

Adventure Drive, Whitby Pressure Sewer Product Information



Pressure Sewer System Householder Information

ISO9001: 2008 Accreditation
Designed to comply with Australian / New Zealand Standards

Water Innovation Partners

—
T 0800 756 543
> aquatecenviro.co.nz

Pressure Sewer System Householder Information



Aquatec's Pressure Sewer Systems are one of the most economical and environmentally friendly sewerage systems on the market today.

Pressure Sewer Systems are used in a network of fully sealed sewer pipes, which are fed by a grinder pump located at each property. The pump grinds the solids present in the wastewater to "slurry", which is then pumped through a small diameter pipeline from the house to the main, and the main to the treatment facility

Your Pressure Sewer System



To order;

Contact Aquatec and quote Model Number: S/PSS-13989

Contact Person:
Michael Blackmore
mblackmore@aquatecenviro.co.nz
+64 21 953 612

Frequently Asked Questions

Q How much does it cost to operate?

A Each sewer unit uses a limited amount of power in its operation. Typically, power costs for sewer units are minimal - less than \$20 a year.

Q How loud is the pump?

A The pumps have been proven to omit minimal noise and their operation is not detectable to householders.

Q How long does it operate for each day?

A The pump operates for only 5-10 minutes per day.

Q What is the impact of power failure?

A The Aquatec unit will simply restart once the power is reconnected. The large holding tank provides ample storage during a power failure.

Q What happens if the householder goes on holiday?

A With an Aquatec unit, the choice is yours. You may turn off the power supply before leaving for vacation, or leave it on. The motor is fully submersible to Australian Standard IP68, which means that moisture cannot penetrate the pump when it is submerged in water.

Q Who installs my Pressure Sewer System?

A Any suitably qualified electrical and plumbing personnel would be more than capable of installing the pressure sewer system with out simple step by step installation manual

Q What maintenance is required?

A The Aquatec unit is extremely low maintenance and designed to 'set and forget'. There is no scheduled maintenance and the pump has a 20 year lifespan.

For a customised solution to suit your individual needs, contact Aquatec today.

CALL 0800 756 543
EMAIL info@aquatecenviro.co.nz



Aquatec Enduraplex Pressure Sewer System for Adventure Drive, Whitby

System Model: S/PSS/13989

Specifications

Pump Chamber

Injection moulded polyethylene 1.0m dia x 1.6M deep, 950 ltr
(Other sizes available on request)

Outlet

Material: 316 stainless steel
Size: 32mm BSP-M

Inlet

Moulded inlet stubs to ensure no leaks to the environment, all at maximum depth.

Cover

Child safe one bolt self venting cover, with pad lockable option

Mounting

Free standing pump with quick disconnect camlock.

Isolation Valve

Design: Full bore, Ball type
Material: 316 stainless steel
Size: 32mm

Lifting Rope

12mm diameter polypropylene with knots in 300mm increments.

Hardware

316 stainless steel

Discharge Piping

316 stainless steel pump riser with PN16 flexible pipework

Level Controls

Inbuilt level switch

Check Valve

Cast iron swing check

Pump

OGT 0.75kw 240v Single Phase Turbine Grinder, submersible to IP68. Supplied with 15m cable

Pump Base

316 stainless steel

Controller

OmniSmart 1000b/LCD with the following:

- IP66 lockable PE Enclosure with mounting plate and key lock
- Double pole main switch and pump circuit breaker
- Backlit LCD Screen & LED function with inbuilt data logger
- USB interface for PC connection
- Audible and visual alarm with external mute
- Upgradeable to provide remote communication / SCADA

Electrical Supply

Dedicated 240 volt, single phase, 16amp D curve circuit breaker.



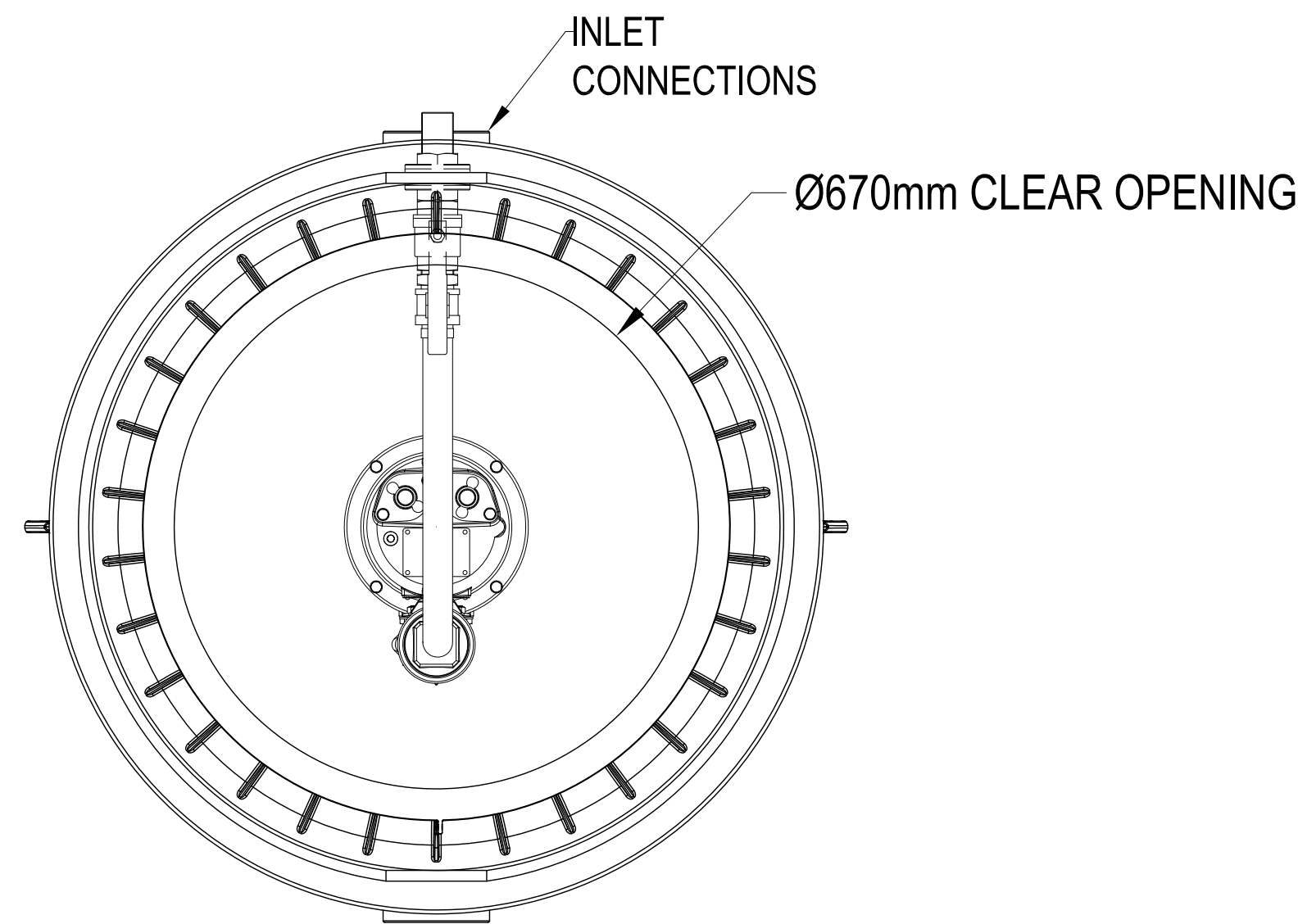
Enduraplex 950L OGT Free Standing Pressure Sewer System



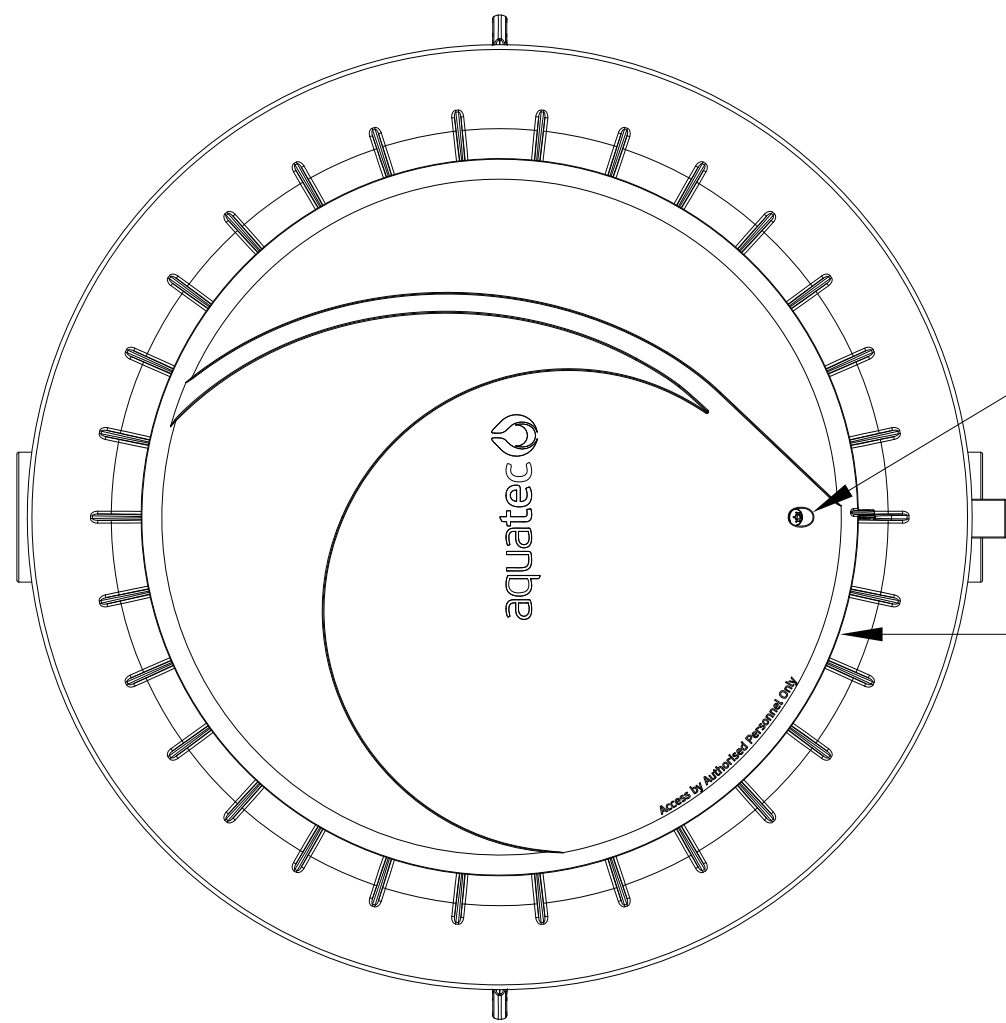
OmniSmart Controller

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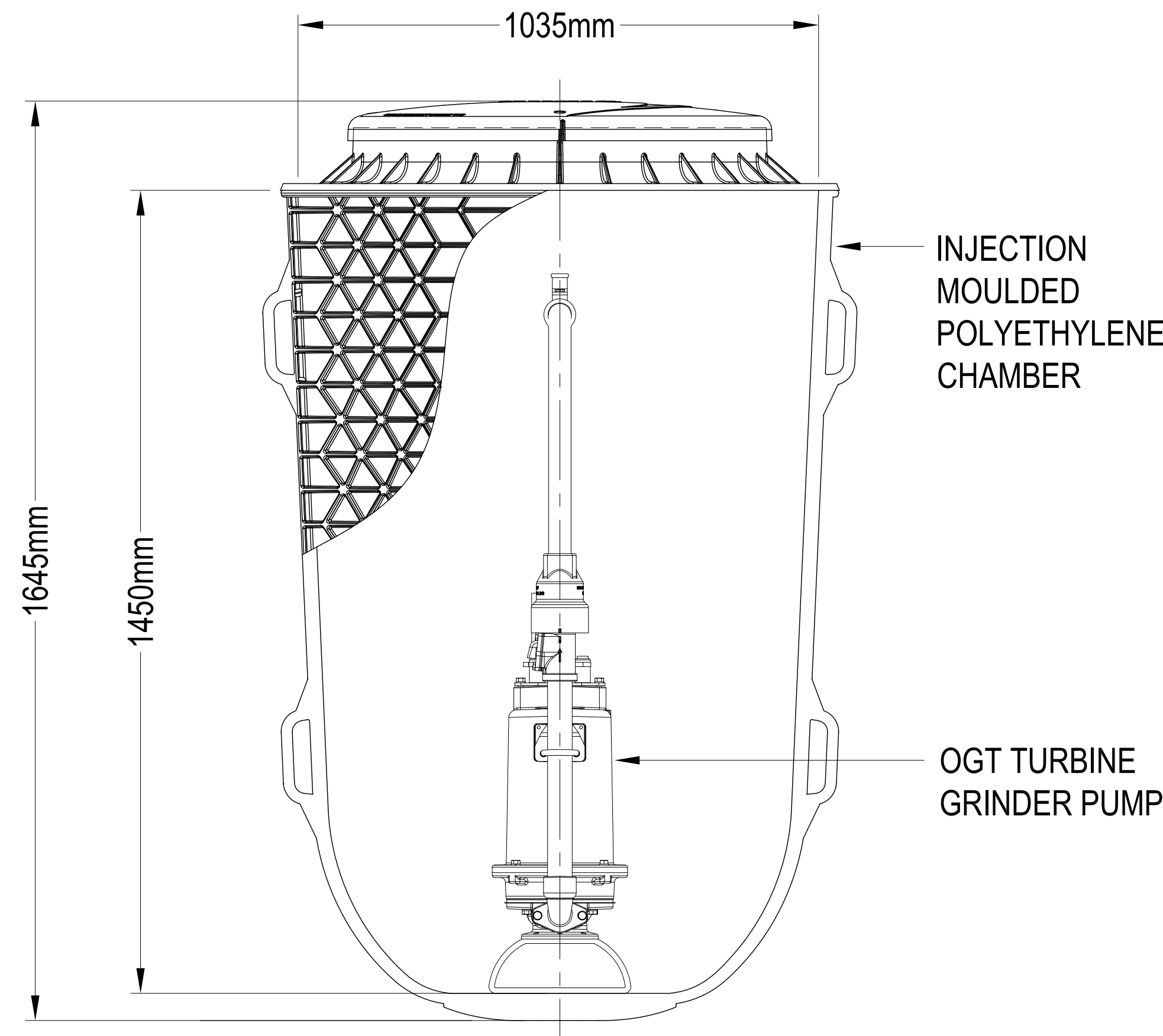
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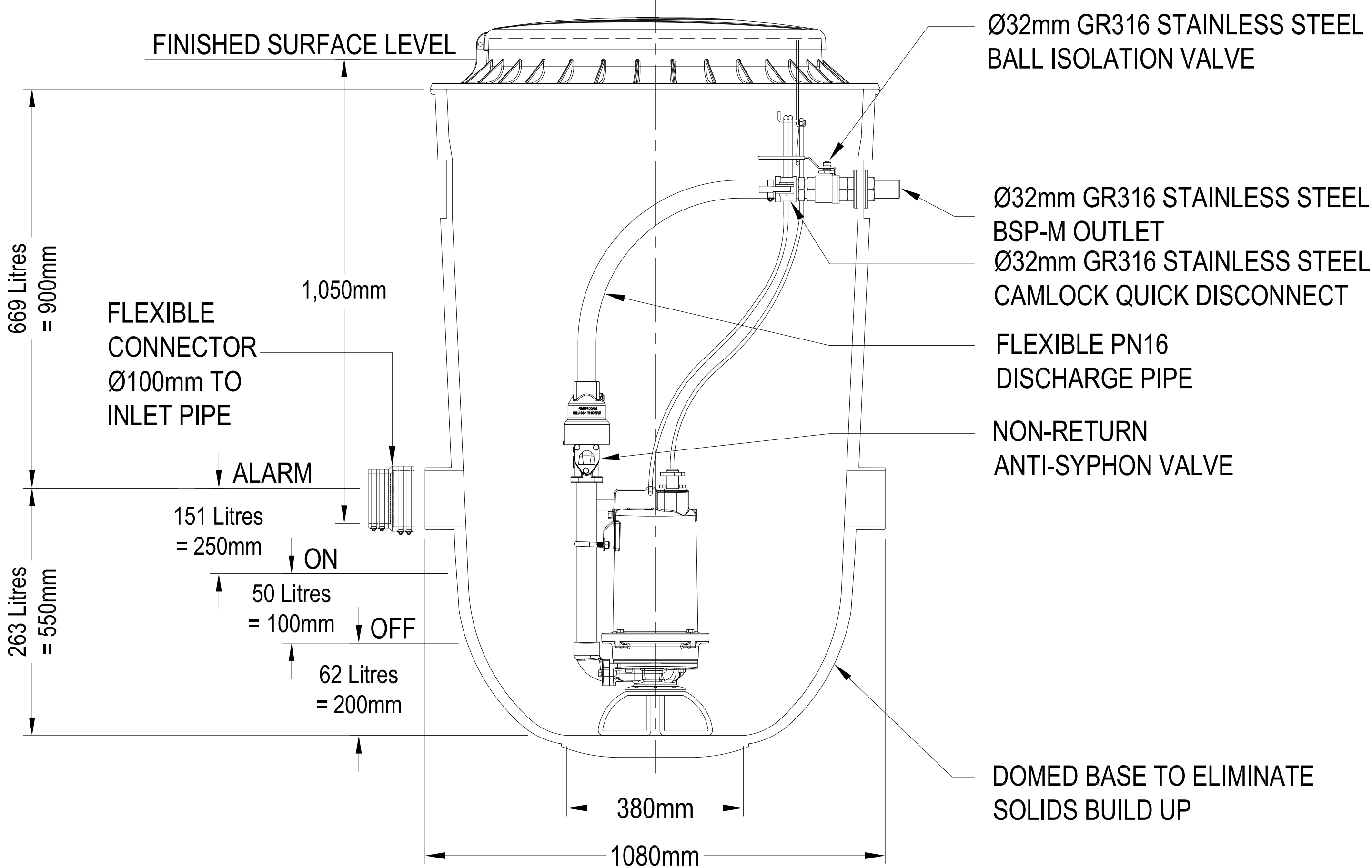
PLAN VIEW (LID REMOVED)



PLAN VIEW



SECTIONAL SIDE ELEVATION



SECTIONAL ELEVATION

***ALL LEVELS ARE RECOMMENDED FACTORY SETPOINTS
WHICH CAN BE ADJUSTED TO SUIT SPECIFIC REQUIREMENTS

REV	AMENDMENT	BY	APP	DATE
D	MINOR AMENDMENTS	NTP	LHH	11/09/19
C	MINOR AMENDMENTS	JDS	JH	08/09/17
B	TANK VOLUMES ADDED	JDS	LHH	23/01/17
A	ISSUED FOR INFORMATION	BMA	BS	16/08/16

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2 Provincial Crescent, Shepparton VIC 3630
T 1300 088 555 / E info@aquatecenviro.com.au
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Designed - AQT
Drawn - BMA
Checked - JS
Approved - BS

Scale - N.T.S. @ A1

PRESSURE SEWER PUMP UNIT
ENDURAPLEX OGT 950L
FREE STANDING UNIT
PLAN & SECTIONS

Drawing No. PE.S.OGT.950.FS
Revision D
File Location / Name AQT

Aquatec Pressure Sewer Systems

Homeowner's Guide

Operation & Maintenance

As a result of Aquatec Fluid Systems constant product improvement program, product changes may occur. As such Aquatec Fluid Systems reserves the right to change product without prior written notification.

Please note:

Read all instructions in this manual before operating.

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Table of Contents

User Guide	3
Safety First	4
Understanding Pressure Sewer	5
What Is Pressure Sewer?	5
Why Use Pressure Sewer?	5
How The System Works	5
Typical Property Installation	6
Typical Unit Specification	7
Emergency Service	8
Alarms	8
Power Cuts	8
Floods	8
Burst Pressure Service Lines	8
Burst Pressure Mains	8
The Pump Station	9
Operation	9
Alarm Activation	9
Owner's Responsibility	9
Pump System	10
If The Alarm Sounds	10
How To Silence Audible Alarm	10
If Alarm Doesn't Clear	10
Power Failures	10
Holiday Periods	10
Control Panel	11
Boundary Kit	11
Troubleshooting Pump	12
Troubleshooting Controller	13
Warranty	15



User Guide

Congratulations on your purchase of an Aquatec Low Pressure Grinder Pump System. With proper care and by following a few simple guidelines, your grinder pump will give you many years of dependable service.

General Information

Your home wastewater disposal service is part of a Pressure Sewer System. The key element in this system is the Aquatec Pressure Grinder Pump Station. The chamber collects all wastewater from the house. The solids in the sewage are then ground to a small size suitable for pumping in the slurry.

The grinder pump generates sufficient pressure to pump this slurry from your home to the wastewater plant or point of discharge.

Use and Care

The Low Pressure Grinder Pump Station is designed to handle routine, domestic sewage. Solid waste materials should be thrown in the trash. While your station is capable of accepting and pumping a wide range of materials, regulatory agencies advise that some items should not be introduced into any sewer, either directly or through a kitchen waste disposal.

WARNING - DO NOT FLUSH THE FOLLOWING ITEMS DOWN THE TOILET OR PLACE IN SEWER DRAINS:

- Baby Wipes, Wet Wipes, Cleaning Pads, Fabric Wipes etc
- Feminine Products, Sanitary Napkins, Tampons and other hygiene products, Pantyhose, Stockings
- Cooking Oil, Grease or Food
- Kitty Litter, Sand, Seafood Shells etc
- Glass, Metal, or any other hard objects e.g. metal bottle caps, drink cans, toy cars etc
- Nappies, Diapers, Paper Towels, Tissues
- Socks, rags or cloth, towels, face washers
- Cigarette, Cigars, Tobacco
- Plastic objects (e.g. toys, utensils, bottle caps etc.)
- Q-tips, Cotton Balls, Cotton strands, Adhesive bandages, Band-Aids
- Dental Floss, Tooth brushes
- Needles, Pens, Pencils
- Explosives, Soda Siphon bottles
- Flammable materials and liquids, Petrol, Diesel, Strong Chemicals, Paint
- Any substance likely to cause injury to personnel employed in the servicing of the sewerage system

The Three P's

As with any sewer system, it is absolutely vital to ensure that nothing but the 'three P's' - pee, poo and toilet paper - are flushed down the toilet. Educating your household on what can and cannot be flushed is strongly recommended.



Power Failure

Your grinder pump cannot dispose of wastewater or provide an alarm signal without electrical power (unless your controller has a battery backup option). If electrical power service is interrupted, keep wastewater usage to a minimum.

Warranty

Your grinder pump is furnished with a warranty against defects in material or workmanship. A properly completed Start Up/ Warranty Registration form must be on file at the Aquatec factory in order to activate your warranty. In addition, your pump must be installed in accordance with the installation instructions.

If you have a claim under the provisions of the warranty, contact your local Aquatec pump distributor.

When contacting your representative for service, please include your pump model number, and pump serial number.

For future reference, record the following information:

PUMP MODEL NO:

PUMP SERIAL NO:

LOCAL CONTACT:

TELEPHONE:



Safety First

Only qualified personnel should install, operate and repair the pump. Any wiring of pumps should be performed by a qualified electrician.

DO NOT leave pump cover off the pump chamber, except while servicing, to prevent entrance of foreign materials such as rocks, metal, soil, animals or humans. Prevent infiltration or direct flow of rain or run-off water into the pump chamber to minimise pump cycling. This will prevent overloading the treatment facility, and will facilitate swift transportation of sewage.

To reduce risk of electrical shock, pumps and control panels must be properly earthed in accordance with the local power authority requirements and all applicable state and local codes and ordinances.

To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.

During power black-outs, minimize water consumption at the home(s) to prevent sewage from backing up into the house. Always keep the shut-off valve completely open when the system is in operation (unless advised otherwise by the proper authorities). Before removing the pump from the chamber, be sure to close the shut-off valve (this prevents backflow from the pressure sewer reticulation).

Keep the control panel locked or confined to prevent unauthorized access to it.

If the pump is idle for long periods of time, it is advisable to start the pump occasionally by adding water to the chamber.

Keep clear of suction and discharge openings. DO NOT insert fingers in pump with power connected.

Always wear appropriate safety gear, such as safety glasses, when working on the pump or piping.

Cable should be protected at all times to avoid punctures, cuts, bruises and abrasions – inspect frequently.

Never handle connected power cords with wet hands.

To reduce risk of electrical shock, all wiring and junction connections should be made per local power authority requirements and applicable state and local codes. Requirements may vary depending on usage and location.

Products returned must be cleaned, sanitized and decontaminated as necessary prior to shipment to ensure that employees are not exposed to health hazards in handling such material. All applicable laws and regulations shall apply.

IMPORTANT! Aquatec Fluid Systems is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse of pumps or equipment.



Understanding Pressure Sewer

What Is Pressure Sewer?

Pressure sewer is a network of fully sealed sewer pipes, which are fed by a grinder pump located at each property.

The pump grinds the solids present in the waste water to “slurry”, which is then pumped through a small diameter pipeline from the house to the main, and the main to the treatment facility.

Pipelines are sized to accommodate a limited number of pumps operating at one time. As a result, the pipelines required for pressure sewer are considerably smaller than those required for traditional gravity sewer mains.

Why Use Pressure Sewer?

Pressure sewers provide an economical solution to challenging environmental conditions, and areas that are difficult to sewer using conventional methods.

Some examples of the terrain best suited to pressure sewer include:

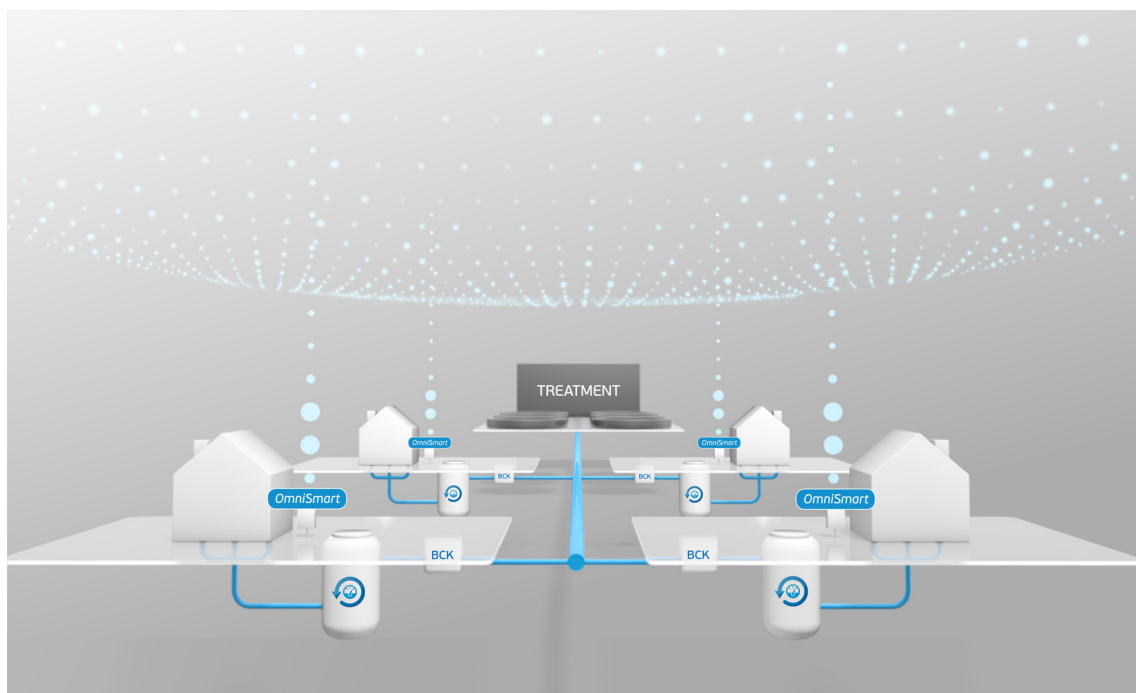
- Sites with rocky soil, or significant underlying rock;
- Sites with a high water table;
- Areas with long, flat expanse of terrain;
- Locations with slow population growth;
- Locations remote from existing infrastructure;
- Environmentally sensitive areas; and
- Hilly or difficult terrain (including islands).

Pressure sewer is suitable both for backlog areas and for new development sites.

How The System Works

You do not need to understand how the system works to operate it effectively. We have provided this information for persons interested in understanding how the system works.

Pressure sewerage systems differ from conventional systems in that they are not dependent on gravity. A small pump is installed on the property to pump the household sewerage into a small pressure reticulation main. Pressure systems are normally used where traditional systems, which rely on gravity, are too expensive, will lead to environmental constraints, or represent too much disturbance and inconvenience to existing residents.



Typical Property Installation

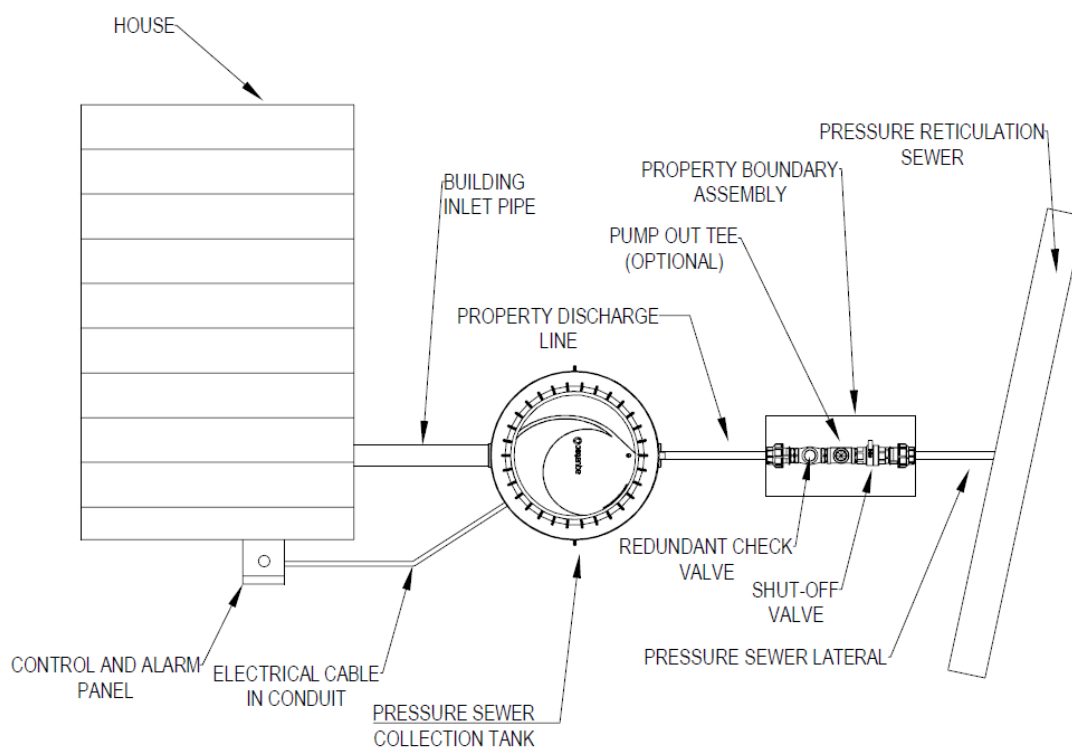


Figure 1: Plan View of Installation/Components

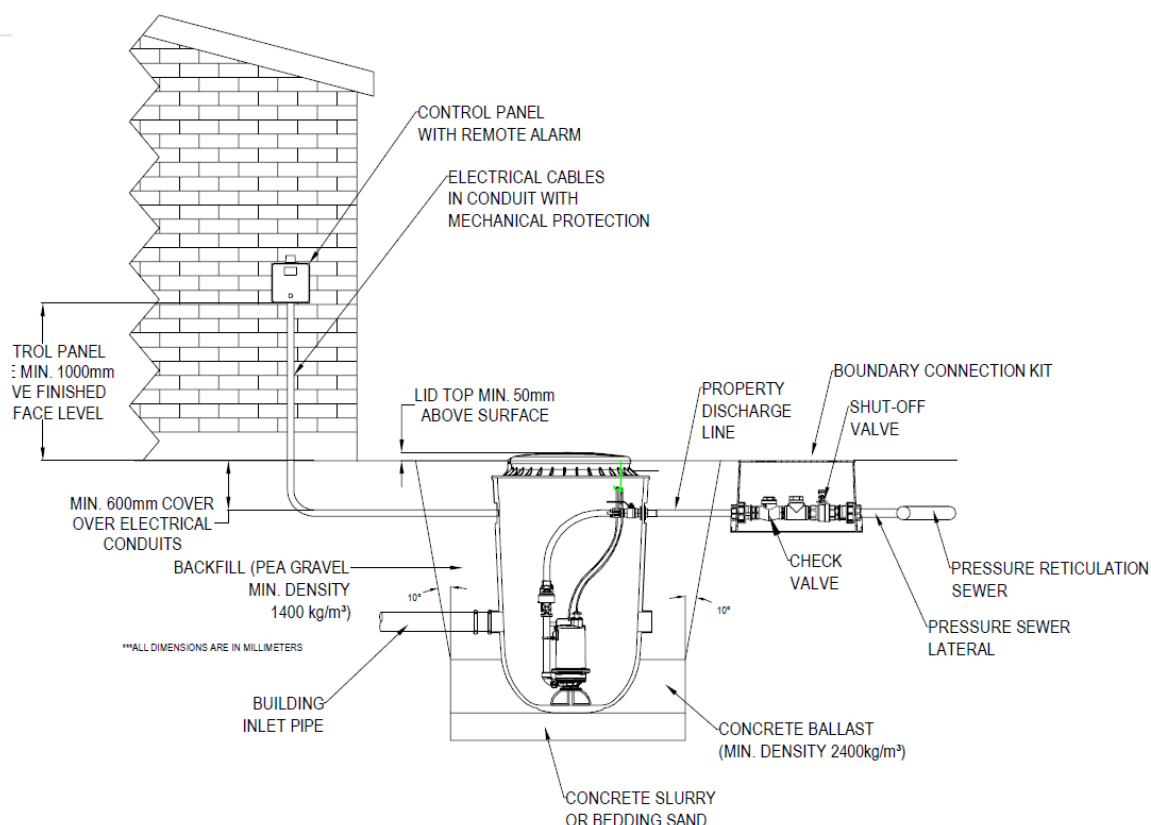
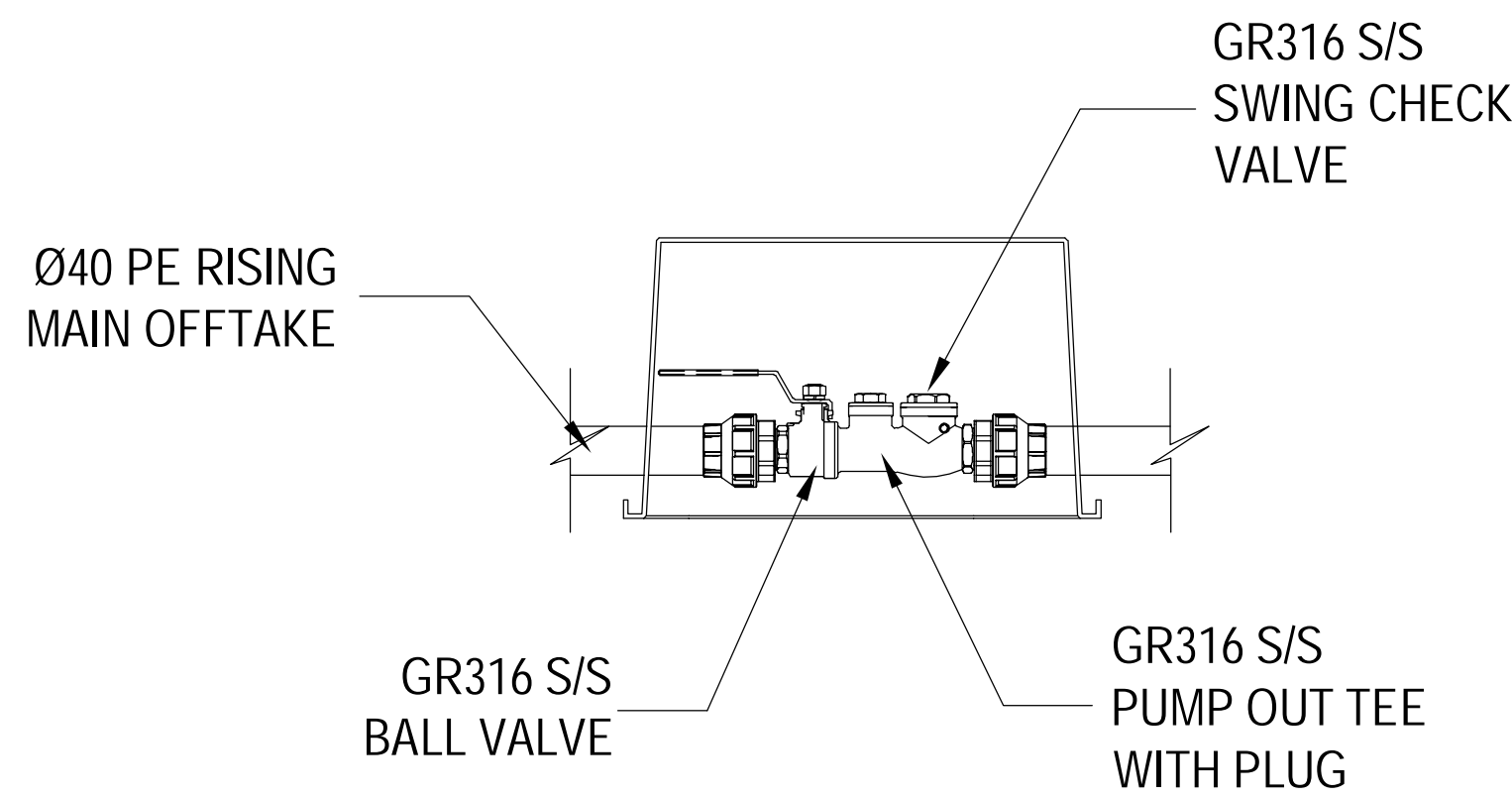
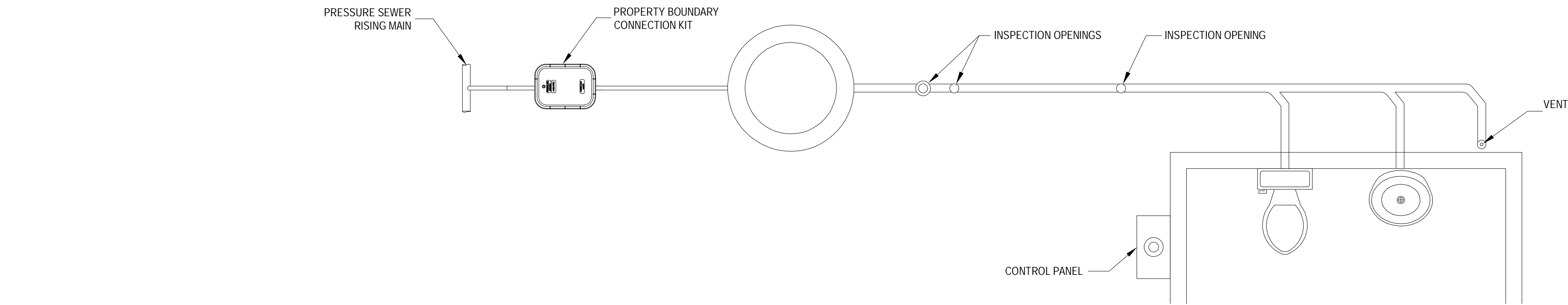
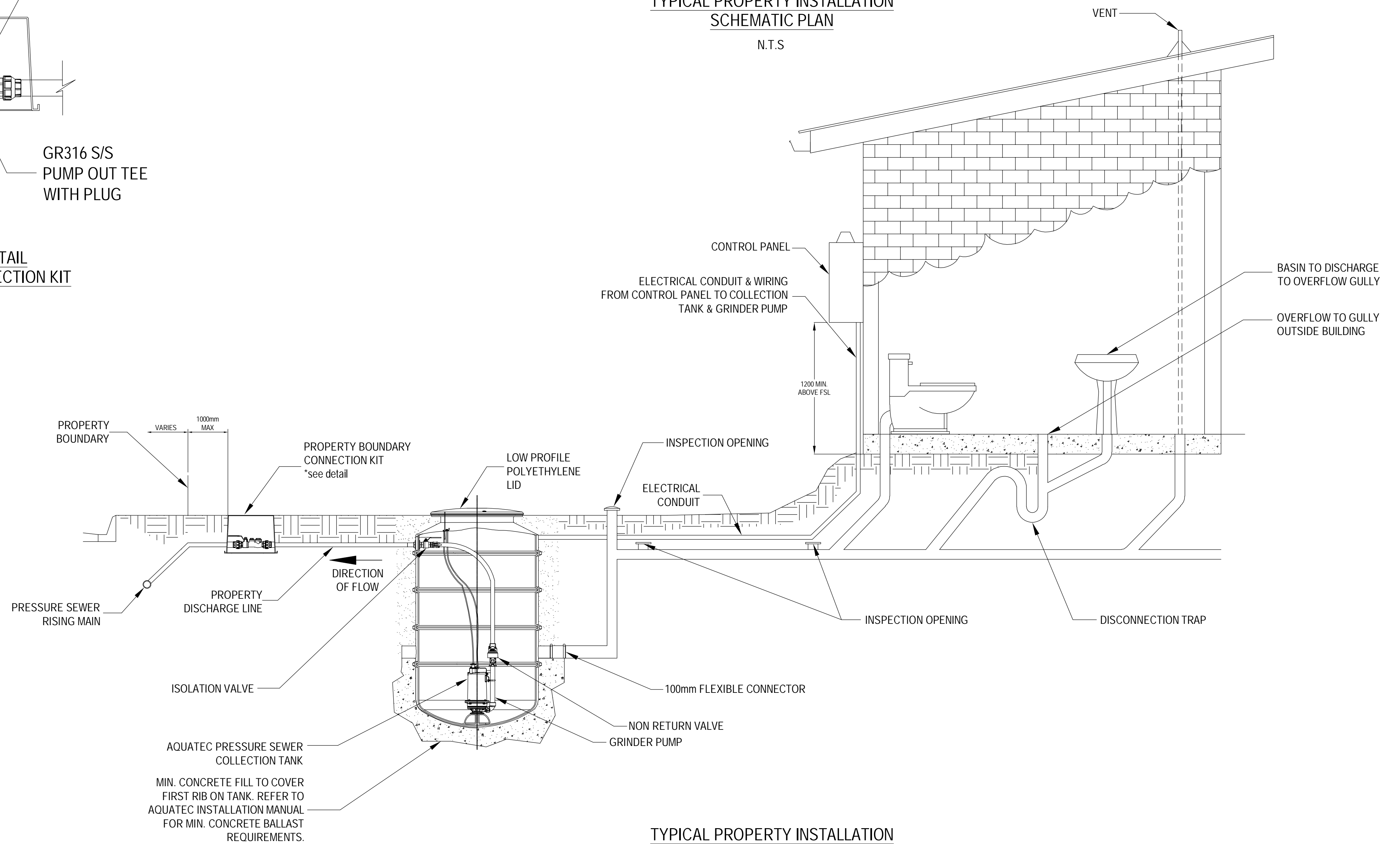


Figure 2: Front Elevation of Installation/Components



SECTION DETAIL
BOUNDARY CONNECTION KIT
N.T.S

TYPICAL PROPERTY INSTALLATION
SCHEMATIC PLAN
N.T.S



TYPICAL PROPERTY INSTALLATION
SCHEMATIC SECTION
N.T.S

NOTE BOUNDARY CONNECTION KITS:

1. ALL INCOMING AND DISCHARGE PE PIPES SHALL BE Ø40 UNLESS OTHERWISE SPECIFIED ON THE DETAIL PLANS.
2. ALL BOUNDARY KIT VALVES MUST BE INSTALLED IN A HORIZONTAL POSITION.
3. S/S BALL VALVES SIZING:
DN32mm FOR Ø40 IN/OUT PE PIPE
DN40mm FOR Ø50 IN/OUT PE PIPE
DN50mm FOR Ø63 IN/OUT PE PIPE

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T 1300 088 555 / E info@aquatecenviro.com.au

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Designed - AQT
Drawn - JDS/MAH
Approved - AB

TYPICAL
PRESSURE SEWER PROPERTY SERVICE LAYOUT

Drawing No. T.PS.PSL01
Revision A
File Location / Name

Scale - NTS @ A1

A	FOR CLIENT REVIEW	MAH	23/01/18	
REV	AMENDMENT	APP	DATE	



Emergency Service

In an emergency, contact our service department available 24 hours a day, 7 days a week.

Contact Person: Rodney Neil - Service Manager

Phone Number: 0800 756 543

Mobile Number: +61 429 803 518

* quote number on control panel (e.g. S8612)

Alarms

- Silence the audible alarm by pressing the mute button on the bottom of the control box
- Wait a few minutes to see if the alarm clears (1 hour in the case of power failure)
- If the alarm doesn't clear, contact your local water authority or council to arrange a service visit.

Power Cuts

The pump unit has a large collection tank and will be able to store sewerage until power returns.

In extended power cuts, minimize water usage (short showers, bucket water out of baths etc.)

Once power is restored, clear the audible alarm if it activates, and make sure the alarm light goes out within 1 hour.

Floods

Your control unit is located above flood level which should allow the pump to run provided the pump well isn't submerged.

The maintenance contractor may disable your pump if your house sewer drainage is submerged, and re-activate the pump once the flood has receded.

When contacting your representative for service, please include your pump model number, and pump serial number.

Burst Pressure Service Lines

If you notice wet ground or water escaping from your plumbing, it is possible a burst or leak may have occurred. Such breaks are rare and more likely to occur due to work being carried out near the pipes. You should minimize water usage and contact the maintenance contractor.

Burst Pressure Mains

If you notice sewerage leaking from a break in the pressure sewer main in the street, contact your local water authority immediately and report it. The authority will arrange repair at no cost to you.



The Pump Station

Operation

The house sewer drainage discharges via gravity into the pump well. The pump station fills with waste water up to a factory set level. At this point the pump automatically starts and pumps until the effluent level falls to a defined level and the pump automatically switches off.

The pump will typically run anywhere between one to three minutes per cycle and the pump will approximately operate several times a day.

Alarm Activation

If the pump fails to operate, the depth of wastewater will continue to increase until it reaches a certain factory set level where an audible & visual alarm will automatically be activated.

Alarms also may be activated as a result of power returning after a power failure or due to sudden loadings such as swimming pool backwash or from large spas.

In all cases the alarm will automatically shut off when the storage level drops below the designated alarm level. The alarm is situated in the control panel, remotely mounted on the side of the dwelling or on a pedestal frame located at the pump station, in most cases within 10 meters of the pump station.

Owner's Responsibilities

As the owner, you are responsible for:

- Maintaining the house sewer drainage to local authority standards;
- Making sure that no damage occurs to the pressure service line between the pump well and the boundary kit;
- Making sure the system isn't abused by discharging substances that damage the pump or are unsuitable for sewer;
- Keeping the top of the pump well clear;
- Ensuring that the pump well is accessible in case future maintenance is needed;
- Ensuring that no one attempts to access the pump well or control unit, unless authorized;
- Providing electricity to operate the onsite pump.





Control Panel

The Aquatec control panel is specifically designed for outdoor applications and is completely corrosion and weatherproof.

The Aquatec control panel is complete with all operation, protection equipment and an audible and visual alarm. This controls the operation of the pump station via a factory preset level control mounted within the pump station chamber.

The control panel is connected to the power board of the property, with its own dedicated circuit.

Cost of electricity for pump operation (approximately \$15-25 per year) is the home owner's responsibility.

Boundary Connection Kit

The "boundary kit" is located approximately 1m within the front boundary of your property and marks out the boundary between the house service and pressure sewer main network in the street.

The boundary kit is mounted in ground in a box with a black lid marked "PRESSUE SEWER". This is the point of connection to the public sewer system. The lid to this box must not be buried or hidden.

The boundary kit has three main components:

- An isolation valve, used to isolate your property service from the mains system. This is used to prevent your sewer pump from discharging into the sewer main if there is a problem in the system (e.g. a burst main).
- A one-way valve, used to prevent wastewater from the pressure main from discharging back into the house pressure line.
- An inspection/flushing point, used to inspect and clear the system if necessary.





Troubleshooting Pump

Caution

- Always disconnect the pump from the electrical power source before handling.
- If the system fails to operate properly, carefully read instruction and perform maintenance recommendations.
- If operating problems persist, the following chart may be of assistance in identifying and correcting them.

Match cause number with correlating correction number.

Note: Not all problems and correction will apply to each pump model.

Problem	Cause	Correlation
Pump will not run	1. Poor electrical connection, blown fuse, tripped breaker or other interruption of power, improper power supply. 2. Motor or switch inoperative (to isolate cause; go to manual operation of pump). 2a. Float movement restricted. 2b. Switch will not activate pump or is defective. 3a. Insufficient liquid level. 3b. Switch is unable to activate.	1. Check all electrical connection for security. Have electrician measure current in motor leads, if current is within $\pm 20\%$ of locked rotor amps. Impeller is probably locked. If current is 0, overload may be tripped. Remove power, allow pump to cool, and then recheck current. 2a. Reposition pump or clean basin as required to provide adequate clearance for float. 2b. Disconnect level control. Set ohmmeter for a low range, such as 100 ohms full scale and connect to level control leads. Actuate level control manually and check to see that ohmmeter shows zero ohms for closed switch and full scale for open switch. (Float Switch). 3a. Make sure liquid level is at least equal to suggested turn on point. 3b. Rotate ESPS level control in horizontal position.
Pump will not turn off	2a. Float movement restricted. 2b. Switch will not activate pump or is defective. 4. Excessive inflow or pump not properly sized for application. 9. Pump may be air locked. 14. M-O-A switch on panel is in "MANUAL" position.	4. Recheck all sizing calculations to determine proper pump size. 5. Check discharge line for restrictions including ice if line passes through or into cold areas. 6. Remove and examine check valve for proper installation and freedom of operation. 7. Open valve. 8. Check cutter for freedom of operation security and condition. Clean cutter and inlet of any obstruction 9. Loosen union slightly to allow trapped air to escape. Verify that turn-off level of switch is set so that the suction is always flooded. Clean vent hole. 10. Remove and examine for damage. replace pump stator 11. Repair fixtures as required to eliminate leakage. 12. Check pump temperature limits and fluid temperature. 13. Replace portion of discharge pipe with flexible connector. 14. Turn to automatic position.
Pump hums but does not run	1. Incorrect voltage. 8. Cutter jammed or loose on shaft, worn or damaged, inlet plugged.	
Pump delivers insufficient capacity	1. Incorrect voltage. 4. Excessive inflow or pump not properly sized. 5. Discharge restricted. 6. Check valve stuck closed or installed backwards. 7. Shut-off valve closed. 8. Cutter jammed or loose on shaft, worn or damaged, inlet plugged. 9. Pump may be air locked. 10. Pump stator damaged/torn.	
Pump cycles to frequently or runs periodically when fixtures are not in use.	6. Check valve stuck closed or installed backwards. 11. Fixtures are leaking. 15. Ground water entering basin.	
Pump shuts off and turns on independent of switch, (trips thermal overload protector). Caution! Pump may start unexpectedly. Disconnect power supply.	1. Incorrect voltage. 4. Excessive inflow or pump not properly sized. 8. Cutter jammed, loose on shaft, worn or damaged, inlet plugged. 12. Excessive water temperature.	
Pump operates noisily or vibrates excessively.	4. Operating at too high a pressure. 5. Discharge restricted. 8. Cutter broken. 13. Piping attachments to building structure too rigid or too loose.	



Strobe Flash Sequence

No. of flashes	Fault Description	Resolution
1	Power Failure	Firstly, minimise waste water creation while this alarm is active. If power on within the house, please check circuit breaker within power meter cabinet and controller. If both of these are correct, then electrical cabling may not have been installed correctly.
2	High Level Alarm	This could be caused by a sudden discharge such as from a swimming pool. Check pump running and minimise waste water creation until pump catches back up. Once pump has fluid level below high level, Alarm will self-clear. If still unclear after an hour, contact customer service. Their details are on the side of the control panel.
3	Motor Max Run Time Exceeded or Max Starts Exceeded	These settings are there to protect the pump from excessive use and shouldn't appear during normal operation. It can occur during emptying a large pool. Minimise waste water product for the next hour. Alarm can be reset by hold the mute button in for 15 seconds.
4	Over Pressure Protection	Optional pressure sensor connected via BI4, which is normally closed unless the pressure within the system goes beyond the pre-set amount and it opens and triggers this alarm. If pressure sensor not installed then BI4 must be jumpered to stop this alarm from occurring. The SPC will retry to pump (self-clear) once the pressure within the system reduces and the sensor closes.
5	Motor Over Current	Motor drawing more power than what is selected via dip switch SW3. Confirm SW3 has been set correctly for the pump and expected pressure within the system. If SW3 correctly set, then pump is either seeing high system pressure or is jammed.
6	Motor Under Current	Motor not drawing any current. This could be caused by: Circuit breaker switch tripping within the controller; Pump thermal overload; or that the pump has not been connected correctly.
7	Battery Fault	The SPC is configure to expect a Battery via dip switch SW2-4. If battery hasn't been installed and you are getting this error then switch SW2-4 to off (down). If there is a battery then it may either be not plugged in correctly or be faulty. The battery can sometimes take a minute or so to be detected and seen to be charging, so even if the battery has been plugged in correct it might take a little while to self-clear. If you can see the battery is connect correctly, and is indicating a voltage on the LCD, you can reset this error by holding the mute button in for 15 seconds.
8	Probe Fault	This error occurs if the probe's output goes outside the defined range or is measuring less than 10mm of fluid in the tank. Check the probe for built up or that it is functioning correctly, otherwise confirm that the probe is in the fluid.

LED's - The LED's visually indicate the status of the OmniSmart Controller





















LED Colour	Label Name	Description
	General Fault	Flashes when a fault occurs/alarm is raised. This LED's flash sequence matches "Strobe Flash Sequence".
	Mains power Voltage OK	On if the AC is within range. Off means the AC is out of range.
	Mains power voltage fault	Off if the AC is within range. 1 flash for low, double flash for high.
	Pump On	On = motor running; flashing = override switch (manual mode); Off = Pump Off
	High-level Alarm	High-level alarm is triggered.
	Over Pressure	On when the over pressure input is triggered.
	Level Status	Indicates Probe level: <ul style="list-style-type: none"> - Off if fluid level under ProbeStop or if ELC-Trans mode not selected. - On if fluid level between ProbeStop and ProbeStart. - Flashing if fluid level above ProbeStart.
	Battery Backup Status	Indicates battery status. On = battery Ok; Flashing = battery charging; Off = No battery.
	MODBUS data activity	MODBUS activity. On when traffic is being sent on MODBUS.
	Mobile Device Status	On = Enabled and registered with carrier; Flashing = Enabled but no registration; Off = Disabled/Not Installed
	Mobile Signal Status	On = 4 or 5 signal bar; Flashing = 3 or less signal bar; Off = No Signal;



Troubleshooting Controller

Input Status LED's

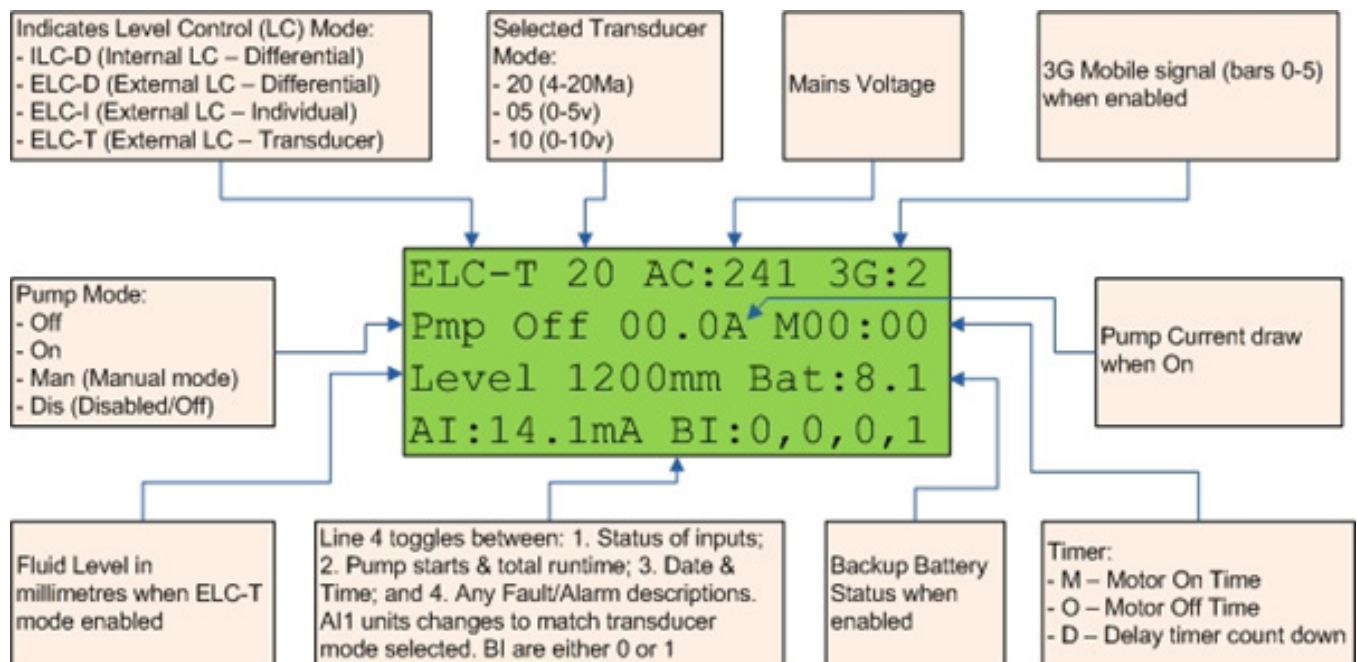
These LEDs are only visible with the front face removed and when you can physically see the SPC circuit board.

																								
																								
AI1				BI1		BI2		BI3		BI4		OUT1												

All inputs and outputs (with the exception of AI1) on the control panel have an associated LED to help troubleshoot whether or not there is a signal being receive or sent (respectively). This will help you to troubleshoot floats, over pressure sensor, mute button, strobe, and sounder faults. To trouble shoot AI1, use either line 4 of the LCD screen or the “?s”, “ACD”, or “inputs” commands via the USB interface.

LCD (Optional Extra)

An optional extra is to include a 4 line by 20 character per line LCD, displaying the following:



Line 4 of the LCD toggles between:

- Status of inputs (shown above)
 - AI1 units changes to match transducer mode selected.
 - i.e. Milliamps (mA) or Volts (V)
 - BI(1-4) are either 0 or 1
- Pump starts (TotalMotorStarts) & total runtime (TotalRunTime), and
 - ST:00000 RUN:HHHH:MM
- Current Date and Time
- Any current Alarm descriptions.
 - If there is more than one alarm then it will toggle through these before starting back to status of inputs.



Warranty Registration

Client

Date

Model

Aquatec warrants that the above products of our manufacture will be free of defects in material and workmanship under normal use and service for one (1) year from date of supply.

This warranty shall not apply when damage is caused by (a) improper installation (b) improper voltage (c) lighting (d) excessive sand or other abrasive material (e) scale or corrosion build up due to excessive chemical content. Any modification of the original equipment will also void the warranty, which includes if the seal on the SPC controller is tampered with in any way. We will not be responsible for loss, damage or labour cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practise and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. Under no circumstances will we be responsible for any other direct or consequential damages, including but not limited to lost profits, lost income, labour charges, delays in production, which damages are caused by any defects in material and/or workmanship and/or damage or delays in shipment. This warranty is expressly in lieu of any other express or implied warranty, including any warranty of merchantability or fitness for a particular purpose.

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without prior written approval.

On behalf of: Aquatec Fluid Systems Pty Ltd



Notes

aquatecenviro.co.nz

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52 Orbell Street,
Christchurch, NZ 8023

T 0800 756 543
E info@aquatecenviro.co.nz

Aquatec Fluid Systems / NZBN 9429047979703