GLOBAL INDUSTRIAL WATER

BIOLOGICAL TREATMENT SYSTEM

The Biological Treatment System utilizes an extended aeration principle and functions by creating an environment with sufficient oxygen levels and agitation to allow for bio-oxidation of
the wastes to suitable levels for discharge. The Biological Treatment System provides a modular approach to the treatment of wastewater. It's compact design, ease of operation, and exceptional track record deliver extraordinary results – all packaged together in a system suited for any biological treatment application.

Features

- EQ Tank
- Sludge Holding Tank
- Aeration Chamber
- Clarifier
- Clear well
- Tertiary Filter
- Disinfection

Benefits

- Pre-engineered, prefabricated structures lower costs
- Installed and operational in one week
- TSS and BOD levels reduced to < 10 mg/L
- Remote monitoring
- Low and high flow applications

Options

- Anoxic tank
- MBR design
- Integrated PLC's
- Sludge dewatering system

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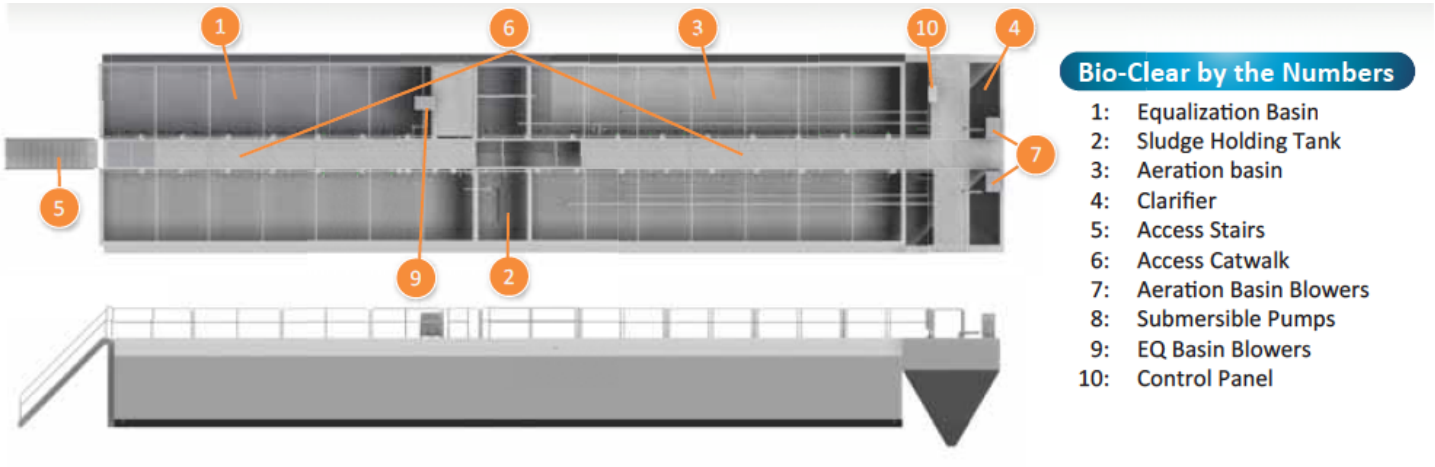

The Biological Treatment System is a pre-engineered, prefabricated system for treating wastewater with an aerobic process. Systems are typically sized according to flow rate, and often require a fraction of the space needed by conventional biological treatment systems. Our modular approach with this system provides the user with a compact, easy to operate and cost effective solution. This Packaged System has an exceptional track record as an efficient method of wastewater treatment.

Biological Treatment System Specifications

Operating Capacity (GPD)	Dimensions	Flow EQ	Sludge Holding	Aeration Tank	Clarifier	Shipping Weight (lbs.)
3000	9'6"H x 8'W x 16'L	2'6"	2'	7'	4'6"	5900
5000	9'6"H x 8'W x 21'6"L	3'6"	2'6"	11'	4'6"	7900
7000	10'H x 10'W x 23'3"L	3'9"	2'6"	11'6"	5'6"	9800
10000	11'H x 10'W x 28'3"L	5'	2'6"	14'9"	6'	12400
12000	11'H x 10'W x 33'6"L	6'	2'6"	17'9"	7'3"	14100
15000	11'H x 10'W x 41'3"L	7'3"	3'6"	22'	8'6"	16000
18000	11'H x 11'W x 40'L	7'9"	3'9"	23'6"	5'6"	17900
20000	11'H x 12'W x 42'6"L	8'3"	3'9"	24'6"	6'	18900
25000	11'H x 12'W x 51'6"L	10'	4'6"	30'	7'	23500
30000	11'H x 12'W x 61'6"L	12'	5'6"	36'	8'	27500
35000	11'H x 12'W x 71'6"L	13'9"	6'6"	41'9"	10'	34400
50000	11'H x 12'W x 99'L	20'	9'	60'	10'	43600
60000	11'H x 24'W x 65'6"L	12'	5'6"	36'	12'	56000
75000	11'H x 24'W x 78'6"L	15'	6'6"	45'	12'	71800
90000	11'H x 24'W x 92'L	18'	8'	54'	12'	80800
100000	11'H x 24'W x 101'L	20'	9'	60'	12'	87000

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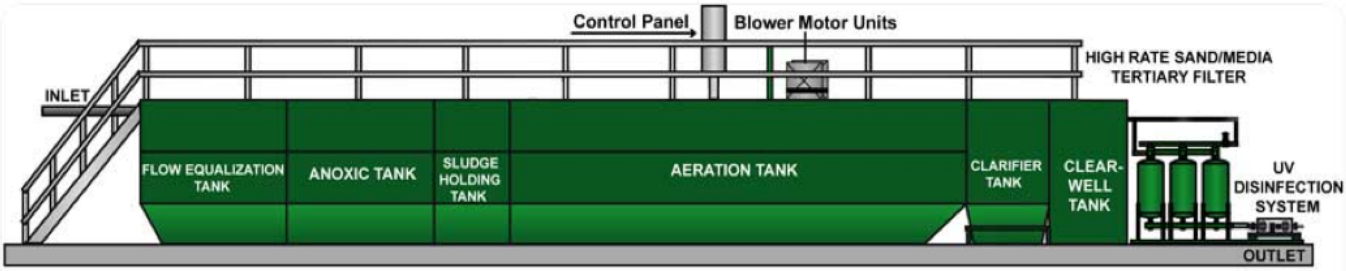
Biological Treatment System Plant with Tertiary Filter and UV Disinfection System



Process Description

The BTS packaged wastewater treatment system utilizes an extended aeration principal of operation which is a variation of the activated sludge process. This system functions by creating an environment with sufficient oxygen levels and agitation to allow for bio-oxidation of the wastes to suitable levels for discharge. The packaged wastewater treatment system utilizes a multi-step treatment process to achieve the desired final discharge requirements. The treatment systems consist of comminution, screening, diffused aeration, clarification, sludge recirculation, sludge digestion, disinfection, and filtration. Pre-engineered modular components such as diffused air blowers, aeration tanks, sludge holding tanks, clarifiers, and disinfection units allow for the package plants to be sized specifically for the customer's application. They can be designed to handle a variety of influent flows and BOD loadings, as well as meet a myriad of mandated discharge parameters. The influent wastewater enters the package plant by passing through a comminutor and bar screen for gross solids removal. This step provides for the mechanical reduction of solids prior to aeration. Once the wastewater has entered the aeration chamber, the untreated flow is mixed with an active biomass in a rolling action which takes place the length and width of the chamber in a slow forward progression. This rolling mixing action is the result of air originating from diffusers located along one side of the wall and bottom of the tank. This insures that adequate mixing is maintained in the tank. The chambers are filleted on each side and the bottom to assure and enhance the rolling motion of the water and eliminates any "dead zones" in the tank. This design feature also minimizes the accumulation of scum and froth in the aeration tank. The oxygen transfer achieved with the diffused air passing through the wastewater coupled with the rolling action provides a sufficient oxygen supply to allow microorganisms to oxidize treatable wastewater into carbon dioxide, water, and a stable sludge.