FOOD & BEVERAGE

CASE STUDY:
Sweet success for confectionery company

CLIENT:	Multinational Confectionery Company
LOCATION:	NSW, Australia
TREATMENT TYPE:	High sugar wastewater
CAPACITY:	22m³ per day
SYSTEM SIZE:	9 x BioGill bioreactors. Total 2,214m² of membrane.

SITUATION

A multinational confectionery company was facing increased discharge fees from the local water authority. The goal was to install an effective biological system onsite to reduce COD to sub 600 mg/L to minimise discharge fees.

SOLUTION

Nine BioGill bioreactors, housed in an insulated bio-chamber, were installed to treat the high sugar/high COD wastewater from this confectionery processing facility.

The BioGill bioreactors remove BOD and COD biologically using attached biomass growth.

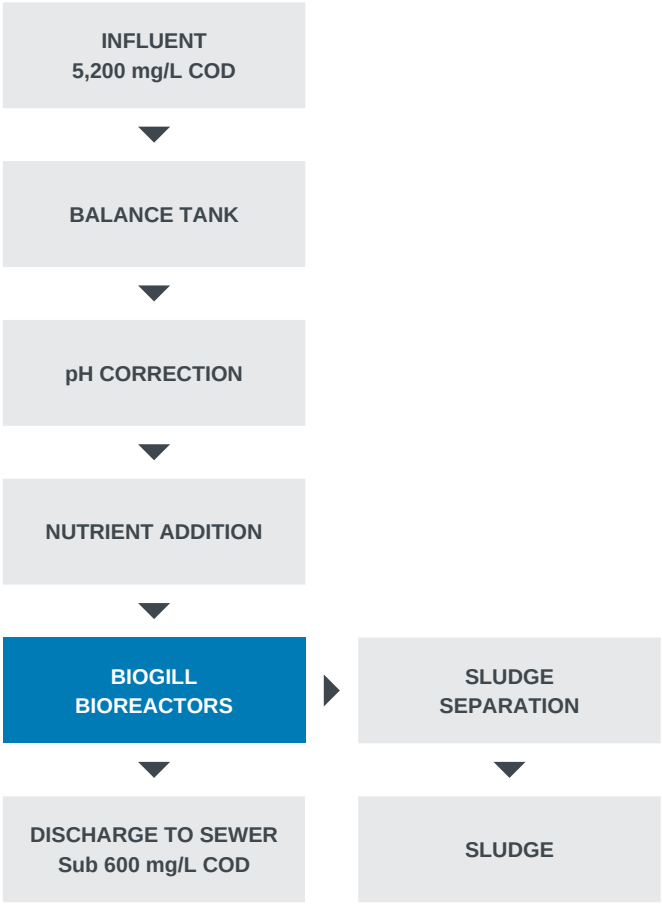
Suspended biomass vertically supported and surrounded by oxygen - a key feature of the BioGill technology.

DESIGN

The BioGill bioreactors were retrofitted to the existing wastewater treatment process. The wastewater is collected in a Balance Tank where pH is adjusted and nutrients, such as Nitrogen and Phosphorous, are added as required.

The wastewater is then pumped to the top of the BioGill units. Wastewater is dispersed over the top and gravity fed down the gills. Microorganisms grow through the gills, feeding off the nutrients in the liquid stream on one side of the gill and drawing oxygen from the opposite side.

Good ventilation in the bio-chamber design delivers an abundant supply of oxygen to the above ground bioreactors.



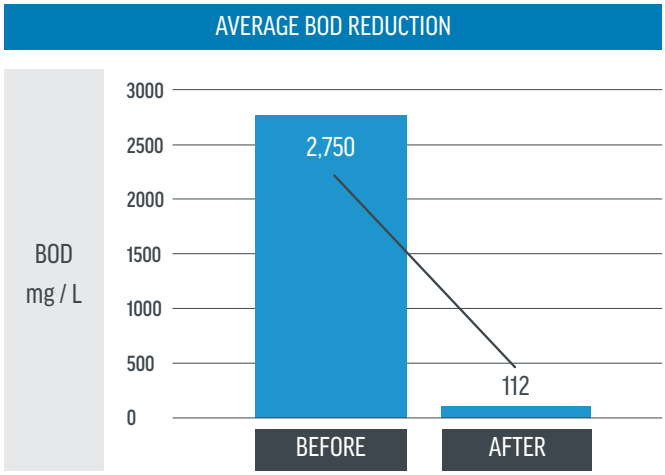
BIOGILL®

For further information please contact:
BioGill Head Office
P: + 61 2 8543 2200 | **E:** info@biogill.com
BioGill Asia
P: + 65 3159 1338 | **E:** info@biogillasia.com
www.biogill.com

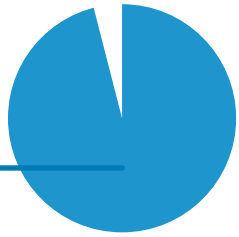
RESULTS

The treatment system is recording compliant effluent results of up to a 1 log reduction in COD per cycle. On average 88% COD mg/L and 96% BOD mg/L is removed per 24 hour cycle. By reducing COD and BOD onsite the company benefits from significant savings in discharge fees from the local water authority.

Ultimately, it's a win/win situation for the client with the treatment technology being good for the environment and good for the bottom line.



96%



BOD mg/L on average is removed per cycle

The insulated bio-chamber houses nine BioGill bioreactors.