



Shaping Ideas into Plastics

# SOLUTIONS TO PROTECT THE ENVIRONMENT

## ANAEROBIC PLASTIC SEPTIC TANKS ENGINEERING DESIGN BY INCA PLASTICS PHILIPPINES, INC.

The INCA septic tank system is based on the settling and the anaerobic filtration of household sewage. A septic chamber is combined with a filter chamber in one central treatment septic tank system. In this system, no mechanical parts are used to guarantee the function of the waste treatment. No electric power is necessary to operate the septic tank. No service works or permanent maintenance works are required or necessary during operation. The INCA septic tank is made from virgin Linear Low Density Polyethylene (LLDPE). It is a one-piece rotationally molded plastic part. The step-formed profile external design of the septic tank allows for maximum structural strength and ease of handling. The filter chamber of the INCA septic tank contains a calculated number of



proprietary trickling media filters that considerably increase the specific surface area of the septic tank for the microbes to propagate and accelerate waste digestion. Made out of carbon & plastic medium, the addition of the trickling media filters have increased the specific surface area from 9 sq.m. (standard to 2-chamber concrete septic tanks) to 15 sq.m. (equivalent to a 3-chamber concrete septic tank). Compared to a 3-chamber septic tank, the INCA septic tank is more compact or smaller in size and is designed to be

completely buried in the ground. Based on actual performance, it assures sanitation and hygiene and is suited for households, offices, factories, schools or churches. It saves space, easy to install as a single unit, in series or in parallel configuration and does not require sedimentation treatment. Septic tanks are used to collect organic waste and its primary function is to liquefy and precipitate solid wastes. The standard requirement of the Department of Environment and Natural Resources (DENR) for effluent discharge of septic tanks is a maximum of 50 parts per million (ppm) of Biochemical Oxygen Demand (B.O.D.). The INCA septic tank has undergone numerous field tests over the past 12-years and the effluent results consistently show an acceptable B.O.D. below 50 ppm.

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- The trickling media filter is made from carbon and plastic medium
- It also serves as odor absorber inside the septic tank
- Bacteria thrives on the surface area of the walls of the septic tank while the trickling media filter allows more surface area for bacteria to grow, develop and digest waste during the process of anaerobic filtration
- As human wastes get in contact with the bacteria, they are digested and liquefied by as much as 70%

### AT LEAST SIX (6) MODELS OF INCA SEPTIC TANKS TO CHOOSE FROM:



STA 1000 STA 1200 STA 1500 STA 1700 STA 2200 STA H 2500

The INCA Septic tank is easy to install and operate. Two (2) vents are located on top of the septic tank, i.e. an air vent outlet for methane gas build-up and a desludge port. Various models shown are intended for dwelling units with regular occupants from 5 to 50 people. INCA also accepts custom made septic tank systems or grease traps for commercial and industrial applications. **CONTACT INCA NOW FOR MORE DESIGN DETAILS !!!**