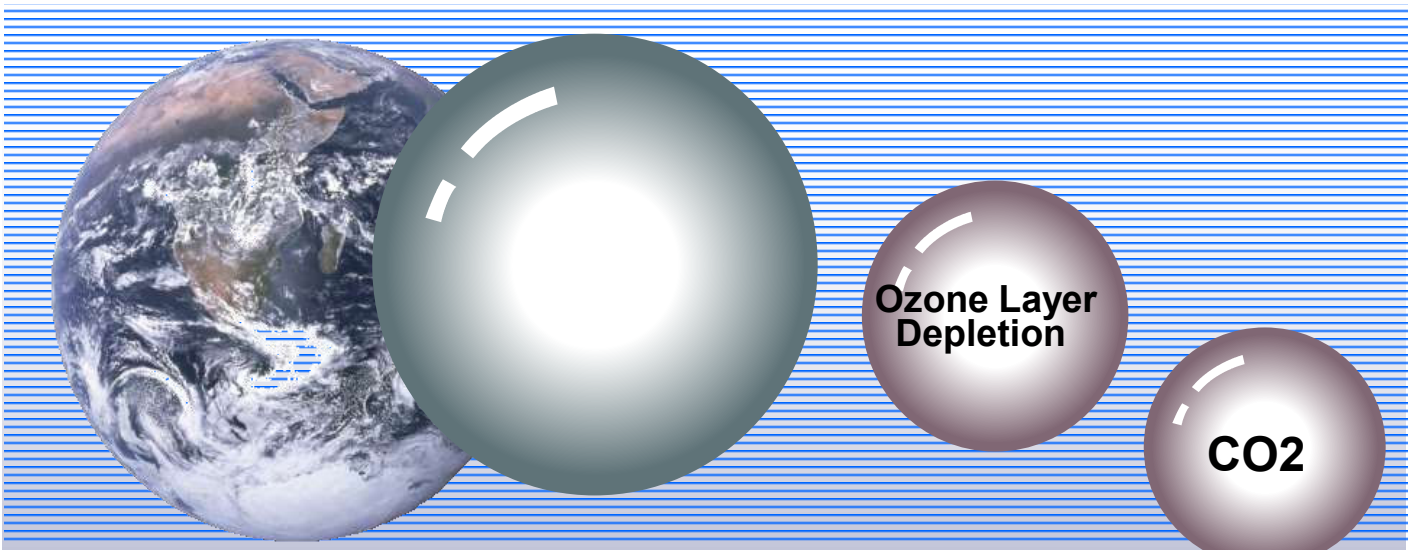
WASTEWATER TREATMENT WITH REDUCTION IN GREENHOUSE GAS & AMMONIA EMISSIONS

Environmental Balance Device Technology (EBD)

FREYTECH INC.

Remediation: Air, Water and Soil



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Remediation: Air, Water and Soil

EBD TECHNOLOGY TO TREAT WASTEWATER IN WASTEWATER TREATMENT PLANTS, SEWER PIPES, OPEN DITCHES, LAGOONS AND SEPTIC / HOLDING TANKS

1) Effectively treats wastewater in a flow through, real time basis in Wastewater Treatment Plants (WWTP), sewer pipes, sewage lagoons, open canals / ditches, septic/holding tanks without requiring chemicals, bacteria, aeration, electric power, or other consumables.

2) Affords 30% savings in electricity costs by enabling WWTP operator to reduce aeration / blower time while still ensuring effluent water quality. Increases efficiency of WWTP as well as Onsite Sewage Treatment and Disposal Systems (OSTDS). Ideal and affordable upgrade solution for facilities operating at or over capacity.

3) Fully remediates and eliminates over 90% of all Greenhouse Gas and Ammonia Emissions on a 24/7 basis. Reduces foul odors emanating from WWTP, underground sewage piping, septic/holding tanks, sewage drainage lagoons, ditches and canals.

4) Reduces sewage sludge (slurry) volume on a continuous flow through, real time basis.

5) Installation is easy and can be completed within 24 hours. Retrofitting in existing tanks is simple and, in most cases, there is no need to break concrete.

6) Long service life exceeding 15 years +.

7) Affordable, reliable system with very low maintenance requirements.

8) System is green, sustainable and contributes significantly towards restoring ecosystem health in rivers, lakes, wetlands, groundwater, and soil.

EBD SOIL PACK
Dimensions: Φ90mm x 16 mm
Contains proprietary composition organic minerals.

EBD MUD PACK
Dimensiones 11 cm x 11 cm
Contains proprietary composition organic minerals.

EBD TECHNICAL SUMMARY FOR WASTEWATER TREATMENT APPLICATIONS

All matter on Earth contains positive and negative energy particles. Environments containing sewage and pollution, contain excessive levels of negative energy particles (NEP-). Excessive NEP- volumes create Reactive Oxygen Species ("ROS"), a strong oxidizer which is detrimental to living organisms including microbes and their enzyme production. EBD units are placed around the wastewater tanks and interconnected piping concentrate positive energy particles (PEP+) to the treatment zone. By creating an energy particle balance between NEP- and PEP+ levels, the atomic frequencies of all matter situated above, below and within the EBD treatment perimeter, are naturally optimized causing indigenous microorganisms present within the EBD balanced perimeter to become much more active and much more prolific. By naturally enhancing native microbial life in wastewater and optimizing the atomic excited states and frequencies, the EBD systems effectively and consistently solve the wastewater treatment problems listed above in a clean, non-intrusive, natural and sustainable way. By installing the EBD systems around the sewage tanks, and/or along the sewage pipes, missing electrons on the outermost orbit of oxygen atoms are obtained from free electrons present in the contaminated environment. Thus, oxidizing, destructive and unstable Reactive Oxygen Species (ROS), reverts back into stable oxygen which is indispensable for healthy microbial propagation.

- EBD does NOT leach CHEMICALS or apply CHEMICALS
- EBD does NOT emit alpha, beta, or gamma radiation
- EBD does not produce any electrostatic or electromagnetic fields
- EBD units are 100% safe to human and biological ecosystems

EBD AIR PACK
Cylindrical Diameter: 45mm x 115mm
Contains proprietary composition
organic materials

Once the EBD units are installed, the concentration of Higgs particles increase over time. Under a balanced environment, ROS will combine with free electrons in the contaminated area being remediated. As the amount of ROS decreases, microorganisms will commence to propagate exponentially. Under such a balanced environment, the microorganism cells and atoms as well as the atoms corresponding to the waste and the water are changed from a ground state to a higher energy excited state.

Each atom which changes into an excited state, will increase its natural frequencies and this phenomenon influences not only microorganisms but also the sludge, water and other contaminated substances. Microorganisms which exist in the natural environment, have different frequencies than those existing in contaminated substances. By enhancing the frequencies between the microorganisms and the contaminated substances, this leads to a smooth interaction between the two under a natural environment brought about by the implementation of EBD technology. An increase in the number of vibrations / resonances leads to microorganisms being able to feed voraciously on contaminated substances. When the microorganisms feed on contaminated substances this way, they secrete various enzymes from their bodies through biosynthesis. The amount and types of such abundant secretions differ from conventional microorganism secretions. The types of enzymes are oxidation-reduction enzymes, transferase, synthetase, and hydrolase, in addition to biological transmutation enzymes.

EBD WATER PACK
Cylinder Diameter: 45mm x 115mm
Contains proprietary composition
organic materials

EBD RIVER PACK
Dimensions: 110mm x 110mm x 8mm
Contains proprietary composition
organic materials

Globally, 80% of wastewater flows back into the ecosystem without being treated or reused, contributing to a situation where around 1.8 billion people use a source of drinking water contaminated with feces, putting them at risk of contracting cholera, dysentery, typhoid and polio. UNESCO 2017

Conventional wastewater treatment facilities are costly and take time to finance, design, build and put into operation. EBD Systems are exceptionally affordable and in a matter of hours can be installed anywhere in the open field, in existing or new septic or holding tanks/lagoons or in WWT facilities. Within a few months of installation, EBD Systems attain the required NEP- and PEP+ energy particle balance and thereafter effectively treat and remediate wastewater and sludge on a continuous 24/7 basis which is ongoing for 15 years +.

Another important benefit provided by the EBD system is that it causes microbial remediation of Greenhouse Gas and ammonia emissions emanating from wastewater streams. Certified laboratory studies confirm that EBD eliminates over 90 % of Methane, Ammonia, Nitrous Oxide and CO2 from wastewater on a continuous 24/7 basis. This provides for very effective and permanent odor control without using any chemicals, electric power, consumables or dosing equipment.

EBD System Implementation

Free Radicals and ROS Reduction

Environmental Stability in Nature

Common Sources of Water Contamination

Clear Stream

Rivers

Drinking Water

Inflow of Toxic Substances

Inflow of Domestic Wastewater

Direct Discharge of Industrial Wastewater

Natural Disasters

Excessive Use of Agricultural Chemicals

Eutrophication

Livestock Waste

Decrease in Dissolved Oxygen

Industrial Waste

Inflow of Mining Wastewater

Inflow of Pathogens

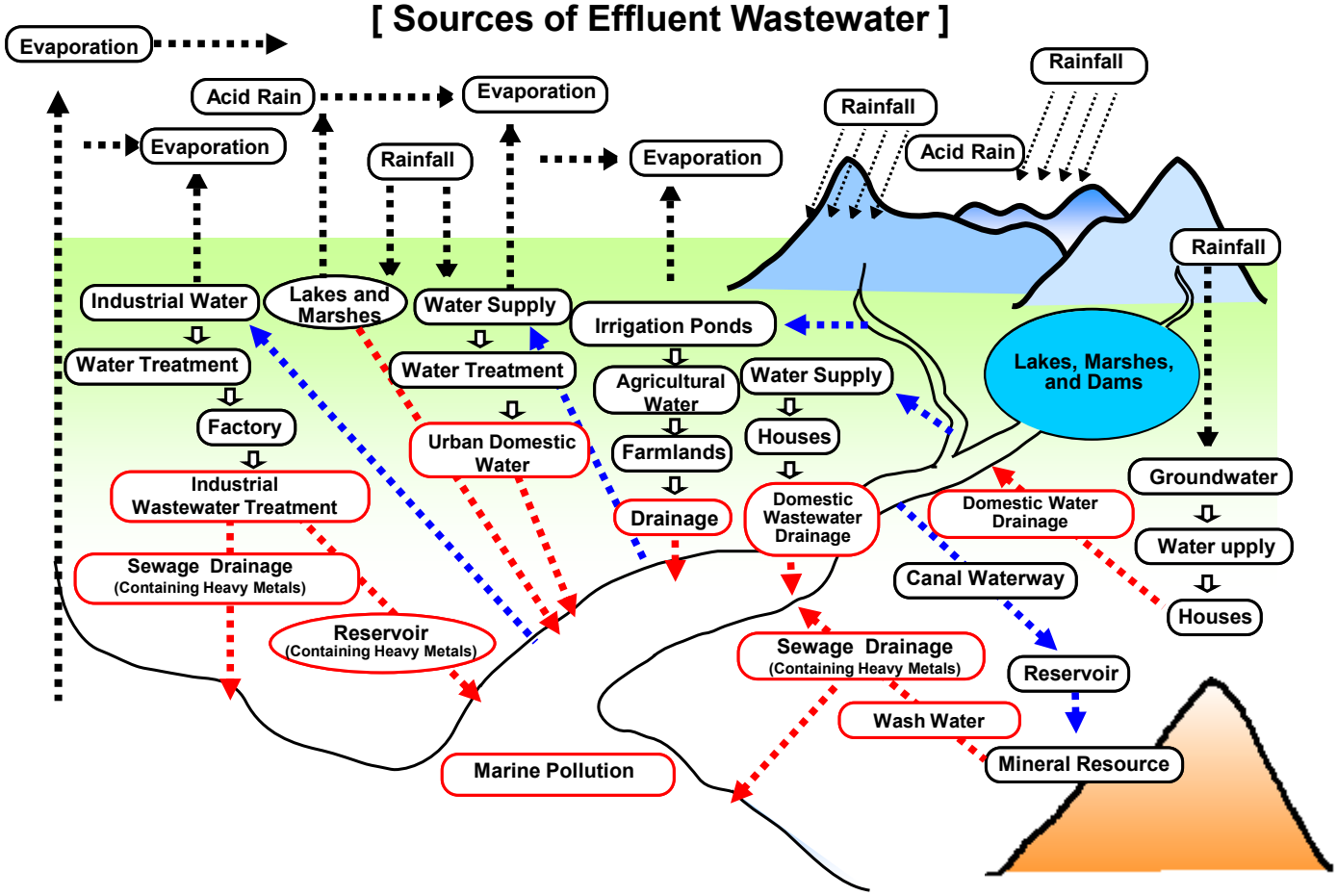
Water Purification Plants

Industrial Wastewater Treatment Plants

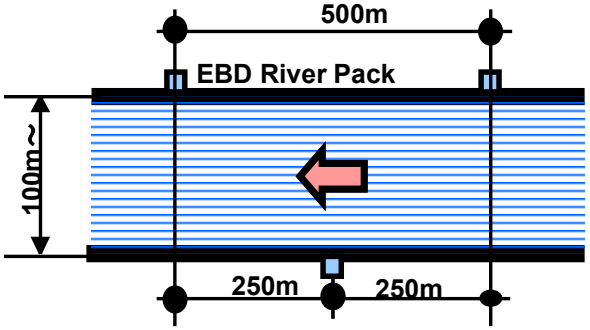
Sewage Treatment Plants

EBD System Installation Intervals for River Remediation

[Sources of Effluent Wastewater]

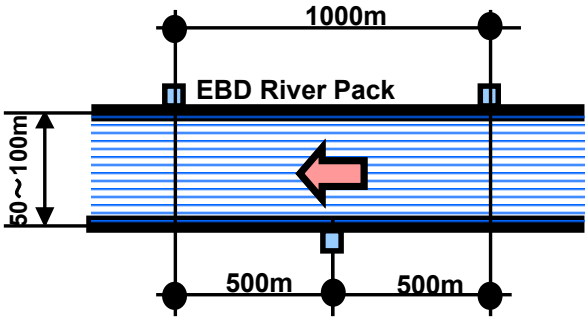


BOD=80mg/l or Below



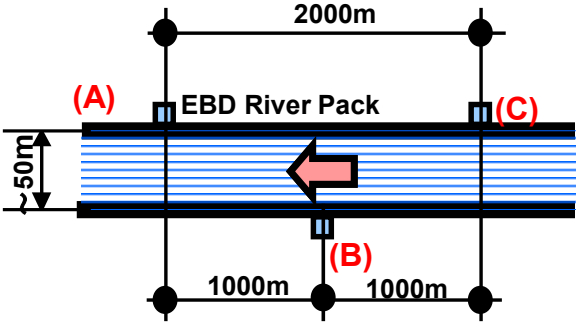
BOD 80~200mg/l · · · 60m
BOD 200~500mg/l · · · 30m
BOD 500~1000mg/l · · · 20m
BOD 1000~1500mg/l · · · 10m

Note-1 Name of device: EBD River Pack



BOD 80~200mg/l · · · 125m
BOD 200~500mg/l · · · 60m
BOD 500~1000mg/l · · · 30m
BOD 1000~1500mg/l · · · 20m

Note-2 Interval of device installation: (A)-(B)-(C)



BOD 80~200mg/l · · · 250m
BOD 200~500mg/l · · · 125m
BOD 500~1000mg/l · · · 60m
BOD 1000~1500mg/l · · · 30m

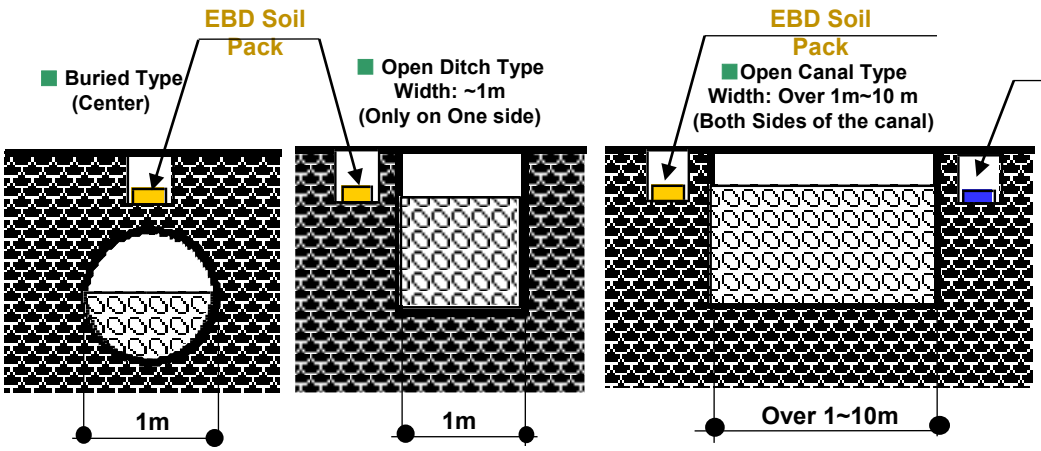
Note-3 EBD Units should be installed horizontally

BOD= Over 80mg/l

EBD Soil Pack / River Pack Installation for Sewage Pipes, Ditches & Canals

EBD River Pack

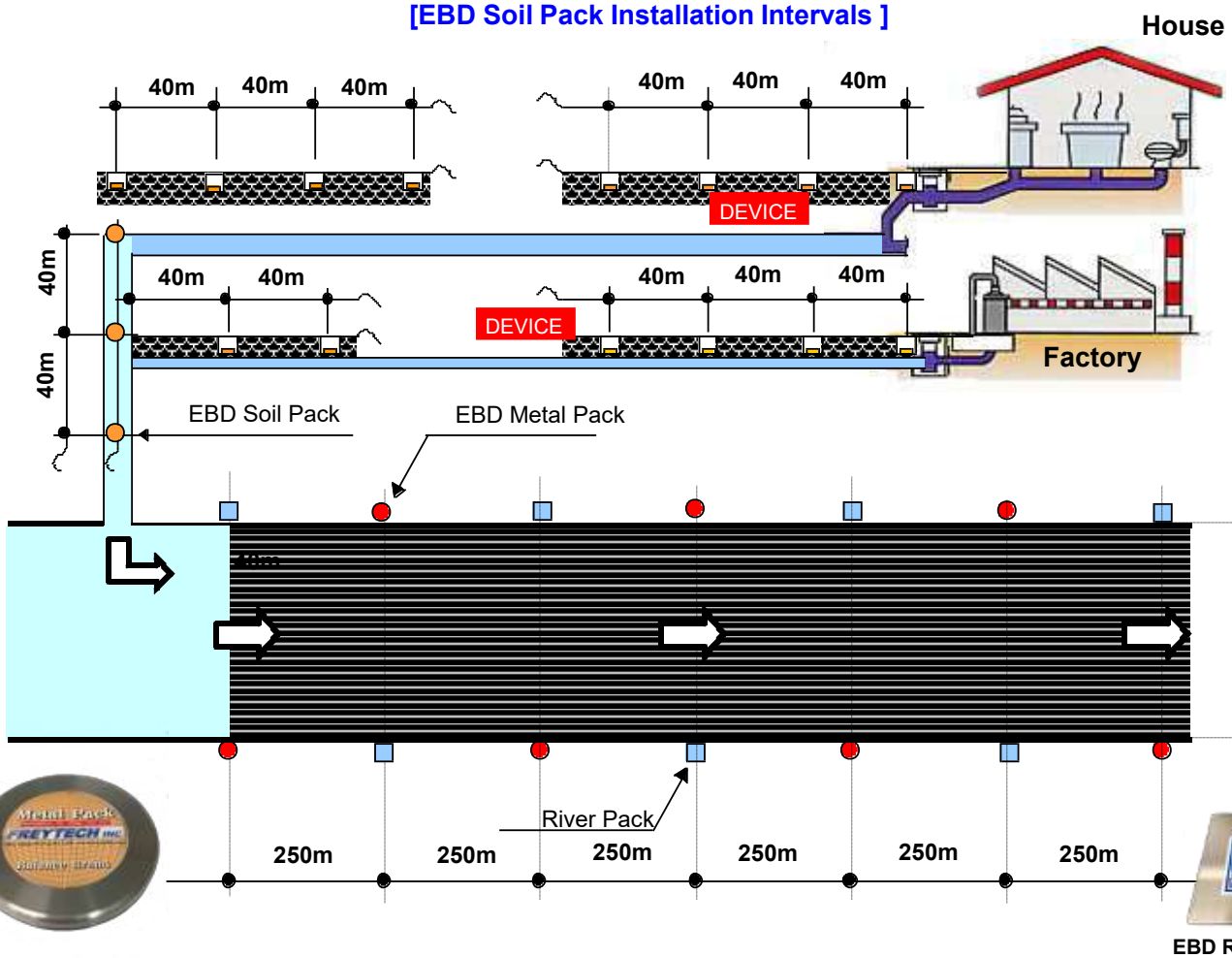
[Location of EBD Systems in Sewage Drainage Systems]



EBD Soil Pack

Note: If the width of the raw sewage ditch measures between 1m to 10m, both River Packs and Soil Packs are required.

[EBD Soil Pack Installation Intervals]



EBD Metal Pack

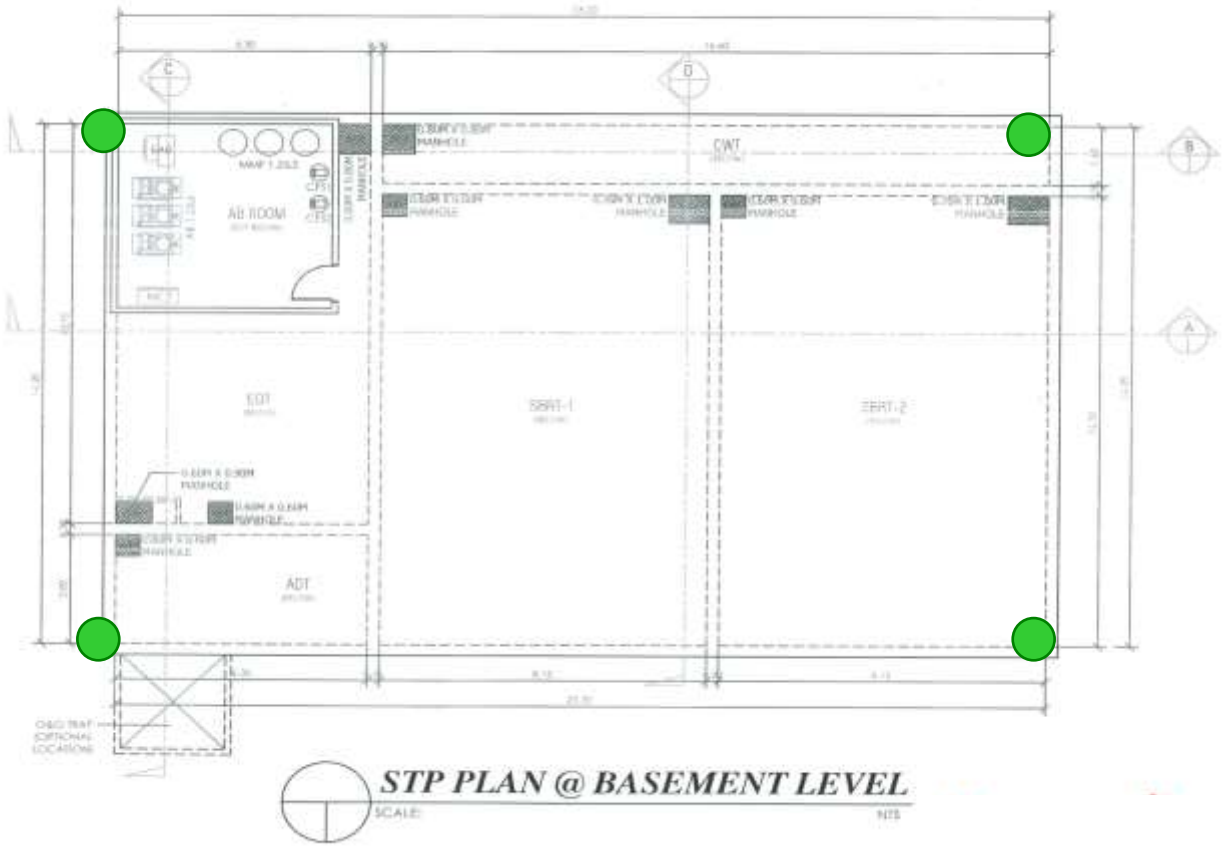
EBD River Pack

Note1: EBD System Installation intervals are calculated based on width & water quality of rivers and lakes
Note2: EBD Metal packs are required for discharged water containing high concentrations of heavy metals.

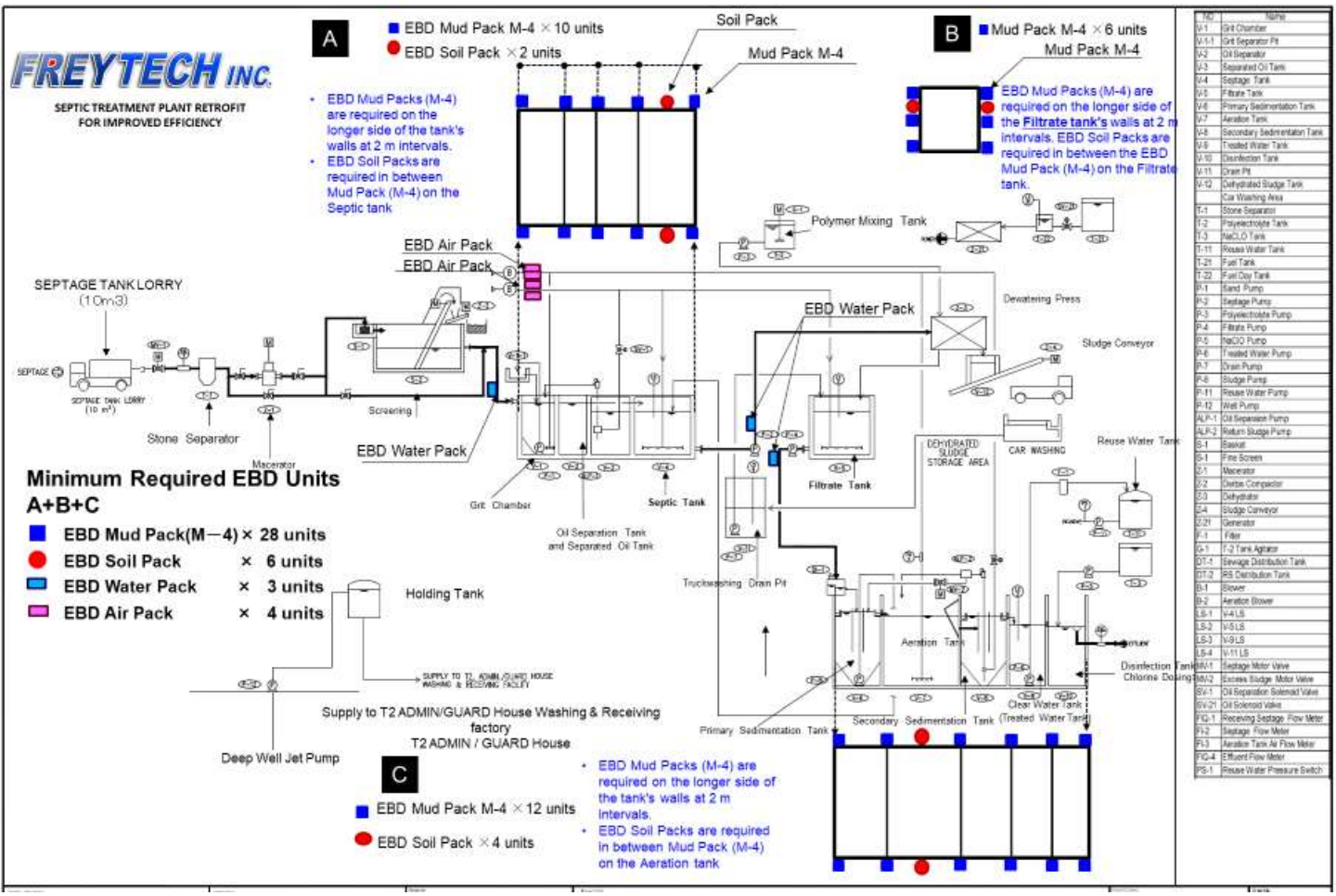
EBD Sewage Packs for Residential Sewage Treatment Plants

For basic residential Sewage Treatment Plants (STPs): Place one EBD Sewage Pack on the corners of the tanking system. Will permanently increase treatment efficiency without having to add expensive new infrastructure. Affordable solution to upgrade existing or new STP facilities.

EBD SEWAGE PACK ON THE FOUR CORNERS OF THE STP

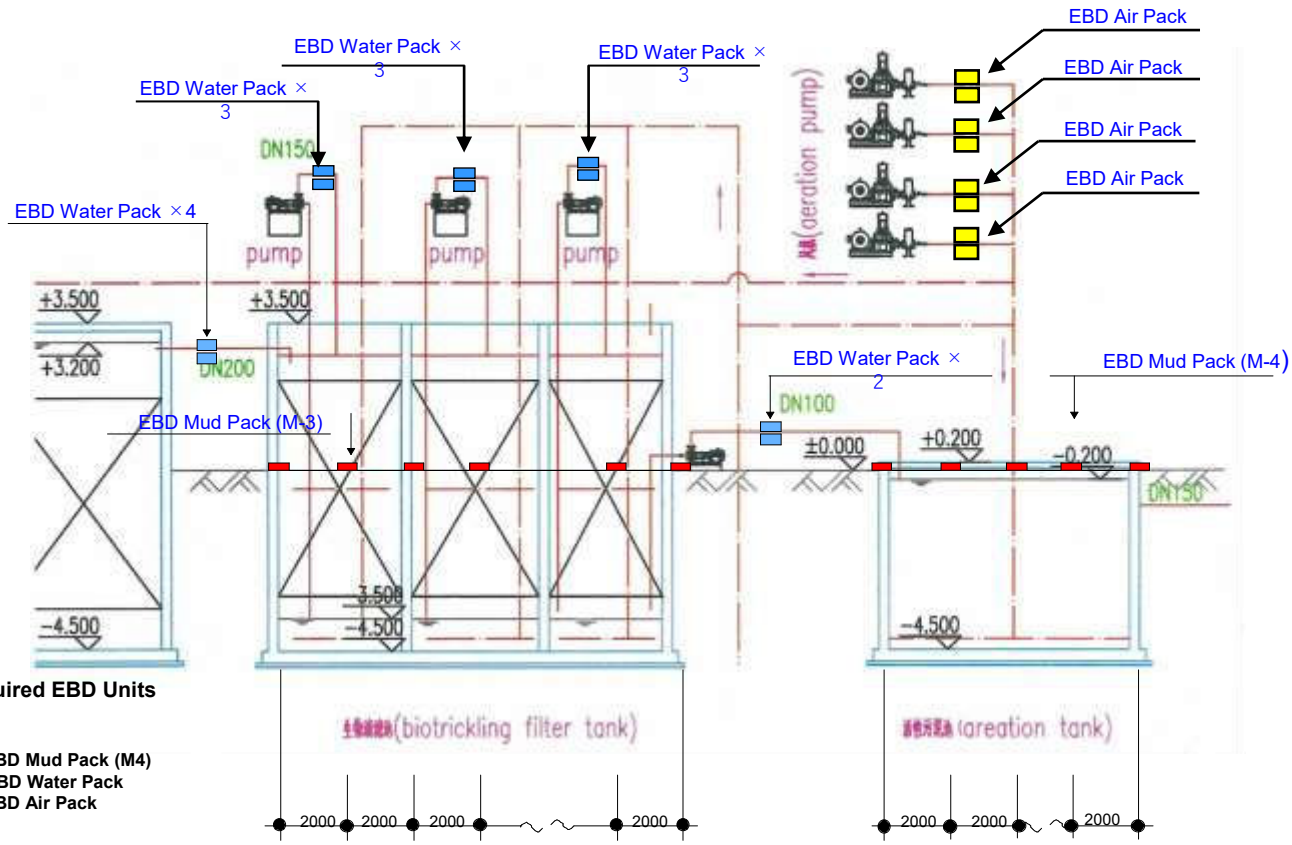


EBD Soil Packs, Air Packs, Water Packs and Mud Packs for Industrial & Residential Wastewater Treatment Plants Using Aerobic Bacteria



EBD Air Packs, Water Packs and Mud Packs for Industrial & Residential Wastewater Treatment Plants Using Anaerobic Bacteria

EBD Installation for the Wastewater Treatment Plant: Anaerobic



Required EBD Units

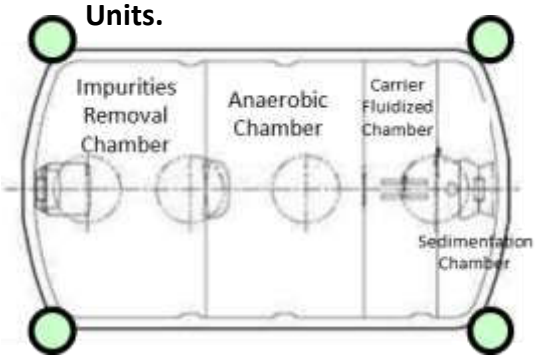
- EBD Mud Pack (M4)
- EBD Water Pack
- EBD Air Pack

Note: EBD Mud Packs must be installed on the longer sides of the tanks at 2-meter intervals.

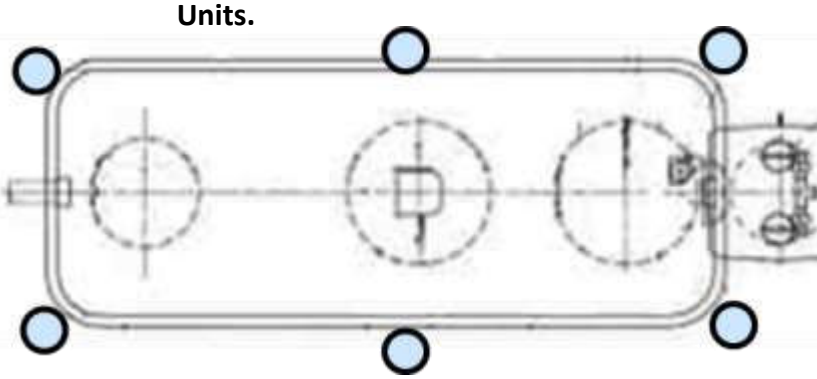
EBD Flush Packs for Septic and Holding Tanks

- EBD Flush Pack units are for use with septic tanks, holding tanks, portable toilets as well as recreational vehicle (RV) toilets to accelerate residential sewage decomposition, reduce nutrient and pathogen concentrations, remediate Greenhouse Gas (GHG) and ammonia emissions while also providing effective odor control.

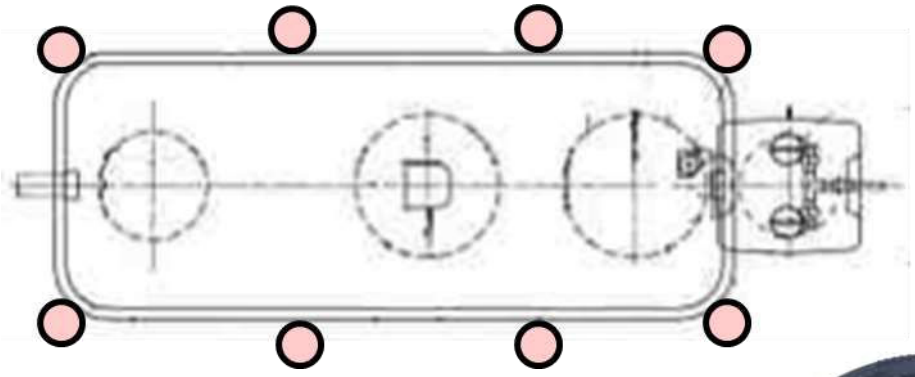
Septic or Holding Tank for up to 30 users. 4 EBD Flush Pack Units.



Septic or Holding Tank for up to 42 users. 6 EBD Flush Pack Units.



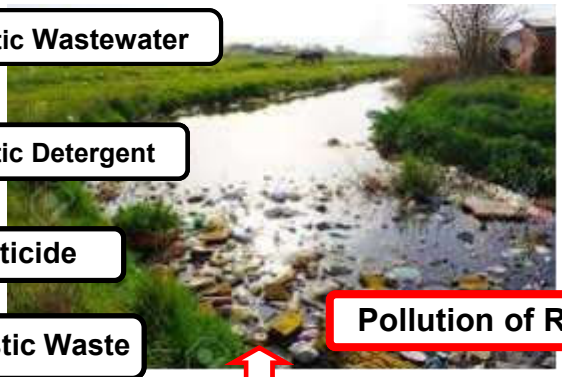
Septic or Holding Tank for up to 50 users. 8 EBD Flush Pack Units.



EBD Flush Pack

Dimensions: Φ90mm x 3.1mm
Materials: ABS plastic mixed with proprietary composition organic minerals.

EBD Pollutant Treatment Mechanism

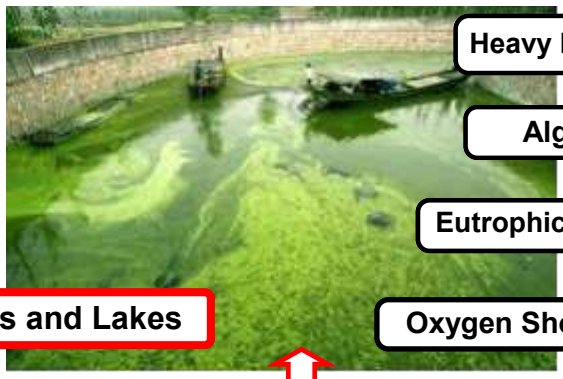


Domestic Wastewater

Synthetic Detergent

Insecticide

Domestic Waste



Heavy Metals

Algae

Eutrophication

Oxygen Shortage

Pollution of Rivers and Lakes

Increase in the Negative Energy Particles (NEP (-)

Increase in Negative Energy Particles NEP (-)

Imbalance of Ultra-elementary Particles

Pollutants

- ◆ Household
  - Excrement
  - Cooking Wastewater
  - Bath Drainage
  - Detergents
  - Nutrition
  - Solids
  - Grease
  - Salinities
  - Cooking Liquid Waste
- ◆ Factory
  - Free Chlorine (Paper Production)
  - Sulfite (Pulp Production)
  - Salinity (Battery)
  - Cyan, Nickel, Cadmium, Zinc, Hexavalent Chromium (Metal Gilding)
  - Phenol (Chemical)
  - Cleaning (Alkaline)
  - Lead, Nickel, Hexavalent Chromium (Mine)

Destruction of the Food Chain

Increase in ROS

Decrease in Microorganisms

EBD Device Installation

Decrease in ROS

Increase in Extremophiles

Preying on Contaminants

Secretion of Element Transmutation Enzymes

H2O&Co2 + Transmutation Materials

Detoxification of Pollutants

Ecosystem Balance

List of Transmuted Elements

Zn ⇔ Mg ⇔ CO2
Fe ⇔ Ca ⇔ O
Cu ⇔ Ca ⇔O
Si ⇔ C ⇔ CO2
B ⇔ N
O ⇔ Cl
Pb ⇔ Co ⇔ N
Na ⇔ Ti ⇔ CO2
Al ⇔ F ⇔ N
H ⇔ Mn
K ⇔ Ni ⇔ Ne
Ag ⇔ Sn
S ⇔ C
As ⇔ He
Li ⇔ W ⇔ Xe
Cr ⇔ O
P ⇔ Ne
Hg ⇔ O
Cd ⇔ N
Ge ⇔ C
Se ⇔ O
Au ⇔ Cu ⇔ Ar
Pt ⇔ V ⇔ He
I ⇔ Ag ⇔ O
Cs ⇔ Mo ⇔ N
Ra ⇔ Au ⇔ O
U ⇔ H

- EBD Systems produce a balanced environment reducing free radical reactions. This leads to a dramatic activation of indigenous microorganisms which in turn decompose organic and inorganic substances.

◆ ROS = Reactive Oxygen Species

EBD SOIL PACK BIOREMEDIATION TIMELINE IN A 500-METER-LONG UNDERGROUND UNTREATED SEWAGE PIPE LINE DRAINING INTO RIVER
July 31, 2017