


Advantage

ESBR



There is no WASTE
water,
only wasted
water.....

*Sewage Treatment Plant
Good treated water is
equally important as sludge
management.*

Key highlights : --

Disadvantage : -- Around 20% costlier.

Advantage offered : --

1. No pumps, no chemicals, no operator,
2. Low load capability to operate,
3. Will meet global standards & future stringent norms by Central Pollution Control Board,
4. Yet simple, low/minimal maintenance, robust & with low energy consumption ,
5. Can be designed for even 6/7 pax and kept modular for future expansion.

ESBR



No electrical parts
in the wastewater



No mechanical parts
in the wastewater



No pumps in
the wastewater

ESBR operates
on Sequence
batch reactor
Technology

(Key Components Patented)

ESBR Process – 4 Cycles per day

Loading phase

The sewage water collected in the first chamber is fed into the second chamber called the SBR tank.

Aeration phase

The sewage transferred to SBR tank is aerated in pre-sequenced alternate aeration and rest phases. The activated sludge formed by micro-organisms through aeration consumes the waste and treat the water thoroughly.

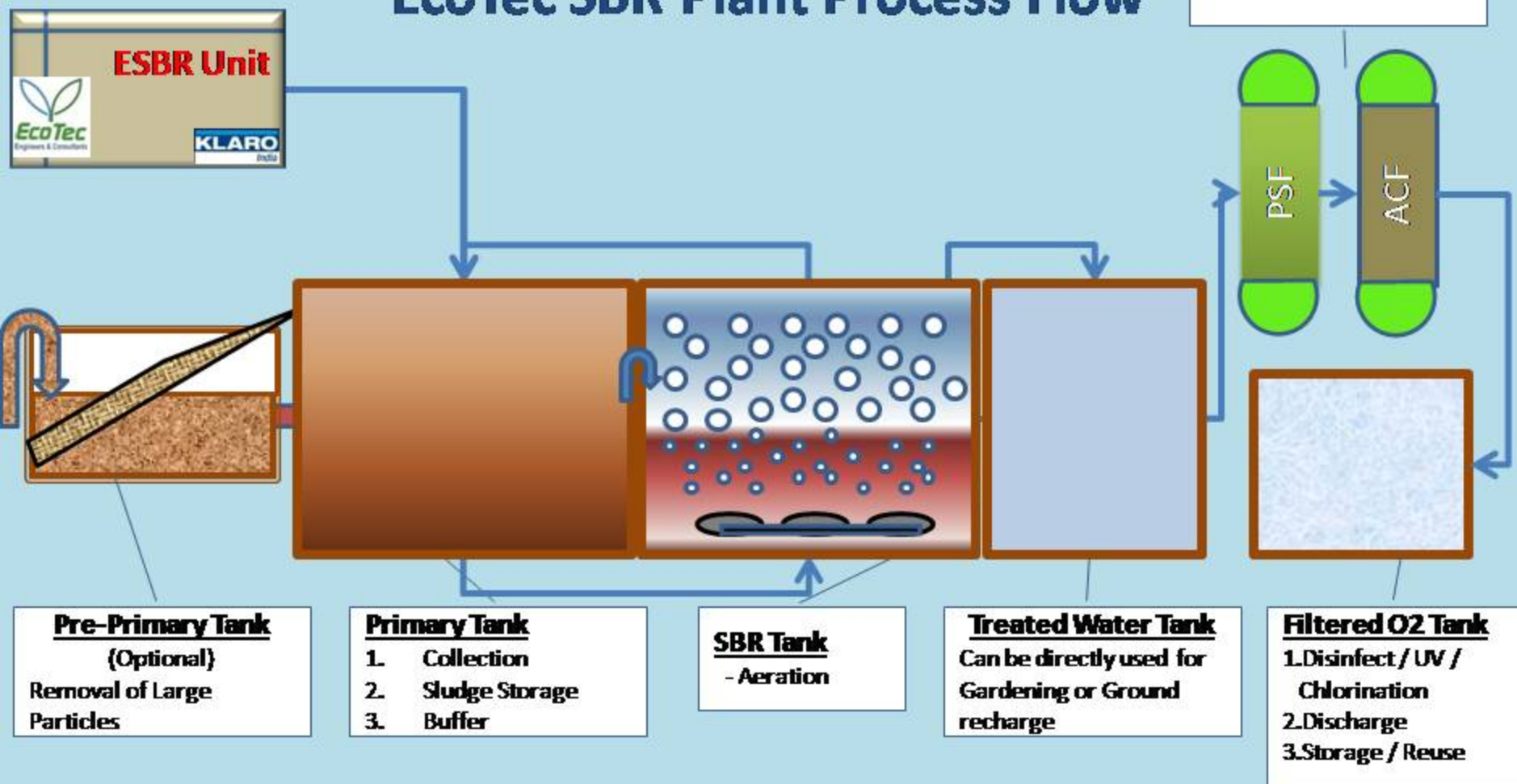
Rest phase

During the rest phase of 90 min's, the activated sludge settles at the bottom of the tank. A clear water zone appears in the on the upper layer of water in the SBR tank.

Clearwater extraction

The clear water from the upper layer is then transferred for subsequent reuse or disposal to treated water tank, drain or farm. Thereafter, the settled activated sludge in the SBR tank is returned to the collection tank and the process is repeated.

EcoTec SBR Plant Process Flow

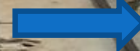


30 KLD Plant

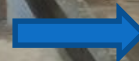
COLLECTION TANK



SBR TANK



TREATED WATER TANK



**Control
Room for
30 KLD
Plant**

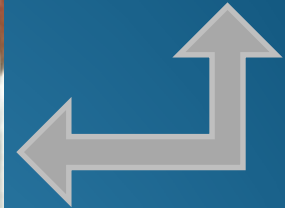




PATENTS, TRADE MARKS



Rotary claw
type
compressor
from Busch



Team AVSPL with the Compressor



EcoTec Proprietary Control unit with
microprocessor control



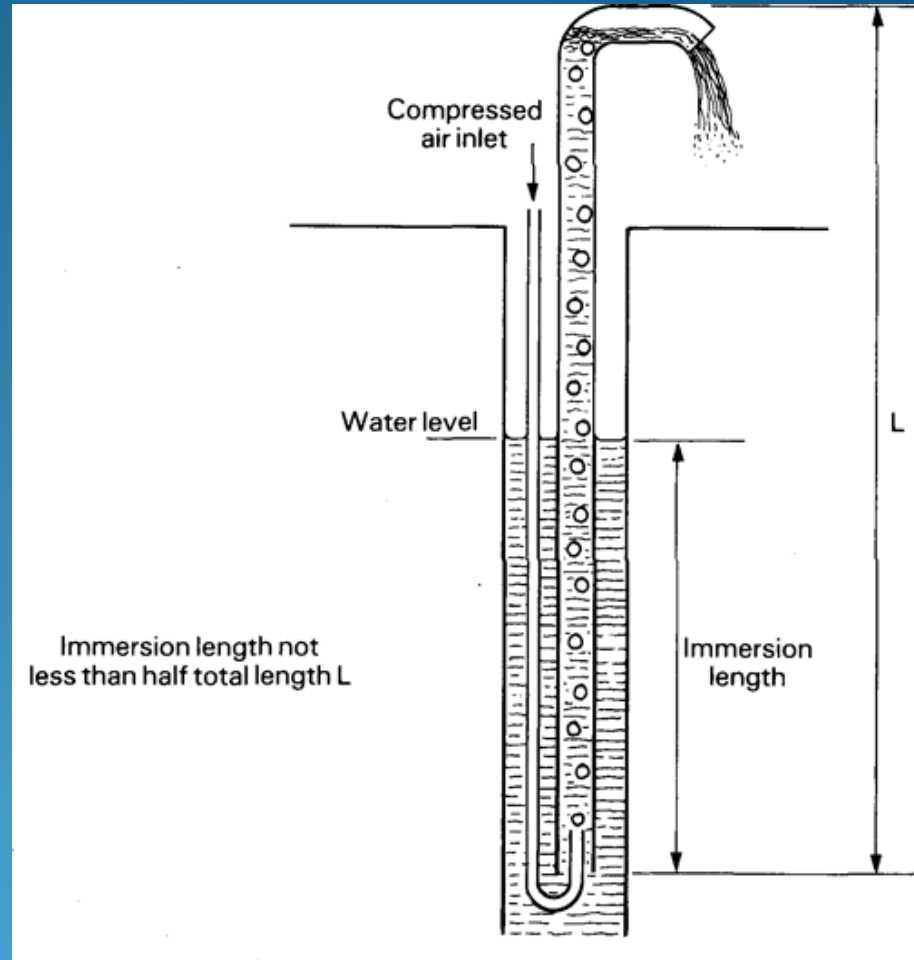
Clearwater extraction

Wastewater parameter	KLARO Easy drainage values*	Degree of efficiency
COD (chemical oxygen demand)	39 mg/l	95 %
BOD₅ (biochemical oxygen demand)	9 mg/l	97 %
NH₄-N (ammonium nitrate)	3.8 mg/l	90 %
P_{tot} (phosphate removal)	0.4 mg/l	95 %
SS (suspended solids)	15 mg/l	96 %

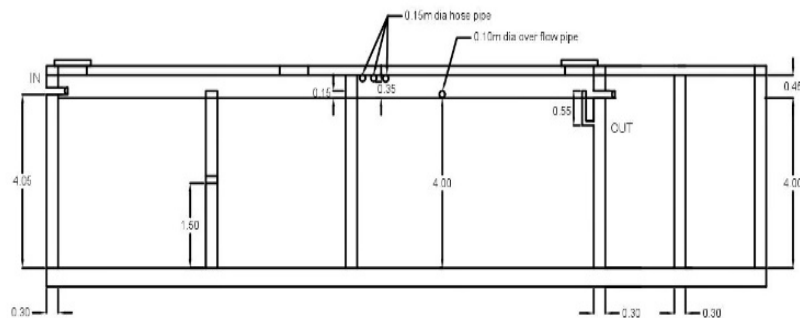
* Results of the practical test carried out by PIA (Prüfinstitute für Abwassertechnik GmbH), Aachen test number 2011-140B14

ESBR Airlift Technology

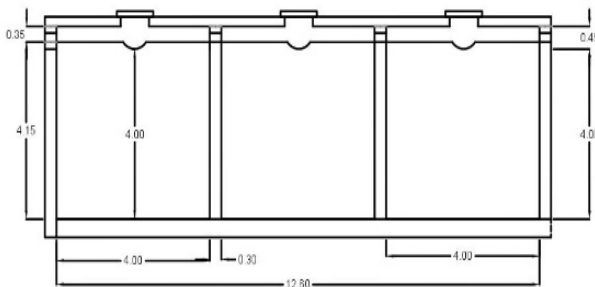
- It reduces power consumption by taking the pumps out of the water treatment process
- It reduces ongoing cost by not needing to replace pumps
- Less mechanical parts means less potential for failure
- Hose connections are located on top of the air lift system, thus the entire carrier system is easily accessible
- A significantly simpler and faster installation by one person is possible



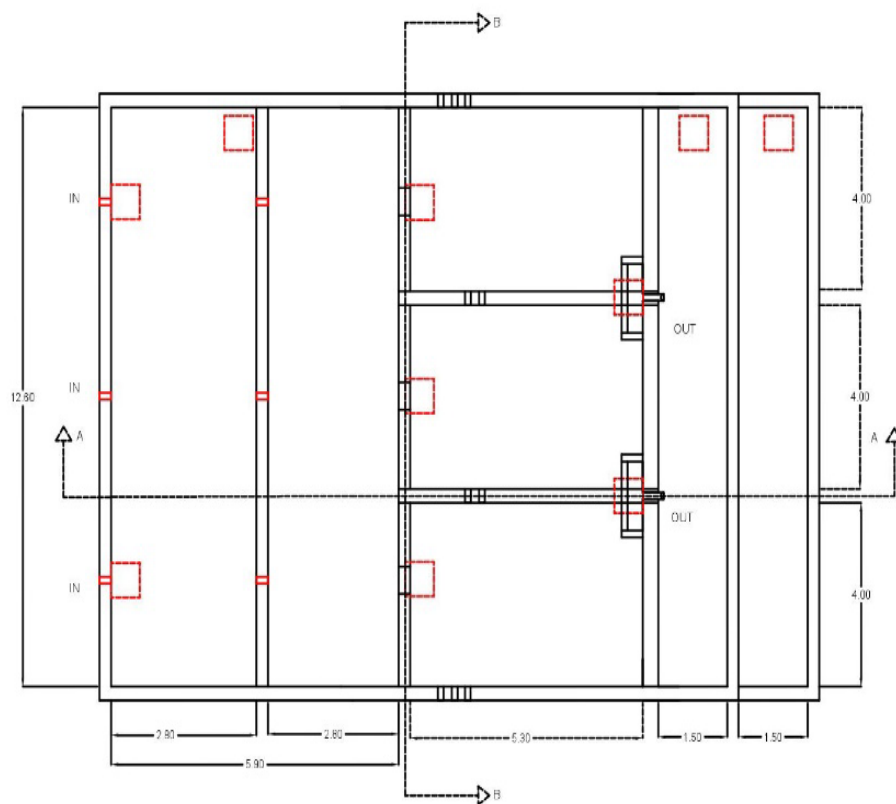
ESBR TANKS
250KLD



SECTION A-A



SECTION B-B



PLAN

Necessary Tank			
number of tank	Sludge store +buffer	sequenz batch reactor	filtration tanks(each)
number of tank (nos)	2	3	2/(Each)
length(inner) (m)	2.80	5.30	1.50
width(inner) (m)	12.60	4.00	12.60
max water level (m)	4.00	4.00	4.00
capacity of water (m ³)	282.00	259.00	75.60
Freeboard capacity (m ³)	32.00	28.60	8.50
Total capacity (m ³)	313.00	287.60	84.10



On the forefront of renewable energy.....

In case of query, do contact
Major Ravi Vichare (Retd.)
+91 9822377284 / 9130026816
vichareravi@gmail.com

Abhijeet Jadhav
+91 9130026813
abhijeet.avspl@gmail.com

24X7 Helpline number -- +91 9130026813/ 17 /
9822377284

THANK YOU.