

EARTHSAFE
WASTEWATER TREATMENT SYSTEMS

EARTHSAFE D10

SUPERIOR WASTEWATER
TREATMENT SYSTEM

**For the most pristine
environment, your backyard.**



ABOUT ALPHATREAT

AlphaTreat is an Australian owned and operated quality assured ISO9001 endorsed company, specialising in providing innovative solutions for the wastewater treatment industry. From its inception in 2006, AlphaTreat have successfully designed and built thousands of wastewater treatment systems for projects ranging from small domestic applications right up to mining camps and tourist ventures. It is the culmination of this broad experience which led to the design of the superior EarthSafe D10.

WHY CHOOSE AN EARTHSAFE SYSTEM?

The EarthSafe D10 Polymer treatment system is built inside two injection moulded purpose-built tanks. The system is lightweight (360kg) and can easily be transported to site using a ute or trailer, where it can be lifted into the excavation by the machine that digs it (no crane needed).

BENEFITS

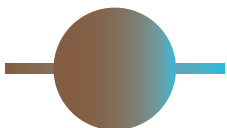
- > Fully approved in QLD
- > Manufactured to meet Australian Standards
- > Reliable and cost effective system
- > 15 year warranty on tanks
- > Australian Made and Designed
- > Largest capacity injection moulded tanks (3200L each)
- > Multi chambers providing superior clarification of water
- > 2 year warranty on electrical components
- > Safe and environmentally friendly
- > Output of safe recycled water for much needed irrigation
- > Lightweight and durable, no crane needed for installation
- > All Stainless Steel 316 fittings in system





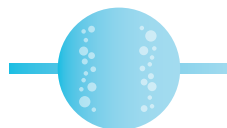
THE EARTHSAFE D10 CLARIFICATION PROCESS

STAGE 1
Primary Treatment
3200L Total



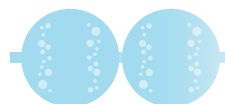
Naturally occurring Anaerobic bacteria reduce solid matter into liquid form.

STAGE 2
Secondary Treatment
3200L Total



Introduced oxygen plus Aerobic bacteria digest remaining waste particles, leaving behind treated water.

STAGE 3
Dual Clarification



Treated water is now settled into two chambers. Silt is vacuumed off, and returned back to the primary tank for re-treatment.

STAGE 4
Disinfection & Disposal



Clean water is disinfected and transferred by automatic submersible water pump to dispersal area, garden or sprinkler system.

HOW THE D10 SYSTEM WORKS

- 1** Water first enters the primary pre-treatment chamber where organic and inorganic solids settle to the bottom and fats and other floating matter forms a scum layer on top of the liquid in the chamber. A sludge layer builds up in the chamber and a biological process takes place i.e. anaerobic bacteria digest the sludge and break down some of the organic matter.
- 2** Fluid is decanted from the pre-treatment chamber through a baffle or filter to eliminate the passage of grease and floating matter. Whenever liquid enters the pretreatment chamber, waste water flows by hydraulic displacement into the aeration chamber.
- 3** In this chamber air is introduced through fine diffusers which serve to stir the contents of the tank whilst some air dissolves to provide oxygen for aerobic bacteria to thrive. These bacteria form a bio-film on the submerged media and float in the solution. Aerobic bacteria are far more efficient than their anaerobic counterparts and the effluent is converted into clean, clear water through aerobic digestion and oxidisation. This process is odour-free.
- 4** Liquid from the aeration chamber flows into the clarifiers where the solution slows to enable any suspended particles to settle to the bottom. Periodically the accumulated sludge is returned to the primary treatment chamber to ensure more complete digestion. This return process is automatic.
- 5** Treated water now flows through a lower chamber where it is chlorinated before passing into the final irrigation area. At this point clean waste water is automatically and silently discharged into the land application system. Land application systems vary according to individual situations and can be in the form of surface sprinklers, subsurface irrigation, sand filters or other innovative systems.

GETTING STARTED

To install a EarthSafe D10 Wastewater Treatment System you will need the following:

- 1** Contact an independent consultant to prepare a waste water disposal report (site and soil test for placement of an effluent disposal system) – spray or subsurface irrigation or trenches depending on your situation. AlphaTreat can also help you find a consultant in your area.
- 2** Contact AlphaTreat for a quote and to help complete and submit the application required by your local council authority.
- 3** Schedule with EarthSafe distributor to install and commission your new EarthSafe D10 wastewater treatment system for your home.

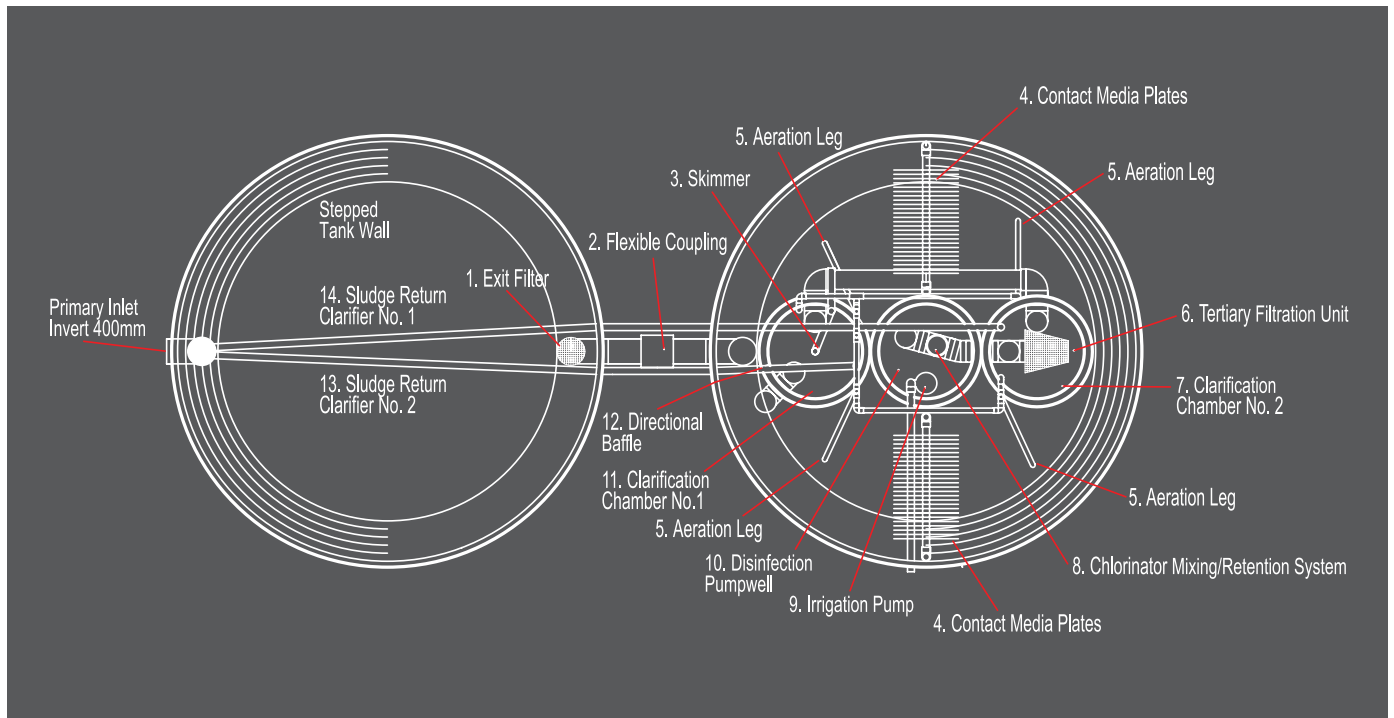
SERVICING

Any installed system must be serviced as per local authority and state regulations and requirements – AlphaTreat will assist in recommending your suitable service agent in your area.

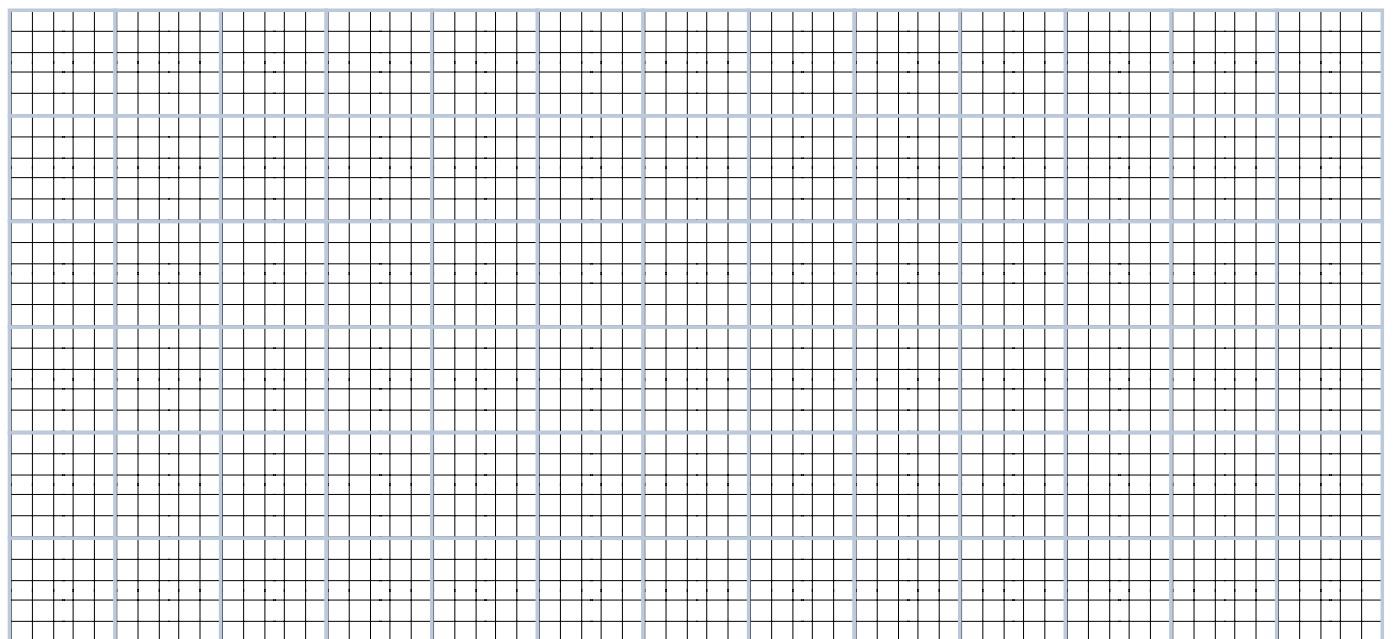


COMPLETE WASTEWATER TREATMENT SYSTEM

SCHEMATIC LAYOUT



NOTES



TECHNICAL SPECIFICATIONS

Water Quality Comparison

	Australian Standards	EarthSafe D10 AS Average Test Results
BOD (Bio Oxygen Demand)	<20 mg/L	10 mg/litre
Suspended Solids	<30 mg/L	10 mg/litre
Faecal Coliforms	<10 cfu/100 ml	10 cfu/100ml

Excavation Dimensions

Depth	Approx. 1980mm
Width	Approx. 2600mm
Length	Approx. 4900mm
Weight	360kg

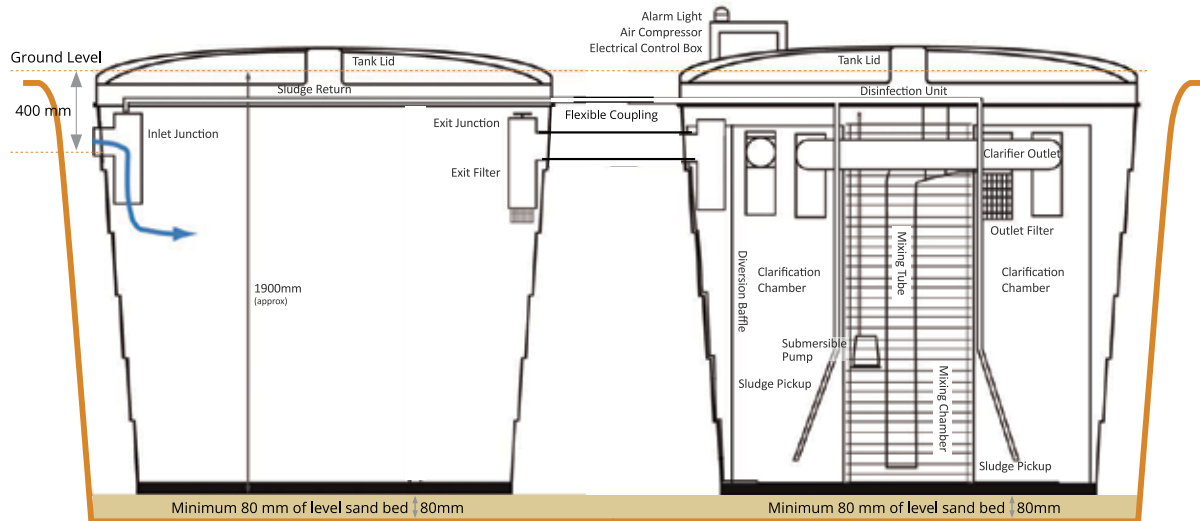
(Measure tank at base level)

Treatment Capacity

Treatment Capacity for EarthSafe D10 system	3000L/day
10EP (Equivalent persons)	Note: 1EP = 150L/person/day

EarthSafe Primary Treatment Tank 3200L

EarthSafe Aerobic Treatment Tank 3200L



Your local sales representative is:

Name: _____

Email: _____

Phone: _____

QLD Government CEA Approved

To view approval certificates, visit our website.



AMI-QM-78017



AMI 1651
Australian
Standard
1546.1



CEA/TPA
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