

# **BioFurnaX - BROCHURE**

## Details of EmptiNil BioFurnaX - 51, Readymade Septic Tank™

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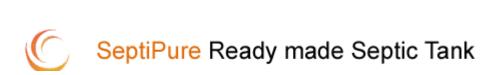
#### **Toza India Pvt Enterprise**

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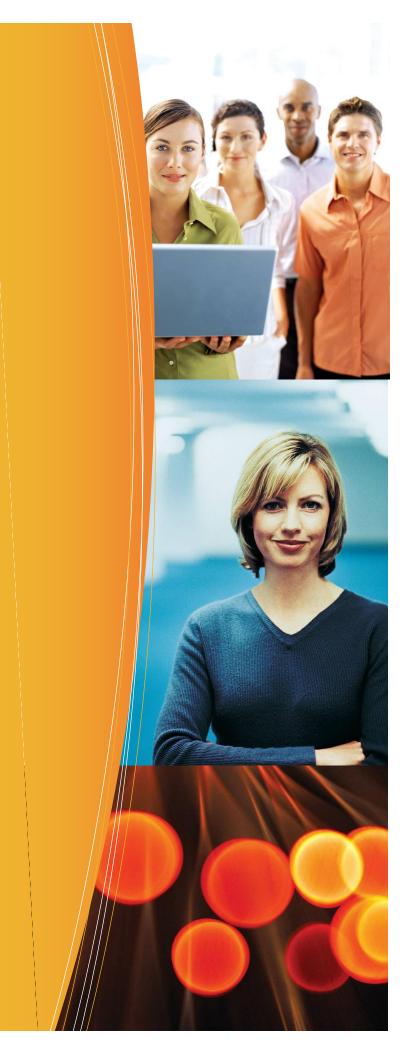
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SeptiPure Septic Tank™

जिसे कभी साफ़ नहीं करना पडता ™



#### **PROFILE SYNOPSIS**

Our privately owned research centre for Civil Engineering & Environment is working in sanitation field and spreading awareness about "onsite human waste treatment and disposal systems" and developed an EmptiNil Human Waste Treatment & Disposal Method called EmptiNil BioFurnaX – 51, a Readymade Septic Tank for domestic or commercial use to solve a well known challenge of house owners and that challenge is re-cleaning of septic tanks repeatedly. Trademark registration process has been completed. The emblem & copyright registration process is under preparation.

One of our most successful initiatives on this front has been EmptiNil BioFurnaX - 51 Septic Tank, an organization, engaged in activity related to "onsite human waste treatment & disposal system" generally called Septic Tank; now planning to expand their business activities through franchisee network rest of India. Here in Toza India Pvt Enterprise; our role is to provide information, supply of Readymade Septic tank components like main and auxiliary chambers etc, taking contracts from agencies and establish a profitable enterprise and help people to solve their sanitation challenges; they face time to time.

#### THE MAIN CHALLENGE WITH OLD CONVENTIONAL SEPTIC TANKS

Everybody knows that one needs to re-clean these tanks after some interval. The cleaning process takes mental tension; consume productive time, destruction of septic tank owner's property and more money on frequent cleaning to spend after intervals. Another problem with conventional septic tanks are, these septic tanks produce some partially treated waste and that partially treated waste carries solid particles and these particles form a layer over pores of soil and become one of main cause of soak well chocking frequently and at early stage. One more problem with old or conventional septic tank is they take much time and ample space to construct. While constructing with bricks, cement and sand etc the chances may be for leakage and because of this leakage septic tank may fail. The old design or Conventional septic tanks are partially effective due to many reasons and sometime can contaminate the ground water table.

Conventional septic tanks can act properly if they are designed correctly and installed in the area where soil criteria of absorption field met and ground water level is not high, space is ample and re-cleaning facilities are easily available, however these situations are not repeatedly met in all the areas. Like in rainy season in many areas ground water level is always high and in hill stations and rural area re-cleaning facilities are not often and easily available and in today's time people have small lots so there is scarcity of space. Time is very precious now days as conventional septic tanks take long time for construction.

In some areas fiberglass or polyethylene tanks also being used by people. For manufacturing point of view the fiber glass or polyethylene tanks manufactured in factories and one need a huge investment, manufacturing facility and special skills. Fiberglass and polyethylene factories are not environment friendly and create pollution. Generally these old or conventional designed septic tanks take more money, space, labor and time to manufacture. And one more important point is that municipal sewer facilities are not possible in every area due to many reason specifically monetary reasons in Asian region and geographical conditions especially in our country hence people need improved "on site sewer treatment units" that can work effectively over conventional methods.

It is advantageous now that if we have such a septic system that is simple to make, easy to install, not much expensive, can produce more clearly and treated effluent, does not pollute underground water table, take small space and less time to install, the above said problems can be eliminated easily. Based on the above said information there was a need for an innovation in the field of septic tank and "EmptiNil BioFurnaX – 51, a Readymade Septic Tank" that is useful for people and can solve the above said problems without much expense and efforts.



Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation

- Peter F. Drucker.









#### WHY OUR TECHNOLOGY IS DIFFERENT?

Many domestic and commercial septic tank designs are being used nowadays in our country where sewer lines do not exist; like three chamber brick made or round RCC pipe septic tank in deferent trade names. When we talk about Readymade, Pre-casted or RCC pipe septic tank; the most common name comes in people's mind is Shankar or Balram Septic Tank (trademark belongs to respective owners). The Shankar or Balram septic Tank was developed long back in 1970. The system was tested by CBRI Roorkee in 1995 and they found some setbacks in the design and recommended some possible improvements to enhance the efficiency of the system. Unfortunately no initiative has been taken from inventor side to incorporate these changes so we came forward and took the initiative for the benefit of people. As everyone knows that we live in technological age and technology is changing very fast so the septic tank design created on or before 1970 will not help in the present context hence we have improved the design as per the recommendation of CBRI and innovated a scientific septic tank that is based on new technologies, have additional valuable features like H shape inter connector, T shape outlet and a filtration arrangement for sewer clarification. All other available conventional septic tanks do not have some of these additional features and more over these designs are based on old methodology and do not solve the challenges completely.

### **BENEFITS OF EmptiNil BioFurnaX – 51 SEPTIC TANK**

- Protects underground water table
- No danger to foundation of building
- Most economical and suits all soil conditions
- Needs little space & can be installed in 3 4 days
- Latrine can be build on tank itself in case of want of space
- It eliminates the challenge of re-cleaning at intervals
- Intellectual Property Protection under process like Trademark etc.

#### **SCOPE OF WORK & ADDITIONAL DETAILS**

Supply, excavation and installation of pre-casted EmptiNil BioFurnaX – 51 Septic Tank with 4 inch diameter, 6 inch long inlet / outlet pipes and round RCC covers are in our scope of work. Any other work like flooring, extra soil removal, transportation of Tanks, any kind of plumbing like main hole chambers or sewer pipelines etc, soak well, sanitary work, toilet sheet installation work etc, any other civil, electrical or mechanical work not included. Water for hydro testing and sundry items like cement, sand, required bricks etc shall be arranged by client.

The round shaped components (chambers and connections) of EmptiNil BioFurnaX - 51 Septic Tank of required capacity shall be supplied in parts. Complete fitting and other connections like inlet / outlet and center connections shall be fixed at site after exact measurement of levels. Sealing of tank bottom and top covers shall also be prepared at site during installation activities. Users / clients / customers need to fill these BioFurnaX -51 Readymade Septic Tanks with water completely before use and always maintain water at full level as the operation / working of these tanks are water based.

Before signing any agreement with us or placing any order related to EmptiNil Septic Tank; it had already made clear to reader of this document that EmptiNil warrantee is valid if other house hold waste water like bathroom etc passed through subsidiary tank and outlet connections of this tank is connected to running drain or multi soak well system. The outlet / center path of septic tank should be kept clear always by user / customer / client to achieve its full effectiveness.

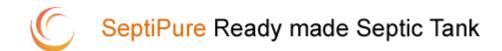


I never perfected an invention that I did not think about in terms of the service it might give others. I find out what the world needs, then I proceed to invent.-

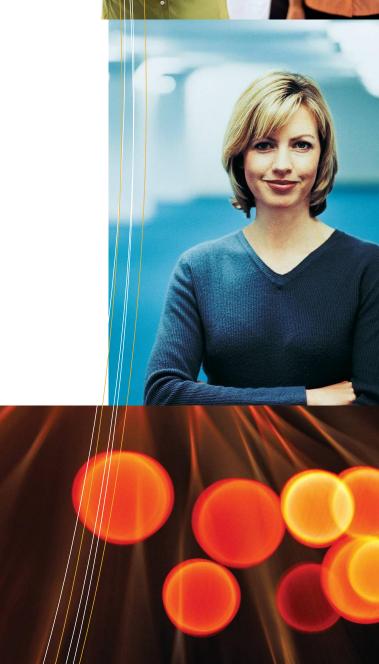
-Thomas Edison











## Comparison between Conventional & SeptiPure Septic Tank™

S.No.	Conventional Septic Tank	EmptiNil BioFurnax - 51™
1	Has 01 to 05 chambers made of Brick, Cement and sometimes plastic too.	It has Settling Chamber, Auxiliary cum Clarifier and Filtration arrangement.
2	Plenty of land and manpower is needed for its construction.	Takes very little space due to its compact design and mechanism
3	It cannot be shifted from one place to another if constructed ones.	Shifting from one place to another is possible due to pre-casted components.
4	It takes 10 to 15 days for septic tank construction.	Takes very little time compare to conventional design.
5	Construction cost is high considering space, time & benefits.	Cost wise it is very reasonable considering the features & benefits.
6	It is a permanent structure and capacity can't be increased if needed.	Capacity can be increased by adding extra one or two compartments if required.
7	Re-cleaning is compulsory after few years of use.	No Need to Re-Clean as It is completely EverClean.
8	People avoid its construction due to cost and other limitations.	Getting popularity because of its unique engineering and benefits.
9	Because of its construction method ; leakage is possible.	Very strong and heavy due to its RCC structure and round shape.
10	Construction is impossible where water table is very high.	Can be installed almost everywhere in any soil conditions.
11	May damage foundation of house if constructed near building.	No damage to building foundation due to its prefabricated structure.
12	Designed and developed on or before 1970, almost 35 years ago.	Designed and developed as per latest trends and technological pattern.
13	Particles may travel from one to another chamber.	Unique interconnections and attachment stops particles.
14	Filtration arrangement has not been attached.	FinFilter is attached to outlet for final filtration.
15	Up flow Anaerobic Sludge blanket Technology is absent.	UASC technology has been adopted for filtration.
16	Round shape Septic system called Shankar Balram Septic Tank was tested by CBRI & found setbacks as follows:	EmptiNil Septic Tank™ is based on latest trend & technology and following advancements have been made to enhance its efficiency:
	A. Modification is needed in outlet connection     B. Arrangements should be made to dilute the effluent     C. Up flow filtration should be used for treatment	<ul> <li>A. Outlet has been modified as per advice</li> <li>B. Arrangement is present for dilution</li> <li>C. Filtration arrangement has been attached</li> </ul>
17	No technological advancement has been made so for. # Trademarks belongs to respective owners	EmptiNil BioFurnaX - 51™ is a technologically upgraded septic tank. ## Trademark belongs to us



The important thing is not being afraid to take a chance. Remember, the greatest failure is to not try. Once you find something you love to do, be the best at doing it.

- Debbi Fields



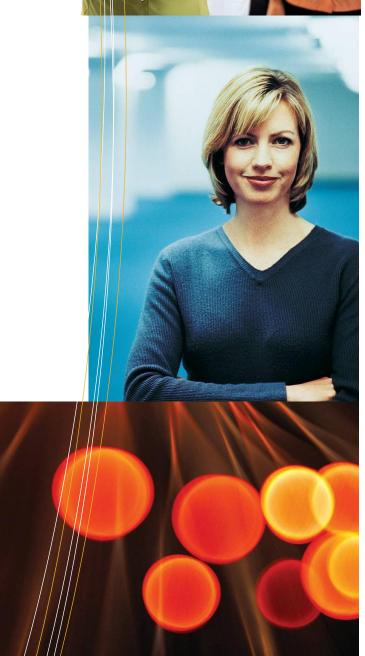


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SeptiPure Ready made Septic Tank





#### e-XtrAge Soak Pit

Residential and commercial premises are constructed with different systems to be fit for human habitats including some means for sewer disposing of human excreta and waste water produced by people. Soak Pit for septic tank have long been used for secondary treatment in our country where municipal sewer lines and treatment facilities don't exist. The treated sewer coming from Septic Tank enters into Soak Pit through pipes generally called Soak well or Soakage Pit for absorption purpose.

The most popular and common design in India is vertically constructed dry pits with brick; cement etc made by honeycomb wall instead of horizontally laid perforated pipes. Some meson use gravels or broken bricks inside soak well. Combination of septic tank and soakage well for treatment of waste water from domestic source, school, hotel or any commercial buildings are well known and widely accepted through the country as major cities are not covered with central sewer treatment facilities.

By and large these on site sewer disposal system contains anaerobic treatment unit such as Septic Tank, RCC or plastic connecting pipes, distribution box and the drainage field like soakage area. Anaerobic treatment facility treats waste and human excreta using anaerobic or oxygen less bacteria. The units employed in conventional method are simple and based on old methodology. In septic tank waste stays for some time and separates into slug, liquid and scum layer. After solids settle from liquid, it transported to soak pit through outlet pipe for final absorption. After some years of use these conventional soak pits give troubles to people, few of them are listed below:-

- A] More wide and deep digging is needed
- B] Danger of water table contamination
- C] Takes more labor and time to construct
- D] May collapse due to its wide shape and design
- E] May throw sewer back into septic tank due to failure
- F] May fail frequently because of clogged pours of soil
- G] One may waste their money by re-cleaning at interval

The significant efforts have been made in the field and many inventors developed several designs for sewer drainage system. Like Stanley J Dea invented System for home waste water treatment and disposal in 1975 and offered a significant option for home owners but that needs plenty of space, time and money to construct it. John M Harkin suggested Method for treating Septic Tank effluent seepage beds and the like in 1977 but that entire activity needs skilled artisan and equipments to carry out the task. In 2006 David W Presby of USA invented Multi Level Leaching system and solved the challenges of existing designs.

Considering the cost factor, specially living in India it's not possible to afford such an invention for common man so we thought about it and developed a soak pit that is cost effective and simple in construction.

e-XtrAge soak Pit developed by us takes less space, time and effort to construct. We utilize same space for sewer absorption many times alternatively so clogging is next to impossible. These soak pits do not need any electric power or aeration pump. You may save lot of time, money and energy if you chose to have this e-XtrAge soak pit in your premises.



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- Debbi Fields









#### **FREQUENTLY ASKED QUESTION**

Q 01 – I have not heard about this EmptiNil BioFurnaX - 51 Septic Tank ever. Are you new in the business?

**Ans** – We are operating the business and installing EmptiNil BioFurnaX - 51 Septic Tanks since last 17 years in Dehradun and other neighboring areas. We have clients like Schools, Institutes, Hotels, Home owners and Government departments etc.

Q 02 – What is EmptiNil Readymade Septic Tank (Latrine) and how it is useful for house owners and where it shall be used?

Ans - The EmptiNil or sometimes referred as EverClean EmptiNil BioFurnaX – 51, a Readymade Septic Tank is an innovative design of "on site human excreta disposal system" that does not require re-cleaning at intervals. This is underground human excreta digesting apparatus connected with toilets through pipes. Every home or building owner needs this new type of Septic Tank as it takes very little time and space for installation.

Q 03 - Why should people have EmptiNil Readymade Septic Tank installed in their buildings?

**Ans** - As this EmptiNil or EverClean Septic Tank is based on topical research and development and have following advance features over conventional or old one:-

- 1] Does not require re-cleaning at intervals
- 2] Takes very little space or no extra space at all
- **3]** Takes very little time to install
- **4]** Not costly as compared with old or conventional designs
- **5]** Waste water after proper filtration can be reused
- 6] Re installation at another location is possible if required
- **7**] Does no pollute underground water table
- 8] Capacity of system may be increased with little efforts
- **9]** As major components are readymade, instant fitting at site is possible

**Q 04** – Is this EmptiNil BioFurnaX - 51 Septic Tank useful for residential property or commercial ones?

**Ans** - We have different designs for different types of users. We have designs for houses, bungalows and at the same time for hotels, schools, hostels, small colony to big townships or any short of residential or commercial building.

Q 05 – How can I get more information about EmptiNil Readymade Septic Tank?

Ans - You need to read this document carefully and need to visit our official website at <a href="http://www.SepticTank.in">http://www.SepticTank.in</a> thoroughly at the same time or you may directly write or meet to Er P K Gupta (INNOVATOR) at Dehradun – India for further assistance.

**Q 06** – What is the cost of EmptiNil BioFurnaX - 51 compare to other conventional tank already being used by people?

Ans - Considering the features and benefit, the EmptiNil BioFurnaX – 51, a Readymade Septic Tanks is not costly as compared with conventional Septic Tank. You may check investment on EmptiNil BioFurnaX - 51 at our website.

We hope a long lasting & pleasant relationship with you...





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