AUSTIN bluewater

Engineering the future of wastewater

Aerated Wastewater Treatment Systems (AWTS)

Technical Specifications

ABS2000 • ABS2500 • ABS3000

Version 4

ADVANCED AERATED TREATMENT SYSTEMS

Compliance: AS/NZS 1547:2012

AS/NZS 1546.3:2008

Company Profile & Values

Austin Bluewater is a proven leader with over 30 years hands-on experience designing and manufacturing waste water treatment and septic systems.

Austin Bluewater Environmental Concepts Limited is a leading manufacturer of specialised wastewater products including treatment systems, septic tanks, water storage tanks, pump stations, grease traps and oil & grit interceptors. Our company's founder, the late Lew Austin, was the innovator of Aerobic Wastewater Treatment Systems in New Zealand and the Austin family still plays an active role in the direction and supervision of the business.

As a business we actively seek to develop, improve and refine all aspects of our products and our manufacturing processes. Our respect and care for the environment is our motivation to continue to develop and enhance the treatment of wastewater.

System Principles

Austin Bluewater wastewater treatment systems are designed and manufactured with care and foresight. The quality durable materials and components used in the manufacturing of the treatment plants are an indication of the commitment to sustainability and performance of these systems.

The treatment plants are based on the tried and true SAFE system – Submerged Aeration Filtered Effluent.

A filter medium product called Bio-Blok is used to provide vast surface area allowing a biological film to grow on its surface. This film is made up of healthy active aerobic bacteria, fed by diffused oxygen (by way of air) which is pumped through the enriched effluent multiplying the bacterial content. This process breaks down the effluent and assists with the dentrification process plus the removal of suspended solids.

This process combined with thorough filtration and clarification, results in refined, clear effluent which is pure enough to be discharged to the soil.

Warranty

Austin Bluewater offers a 10 year limited manufacturer's warranty on all concrete manufactured product and a 2 year warranty of mechanical parts and electrical components.

Please refer to our full warranty statement for more details.

Austin Bluewater Limited's quality management system is certified to ISO9001:2016 and is regularly reviewed for compliance by Telarc, New Zealand's most recognised and longest established certification body.

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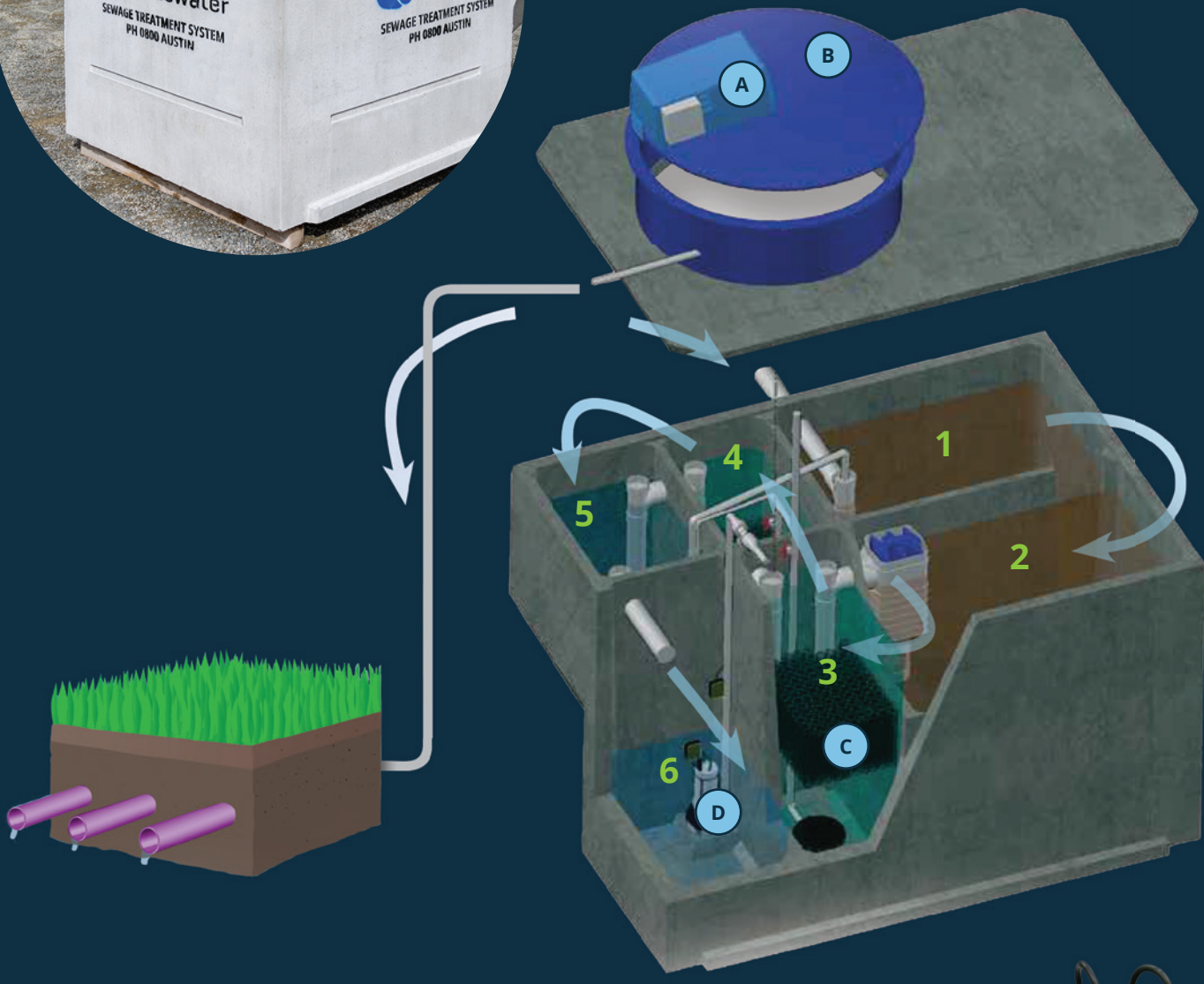
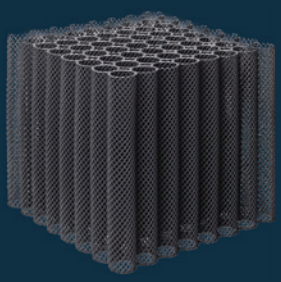


A Electrical Controls

B Blower

C Bio-Blok Media



D Pump

ABS2000, ABS2500 & ABS3000

System Construction

Conforming to AS/NZS 1546.3:2008, Austin Bluewater concrete treatment tanks and lids are manufactured using 50mpa concrete strength with 665 reinforcing mesh for strength and durability. The lid is separate, recessed and sealed to the tank. All internal walls are integral as the tank is of monolithic poured construction (in one piece). The product is externally vibrated during the pouring process (note no fibre is used in our process). This manufacturing process eliminates any leakage caused by any movement of interim walls, common in other processes.

Concrete

Austin Bluewater's concrete is a certified structural ready mixed concrete design complying to NZS3104, relating to special grades, plant and testing.

The final result is 50mpa strength at 28 days curing. Each tank is steam cured in order to gain early structural strength integrity.

Steel Mesh

Steel reinforcement mesh consists of 665 mesh centrally located in accordance with AS/NZS 1546 and is supported with plastic bar chairs. All mesh overlaps at a rate of 2x per mesh pitch.

System Componentry Piston Air Pump

As standard a Medo piston air pump or equivalent is incorporated into the system. Features of the superior piston air blower includes low noise, easy maintenance, high performance and longer life than comparable diaphragm blowers.

Model	*Nominal Capacity*	*Power Consumption*	*Rated Pressure*	*Operating Pressure*
ABS2000 LA-80B	80L/Min	86w 50Hz	0.15 bar	0.05 - 0.2 bar
ABS2500 LA-80B	80L/Min	86w 50Hz	0.15 bar	0.05 - 0.2 bar
ABS3000 LA-120A	120L/Min	130w 50Hz	0.18 bar	0.05 - 0.25 bar

Irrigation Pump

As standard for dripline applications (ABS2000H) the system is supplied with an Austin Bluewater AB42A 550W 32m head submersible pump.

As standard for LPED applications (ABS2000L) the system is supplied with an Austin Bluewater BAS400 375W max flow 200 l/min, max head 8.5m submersible pump.

Bespoke pump fitments are available on request for difficult sites.

ABS 3000 typically uses a Davey D53 A/B .

Control Panel

The control panel is designed to perform the following duties:

- Air fault LED – If air pressure switch isn't held for 5 seconds, alarm will activate.
- High water fault LED – If high water alarm float is up, alarm will activate.
- Check filter LED – If irrigation pump is running for greater than 20 mins, alarm will activate.
- Automatic holiday mode – If irrigation pump hasn't discharged for 48 hours, controller will automatically enter holiday mode. Once pump runs again, holiday mode is deactivated.
- System incorporates field isolator switch.

Polylok Bacteriological Effluent Filter

The Polylok bacteriological filters are unique with the largest surface area in their class. The unit has an automatic shut-off ball arrangement to prevent any over-flow effluent leaving the chamber during removal and cleaning.

System Disposal/Irrigation

Due to the high quality of treated effluent, various types of disposal systems are available depending on engineer specifications or council requirements.

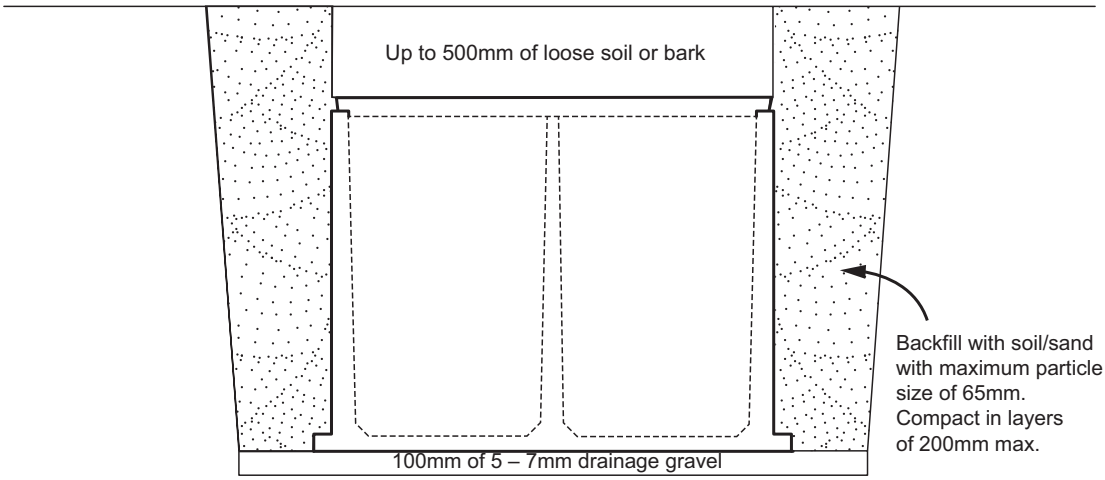
Description:

If dripline is the preferred option for the final disposal, it will be a purpose built low volume dripline, 16mm diameter self-compensating emitters operating between 50-350 kPa (8-50 PSI) at a constant flow.

To complete the system a 130 Micron disc type filter is supplied for final filtration. The system is supplied with separate anti-syphon valves, vacuum breakers and final flushing valves and each system is engineer designed with consideration to the following:

1. Hydraulic flow design
2. Site elevation and typography
3. Soil percolation
4. Ground water separation
5. Care for the Environment
6. Consideration of the requirements from local authorities

Concrete Tank Installation



ABS, B52 & 33 and Pump Chamber series tanks.
Refer installation guide for details.

Excavation Instructions

Any excavation must comply with all relevant legal acts, codes and standards including Department of Labour approved code of practice for safety.

1. Check with your local council authority for requirements on tank location and drainage system for the site.
2. Following excavation dimensions of hole to suit both tank and soil types cover the base of the hole with 100mm of 5-7 drainage gravel, ensuring the base is finished perfectly level. DO NOT leave exposed rocks as these may damage the tank and void the warranty. DO NOT use sand.
3. Backfill excavation with soil / sand maximum particle size of 65mm DO NOT use ROCKS compact in layers of 200 mm max.
4. To prevent flotation, fill tank to at least 70% of capacity. Austin Bluewater will not take responsibility for floating tanks.
5. The excavated ground surface for the tank shall have an ultimate bearing capacity of 200kPa and all organic material shall be removed. Tanks shall be placed on a bed of compacted 5–7 mm drainage gravel 100mm thick to form a level surface. This base must extend an additional 1.0 metre further than the tank base all round. We recommend that the site is excavated a minimum of 200mm below existing ground level. To ensure the above conditions are met, a geotechnical consultant may be engaged to provide written sign off.

General Installation Notes

1. T20 tanks with a 100mm thick lid MUST be installed with the lid at ground level – NO SOIL COVER. If an HD lid is used the tank may be buried up to 500mm but only covered with light weight bark.
   For all other tanks the precast lid will support a maximum 500 kg point load (pedestrian loading only) or if buried, 500mm depth of loose soil cover or bark . A ‘no go zone’ around the perimeter of the tanks for 2 metres must be identified to stop intrusion of vehicles, stacked materials and other heavy objects.
2. Surface storm water should be diverted away from lid to prevent water ingress.
3. Ensure the drain field is not in trafficked areas, and do not allow stock to graze on the this area.
4. TO ENABLE SERVICING OF ABS TREATMENT SYSTEMS, THE LID MUST BE ABLE TO BE LIFTED OFF AND PLACED TO ONE SIDE. TO ALLOW THIS, THE ELECTRICAL CONNECTION MUST HAVE A FLEXIBLE SECTION WITH SPARE CABLING.
5. The ABS turret must extend a minimum of 100mm above finished ground level.

PLEASE NOTE: Failure to comply with these instructions will invalidate the warranty

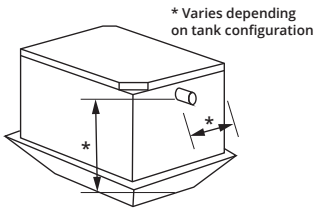
Standard Tank Dimensions and Details

Custom tanks may vary from details shown – refer to specific drawing.

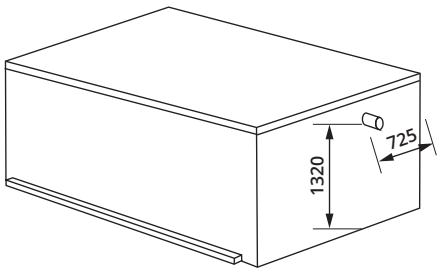
Refer to website resources or Austin Bluewater drawings for tank layouts, position of lifting points and positions of inlets, as these vary on each tank type.

Tank Type	*Length*	*Width (incl anti float nibs if included)*	*Overall Height (from base of tank to top of lid)*	*Invert (from base of tank)*	*Weight of Tank (t) (including standard lid)*	*Lifting Points (number & type)*
B52 and 65 Series Tanks	3000	1932	1560	1320	5.70	4 x 2.5 Reid anchors
ABS Series Treatment Tank	3000	2232	2380 to top of first turret	1630	8.20	4 x 2.5 Reid anchors
1,500L and 15 Series Tanks	1500	1200	1639	Varies (refer drawing)	1.80	2 x 2.5 Reid anchors
B33 and 33 Series Tanks	2750	1225	1560	1320	3.60	4 x 2.5 Reid anchors
HT10 and 10 Series Tanks	2450 diameter		2380	2000	5.40	4 x 2.5 Reid anchors
HT20 and 20 Series Tanks	3075 diameter		3020	n/a	9.60	4 x 5.0 Reid anchors

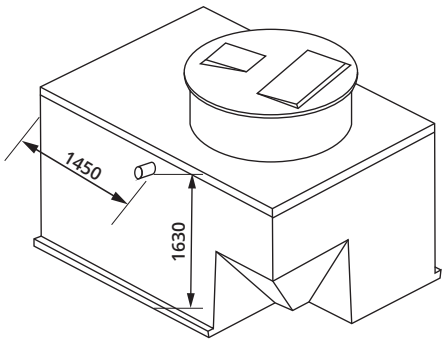
PLEASE NOTE : When handling any tank with more than 2 lifters, an equalising beam must be used to ensure all lifters are equally loaded.



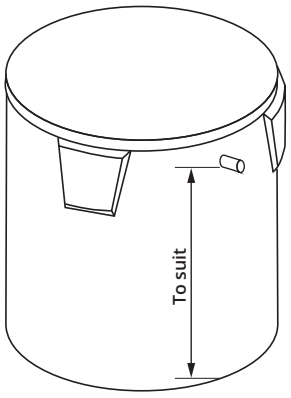
1,500L and 15 Series Tanks



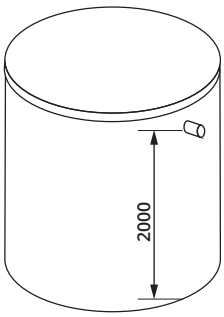
B52 and 65 Series Tanks



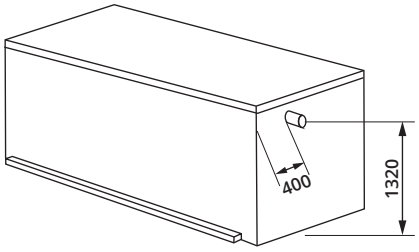
ABS Series Invert Position



HT20 and 20 Series Tanks 20,000L



HT10 and 10 Series Tanks 10,000L



B33 and 33 Series Tanks

ABS2000

System Engineering

Efficient Wastewater Technology:
The Austin Bluewater residential treatment system is divided into 6 individual chambers.

Chamber 1
All wastewater and solids are delivered from the dwelling into this anaerobic chamber.

Chamber 2
Secondary anaerobic pre-treatment chamber allowing for further breakdown of organic and inorganic waste.

Chamber 3 & 4
Dual aeration chambers. This unique design incorporates two identical chambers packed with Bio-Blok filter medium. Air diffusers pump oxygen rich air through the effluent allowing the aerobic bacteria to thrive. This process lowers nitrogen levels and assists with the settling out of suspended solids.

Chamber 5
The clarification chamber is designed with a 60 degree slope allowing settled particles to slide down the walls and be collected by the sludge syphon back to chamber 1. This results in a significantly cleaner, clearer effluent with further reduced content of nitrogen.

Chamber 6
The pump chamber is fitted with an automatic irrigation pump specifically designed to suit the discharge requirements and controlled by a self-diagnostic control panel which also monitors the air pumped through the diffusers in chamber 3 & 4. The controller is fitted with a pump monitoring facility which reduces the blower operation when it senses inactivity after a period of 48 hours. This effectively reduces power consumption when appropriate.

Additional features
The treated effluent discharged from chamber 6, flows through an irrigation filter, effectively removing any harmful solid particles that may have got through the system. This provides final water polishing before it is applied to the soil through dripline or sand bed.

Technical Specifications

Working Volumes

Primary Pre-Treatment Chamber	2.03m^3
Secondary Pre-Treatment Chamber	2.03m^3
Aeration Chamber 1	.72m^3
Aeration Chamber 2	.70m^3
Clarifying Chamber	.58m^3
Pump Out Chamber (gross)	1.03m^3
Total Holding Capacity (gross)	8.13m^3
Working Tank Volume	6.40m^3
Reserve Capacity	1.73m^3

System Dimensions

Overall Length	3 metres
Overall Width incl. Foot	2.2 metres
Overall Height	2.76 metres
Weight	8.2 tonnes
Invert Level from bottom of tank	1.63 metres

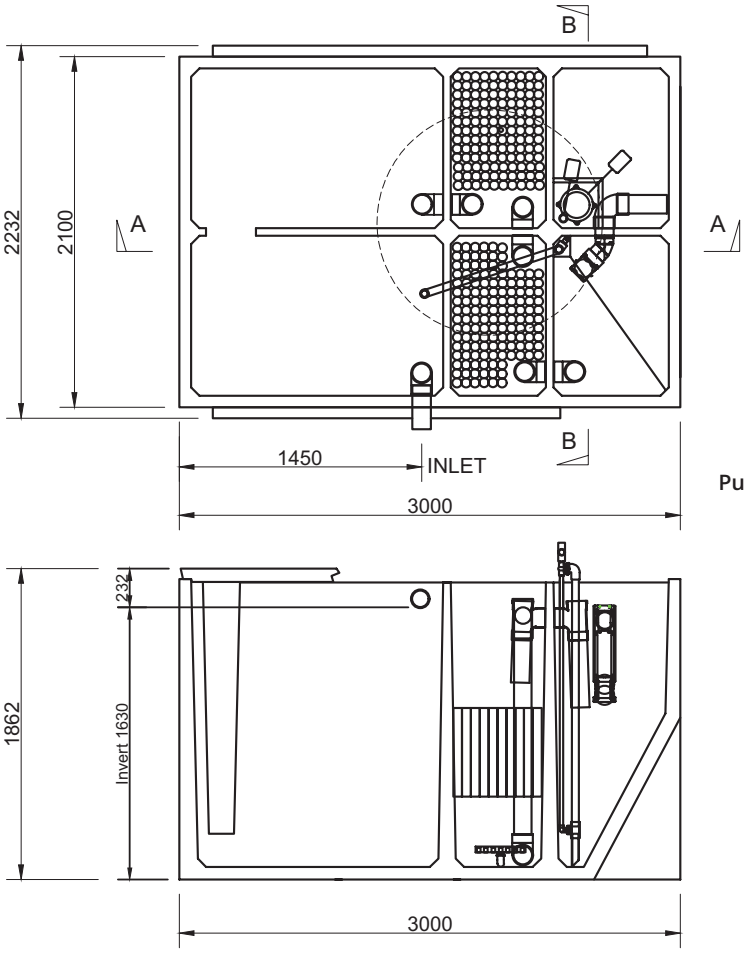
Certification

Manufactured to AS/NZS 1546.3 and 1547 standards.

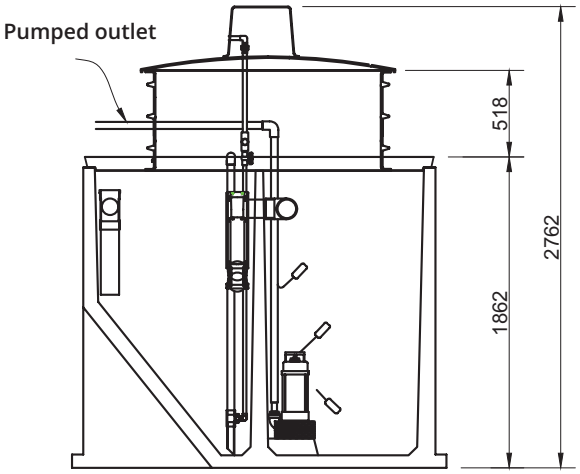
Maximum rates capacity = 1600L per day – up to 2000L intermittent use.

System Performance Details

1. Performance Details
   - BOD after 5 days < 5mg/l
   - Suspended Solids (TSS) < 5mg/l
   - Total Nitrogen < 30mg/l
   - Faecal Coliforms <10,000/100ml
2. Refer to On-site Effluent Treatment National Testing Programme (OSET NTP) for full testing results.



Section A-A



Section B-B

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm.

Tank Weight - including 80mm lid = 8.2 tonne

Lifting - 4x Swift Lift 2.5 t eye anchors. When handling an equalising beam must be used to ensure equal loading to all lifting anchors.

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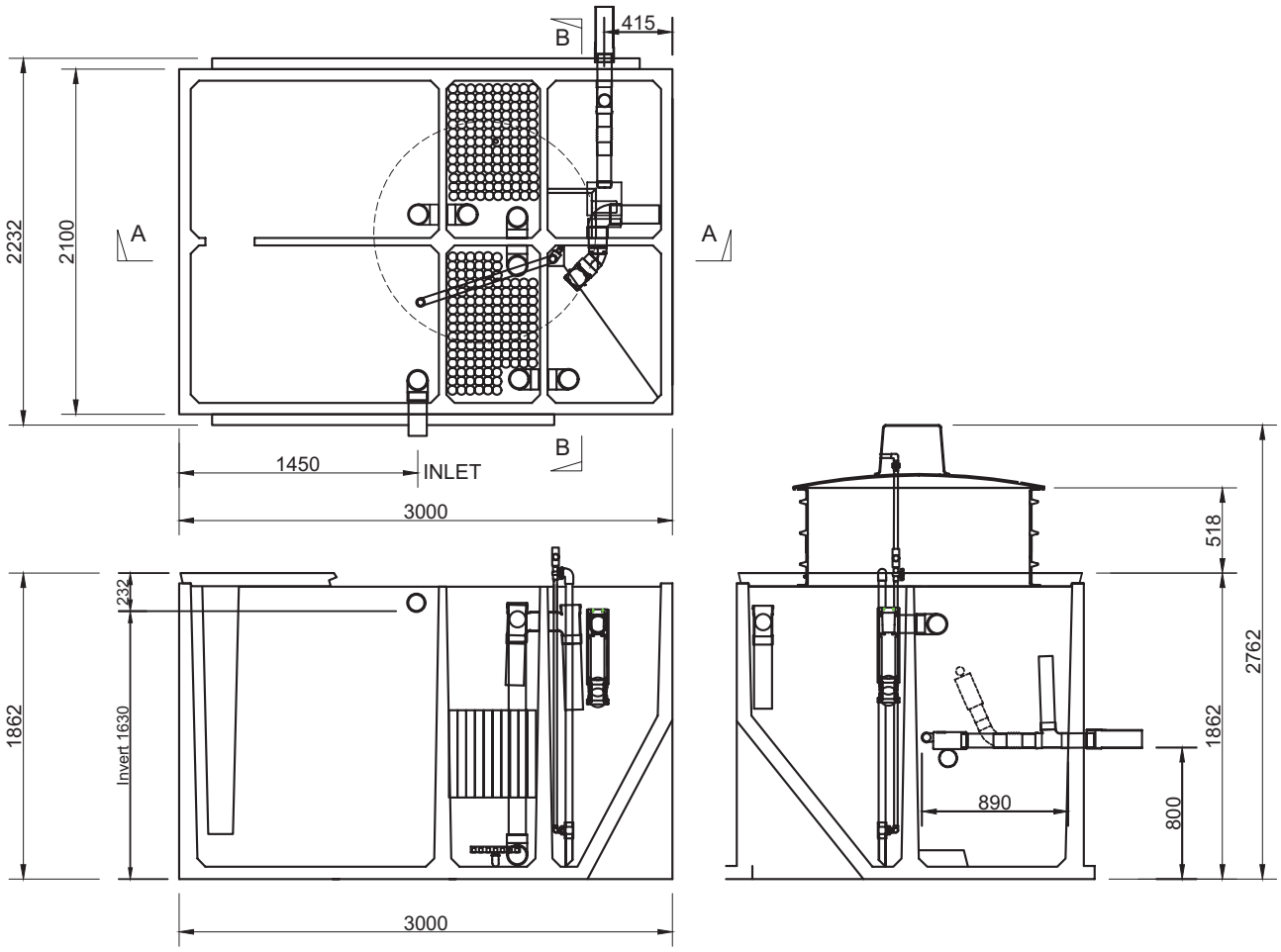
Christchurch Head Office
20 Illinois Drive, Rolleston
0800 AUSTIN (0800 287 846)
www.austinbluewater.co.nz

ABS2000 Treatment System

Rated to continuous flow of 1600 litres per day. Up to 2000 litres per day for intermittent use.

Product code:	Scale: NTS
ABS2000	Drawn: GN
	Date: 07/17
	Rev: Sep 2020



Section A-A

Section B-B

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm

Tank Weight - including 80mm lid = 8.2 tonne

Lifting - 4x Swift Lift 2.5 t eye anchors. When handling an equalising beam must be used to ensure equal loading to all lifting anchors

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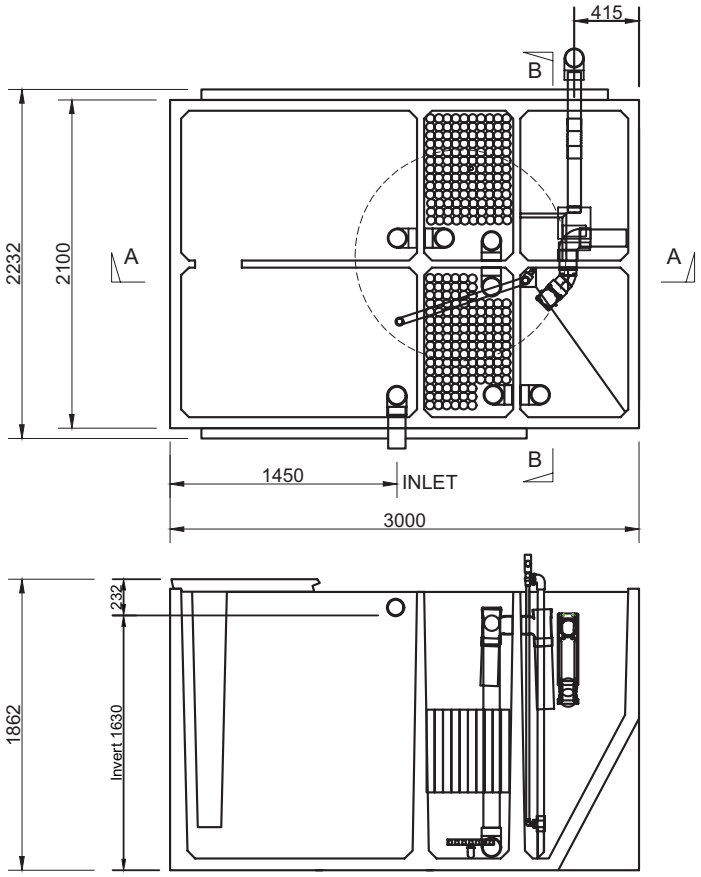
ABS2000 FLOUT Treatment System

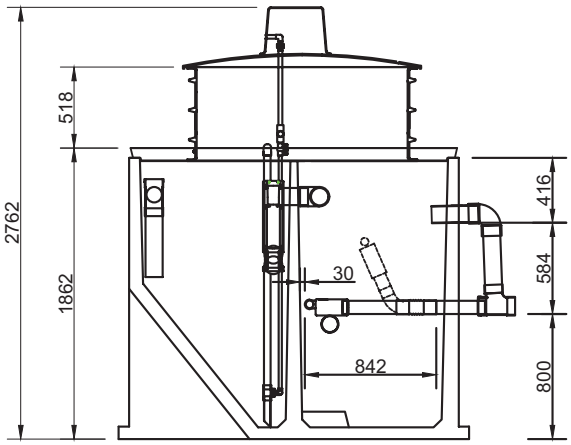
Rated to continuous flow of 1600 litres per day. Up to 2000 litres per day for intermittent use.

Product code:
ABS2000 Flout
136 Litres/dose

Scale: NTS	
Drawn: GN	
Date: 07/17	
Rev: Sep 2020	



Section A-A



Section B-B

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm.

Tank Weight - including 80mm lid = 8.2 tonne.

Lifting - 4x Swift Lift 2.5 t eye anchors. When handling an equalising beam must be used to ensure equal loading to all lifting anchors.

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ABS2000 ULTRA FLOUT Treatment System

Rated to continuous flow of 1600 litres per day. Up to 2000 litres per day for intermittent use.

Product code:	Scale: NTS
ABS2000 Ultra Flout	Drawn: GN
	Date: 07/17
	Rev: Sep 2020

On-site Effluent Treatment National Testing Programme (OSET NTP)

PERFORMANCE CERTIFICATE
Austin Bluewater AB2K
OSET NTP Trial 12, 2016/2017

System Tested
The Austin Bluewater AB2K submerged aerated filter wastewater treatment system participated in Trial 12 of the On-site Effluent Treatment National Testing Programme (OSET NTP). This commenced on 24 October 2016 and ran over nine months (39 weeks) during which the treated effluent discharge was monitored generally every six days. The test flow rate was 1,000 L/day to represent the daily domestic wastewater flow from a 3-bedroom dwelling with 5 to 6 occupants. Note that the manufacturers advised design capacity for this plant is 1600 L/day.

Test Flow Rate
The Austin Bluewater AB2K submerged aerated filter wastewater treatment system was tested at 1,000 litres/day (equivalent to servicing a 3-bedroom 5 to 6 person household) over an 8 month (35 week) period October 2016 to June 2017 followed by a 1 month (4 week) high load effects test involving 5 days at 2,000 litres/day then 1,000 litres/day over the following 3 weeks.

Testing and Evaluation Procedures
A total of 39 treated effluent samples of organic matter (BOD_5) and suspended solids (TSS) at generally six day intervals during weeks 9 to 35 were tested and evaluated against the secondary effluent quality requirements of the joint Australia/NZ standard AS/NZS 1547:2012.
A total of 16 treated effluent samples of organic matter (BOD_5), total suspended solids (TSS), total nitrogen (TN), ammonia nitrogen (NH_4-N), total phosphorus (TP) and faecal coliforms (FC) at generally six day intervals during weeks 23 through 35 were tested and the results benchmarked and rated on their median values. In addition, the energy used by the treatment system was assessed on the mean of consumption levels over the 16 sample days.

General Performance
In terms of effluent quality the Austin Bluewater AB2K plant performed well overall, with very low and stable BOD and TSS results. Good nitrification was achieved throughout with very low levels of NH_4-N. Denitrification was initially moderate but it declined through the test with increasing TOXN and TN and available alkalinity reduced. The plant handled the high flow test well with respect to BOD and TSS but had a sharp increase in NH_4 with no significant improvement over the following two weeks. Bacteria removal was good throughout for a secondary treatment plant without disinfection producing effluent with a median of 7600 cfu/100 ml (ie a 3.2log reduction).

The plants power usage of 1.75 kWh/day was typical for a package secondary treatment plant.

Apart an unfortunate incident when the manufacturer unfortunately left the power 'off' after the plant was insulated the plant operated without attendance throughout the trial.

Service requirements are 6 monthly where disposal is to dripline.

AS/NZS 1547:2012 Secondary Effluent Quality Requirements
These requirements are that 90% of all test samples must achieve a BOD_5 of $\leq$ 20 g/m^3 and TSS of $\leq$ 30 g/m^3 with no one result for BOD_5 being >30 g/m^3 and no one result for TSS being >45 g/m^3. The Austin Bluewater AB2K plant had **97% of BOD_5** results and **97% of TSS** results within the **Secondary Effluent Quality** requirements for both the 90%ile and maximum limits above. **The Austin Bluewater AB2K plant thus achieved AS/NZS 1547 secondary effluent quality performance requirements** when operated at 1,000 L/day, which is only 62% of the manufacturers advised design capacity of 1600 L/day.

Benchmark Ratings
The Austin Bluewater AB2K system achieved the following effluent quality ratings over the sixteen benchmarking results in weeks 20 to 35 (when operated at 1,000 L/day or 62% of the advised plants design capacity):

On-site Effluent Treatment National Testing Programme,
c/- Technical Manager 10 Tide Close, Mount Wellington, AUCKLAND 2013
Mob: 021 626 772 E-mail: ray@hedgland.co.nz

On-site Effluent Treatment National Testing Programme (OSET NTP)

Indicator Parameters	Median	Std Dev	Rating	Rating System				
				A+	*A*	*B*	*C*	*D*
BOD (mg/L)	*2*	*0*	A+	*<5*	*<10*	*<20*	*<30*	*≥30*
TSS (mg/L)	*1*	*1*	A+	*<5*	*<10*	*<20*	*<30*	*≥30*
Total Nitrogen (mg/L)	*27.6*	*6*	C	*<5*	*<15*	*<25*	*<30*	*≥30*
NH_4- Nitrogen (mg/L)	*0.04*	*2*	A+	*<1*	*<5*	*<10*	*<20*	*≥20*
Total phosphorus (mg/L)	*2.4*	*0.4*	B	*<1*	*<2*	*<5*	*<7*	*≥7*
Faecal Coliforms (cfu/100mL)	*7,600*	*6,900*	B	*<10*	*<200*	*<10,000*	*<100,000*	*≥100,000*
Energy (kWh/d) (mean)	*1.75*	*0.3*	B	*0*	*<1*	*<2*	*<5*	*≥5*

This Certificate of Performance applies to an Austin Bluewater AB2K wastewater treatment plant with a rated capacity of 1600 L/day, constructed from a single precast concrete tank comprising 6 chambers: 2 Primary (1970L each), 2 Aeration (700L each), Clarifier (540L), Pump Chamber (850L), and fitted with 6 blocks of Bioblok 150 growth media in the aeration tanks plus an 80Lpm air blower, and having 1400L emergency storage capacity.

This certificate is valid for 5 years from 20 December 2017. For the full OSET NTP report on the performance of the Austin Bluewater AB2K wastewater treatment plant contact Lew Austin,
Mobile 021 356 736 or Email: lew@austinbluewater.co.nz

Authorised By:

Ray Hedgland, Technical Manager, OSET NTP
23 March 2018

On-site Effluent Treatment National Testing Programme,
c/- Technical Manager 10 Tide Close, Mount Wellington, AUCKLAND 2013
Mob: 021 626 772 E-mail: ray@hedgland.co.nz

ABS2500

System Engineering

Efficient Wastewater Technology:
The Austin Bluewater residential treatment system is divided into 7 individual chambers.

Chamber 1
All wastewater and solids are delivered from the dwelling into this anaerobic chamber.

Chambers 2 & 3
Secondary anaerobic pre-treatment chambers.

Chamber 4 & 5
Dual aeration chambers. This unique design incorporates two identical chambers packed with Bio-Blok filter medium. Air diffusers pump oxygen rich air through the effluent allowing the aerobic bacteria to thrive. This process lowers nitrogen levels and assists with the settling out of suspended solids.

Chamber 6
The clarification chamber is designed with a 60 degree slope allowing settled particles to slide down the walls and be collected by the sludge syphon back to chamber 1. This results in a significantly cleaner, clearer effluent with further reduced content of nitrogen.

Chamber 7
The pump chamber is fitted with an automatic irrigation pump specifically designed to suit the discharge requirements and controlled by a self-diagnostic control panel which also monitors the air pumped through the diffusers in chamber 4 & 5. The controller is fitted with a pump monitoring facility which reduces the blower operation when it senses inactivity after a period of 48 hours. This effectively reduces power consumption when appropriate.

Additional features
The treated effluent discharged from chamber 7, flows through an irrigation filter, effectively removing any harmful solid particles that may have got through the system. This provides final water polishing before it is applied to the soil through dripline or sand bed.

Technical Specifications

Working Volumes

Primary Pre-Treatment Chamber	2.81m^3
Secondary Pre-Treatment Chambers	4.06m^3
Aeration Chambers	1.42m^3
Clarifying Chamber	.58m^3
Pump Out Chamber (gross)	1.03m^3
Total Holding Capacity (gross)	11.41m^3
Working Tank Volume	9.21m^3
Reserve Capacity	2.2m^3

System Dimensions - Tank 1

Overall Length	2.75 metres
Overall Width incl. Foot	1.2 metres
Overall Height	2.2 metres
Weight	3.7 tonnes
Invert Level from bottom of tank	1.32 metres

System Dimensions - Tank 2

Overall Length	3 metres
Overall Width incl. Foot	2.2 metres
Overall Height	2.76 metres
Weight	8.2 tonnes
Invert Level from bottom of tank	1.63 metres

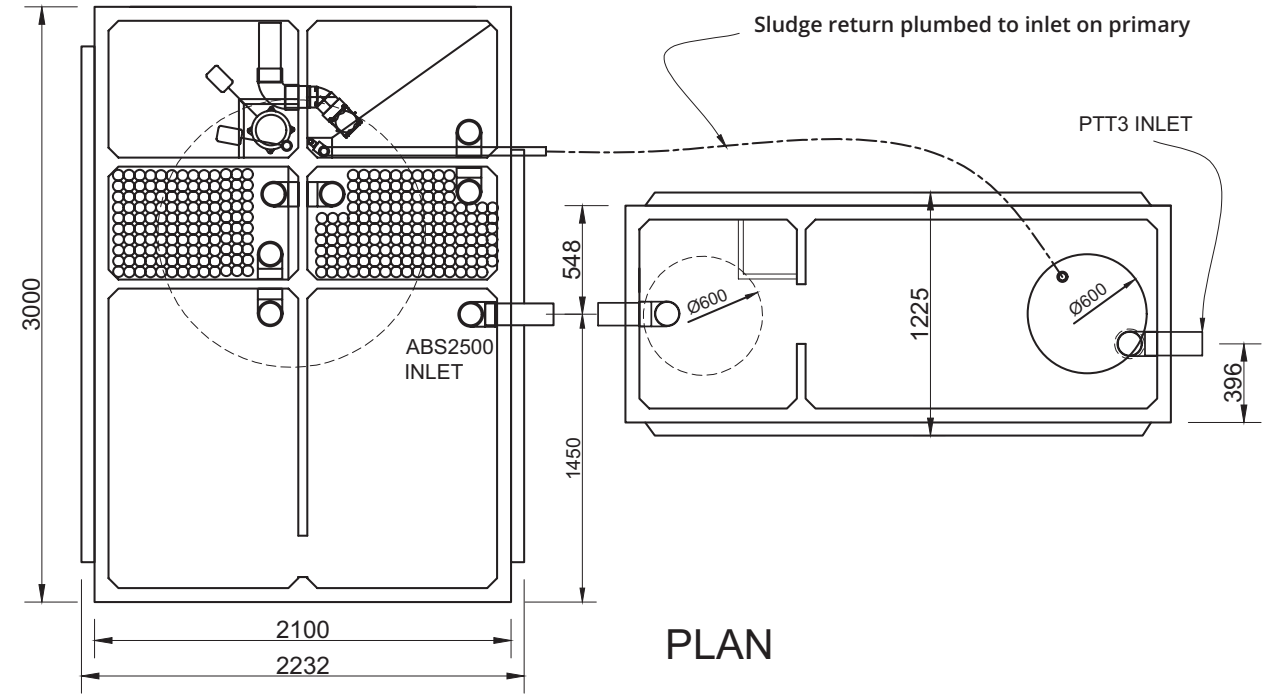
Certification

Manufactured to AS/NZS 1546.3 and 1547 standards.

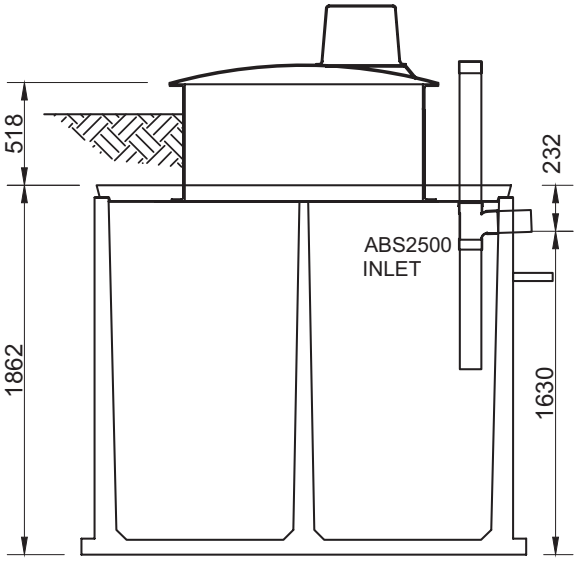
Maximum rates capacity = 2000L per day – up to 2500L intermittent use.

System Performance Details

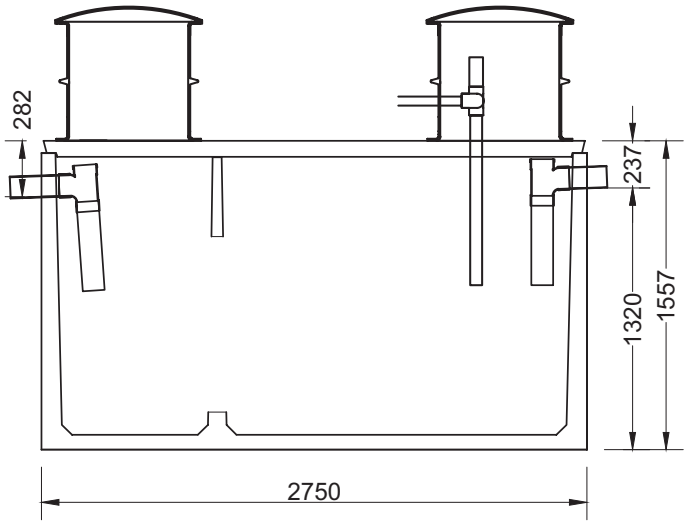
1. Performance Details
   - BOD after 5 days 5mg/l
   - Suspended Solids (TSS) 5mg/l
   - Total Nitrogen 30mg/l
   - Faecal Coliforms <10,000/100ml
2. Refer to On-site Effluent Treatment National Testing Programme (OSET NTP) for full testing results. Incrementally modelled on ABS2000.



PLAN



ABS3000
Dimensions as per ABS2000



PTT3
same dimensions as ST33

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm

TANK Weight - including 80 mm lid = 8.2 tonne

Lifting - 4 number Reid 2.5 t eye anchors When handling an equalising beam must be used to ensure equal loading to all lifting anchors.

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm

TANK Weight - including 80 mm lid = 3.7 tonne

Lifting - 4 number Reid 2.5 t eye anchors When handling an equalising beam must be used to ensure equal loading to all lifting anchors.

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Engineering the future of wastewater

Christchurch Head Office
20 Illinois Drive, Rolleston
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www.austinbluewater.co.nz

ABS2500

Rated to continuous flow of 2000 litres per day. Up to 2500 litres per day for intermittent use.

Product code:	Scale: NTS
ABS2500	Drawn: GN
	Date: 07/17
	Rev: Mar 2023

ABS3000

System Engineering

Efficient Wastewater Technology: The Austin Bluewater residential treatment system is divided into 9 individual chambers.

Chamber 1
All wastewater and solids are delivered from the dwelling into this anaerobic chamber.

Chamber 2
Secondary anaerobic pre-treatment chamber.

Chamber 3, 4 & 5
Triple aeration chambers. This unique design incorporates three chambers packed with Bio-Blok filter medium. Air diffusers pump oxygen rich air through the effluent allowing the aerobic bacteria to thrive. This process lowers nitrogen levels and assists with the settling out of suspended solids.

Chamber 6
The clarification chamber is designed with a 60 degree slope allowing settled particles to slide down the walls and be collected by the sludge syphon back to chamber 1.This results in a significantly cleaner, clearer effluent with further reduced content of nitrogen.

Chamber 7
The pump chamber is fitted with an automatic irrigation pump specifically designed to suit the discharge requirements and controlled by a self-diagnostic control panel which also monitors the air pumped through the diffusers in chambers 3, 4 & 5. The controller is fitted with a pump monitoring facility which reduces the blower operation when it senses inactivity after a period of 48 hours. This effectively reduces power consumption when appropriate.

Additional features
The treated effluent discharged from chamber 7, flows through an irrigation filter, effectively removing any harmful solid particles that may have got through the system. This provides final water polishing before it is applied to the soil through dripline or sand bed.

Technical Specifications

Working Volumes

Primary Pre-Treatment Chamber	5.05m^3
Secondary Pre-Treatment Chamber	2.03m^3
Aeration Chambers	3.45m^3
Clarifying Chamber	.58m^3
Pump Out Chamber (gross)	1.03m^3
Total Holding Capacity (gross)	14.53m^3
Working Tank Volume	11.43m^3
Reserve Capacity	3.1m^3

System Dimensions - Tank 1

Overall Length	3 metres
Overall Width incl. Foot	1.9 metres
Overall Height	2.2 metres
Weight	5.7 tonnes
Invert Level from bottom of tank	1.32 metres

System Dimensions - Tank 2

Overall Length	3 metres
Overall Width incl. Foot	2.2 metres
Overall Height	2.76 metres
Weight	8.2 tonnes
Invert Level from bottom of tank	1.63 metres

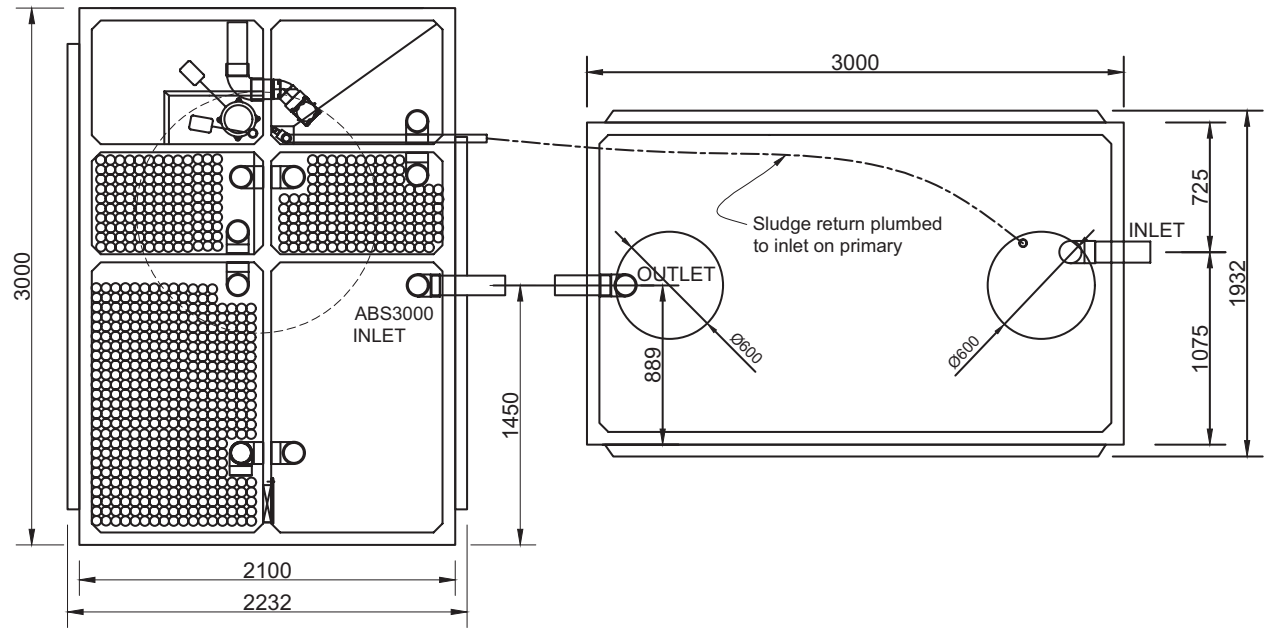
Certification

Manufactured to AS/NZS 1546.3 and 1547 standards.

Maximum rates capacity = 2,400L per day – up to 3,000L intermittent use.

System Performance Details

1. Performance Details
   - BOD after 5 days 5mg/l
   - Suspended Solids (TSS) 5mg/l
   - Total Nitrogen 30mg/l
   - Faecal Coliforms <10,000/100ml
2. Refer to On-site Effluent Treatment National Testing Programme (OSET NTP) for full testing results. Incrementally modelled on ABS2000.



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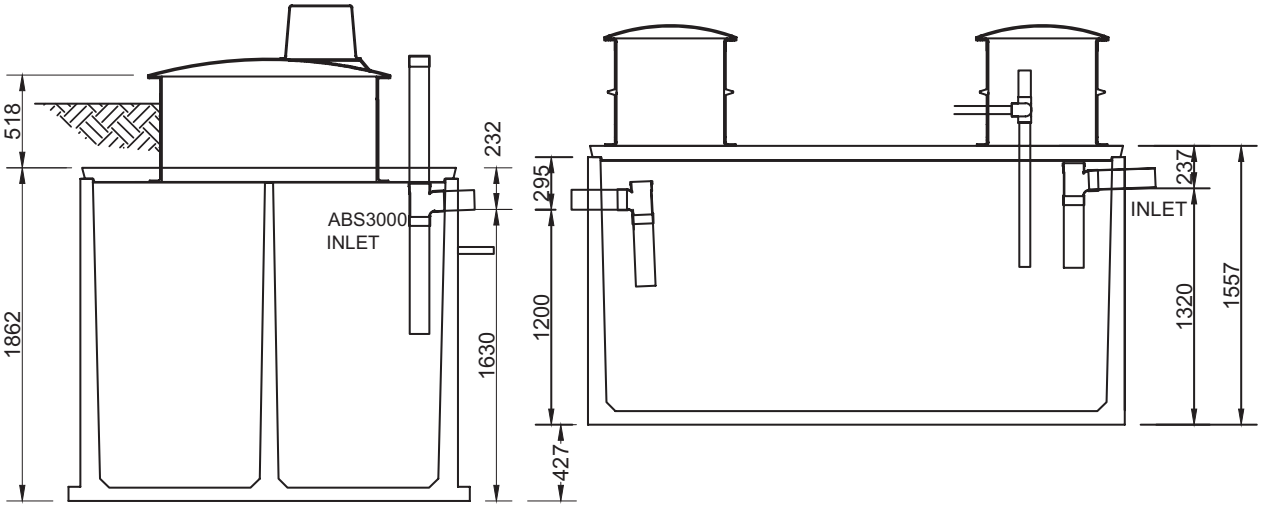

ABS3000
Same dimensions as per ABS2000

PTT65
same dimensions as B52

Lid thickness standard at 80mm. Recommended maximum loose soil cover depth - 400mm.

ABS3000 Treatment Tank Weight - including 80mm lid = 8.2 tonne

PTT65 Primary Tank Weight - including 80mm lid = 5.7 tonne

Lifting - 4x Swift Lift 2.5 t eye anchors. When handling an equalising beam must be used to ensure equal loading to all lifting anchors.

Rev	Date	Comments
A	05/25	For Approval

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ABS3000

Rated to continuous flow of 2400 litres per day. Up to 3000 litres per day for intermittent use.

Product code:	Scale: NTS
ABS3000	Drawn: GN
	Date: 05/25
	Rev: A

Notes


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