

## (For Rent) Mobile Solution for sewerage and sanitation

Posted by jvbaring - 24 Feb 2013 12:43

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I am Jesselito Baring, a Chemical Engineer from the Philippines. President of Various professional organization such the Philippine Institute of Chemical Engineer and Pollution Control Association of the Philippines. Designer, Fabricator and Operation of custom built treatment facilities that makes low cost, effective and efficient facilities. One of the services I have done is operating a wastewater treatment facility for rent. My longest running rental unit is 8 years and continuing. I am posting this topic not to do business with you but rather get your comments on this issue and maybe gather some experiences or ideas on those who might also have pursued the same model.

One of the biggest problem in coming up the sewage clean up is financing and technology. If one has got the technology, its needs big capital expenditure to realize the project. Current conventional set-up are either too expensive to build or there's just no space available for treatment facility. One has to rebuild the city to be able to come up with a sewerage line alongside the drainage line. We in the Philippines, have practically no sewerage line and the drainage line becomes a combine sewer system. Anyway, there seem to be unimaginable problem and the solutions for a sustainable sanitation are not yet in sight with the 5-10 years period.

In one of the ADB's pilot demonstration facility : the Municipality of Liloan Decentralized Wastewater Treatment Facility, it has shown that a big result can be achieved from a small solution strategy. We can make it happen but despite of this example, it did not catch the attention of our government. We must need more push from the people and everybody else.

Anyway, i mentioned the pilot demonstration facility since the same technology have been converted into mobile system and have been proven to be economically viable through a rental scheme. so even if the municipality or any institution who do not have to capital budget nor the mechanism can still avail of the treatment by renting out the sewage treatment plant.

Sewage Treatment Plant FOR RENT is not just an idea but an active set-up in private companies requiring treatment. I am thinking of introducing it into a public setting most particularly with our government. We need to clean up and we cannot for another more years to left the dirty water flow into our water body. Well, can anybody tell me if somebody else have used this method so that I could exchange notes and ideas.

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## Re: (For Rent) Mobile Solution for sewerage and sanitation

Posted by christoph - 25 Feb 2013 12:05

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Hi Jesselito,

nice to meet you. We are operating in Brazil in the same segment of renting WWTP for construction sites and are operating quite a few plants for customers we build the plants before. So seemingly a somewhat similar situation. What kind of technology do you use. In one of the ADB's pilot demonstration facility : the Municipality of Liloan Decentralized Wastewater Treatment Facility, it has shown that a big result can be achieved from a small solution strategy.

do you have a link, a short description?

I personally find it very exhausting to do business with public services, I do prefer private contracts.

Christoph

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## Re: (For Rent) Mobile Solution for sewerage and sanitation

Posted by jvbaring - 25 Feb 2013 15:16

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Thanks Christoph for your reply, its good to know that somebody is doing the same thing. I am using my own version of a light weight rotating biological contactor. It is composed of a metal-plastic composite that contributes to its lightweight character. you can have more information of what I am currently doing from this web site [www.floijess.com](http://www.floijess.com).

Yes public sector is quite a challenge and I am now finding ways to get through it. We will be having an election this coming May and after that, it time to find ways to serve the newly elected officials. Currently I am supplying mobile systems to existing hospitals that do not have STP's.

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## Re: (For Rent) Mobile Solution for sewerage and sanitation

Posted by muench - 01 Mar 2013 11:53

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Dear Jesselito and Christoph,

This work by BORDA in Indonesia would also send itself for "mobile" decentralised wastewater treatment plants:

Ekasanti, Prawisti - Indonesia

## Pre-fabrication of DEWATS in Indonesia with RFP

[www.susana.org/docs\\_ccbk/susana\\_download...ndonesiaprawisti.pdf](http://www.susana.org/docs_ccbk/susana_download...ndonesiaprawisti.pdf)

Looks like they have installed already quite a lot of them there. (what does RFP stand for? FRP could be fibre-reinforced plastic??)

However, maybe the treatment plant can be "mobile" but what about the sewer pipes leading to the treatment plant? Can they be made "mobile", too? I guess not. So this will always be the expensive and non-flexible part to lay the pipes to get the wastewater to the plant (even if going for simplified sewer systems).

Regards,

Elisabeth

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## Re: (For Rent) Mobile Solution for sewerage and sanitation

Posted by christoph - 01 Mar 2013 12:47

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Hello Elisabeth,

some observations.

a) piping and rental toilets. There are toilet blocks, the outlet goes to a pumping station, from there a pipe into the treatment. Yes costs for the pumping station ...but our rental toilets are at construction sites.

b) Concerning the information you send about the ABR (Baffled reactors). The picture (from the information you posted before) shows 3 different sizes of ABR.

I suppose they are for different numbers of connected p.e. If it is so they can not follow the dimensioning instructions by DEWATS, as the width is always the same. When I did the first ABRs I had problems with the dimensioning (as the chambers got very short and very broad) until I discovered that the dimensioning is not that critical. I guess the manual needs a revision.. But for sure the baffled is a very

interesting pre-treatment, I always use (even though the methane goes free into the atmosphere). I have the experience that more than 4 baffles is not necessary (often I use 3) when you have a secondary treatment.

Christoph

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## Re: (For Rent) Mobile Solution for sewerage and sanitation

Posted by jvbaring - 01 Mar 2013 13:04

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Thanks Elisabeth for your information. I have meet and known Borda about 6 six year here in Bohol, Philippines when there was GTZ funded conference on DEWATS. I was also invited by a German consultant who have worked with me for the ADB pilot demonstration for Liloan decentralized wastewater treatment plant. At that same, the have used concrete tank for their DEWATS system. Its good to note that they have improve on their material of construction by using Fiberglass material. They also want to get into the Philippines and I think they have really opened establish an office here. In my opinion, they are using the anaerobic baffled reactor.

There is a semilarity of Borda DEWATS to the japanese style of Jukaso. However, japanese Jukaso are aerobic. Borda DEWATS and Japanese Jukaso are basically used for household wastewater only, while my rental units are also applicable to commercial and industrial application.

Jesse bARING

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