

SAFEGARD[®] Septic Tanks

... An advance solution for safe sanitation

The Supreme Industries Ltd., is an acknowledged leader of India's plastic industry. The innovative product portfolio offered by the company is extensive in range and application and comprises a variety of pipes and a vast spectrum of fittings totaling around 7000 diverse products. Together these constitute the most comprehensive range in the industry that caters almost every conceivable need and application. Company has been a torch bearer in transition from conventional products to advance plastics piping products in the country and has been termed as "Trend Setters of Plastic Piping Products".

Supreme Safeguard Septic Tanks are designed to provide a better substitute to existing conventional brick and mortar septic tanks or tanks made out of Hume pipes. Conventional septic tanks are associated with multiple problems of concrete corrosion and leakages thereby creating pollution of soil and ground water. Besides cumbersome and time consuming construction and repeated maintenance requirement, the life span of these tanks is short and uncertain. On the other hand Supreme Safeguard septic tanks are free from above problems and has many outstanding features.

Features and Benefits

- **Rotationally Molded, One-Piece Construction**
- **Complete Pre-plumbed set-** Available in ready to use form.
- **Unique Design-** Unique single piece two chamber patented design.
- **Simple and Quick Installation**
- **Hygienic and Safe**
- **Great Strength-** Robustly designed with unique rib structure.
- **Excellent Chemical Resistance-** Unaffected by soil chemicals and gases, absolutely free from ill effect of hydrogen sulphide (H₂S).
- **Minimal Maintenance requirements**
- **Long Life**



Available Range

We offer septic tanks in different sizes from 1000 to 29500 liters capacity. Septic tanks up to 3000 liters are made available in vertical design having two separate integral compartment for proper settlement and decomposition of solid waste whereas the septic tanks above 5500 liters sizes have modular horizontal design. Different modular units can be connected with each other for increased capacity up to 29500 liters. The dimensions and product details are given in the following table.

Product Details of Vertical Septic Tanks

Capacity (Liters)	Diameter (m)	Height (m)	Recommended Users
1000	1.2	1.039	4 - 5 People
1500	1.2	1.410	5 - 8 People
1800	1.2	1.770	8 - 9 People
2000	1.7	1.019	9 - 10 People
3000	1.7	1.466	12 - 15 People

Includes lid, 110 mm inlet and 50 or 110 mm outlet provisions and can be made available with and without lid extension piece.

Product Details of Modular Septic Tanks

Capacity (Liters)	Combinations	Inlet/Outlet Sizes	Length (m)	Recommended Users
5500	Stand alone	160	2.4	20 - 30 People
9500	2 domed ends coupled	160	3.8	30 - 50 People
13500	2 domed ends + 1 Intermediate section	160	5.2	50 - 70 People
17500	2 domed ends + 2 Intermediate sections	160	6.6	70 - 90 People
21500	2 domed ends + 3 Intermediate sections	160	8.0	90 - 100 People
25500	2 domed ends + 4 Intermediate sections	200	9.4	100 - 130 People
29500	2 domed ends + 5 Intermediate sections	200	10.8	130 - 150 People

Note- Specified users are based on flow rates of 80 to 120 liter/person/day and 4 -5 years cleaning frequency. Modular units are supplied with connecting pipes and rubber seals.

Fields of Application:

Primary treatment of sewage in residential, commercial buildings where municipal sewage system is not available.

Installation Procedure

- Excavate a pit approximately 600 mm larger than the diameter of the tank.
- Prepare a 150 mm (6") thick bed of granular material and compact it properly. Ensure that the base of the pit is smooth, flat and sufficiently hard to form a solid foundation for the septic tank and no sharp object/stone etc. should protrude which can puncture the tank.
- Lower the tank into position in the pit ensuring that it is vertical, centrally positioned, correctly aligned and leveled using spirit level and the outlet pipe faces the soak pit and inlet pipe swivels, ensuring a straight connection.
- Fill the tank with a tap water up to 1/3rd capacity using tap. Start the backfilling. Backfilling and water filling should be carried out simultaneously ensuring that the backfilling level never exceeds the rising level of water within the tank until the water overflows through the outlet pipe, thus indicating the tank is full. The width of the backfilling should be minimum 300 mm (12") around the tank. Excavated soil can be used if it is silt, sand or soft murum but in case of black cotton, loomy or marshy soil only selected inert granular material i.e. sand/stone dust /gravels (max. size 10 mm) should be used as backfill material. It is particularly important to note that excavated material consisting of rock, peat or clay is not used as backfill material.
- When the level of the backfill reaches the underside of the outlet pipe invert, inlet and outlet connections should be made. It is recommended to maintain 1:40 to 1:60 fall between drain head and inlet of the septic tank.
Venting : Connect vent pipe of 50 mm diameter on the vent outlet provided on the tank.
- Select the appropriate cover as per the site loading conditions and place it on the top of tank, in case of rotationally moulded light weight cover it should be filled with concrete. For traffic condition GRP covers of required load class should be used.

Note: Where abnormal soil conditions occur such as vehicular traffic, rock, black cotton soil or high water table is anticipated or when the backfill above the lid exceeds 1000 mm, detailed guidelines should be referred and the final design rests with the engineer or architect on the project. The installation principle and procedure for modular septic tank remains same but we advice to follow the detailed procedure as given in the user guide.

• All the dimensions unless otherwise specified are in mm • All information contained in this literature is given in good faith and believed to be accurate and reliable. But because of many factors which are outside our knowledge and control and affect the use of product, no warranty is given or is to be implied with respect to such information, nor we offer any warranty of immunity against patent infringement. No responsibility can be accepted for any error, omissions or incorrect assumptions. • Any specifications can change without prior notice.

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