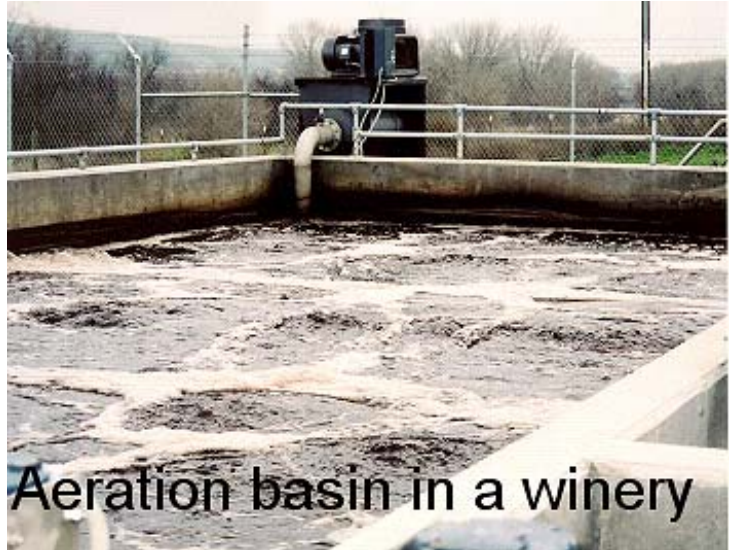


BioReactors for Industry

BioReactors are a popular wastewater process used by industries to reduce levels of BOD discharged to the local POTW or for use as irrigation water after treatment. The process that has proven very reliable is prefiltration, aerated flow equalization, aeration, secondary clarification, aerobic sludge digestion, and sludge dewatering. The table below is based on a BioReactor size and other characteristics used for budgeting purposes:



Gal/Day	Capital Cost ¹	Area (sq ft)	Aeration hp ²	Chemical Cost ³ (\$/Month)	Operational Cost ⁴ (\$/Month)
5,000	\$100K	600	10	\$300	\$1,270
10,000	\$130K	800	15	\$400	\$1,850
20,000	\$200K	1,400	20	\$600	\$2,530
30,000	\$250K	2,000	30	\$1,000	\$3,900
50,000	\$300K	3,000	50	\$1,500	\$6,350
75,000	\$350K	4,000	80	\$2,000	\$9,730
100,000	\$400K	5,000	100	\$3,000	\$12,650

¹ System includes engineering design, installation, startup and training

² based on a BOD of 5,000 ppm

³ based on pH adjustment, nutrient addition, and a settling aid(s)

⁴ based on electrical power cost at \$0.10/kw-hr and includes Chemical costs

