

SPECIFICATIONS

ULTRA CLEAR WASTEWATER TREATMENT SYSTEMS

ABN 93 090 907 725 ACN 090 907 725

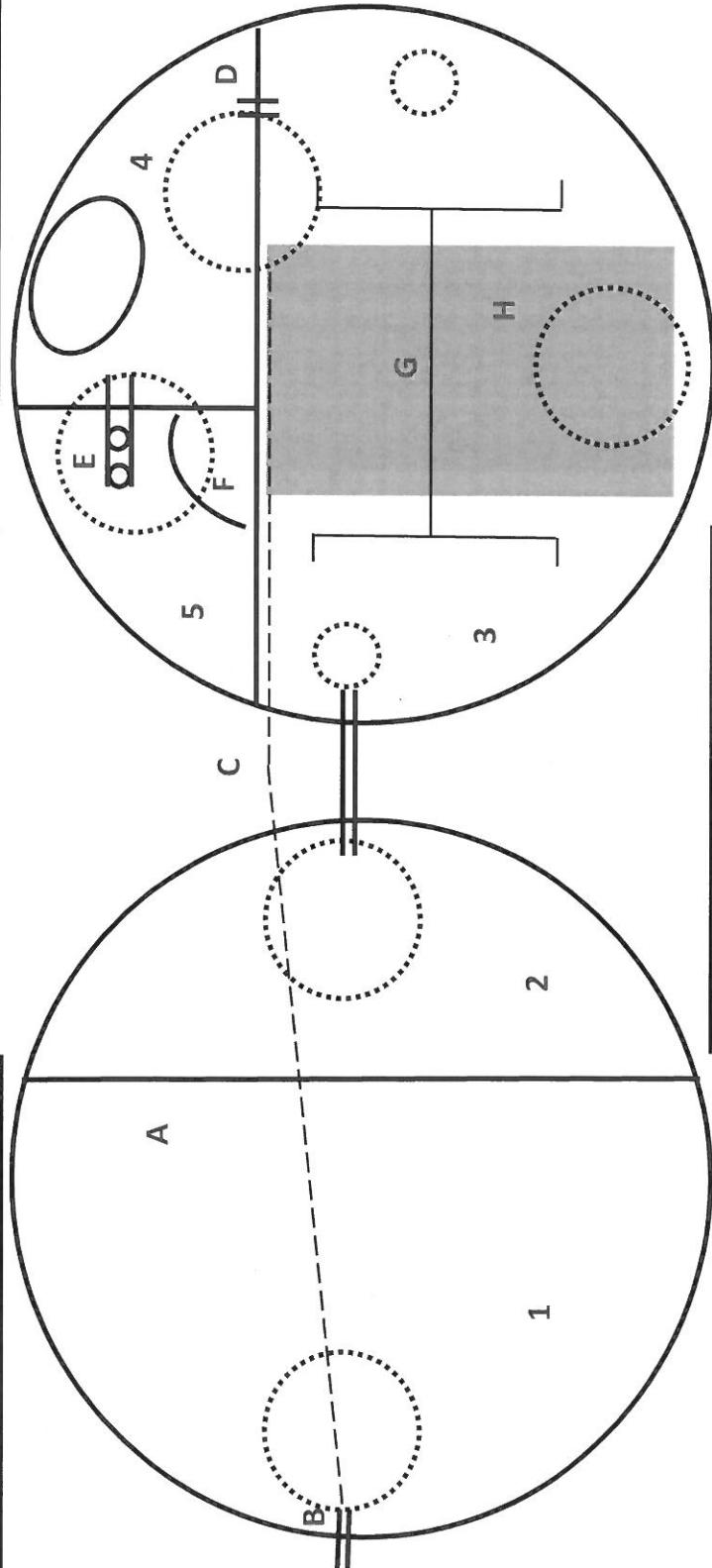
MODEL	CT20 TWO TANK SYSTEM Suitable to deal with WC's and all wastewater on premises for up to 20 persons, i.e. up to 3,500 litres per day.
SEPTIC TANK	7100 litre capacity (including baffle volume) reinforced concrete tank baffles 2:1 manufactured by Highland Concrete Tanks AS/NZS 1546.1:2008
COLLECTION WELL	7100 litre capacity reinforced concrete tank - 3000 litre aerobic chamber one 1275 litre aerobic chamber two 1275 litre aerobic chamber three 433 litre settling chamber 591 litre combined settling, disinfection & pump chamber HCT Australian Standards AS/NZS 1546.1:2008
BAFFLES	Steel fibre or mesh reinforced concrete baffles. Fixed in place with concrete mix and/or two part mega epoxy. Manufactured by Highland Concrete Tanks. Primary tank - single baffle 2:1. Treatment tank - * baffle 1 - main baffle to lid. * insert - 230mm above water level. - partitions installed to create settling & disinfection pump chambers. - base tapered to accommodate sludge returns.
LIDS	Primary tank lid constructed of 80mm thick reinforced concrete. 2530mm diameter with 2 x manhole openings and over inlet & outlet. Treatment tank lid constructed of 80mm thick reinforced concrete. 2530mm diameter with 3 manholes and lids.
AEROBIC CHAMBER 1	First treatment chamber using aerobic bacteria, containing one media pack and two air diffusers.
AEROBIC CHAMBER 2	Second treatment chamber using aerobic bacteria, containing one media pack and two air diffusers.
AEROBIC CHAMBER 3	Third treatment chamber using aerobic bacteria, containing one media pack and two air diffusers.
SETTLING CHAMBER	Solids settle to bottom of chamber to be picked up by venturi operated sludge return and returned to primary inlet of septic tank. Scum skimmer to return floatable matter to aerobic chamber one.
CHLORINATOR	Effluent flows through 100mm sewer pipe at a controlled rate, where the water passes through the chlorine inside the three to five chlorinator tubes, through flow slots, controlled by end cap for disinfection strength. The chlorinator is situated above the water level of the disinfection chamber. Trichloroisocyanuric acid is the disinfectant agent used, with 20 tablets in each tube, to be regulated by service technician.

DISINFECTION CHAMBER	Disinfection & pump chamber allows a retention time of greater than 30 minutes where chlorine destroys any final bacteria not previously removed.
PUMP CHAMBER	Treated effluent is contained until water levels rise and activate irrigation pump for automatic disposal onto irrigation area.
AIR LINES	15mm Class 9 Pressure Pipe PVC connecting lines between air diffusers, situated at four points at bottom of tank, controlled by 15mm ball valve taps.
DIFFUSERS	20mm x 150mm nylon micro air diffusers, to diffuse air into aerobic chambers one and two.
SLUDGE RETURN	25mm PVC SWV pipe situated in sediment chamber.
SCUM RETURN	20mm PVC pipe situated in sediment chamber.
MEDIA	4 packs of BTM200 Code 60022IR Bio Tube .50 cubic metre with total surface area of 180 square metres, to contain bacteria growth in both aerobic chambers.
MEDIA FIXINGS	Aluminium brackets and megapoxy. 40mm pipe work for legs to contain media pack in place, to provide free flow of air diffused water.
BRACKETS	Plastic brackets and non-corrosive steel pins to hold pipe work in place.
FLOAT SWITCH	15mm pipe fixed in pump chamber to activate pressure switch when water level is high.
CONCRETE COVER BOX	Situated on top of tank to house blower and electrical control panel.
ELECTRICAL CONTROL PANEL	Mounted inside concrete box on top of tank by electrician, to provide electrical outlet for irrigation pump and air blower.
ALARM PANEL	Mounted in house by electrician in visible location. Provides audible and visible indication of electrical, blower or pump failure. With 24 hour reset muting device.
AIR BLOWER	Hiblow HP-100 air pump producing a nominal 100 litres air per minute. Located in concrete box on top of tank.
IRRIGATION PUMP	10 to 35 metre head submersible irrigation pump with automatic pump control. 80 to 120 litre variable water flow cycle dependent on flow adjustment. Located in pump chamber.

MODEL CT20	
AERATED WASTEWATER TREATMENT SYSTEM	
SUITABLE TO DEAL WITH WC'S AND ALL WASTE	
UP TO 3,500 LITRES PER DAY	
Ultra Clear Wastewater Treatment Systems	
ABN 93 090 907 725	
PO BOX 1158, MITTAGONG NSW 2575	
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No.	Chamber Total Capacity	Description
1	4700 litres	Primary Chamber 1
2	2400 litres	Primary Chamber 2
3	4800 litres	Aerobic Chamber
4	1500 litres	Settling Chamber
5	700 litres	Disinfection Pump Chamber

No.	Description Parts	No.	Description Parts
A	Baffle	E	Chlorinator
B	Inlet Square	F	Pump Ledge and Pump
C	Sludge Return Pipe	G	Air Diffuser Line
D	Flow Pipe Aeration	H	Media Pack



All internal and sundries supplied and installed by
Ultra Clear Wastewater Treatment Systems
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COLLECTION WELLS manufactured by **Highland Concrete Tanks**
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