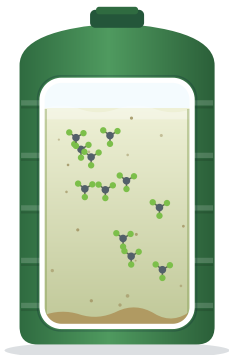




Clean in. Compliant out.

Food and beverage plants run on municipal water, and pay for it twice: once to store it safely, and again to send it down the drain. Both ends happen in tanks, and both go wrong the same way: water that sits still, runs out of oxygen and grows a problem.



WATER IN

Your raw-water storage tank

Chlorine fades in storage

Once it's gone, bacteria & biofilm can regrow in the tank

Sediment after outages

Pipe bursts & pressure drops send dirt into your tank

THMs keep forming

Chlorine by-products that build up as stored water ages

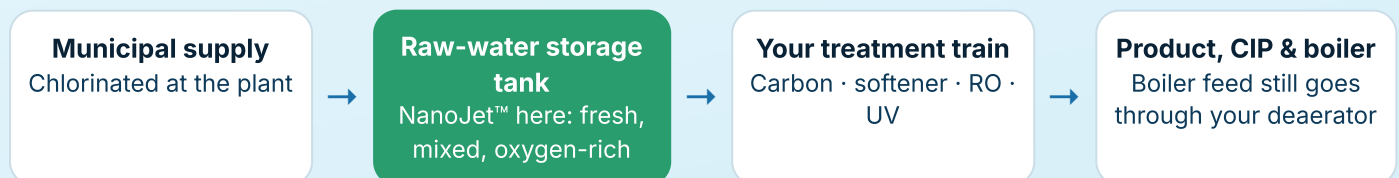
Stale, layered water

Dead zones and warm layers in big storage tanks

How NanoJet™ helps: Keeps your raw-water tank moving and oxygen-rich, helps strip volatile THMs and lifts sediment into your filters, **ahead of** your existing carbon, softener or RO.

Under R638 your food premises must use potable water (SANS 241). Your treatment train makes it so, but every carbon filter, softener and RO membrane downstream works harder when the tank in front of it is full of sediment and biofilm.

Where NanoJet™ fits on the way in



The drain has limits.

City of Cape Town Wastewater and Industrial Effluent By-law (2013), Schedule 1 maximums. Effluent likely to carry grease, oil or fat must pass through a treatment facility before it reaches the sewer.

5,000

COD

mg/L limit. Charges start above 1,000

400

Fats, oils & grease

mg/L limit

50

Total sulphides

mg/L limit (the H₂S smell)

1,500

Sugars & starches

mg/L limit

How the charge works: above COD 1,000 mg/L, every extra 1,500 mg/L adds another full treatment cost on every kilolitre of effluent, plus a surcharge for each parameter over its limit. Also limited: suspended solids 1,000 mg/L, pH 5.5–12, max 40 °C. Other metros have their own by-laws.

What goes down your drain?



Abattoirs

Blood, fat, paunch contents and manure: very high COD, grease and solids. Fats & solids are the usual by-law failures.



Fish processing

Fish solids dissolve the longer they sit, pushing COD up. Strong odours, ammonia and flows that swing hour to hour.



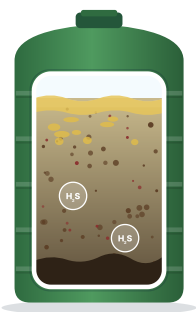
Bakeries

Dough, sugars, starches and fats washed down the drain: high COD plus the separate sugars & starches limit.



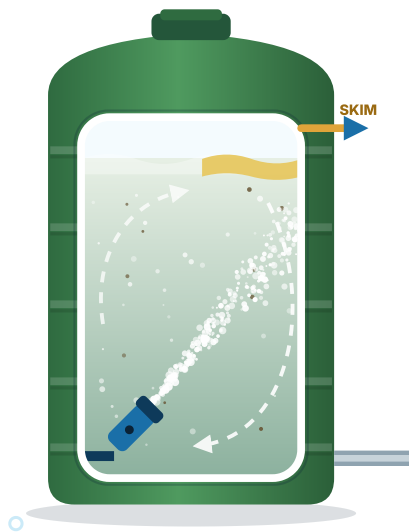
Beverages

Syrup rinse-out, CIP cleaning and pH swings: sugars, COD and pH all need watching.



The balancing tank is where it goes wrong. Left still, strong effluent quickly goes septic: grease floats and sets, solids sink and dissolve back into COD, and sulphate-reducing bacteria make H₂S, the rotten-egg smell that eats concrete and counts against the sulphide limit.

NanoJet™ at both ends



1

Keeps it aerobic

No septic H₂S smell or sulphide build-up in the balancing tank

2

Keeps it mixed

Solids stay suspended, so your screens and DAF see an even load

3

Floats the grease

Fine bubbles help lift fats & grease to the surface for skimming

4

Starts the breakdown

Oxygen-rich water lets aerobic bacteria get to work on dissolved COD before discharge

Passive Venturi reactors, powered by a pump: no chemicals, no blowers, no moving parts in the tank. Pair with screening and a DAF or skimmer for grease, and the same technology keeps your raw-water storage fresh on the way in.

WHERE NANOJET™ DOES NOT GO (AND WHY)

✗ Boiler feed after the softener

Boilers need oxygen **removed** (your deaerator), not added. NanoJet™ goes on the raw-water tank upstream only.

✗ It doesn't soften water

Scale needs a softener or RO. Stripping CO₂ raises pH, which can make hard water scale faster, so size it with us.

✗ Product water before carbonation

Bottlers deaerate it: dissolved air causes foaming at the filler and flavour loss. Fit NanoJet™ upstream, on raw-water storage.

✗ It isn't a disinfection step

Keep your carbon, UV or chlorination. NanoJet™ keeps the tanks in front of them clean.

Start with the numbers

We lab-test your effluent for COD and fats, oils & grease (Bemlab), measure your tanks on site and size NanoJet™ for both ends.

[Book a site check →](#)

