



MAK - DRDO



BIO DIGESTER SEWAGE TREATMENT PLANT

Fit & Forget

A desired solution for your Apartment - Complex / Establishments / Industries



No Sludge generation



No Bad & Foul Smell



Reusable Pure water



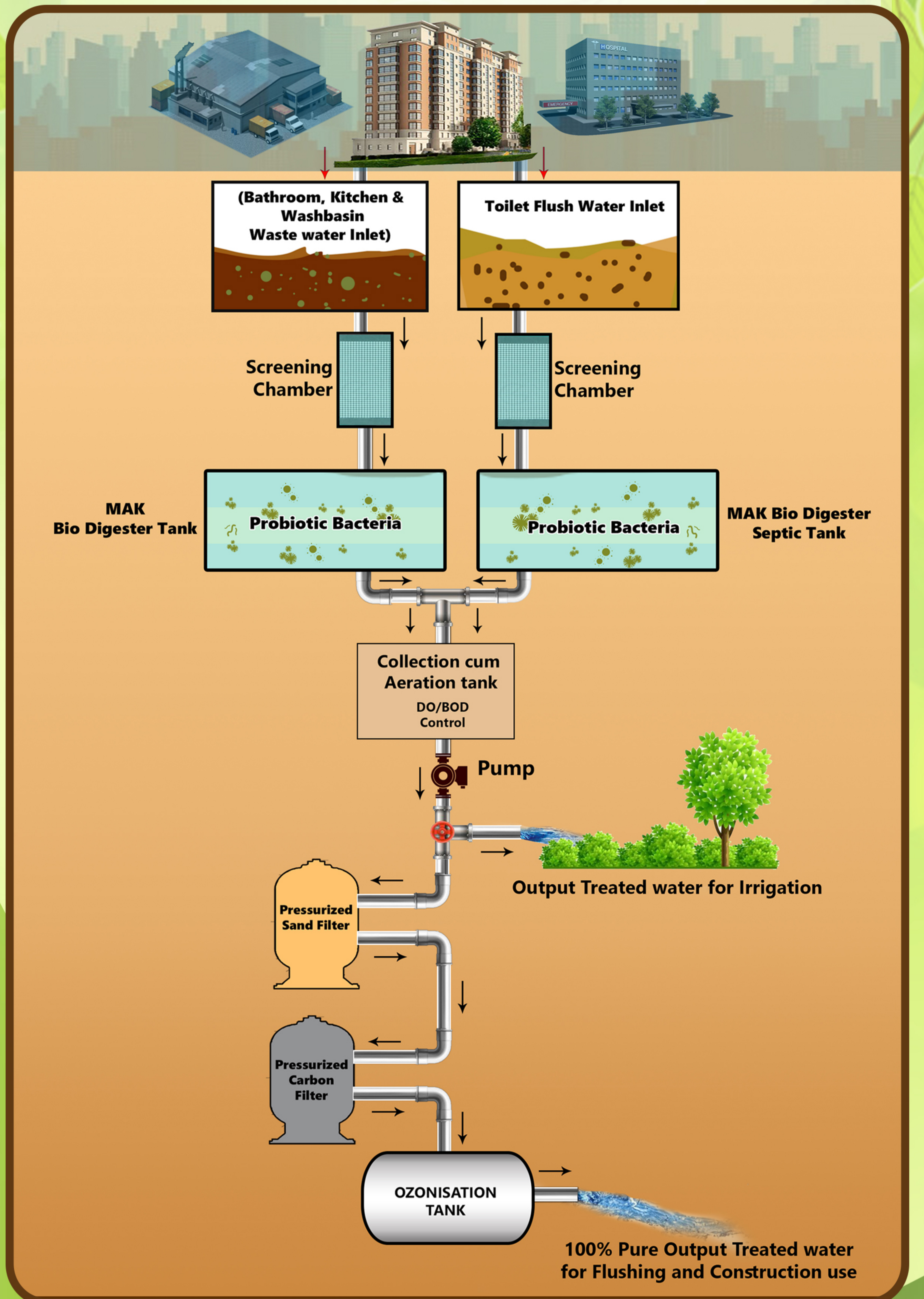
Very Low Power Usage



No Routine maintenance



50-70% Capital expenditure
Reduction compared to
conventional STP



Our MAK BIO-STP meets all discharge norms and even re-use norms for all purposes
[Irrigation, flushing of toilets, Construction etc.]

About us

MAK group, established in 1973 encompass MAK Controls & systems (P) LTD, Coimbatore & Air+MAK Industries Inc. design & manufacture high tech engineering Ground Support Equipment across various engineering fields for national aviation and defense sectors since four decades.

MAK India limited, dedicated for bio projects offer bio toilets cabin and bio-digester tanks that are designed and manufactured in house. We indigenously produce inoculums for our customer on made to order basis.

MAK being a TOT holder for this DRDO technology has installed many bio-digester toilets across entire South India. MAK bio-digester tanks can be made to cater any no. of users from small home to huge communities like apartments, establishments, temples, malls, institutions, industries etc.

Why MAK - DRDO Bio-STP?

These are fit and forget type with very low maintenance. It meets all discharge norms and even reuse of treated water norms for all purposes like Irrigation, flushing of toilets, Construction etc.

Treating toilet waste water:

We treat toilet waste water separately from other waste waters as faecal matters are the problematic one when compared to other waste waters.

Bio-digester is a revolution in sanitation. In conventional toilets only 30% of human waste is degraded and other 70% remains in the septic tank. In a bio-digester human waste up to 99.9% gets digested by Anaerobic Microbial Inoculum filled in the bio-tank and gets converts into reusable water and methane gas.

Disposal of human waste in accordance to conventional systems leads to ground water contamination and pollution of resource that might cause an epidemic outbreak. Bio-digester provides eco-friendly disposal of human waste. It is maintenance free, efficient without dependent on any energy source and it's effluents are odourless.

Treating Kitchen, hand wash and shower waste water treatment :

These are harmless waste. This waste should not be allowed to decay which creates fouling smell (certain aerobic bacteria is responsible for this) without treatment for more than 48 hours stagnating in a tank.

- i) We highly recommend using filter for the kitchen waste so that food material does not go in to the BDST loading the bacteria heavily.
- ii) We use the same BDST of appropriate capacity. The anaerobic bacteria will disintegrate and eat. There would not be any residue. The output water may be let in to the collection tank wherein the treated flush water through BDST comes in. Here, we use a reed bed system or an aerator based on the need, availability of space and also based on the usage of treated water as per customer requirement.
- iii) The tank will have a DO sensor. DO is directly proportional to BOD. The sensor will make the aerator On / OFF. If the BOD goes above 18 it will switch on the aerator. If it goes below 15 it will switch off the aerator. For 50 KL tank a 5 HP compressor is enough and it will run for about 40% of the time at the maximum depending on the waste nature.

Our In-House Fully Automated Inoculum Plant Manufacturing Unit



Differentiation

S.No.	MAK BIO DIGESTER STP	CONVENTIONAL STP
1	100% Probiotic Eco-friendly Bacteria and hygiene	No user is Happy due to inherent issues such as High Maintenance cost and use of Chemicals periodically
2	Nominally Priced	Very high investment cost
3	Fit & Forget – Low Maintenance	Regular maintenance cost
4	No sludge generation	Creates sludge and need to spend to remove
5	No foul smell	Foul Smell depends on Maintenance
6	100% Pure reusable water meets all norms	Treated water not fit for reuse by default
7	Maintenance free bio-digester and one time inoculum feed throughout life time.	Needs periodic evacuation of sewage and maintenance intensive.

Appreciated by



MAK India Limited

7/41 B, Avinashi Rd, Goldwins, Civil Aerodrome Post, P.O, Coimbatore, Tamil Nadu

(+91) 95009-91787 | (+91) 95009-79623 | 0422 430 5074

bioprojects@makindia.co.in | www.makbioprojects.com

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