



GBS

Grandeur Business Solutions Private Limited.
ISO 9001:2015



एक कदम स्वच्छता की ओर

SWACHH BHARAT ABHIYAN



(DRDO) Defence Research
& Development Organisation



Institute of Minerals and Materials
Technology



Federation of Indian
Chambers of Commerce
& Industry

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Eco-Friendly Sanitation Solution
A Unit of Grandeur Business Solutions Private Limited

The **Honorable Prime Minister of India** in his maiden Independence Day Speech committed to a **"Swachh Bharat" by 2019** as a fitting tribute to 150th anniversary of Mahatma Gandhi. He emphasized on provisioning of toilets for all schools by Aug2015 and for making India "Open Defecation Free" by 2019. We at Grandeur Business Solutions are committed to contribute in realizing our Prime Minister's vision.

Bio Loo or the Eco friendly toilet development by Defense Research and Development Organization (DRDO) is the Indian solution to the colossal problem of open defecation in our country. It is the perfect GREEN 'flush and forget' toilet. Bio toilets are an ideal fit for both rural and urban areas where the sewage system does not exist or cannot effectively reach. It is cost effective and comparatively cheaper than normal septic tank toilet. The technology has been successfully used for now about a decade to decompose fecal waste generated by soldiers deployed in border areas. Successful projects have also been launched in Odisha, Lakshdweep and the Indian Railways.



We were honored to construct the bio digester public toilets inaugurated by **Honorable Prime Minister of India** on 02 Oct 2014 to launch the **"Swachh Bharat Abhiyaan"**

Technology

A bio-digester is an anaerobic (oxygen free) multi-compartment tank which digests organic material biologically. The tank can be made of Stainless steel, Mild steel, FRP or even concrete. It is an airtight chamber with inlet for fecal waste and outlets for by products that is water and methane gas. Night soil degradation occurs through microbial reaction which converts it into methane gas and odorless water. The bio-digester tank generally has $\frac{3}{4}$ anaerobic chambers that treat black water effectively, and does not require cleaning or emptying or relocating. The treated water can be used for irrigation/reused for flushing.

Advantages

- Minimum requirement of water for flushing -flushed water reusable hence major source of water conservation.
- Methane gas as the by product can be harnessed for lighting, use as cooking gas.
- Lifelong usage-bio digester tank does not need recharging, reshifting or maintenance.
- Does not pollute water table in the area thus prevents major life threatening diseases.
- Cost lesser than the conventional toilet.
- More economic in long term as conserves water and has minimum maintenance requirement.
- Easy to transport and install.

Features :

- DRDO perfected eco-friendly bio-degradation technology for disposal of human waste.
- Two components: anaerobic microbial inoculum (seed bacteria) and specially designed fermentation tank.
- Does not require any septic tank, soakage pit or sewerage system connectivity.
- Requires only one time inoculum charging.
- No sludge formation.
- Technology is environmental friendly, maintenance free and efficient without depending on conventional energy sources.
- Permits use of toilet cleansing agents.
- The effluent is odorless and gets rid-of most of the pathogens.
- Suitable for mobile and stationary platforms.
- Choice of material for fabrication/ construction-FRP, Mild Steel, SS, Concrete etc.



Needs

Over 60 percent people in India still defecate in the open due to non-availability of toilets. 90 percent of rural homes have no toilets facilities and the situation is no better in urban areas where 3750 towns and cities out of a total of 4000 have no sewerage or sewage treatment plants. Creating the necessary sanitation infrastructure all across the country will not only be cost prohibitive but also time consuming and would not be feasible in foreseeable future due to economic consideration. Thus, Bio Toilets which have minimal infrastructure requirement, provide the perfect solution to this basic health and hygiene need. Bio Toilets with its attendant advantages would play a major role in ending this scourge of open defecation as it:

- Disposes human waste in a 100% eco friendly manner does not pollute the ground water.
- Saves energy.
- Conserves water-it just needs one third of conventional toilets.
- Produces harmless but useful by products.

Application

- Rural Housing
- Urban Housing where no Sewerage system exists
- School Toilets
- Community toilets in urban/ rural Areas
- Construction Sites
- Mobile Toilets for Fares, Exhibition Grounds etc
- Farm Houses
- Golf Courses
- Resorts and Roadside Eateries
- High Altitude / Border areas

Our Services

- Manufacturing, Supplying and Installation of Bio toilets for individual households and for community use.
- Periodic maintenance and AMC of Bio toilets.
- Installation of large Bio Digester Tanks for housing societies / large establishments.
- Providing cost effective and eco friendly sanitation solutions to housing projects in rural/ urban areas.
- Installation of Bio digester toilets in trains and vans/buses.



GRANDEUR BUSINESS SOLUTIONS PRIVATE LIMITED

is the TOT holder of the Bio loo technology from Defense Research & Development organization (DRDO). Our core team comprises people with rich experience in construction, social sector and technological skills.

The company is focused on promoting eco friendly sanitation solutions. We are financially sound with ability to undertake multiple projects.

Manufactures and Installers of Bio Toilets.

Grandeur Business Solutions Private Limited

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REG. NO. 0018021



A Unit of Grandeur Business Solutions Private Limited

Water Filter Discs

A Mother Earth's Green Technology Device
Developed By IMMT/CSIR (Govt. Of India)

TERAFIL Water Filter Discs - Science & Objectives

TERAFIL Water Filter Discs is a mother earth's green technology device developed for filtration and treatment of both raw surface and raw ground water into clean and safe drinking water at minimal cost and expenses in quality within BIS limit and WHO standard.

TERAFIL Disc is a research based device mechanically and scientifically more advance yet inexpensive filtration device of International standard. TERAFIL Disc being developed to target raw water that is rich in sediments, suspended particles, turbidity, iron and certain micro-organism causing water borne diseases; especially in the areas where water from dug well, ponds, tube well, bore well, water streams and river is used.

TERAFIL Water Filter Discs - Composition & Reliability

TERAFIL Discs contains composition of mother earth's own natural ingredients like specific plastic silt clay, river green sand and Sal wood saw-dust as raw material in given ratio including scientific processes of material preparation and disc making techniques. TERAFIL Discs are stronger and efficient enough in mechanical and scientific way with operational life of more than 3 to 5 years without affecting the quality of water during entire operational life of the disc.

TERAFIL Discs require weekly or fortnight cleaning to maintain proper rate of filtration, cleaning is easy and inexpensive.



TERAFIL
Water Filters

TERAFIL DISCS MANUFACTURER

(Licensee of IMMT, Bhubaneshwar):

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