Tasmanian Government

Certificate of Accreditation

On-Site Domestic Wastewater Treatment Unit

AS1546.1 Septic Tanks

This Certificate of Accreditation is hereby issued by the Director of Building Control and acting pursuant to Section 18 of the Building Act 2016 and the National Construction Code (NCC), as applicable.

System:	RELN Septic and Holding Tanks (3200L and 4000L Capacity) RELN Pump Well (450L, 600L, 900L, 1000L and 1200L Capacity)
Manufacturer or Supplier:	RELN Pty Ltd, ACN 003 197 108
Of:	14(B) Williamson Road, Ingleburn, NSW 2565

This is to certify that the RELN Pty Ltd as described in Schedule 1, is accredited as a Primary Treatment System for use in plumbing installations in Tasmania for single dwellings. This accreditation is subject to the conditions and permitted uses specified in Schedule 2, and the National Construction Code.

Peter John Graham
Director of Building Control
Consumer, Building and Occupational Services
Department of Justice

Date of Issue: 28 June 2022 **Certificate Number:** DOC/22/53535

This Certificate of Accreditation is in force until 28 June 2027, unless withdrawn earlier at the discretion of the Director of Building Control

Document Development History

Version	Date	Application date	Sections amended
1.0	28/06/22	Renewal RELN models to AS1546.1:2008 Septic Tanks and Pump Wells	Original release

Schedule 1: Specification

General Description

RELN's complete range of purpose designed septic and holding tanks take quality, safety, and flexibility to the next level. The range is Australian Standards Approved and comes with a 15-year warranty. Designed with unique stepped ribs for greater strength, a reinforced base ring to prevent crushing, and a UV protected lid with manhole cover, RELN Septic and Holding tanks are the most complete systems in Australia.

Septic Tanks provide an onsite sewage disposal system for homes in rural or remote locations. Effluent flows from the toilet, bathroom, laundry, and kitchen into a tank, where liquids, fats, oils, and solids are separated. Bacteria in the septic tank consumes the effluent and leaves behind a liquid which flows on to an evapo-transpiration field. The liquid is evaporated by wind and sun or transpired through plants.

- **15 year warranty** – All our of RELN Septic & Holding Tanks come with a 15 year warranty.
- **Australian Standards Approved** – The range is approved to the AS/NZS1546:1:2008 On-site domestic wastewater treatments units – Septic Tanks Certificate No. AMI 1651
- **Unique stepped ribs** – Provides greater strength and durability
- **Reinforced structural brace ring** – Prevents crushing
- **UV Protected Lid & Manhole cover**

Specification Summary

Tank Type	Product Description
Septic Tank 3200L 2:1	Vertical axis cylindrical (tapered) injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm. Partition ratio 2:1.
Septic Tank 3200L Deep Invert	Vertical axis cylindrical (tapered injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.
Septic Tank 4000L 2:1	Vertical axis cylindrical (tapered) injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm. Partition ratio 2:1.
Collection Well 3200L (no partition)	Vertical axis cylindrical (tapered) rotomoulded PE tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.
Collection Well 3200L Deep Invert (no partition)	Vertical axis cylindrical (tapered) injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.
Collection Well 4000L (no partition)	Vertical axis cylindrical (tapered) injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.
Pump Well 450L/600L	Vertical axis cylindrical (tapered) injection moulded PP tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.
Pump Well 900L/1000L/1200L	Vertical axis cylindrical (tapered) rotomoulded PE tank, lid and access covers, containing UV stabiliser. Tank lid depth 0mm.

For Engineering drawings refer to Appendix A.

Schedule 2: Conditions of Accreditation

1.0 Definitions

In this schedule:

AS/NZS 1547 means the Joint Australian/New Zealand Standard '*AS/NZS 1547:2008 On-site domestic-wastewater management'*

AS/NZS 1546.1 means the Joint Australian/New Zealand Standard 'AS/NZS 1546.1:2008 *On-site domestic wastewater treatment systems, Part 1: Septic tanks*'

AS/NZS 3000 means the Joint Australian/New Zealand Standard '*AS/NZS 3000 Wiring rules'*

AS/NZS 5667 means the Joint Australian/New Zealand Standard 'AS/NZS 5667.1:1998 *Water quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and preservation and handling of samples*'

Council means 'the Municipal Council having jurisdiction'

Designer means 'a person who has a specialty in the area of designing on-site waste water management system installations and may include but not be restricted to appropriately trained professional engineers, soil scientists, land surveyors and plumbers'

Director means 'the Director of Building Control'

Manufacturer means 'RELN Pty Ltd'

NATA means 'National Association of Testing Authorities'

PCA means 'Plumbing Code of Australia 2019'

Permit means 'a Permit issued by the permit authority pursuant to section 169 of the *Building Act 2016'*

Permit authority means 'a person or body authorised for that purpose by the *council* of the municipal area in which the on-site waste water management system is installed'

Supplier means 'the party that is responsible for ensuring that products meet and, if applicable, continue to meet, the requirements on which the certification is based.' The supplier for the system is RELN Pty Ltd;

System means RELN Pty Ltd Models: Septic and Holding Tanks (3200L and 4000L Capacity) RELN Pump Well (450L, 600L, 900, 1000 and 1200 Capacity)

2.0 General

2.1 This Certificate of Accreditation is valid up until the date nominated on the front page of this accreditation. Any application for variation or renewal must be accompanied by Product Certification to AS/NZS1546.1 that has been issued by a JAS-ANZ accredited Conformity Assessment Body (CAB) and other required documentation in accordance with the latest Application for Accreditation Form. The Certificate of Accreditation may be withdrawn by the Director at any time and is not transferable

2.2 This certificate supersedes all previously issued certificates.

2.3 The *system* must be supplied, constructed and installed in accordance with the design submitted and be accredited by the *Director*.

2.4 The *system* must not be installed in a plumbing installation other than in accordance with the conditions of permit issued by the *Permit Authority*.

2.5 Each *system* must be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:

- The manufacturer's name or registered trademark;
- The date of manufacture;
- The capacity in litres;
- Identification of the inlet to the tank:
- Top load limitations, and maximum depth of cover; and
- Weight of tank.

2.6 The supplier must supply the owner and occupier, of each installation, with a user manual setting out the following:

1. the treatment process
2. procedures to be followed in the event of a system failure
3. emergency contact number
4. care, operation, monitoring and maintenance requirements, and
5. inspection and sampling procedures to be followed as part of the on-going monitoring and program required by the permit authority.

2.7 Any proposed modifications to the *system's* specified processes, equipment, materials, fittings or manuals must have prior authorisation in writing from the *Director* and may be subject to additional verification or testing.

2.8 Each application to a *permit authority* to install a *system* must be accompanied by a site-and-soil evaluation report and design report in accordance with *AS/NZS 1547* as appropriate.

2.9 The *supplier* must provide the following information to each *permit authority* where it is intended to install a *system* in their jurisdiction:

- Statement of warranty
- Statement of service life
- Quality Assurance Certification
- Installation Manual
- Service Manual
- Owner's Manual
- Service Report Form
- Engineering Drawings on A3 format
- Detailed Specifications
- Certificate of Accreditation and Schedules.

2.10 This Certificate of Accreditation is valid for five (5) years from the date of issue or until withdrawn by the *Director*.

2.11 Where a *system* has been found not to operate satisfactorily during its serviceable life, and as a result require modification to achieve the required water quality limits, all installed *systems* are to be modified accordingly.

2.12 When granting a *permit* the *permit authority* is to satisfy itself that the *designer's* choice of the *system* configuration is optimal for the proposed use and site conditions.

2.13 The *system* must not be deployed to areas where seasonal climatic conditions will negatively affect its proper operation (refer to *manufacturer's* specifications).

2.14 Prior to the granting of a *permit* to install a *system* the following reports (see AS/NZS 1547 Clause 7.4) must be submitted with an application to the *permit authority*.

Site-and-soil evaluation report

The site and soil evaluation report is to detail results of an assessment of the individual lot(s) for the public health, environmental, legal and economic factors which are likely to impinge on the location and design of a land-application. (Refer to AS/NZS 1547 Clause 5.2.4 and Appendices B, C, D, E & G).

Design report

The Design Report is to include the following:

(a) Relevant aspects of the site-and-soil evaluation report.
(b) A report on the selection of the land-application. (Refer to AS/NZS 1547, Clause 5.5.7).
(c) A report on the selection of the wastewater-treatment system. (Refer to AS/NZS 1547 Clause 5.2.4 and Appendices B, C, D, E & G).
(d) Sufficient information to show that the relevant performance requirements set out in the PCA have been met.
(e) A loading certificate which sets out the design criteria and the limitations associated with use of the system and incorporates such matters as:
  (i) System capacity ((number of persons (EP) and daily flow)
  (ii) Summary of design criteria
  (iii) The location of and use of reserve areas
  (iv) Use of water efficient fittings, fixtures, or appliances
  (v) Allowable variation from design flows (peak loading events)
  (vi) Consequences of changes in loading (due to varying wastewater characteristics)
  (vii) Consequences of overloading the system
  (viii) Consequences of underloading the system
  (ix) Consequences of lack of operation, maintenance and monitoring attention, and
  (x) Any other relevant considerations related to the use of the system.

2.15 The following reports must be submitted to the *permit authority* and owner and be made available to the *Director* upon request after *commissioning* of the *system*:

Installation and commissioning report

The Installation and Commissioning Report is to cover the 'as-constructed' records of the *system* installation together with the results of *commissioning* tests to demonstrate correct construction and installation. The report is to be provided to the owner and *permit authority* on completion of the work. (Refer to and AS/NZS 1547 Clause 6.2.5.4).

Inspection and Maintenance Report

Maintenance reports cover ongoing inspection and maintenance operations in order to monitor the operation of the installation. (Refer to AS/NZS 1547 Clause 6.3.5, Appendix T & U).

2.16 Where the supplied pump is not suitably rated for the proposed land application area it must be replaced with a pump which has a rated capacity that matches the hydraulic characteristics of the irrigation and be capable of discharging at least 50% more than the 30 minute flow rate. For drip irrigation, ensure that drip emitter flow rates do not vary more than 10% from the design rate over the whole of the system when installed on a sloping site.

Note: The pump selection is to be based on flow, head loss and pressure requirements.

2.17 Effluent distribution by sub-surface application may be permitted where the *Permit Authority* is satisfied that the application for a *permit* to install the *system* has demonstrated that the:

(a) effluent can be retained within the authorised land application area

(b) where applicable the land application has been designed and is capable of being installed and maintained in accordance with AS/NZS 1547

(c) the location of the land application satisfies the relevant requirements of the State Policy on Water Quality Management 1997, and

(d) the discharge is capable of satisfying the relevant water quality limits (see 5.2).

Product approval documentation

The following documents are referenced as part of this Accreditation:

Document	Document date
ApprovalMark International Pty Ltd Certificate of Registration No. AMI-QM-78017 ISO 9001:2015 Quality Management Systems	Valid 8/04/2021 to 8/7/23
ApprovalMark International Pty Ltd Certificate of Conformity No. AMI 1651 AS/NZS 1546.1:2008 On-site domestic wastewater treatment units – Septic tanks	Valid 14/11/2017 to 14/11/22

3.0 Installation and Commissioning

3.1 The installation and operation of the *system* must comply with the conditions of accreditation and the *manufacturer's* instructions.

3.2 All plumbing work carried out in connection with the *system* installation must satisfy the requirements of the *Building Act 2016* and be carried out by a registered plumber with appropriate training and qualifications.

3.3 All electrical work must be carried out by a licensed electrician and in accordance with relevant provisions of *AS/NZS 3000*.

3.4 The *system* requires a 240V AC power supply. A weather-proof isolating switch must be provided at the power outlet. The power supply must have its own clearly marked designated circuit breaker in the electricity supply fuse box.

3.5 Each *system* installation must be inspected and checked by the *designer* or the designer's agent. The *designer* on completion is to certify that the system has been constructed, installed and *commissioned* in accordance with its design, the conditions of accreditation and any additional requirements set out in the *permit*. (refer to AS/NZS 1547 Clause 6.2.5)

Note: Where the *designer* is not available to supervise the installation the *designer* should obtain signed certification from the installing plumber stating that the installation has been constructed/installed and *commissioned* in accordance with its design, the conditions of accreditation and any additional requirements of the *council* and/or *permit authority*.

3.6 Copies of the following reports/certificates must be submitted to the *council* and the owner as soon as practicable after the commissioning of the *system* and after each scheduled or unscheduled service or inspection for the period specified in the *permit*:

(a) The initial plant installation and commissioning report

(b) All required laboratory analytical test reports, and

(c) All inspection and maintenance reports.

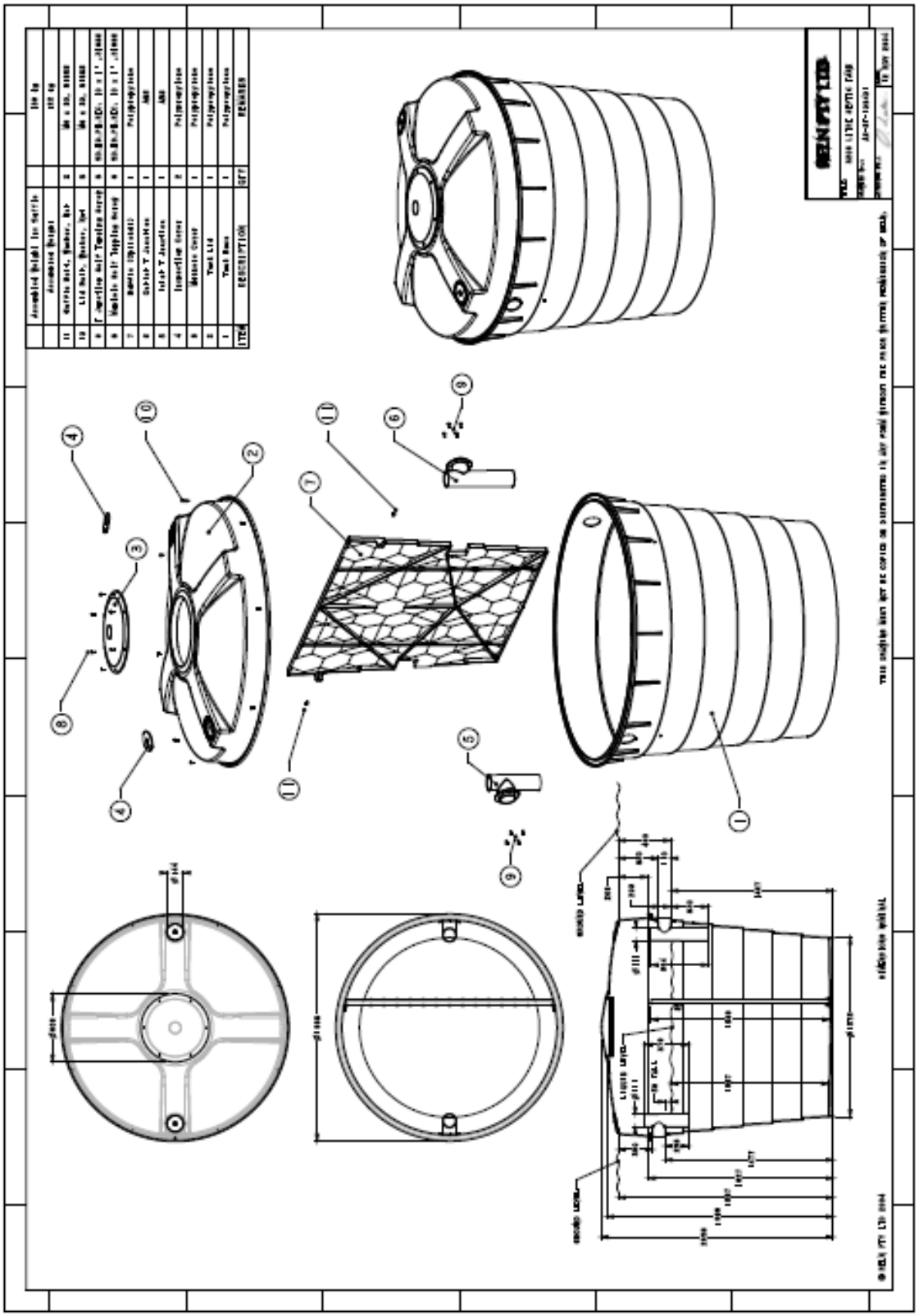
3.7 Copies of any report or certificate required by the conditions of accreditation must be made available to the *Director* on request.

3.8 The *designer* is to provide a statement warning the user of which items and products that must not be placed in the *system*.

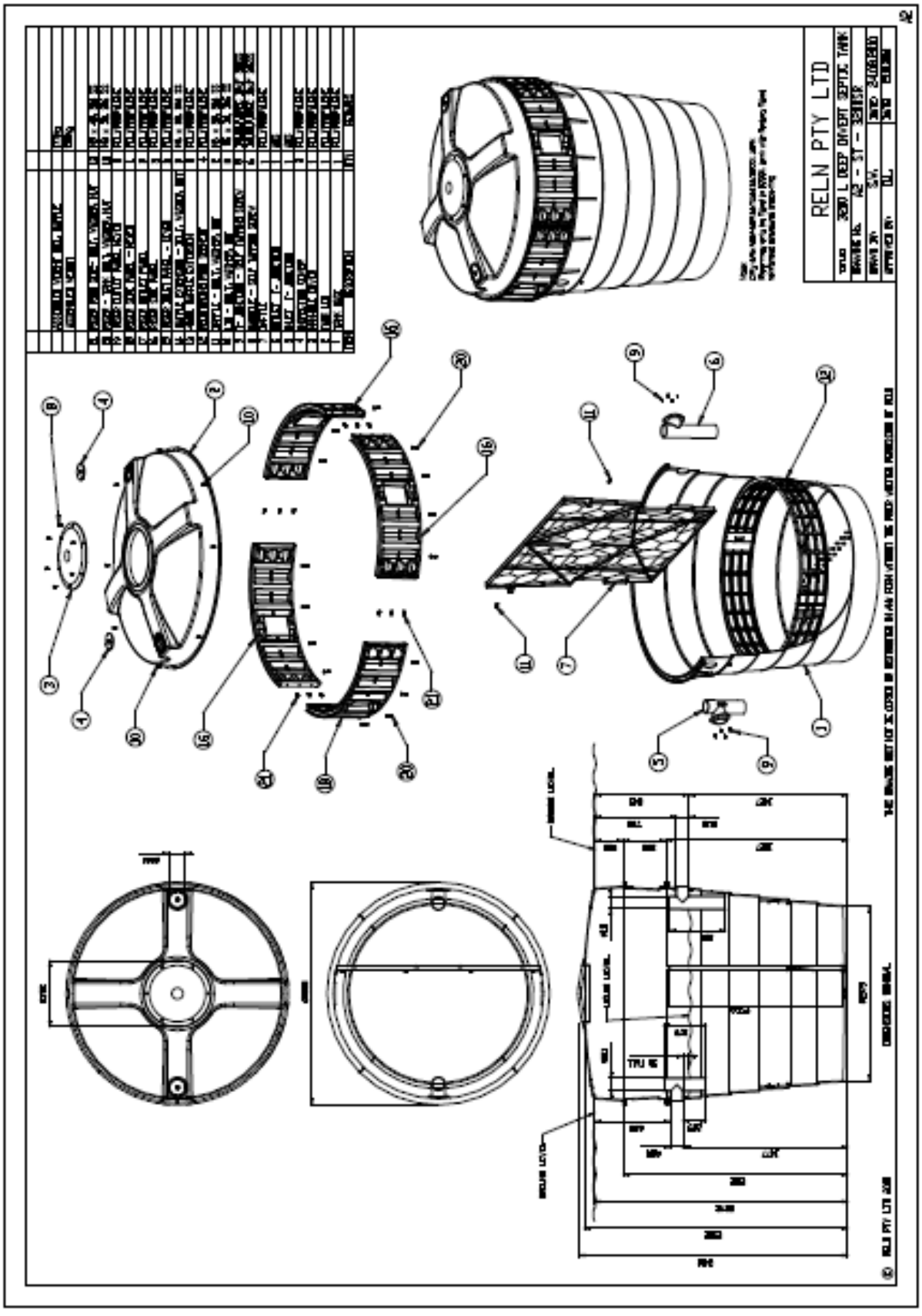
Appendix A

Engineering Drawings

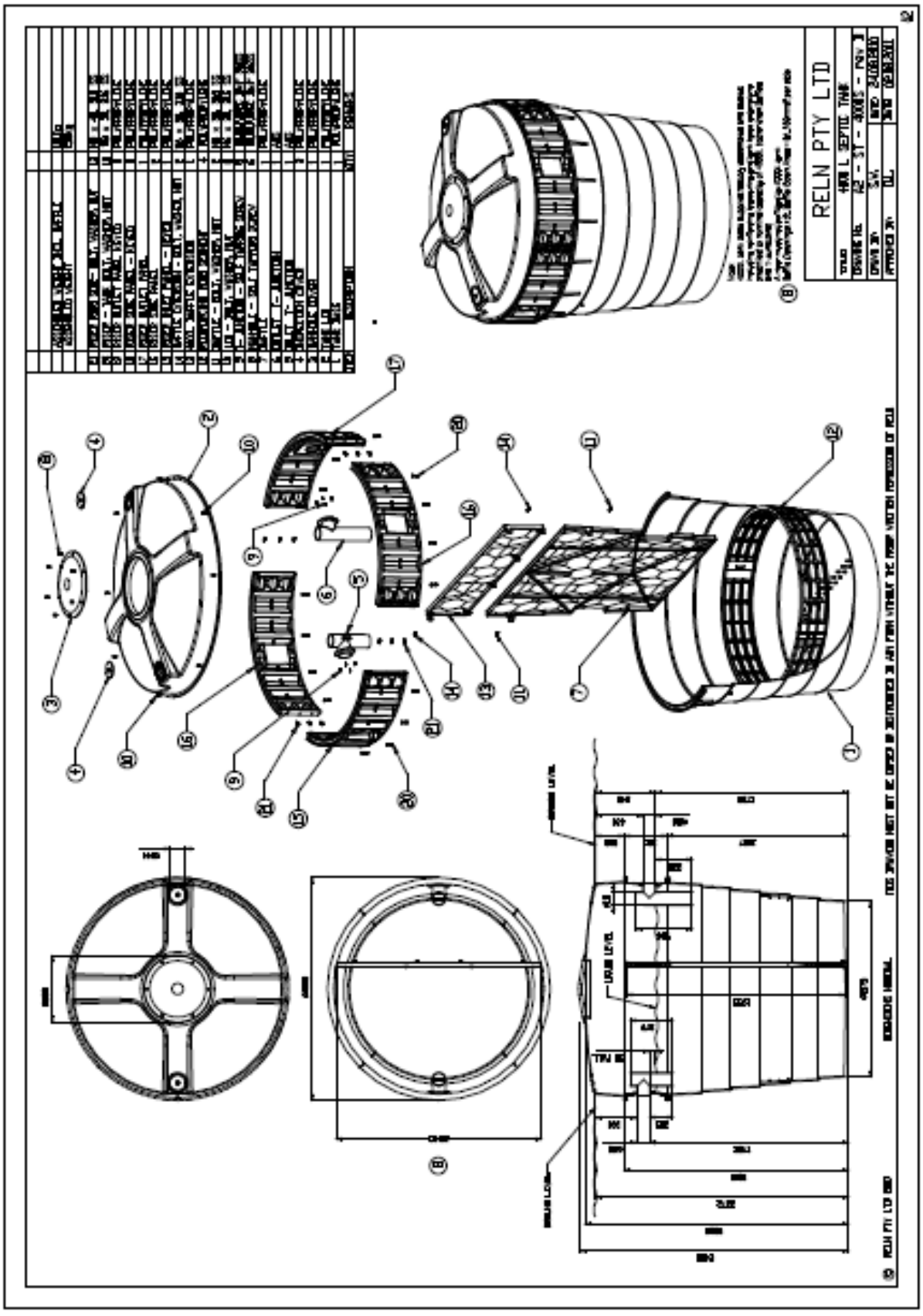
3200L Septic Tank



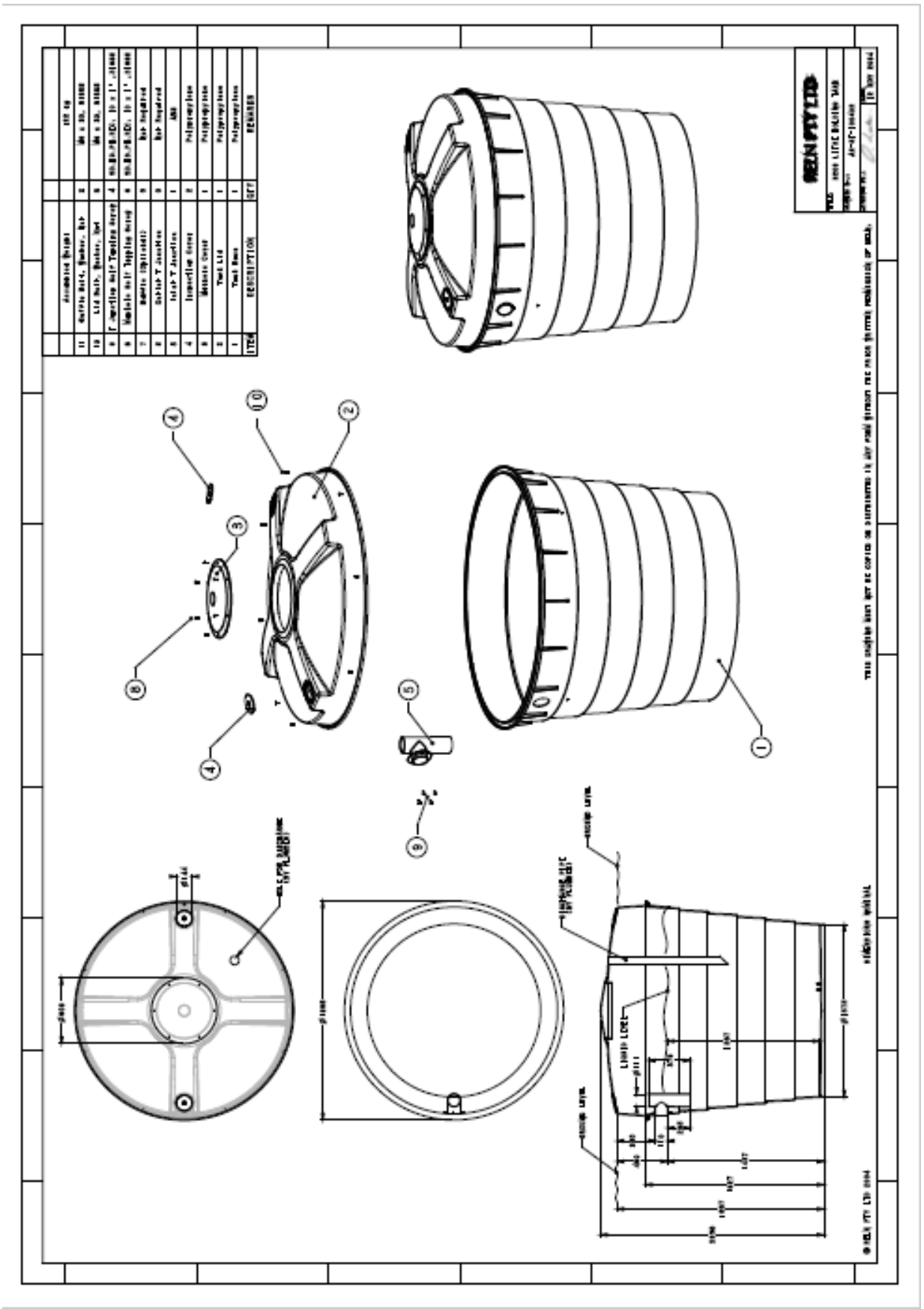
3200L Deep Invert Septic Tank



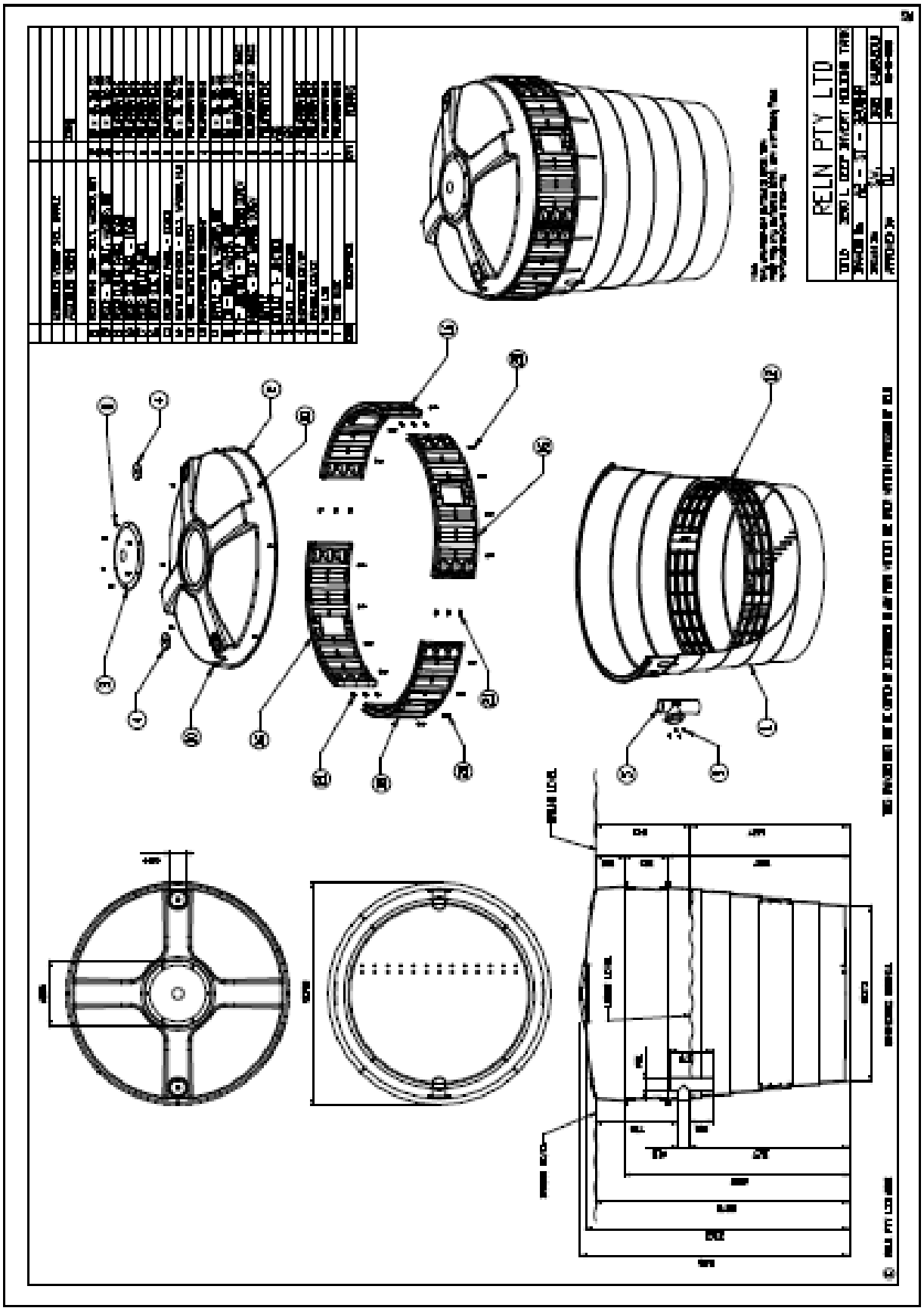
4000l Septic Tank



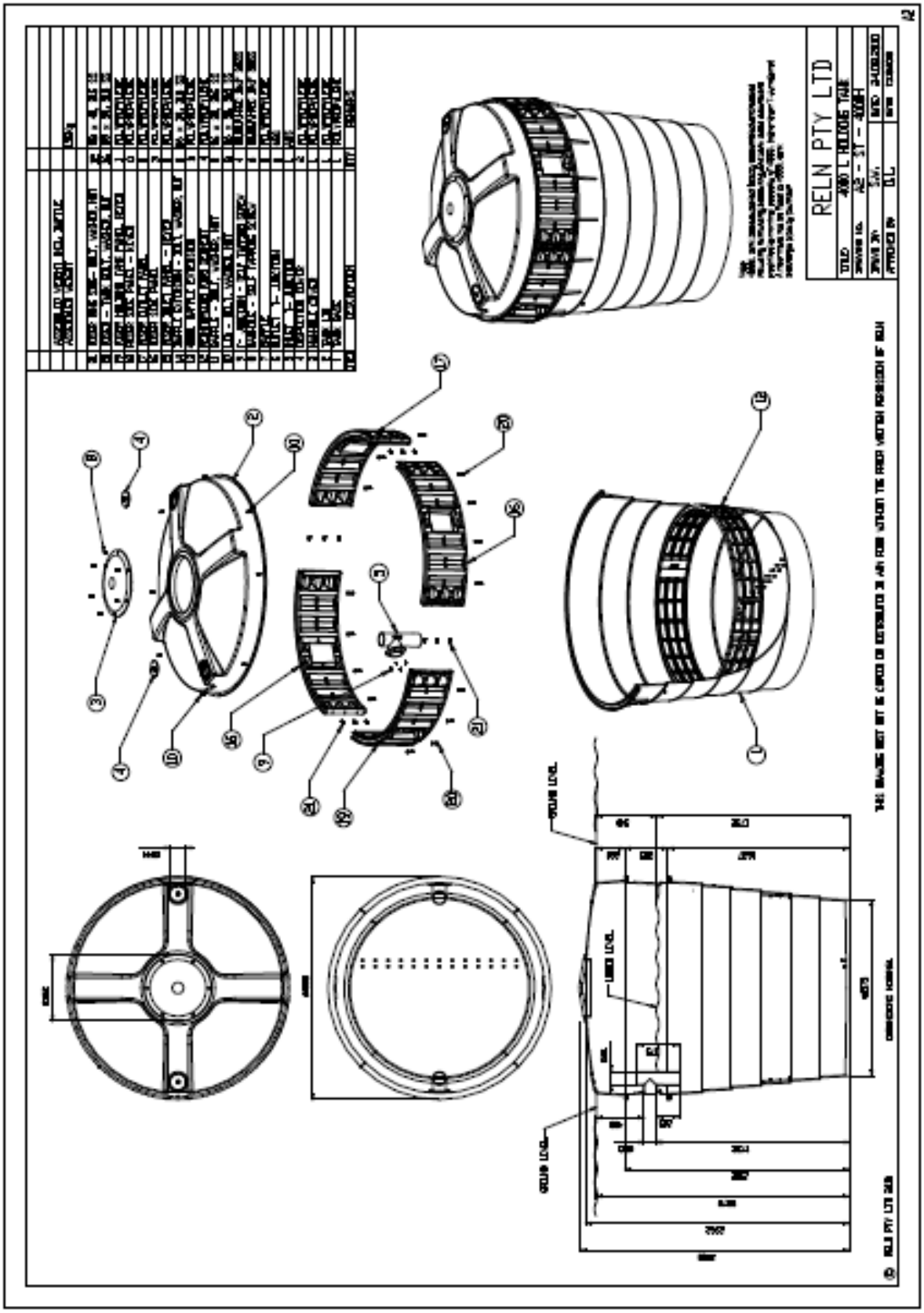
3200L Holding Tank



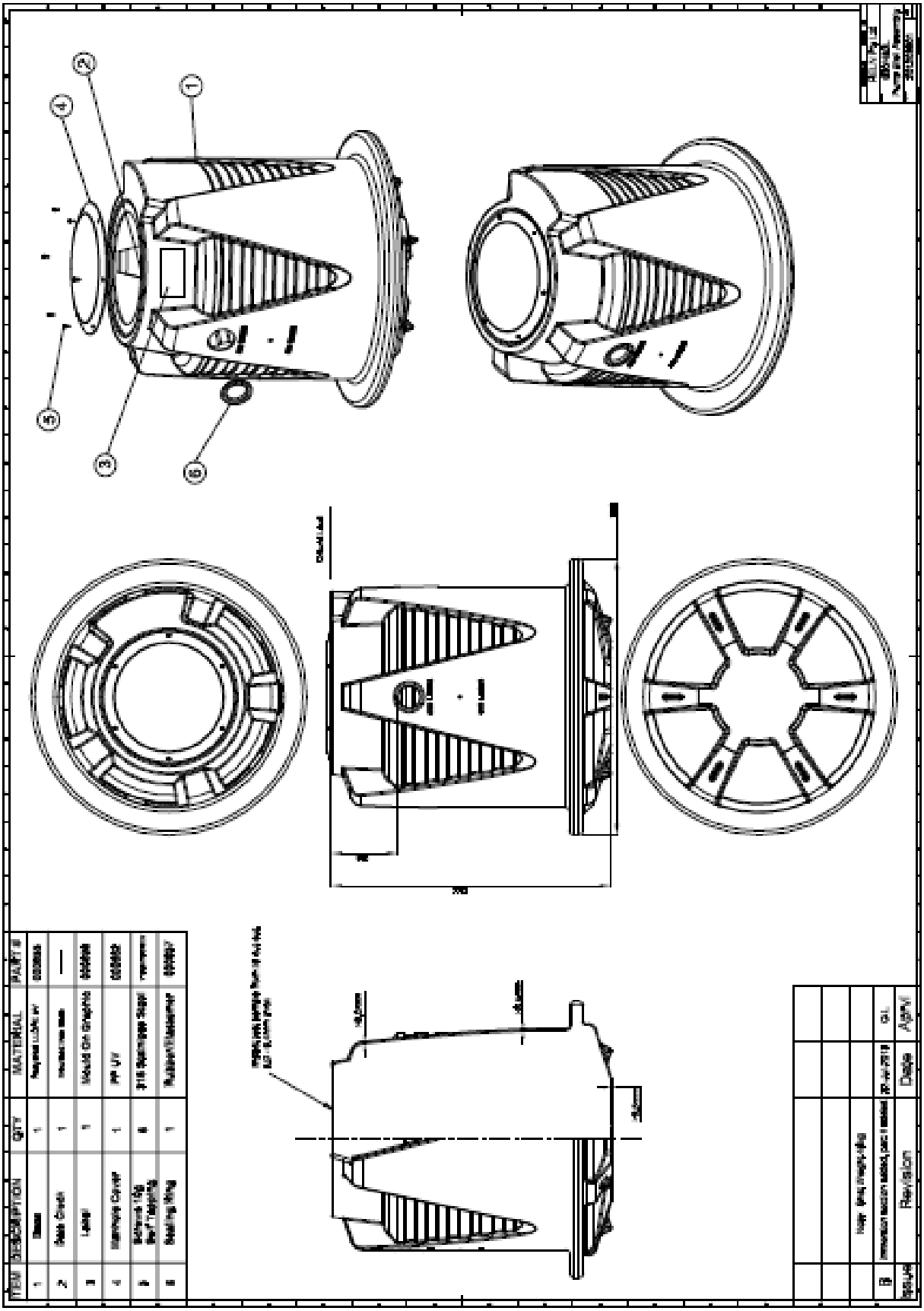
3200L Deep Invert Holding Tank



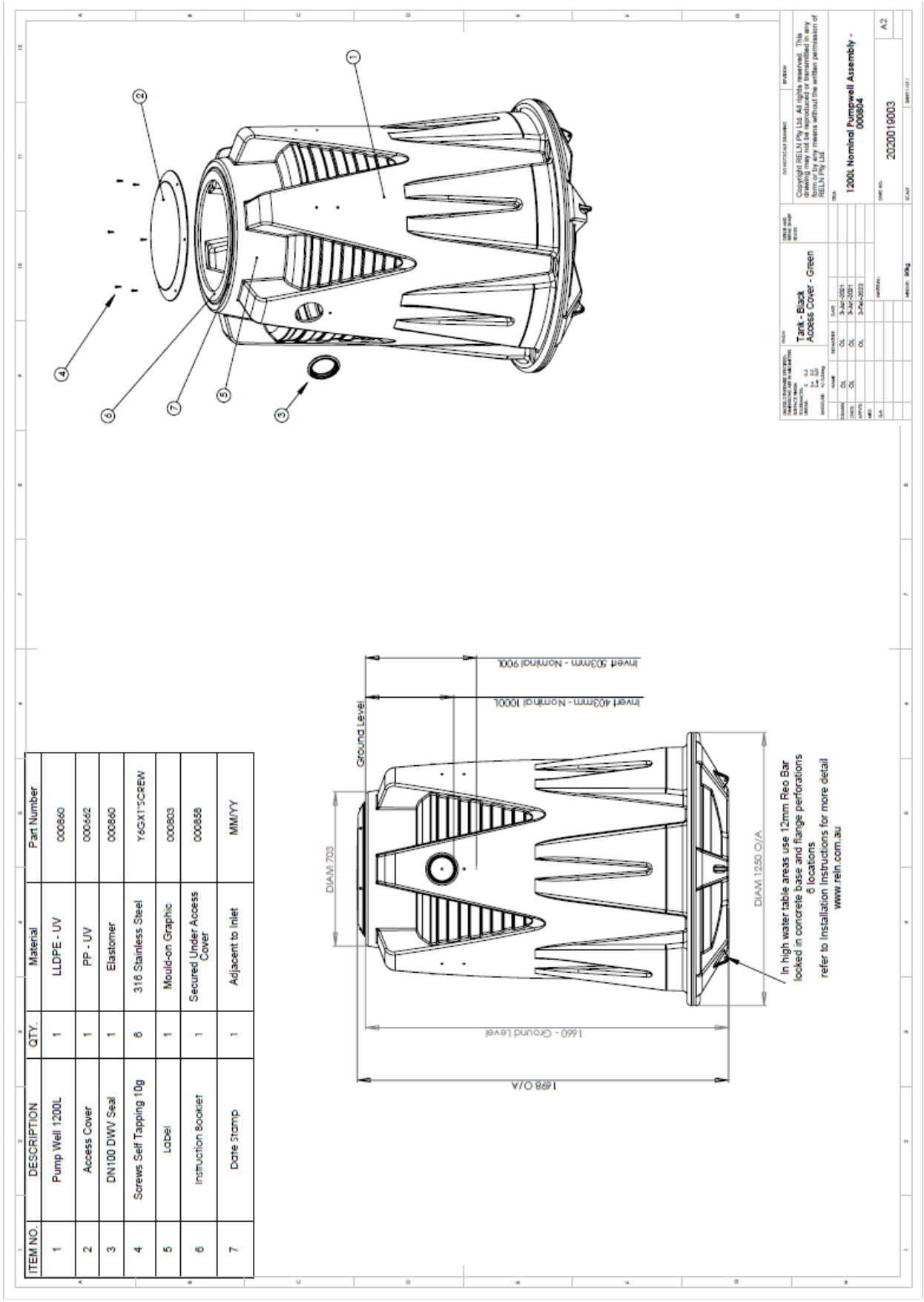
4000L Holding Tank



450L/600L Pump Well



1200L Pump Well



ITEM NO.	DESCRIPTION	QTY.	Material	Part Number
1	Pump Well 1200L	1	LLDPE - UV	000860
2	Access Cover	1	PP - UV	000662
3	DN100 DWV Seal	1	Elastomer	000860
4	Screws Self Tapping 10g	6	316 Stainless Steel	Y6GXTSCREW
5	Label	1	Mould-on Graphic	000803
6	Instruction Booklet	1	Secured Under Access Cover	000858
7	Date Stamp	1	Adjacent to Inlet	MMYY