



Maxi 8000

Environmental Sewage Systems

1800 808 135

MAXI 8000 DESIGN CALCULATIONS

PROPOSED INFLUENT QUANTITIES/QUALITIES AVERAGE

FLOW RATE: 8,000 litres per day

MAXIMUM FLOW RATE: 10,000 litres per day

BOD ₅	150 – 300 mg/L
SS	150 – 300 mg/L
Total Nitrogen Total	50 – 60 mg/L
Phosphorous	10– 15 mg/L

PROPOSED EFFLUENT QUALITY

BOD ₅	<20 mg/L
SS	<30 mg /L
Free Chlorine	>0.2 & <2.0 mg/L
Thermotolerant Coliforms	<30 cfu/100ml
Nitrogen	<30 mg/ L
Phosphorus	<10 mg/L

SEPTIC SECTION: 10,500 LITRES

1500 sludge allowance + (150 x N) N =
Number of persons
1550 + (150 x 50)
1550 + 7500
9050 litres minimum capacity

AERATION:

VOLUME: 10,500 litres
150 litres per person
150 x 50
7500 minimum capacity

SUPPLIED CAPACITY 7000 LITRES

AIR SUPPLY: 400 litres per minute
8 litres per person per minute
8 x 50
400 litres per minute

SUPPLIED CAPACITY 2 x 200 LITRES PER MINUTE

DIFFUSERS: 9000 mm

9 x 1000 mm diffusers

9000 mm

GROWTH MEDIA:

480 square metres

8 square metres per person

4x 30 = 400 square metres

400 Sq meters minimum capacity

SUPPLIED 160 SQUARE METRES

CLARIFIER:

1250 litres capacity

CHLORINATION:

5 Bay Chlorine Bath

200 gram trichlor tablets

CHLORINE DETENTION:

Half hour detention time

8000 litres /10 hours

800 / hour

400-500 litres per half hour

SUPPLIED 1000 LITRES

IRRIGATION:

As per site evaluation report

MAXI 30 SPECIFICATIONS

Description

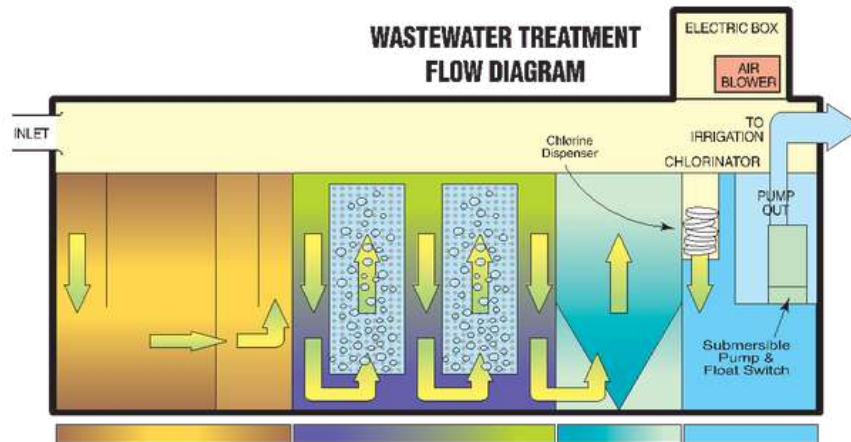
Specification

Number of persons	50 EP
Tanks	4 x 7000 litre Econocycle Tanks
Blower	400 litres per minute
Irrigation Pump	Suited to the irrigation requirements
Septic Section 1	7000 litres
Septic Section 2	3500 litres
Aeration Section Stage 1	3500 litres of aeration divided into three sections
Aeration Section Stage 2 & 3	7000 litres
Media	480m ² (9 Packs x 500 x 800 x 800mm)
Diffusers	8 x 1000mm 25 OD
Chlorinator	5 Chlorine canister

TECHNICAL PROCESS DESCRIPTION

This is a general breakdown of our wastewater treatment unit.

The wastewater unit works on the combined principles of primary settling plus aerobic and tertiary treatment.



As you can see in the above diagram all your household wastewater and effluent enters the tank through the inlet shown here on the left side of tank.

This settles into the septic zone (identified by the orange & yellow shaded area).

Towards the top of the baffle wall which separates the septic and aeration compartments, there is an outlet which enables the effluent to trickle into the aeration / treatment zone. The aeration / treatment zone is the blue shaded area of the diagram.

From this, the effluent is filtered over a mass of growth media plates. The growth media acts as a bacteria-breeding ground, which sounds quite nasty but is actually a very important and proficient function of the wastewater unit.

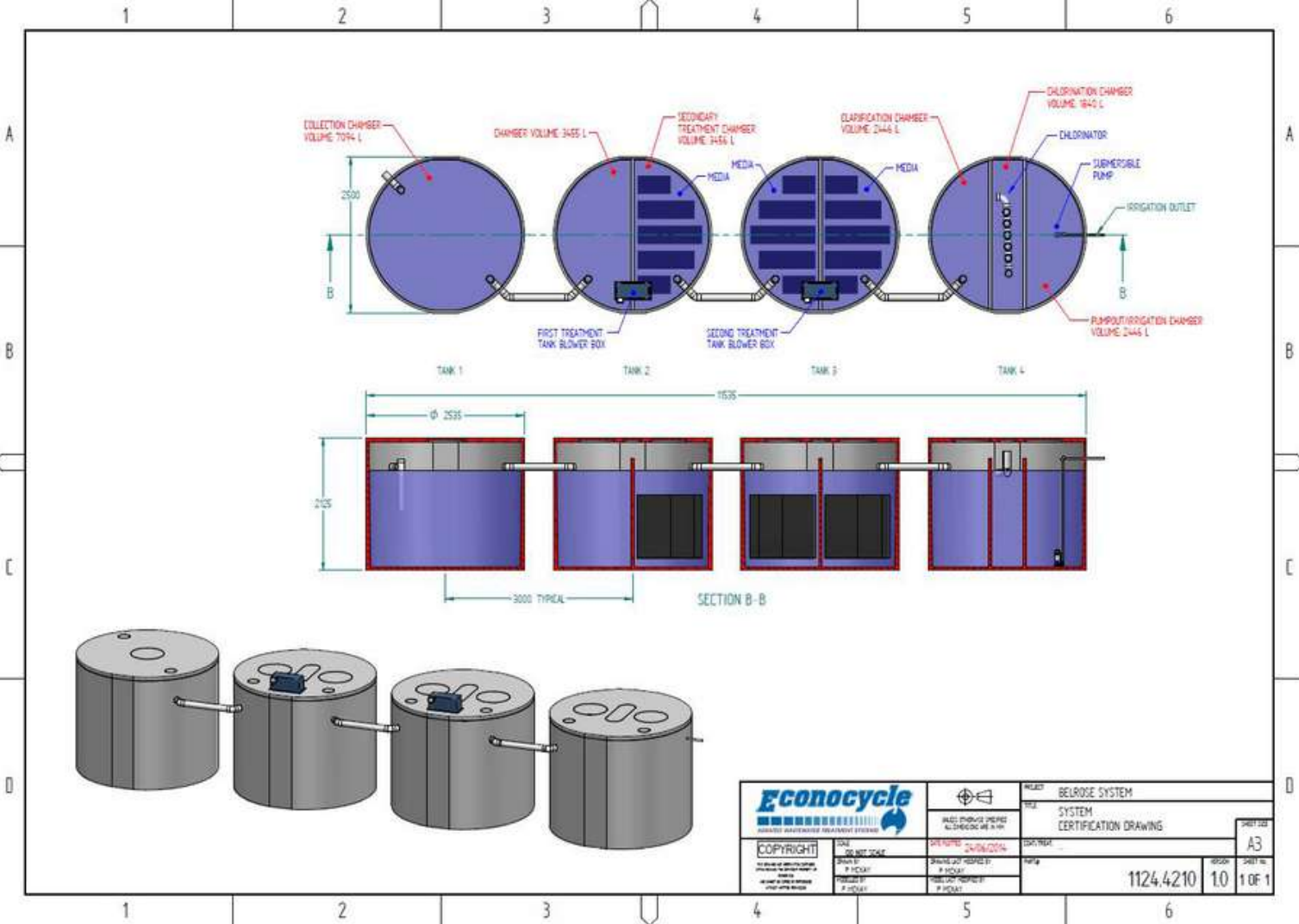
The growth media (illustrated as the grey checked areas) enables the bacteria to break down.

Once the organic impurities have been absorbed within the aerobic culture of microorganisms, the water passes to the clarification zone. At this stage the water has been recycled into clean, clear, odorless water.

The clarification zone is the secondary sedimentation process.

Before the water is released from the tank it is circulated through the chlorinator. The chlorinator is as the name suggests – a chlorine based chamber that acts as a final back up and safeguard to catch and kill any nasties that may have escaped through the aeration and clarification processes.

Drawings/Plan – Maxi 8000



		PROJECT: BELROSE SYSTEM		SHEET NO: A3
		TITLE: SYSTEM CERTIFICATION DRAWING		
DATE: 24/06/2024 DRAWN BY: P. HICKAY CHECKED BY: P. HICKAY	DATE: 24/06/2024 DRAWN BY: P. HICKAY CHECKED BY: P. HICKAY	PROJECT NO: 1124.4210	REVISION: 10	SHEET NO: 1 OF 1