerous Goods to non-DG WTS 7-CDS

Biofilm pre and post WTS 7-CDS Chlorine Dioxide Solution