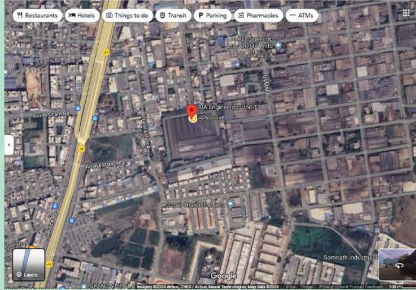


BETTER WATER. BETTER WORLD.®

AIA Engineering Ltd. Odhav Plant

S I M P L E . L O W C O S T . R O B U S T .

PROJECT OVERVIEW:



LOCATION:

Ahmedabad, India

PROJECT NAME:

AIA Engineering Ltd. Odhav Plant

INSTALLATION DATE:

May 29th, 2018

SYSTEM CAPACITY:

40 KLD with Nitrogen removal

PROJECT OWNER(S):

AIA Engineering Ltd.

PROJECT DESIGNER:

BioWater Treatment Systems LLP
(Vadodra, India)

MANUFACTURER:

BioMicrobics Inc.

EQUIPMENT USED:

- 1 unit of MyFAST® 1.0
- 1 unit of NitrIFAST® 9.0
- 2 units of SaniTEE 818®
- Disinfection - LF 300-0 Tablet Chlorinator
- Pressure Sand Filter
- Activated Carbon Filter
- 2 x 0.37 kW mono-block Re-circulation pumps
- 2 x 1.2 kW Grundfos Sewage Transfer Pumps (in Equalization Tank)
- 2 x 0.37 kW Sewage Transfer Pumps (in Grease Trap)



THE BACKGROUND

AIA Engineering is a large foundry with several plants. They specialize in grinding media and lining for the cement mining and allied industries. AIA's unit no. 13 is situated in a dense industrial area. Unable to handle the sewage generated from the industries in the area, the local authorities notified large companies to install treatment plants and banned any discharge of sewage into the municipal sewerage system.



THE CHALLENGES

Space: Being an old, established factory, there were limited options for the location of the STP. Finally, the location chosen was the scrapyard adjacent to the main worker's toilet and changing room. The wastewater from the canteen would be pumped to the STP after being collected in an oil and grease separator.

Water Quality: The foundry used sand with polymetric binders to make the molds for the castings. After the castings are removed from the mold, the burrs and mold lines need to be ground down with power tools. Both sand and iron fillings get on the clothes, hands and faces of workers which then find their way into the wastewater. As a result, the nature of the wastewater is considerably different to domestic wastewater.

Treated Water Reuse: The treated water is primarily used for cooling tower make-up and to water the garden created above the treatment system.

THE SOLUTION

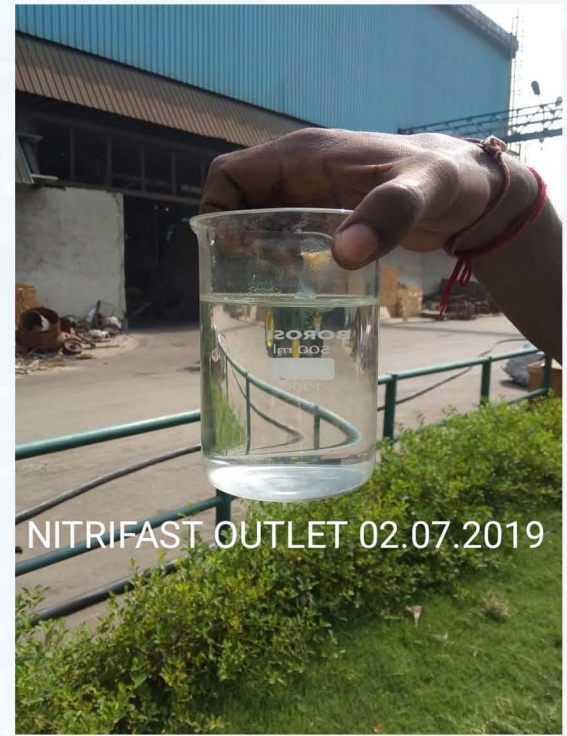
AIA Engineering was able to conform to the strict treatment norms specified by the Pollution Control Board. All the wastewater generated at the plant is now treated by the treatment system installed by BioWater and used for cooling tower make-up water and gardening. Not only has AIA stopped discharging wastewater, it has reduced its consumption of fresh water and was even able to create a green space.



S I M P L E . L O W C O S T . R O B U S T .



STP- INLET 02.07.2019



NITRIFAST OUTLET 02.07.2019

NitriFAST[®] wastewater treatment systems

A treatment tank containing the NitriFAST module receives wastewater from the secondary treatment system, such as the MyFAST, MicroFAST or HighStrengthFAST.

Like its cousins in the FAST product line-up, the NitriFAST module contains blocks of fixed media and a patented airlift device placed inside a rectangular liner. The media is specially designed for nitrogen reduction.

The NitriFAST[®] is an advanced wastewater treatment system that uses Fixed Activated Sludge Treatment (FAST) that provides additional nitrification of secondary effluent.

MyFAST[®] wastewater treatment systems

MyFAST[®] is a larger FAST system that is engineered for the needs of onsite wastewater treatment with flows in the 10,000 to 160,000 GPD. This advanced wastewater treatment system uses Fixed Activated Sludge Treatment (FAST) to break down organic material and nutrients in wastewater.

MyFAST[®] is a larger FAST system that is engineered for the needs of onsite wastewater treatment with flows in the 10,000 to 160,000 GPD. This advanced wastewater treatment system uses Fixed Activated Sludge Treatment (FAST) to break down organic material and nutrients in wastewater.

SaniTEE[®] Wastewater Screens

The SaniTEE[®] screen separates floating, suspended solids from septic tank effluent, preventing large particles from being passed on to downstream processes. SaniTEE screens are used to remove solids ahead of pumps, advanced treatment systems, or conventional drain fields.

BIO MICROBICS[®]

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<https://biomicrobics.com/>



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a subsidiary of BioMicrobics, Inc.
<https://www.septitech.com/>

SCIENCE/FAST[®]

a division of Bio-Microbics, Inc.

<https://www.sciencofast.com/>

SCIENCE[®] InTank[®] BWTS

Ballast Water Treatment System

<https://www.intankballast.com/>