

# ABOVE GROUND, ATTACHED GROWTH BIOREACTOR FOR WASTEWATER TREATMENT

The BioGill Tower is a bioreactor for the secondary/biological stage of the treatment train. Simple to install, easy to operate with minimal maintenance requirements, this unit is ideal for Food and Beverage producers such as breweries and wineries with low volume, high BOD wastewater.

The BioGill Tower can also be used for small scale municipal and decentralized sewage treatment.

This is the smallest bioreactor in the BioGill range, designed to fit tight spaces or be raised on a platform to reduce the footprint.

The unit is ideal too as a performance and capacity boost to an existing wastewater treatment plant.

At the core of the BioGill Tower is patented nano ceramic media, known as gills, which provide the ideal habitat for microorganisms to grow, multiply and establish into a self-sustaining biomass. This biomass actively reduces soluble BOD, COD and nitrogen, as well as Fat, Oil and Grease (FOG).

Unlike traditional systems, the BioGill Tower does not require blowers or powered aeration, resulting in significant savings.



Figure 1. BioGill® Tower

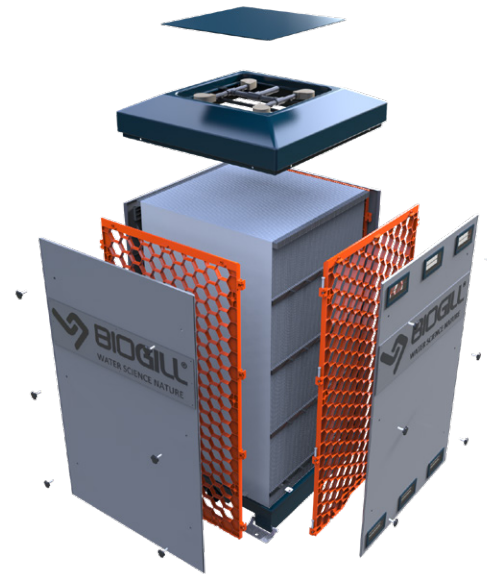
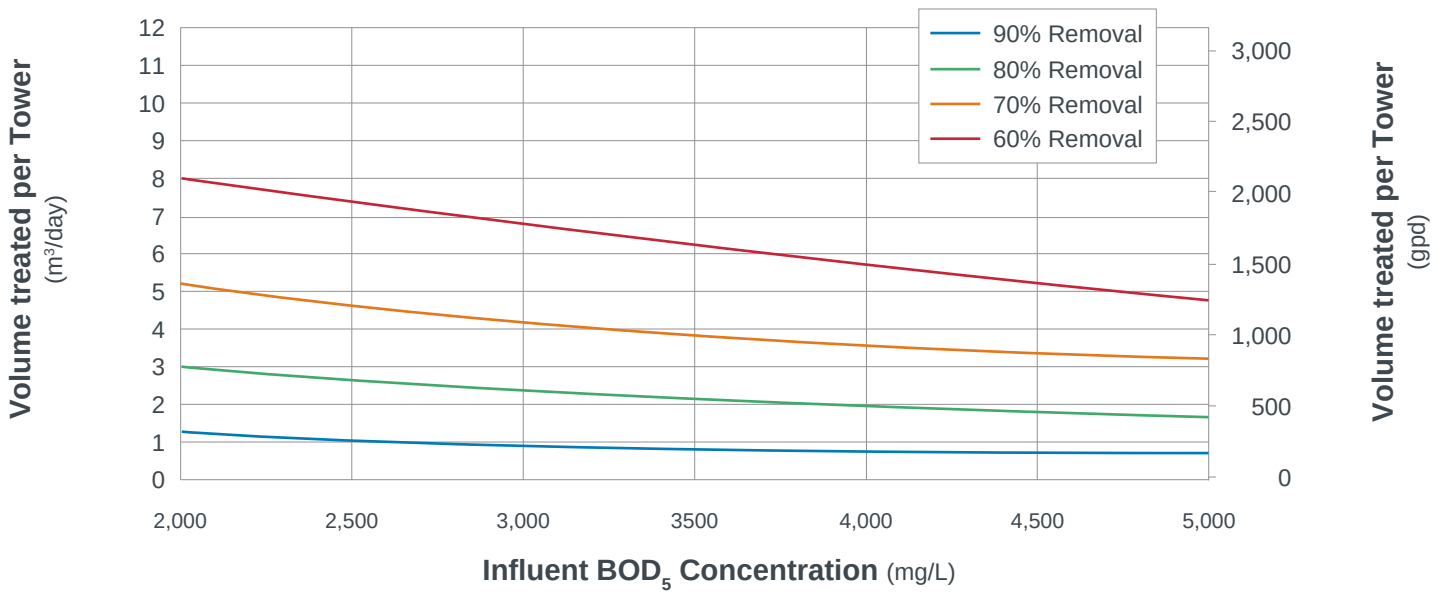


Figure 2. Exploded BioGill® Tower

## DESIGN FEATURES BIOGILL® TOWER

- “Plug & play” for quick installation
- Modular & scalable, combine units as flow increases
- Easy to operate with low maintenance
- Patented HydroSwirl™ dispersal
- Flat pack options for onsite assembly
- No blowers or powered aeration

# PERFORMANCE - BIOGILL® TOWER



This performance graph is to be used as a sizing guide only. Actual performance is determined by site specific factors and may vary. The above information is based on the following: a continuous flow system; brewery wastewater and water temperature at 86°F | 30°C. Removal rates and reductions are based on soluble BOD only. BioGill and its authorized representatives do not guarantee performance unless stated otherwise. For detailed system sizing or for information on projects outside these influent parameters, please contact your authorized BioGill representative.

<b>OPERATING &amp; DESIGN INFORMATION*</b>	Temperature range (water)	65-100°F	18-37°C
	pH range	6.5 - 8.5	
	Optimum C:N:P ratio	100:10:1	
	Required pre-treatment**	Influent TSS <300mg/L Maximum FOG <100mg/L	
<b>NOMINAL DIMENSIONS &amp; WEIGHT</b>	Recirculation flowrate per unit***	33 - 44gpm	7.5 - 10m <sup>3</sup> /hr
	Gill Surface Area per unit	2474ft <sup>2</sup>	230m <sup>2</sup>
	Length	45.47"	1,155mm
	Width	45.47"	1,155mm
	Height	88.7"	2252mm
	Footprint	14.76ft <sup>2</sup>	1.37m <sup>2</sup>
	Minimum height clearance	23.6"	600mm
	Dry weight	529lbs	240kg
<b>CONNECTIONS</b>	Wet weight (high load approx.)	2,200 lbs (approx.)	1,000kg
	Inlet connection	2" BSP male threaded fitting	DN50
	Outlet connection	4" Flexible Coupling	DN100

\*Consult your authorized BioGill representative for information about specific applications. \*\*General recommendation - can vary depending on influent composition. \*\*\*Optimal operating flowrate.

## KEY BENEFITS



Effective & rapid treatment of high strength BOD



Boost performance of existing plants



Resistant to shock loads & high organic waste streams



Low energy & operating costs



Reduce odor



Compact onsite treatment

For additional information please contact:

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Case studies and technical reports are available at [www.biogill.com](http://www.biogill.com)

