

DESIGN CHECKLIST

The following checklist is strictly for the use of a certified engineer who has been given the authority to design for the project in which the tanks will be used.

Atlantis system specified:

 Infiltration

 Harvesting (Reuse).

↳ Impermeable liner required

 On Site Detention (OSD)

↳ Impermeable liner required

		YES	NO
1.	Have Project Drawings and a Geo-technical Report been provided? If NO: Please contact an engineering consulting firm to obtain a geotechnical report and relevant project sections, and then continue completing the rest of the form.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Have expected loads been incorporated into the design? <ul style="list-style-type: none"> • Vertical Dead Load: _____ kPa / _____ psi • Vertical Live Load: _____ kPa / _____ psi • Vertical Combination / Uniformly distributed loads (UDL): _____ kPa / _____ psi • Lateral Load: _____ kPa / _____ psi • Uplift Load: _____ kPa / _____ psi • Diagonal Load: _____ kN / _____ lb *According to AS4678, AS1170.1, AS 2566.1, AS 5100, AUSTRROADS, BS EN 1997-1:2004 and CIRIA C680	<input type="checkbox"/>	<input type="checkbox"/>
3.	Have the following requirements been considered? Top Cover/backfill: _____ m / _____ (ft) Setback / Adjacent structure at: _____ m / _____ (ft) *Please review minimum top cover according to AS2566.1 and AS3500 and minimum setback according to Engineers Australia (2003-2006) in Atlantis technical specification	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is there presence of high water table? If YES: please specify distance from level _____ m / _____ (ft)	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are there any nearby hills or steep slopes? If YES: How far from the tank perimeter? _____ m / _____ (ft) What is the slope gradient? _____ ° *Please note that the coefficient of earth pressure may be greater in presence of nearby hills. Atlantis does not recommend tank installations near hills or steep slopes.	<input type="checkbox"/>	<input type="checkbox"/>
6.	Main soil type present on the site, identified in geotechnical report? Soil type: <input type="checkbox"/> Coarse sand <input type="checkbox"/> Sandy loam <input type="checkbox"/> Sandy clay <input type="checkbox"/> Clay <input type="checkbox"/> Other: _____	<input type="checkbox"/>	<input type="checkbox"/>
6.1	Is there presence of soft soils (such as clay) and/or the tank will be used as a foundation system? If YES: Please check settlements and bearing capacity of soils.	<input type="checkbox"/>	<input type="checkbox"/>
7.	Design Life of the project: <input type="checkbox"/> 20 years <input type="checkbox"/> 30 years <input type="checkbox"/> Other: _____		
7.1	Has a creep reduction factor been taken into account for compressive strength capacity? * According to AS4678	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Is the tank height greater than 1.6m (5.3 ft)? and/or Is the tank located at depth greater than 4m (13.1 ft)? If YES to either: Creep reduction factor should be taken into account for lateral strength capacity according to CIRIAC680.	<input type="checkbox"/>	<input type="checkbox"/>

		YES	NO
8.	Pre-treatment/filtration system:	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Atlantis Large / Small Filter <input type="checkbox"/> Gross Pollutant Trap (GPT) <input type="checkbox"/> Biofiltration <input type="checkbox"/> Other: _____		
<p>If NO: The end-user is responsible for the performance of the tanks if there is not a pre-filtration system installed/specified.</p> <p>Note: Sediments, debris and contaminants must be kept out of the system.</p>			
9.	Backfill material specified?	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Coarse washed river sand (less than 5% fines passing 75 micron sieve) <input type="checkbox"/> Aggregate of angular material (up to 19mm - 3/4") <input type="checkbox"/> Other: _____ (Material graded to AS 1141)		
<p>If NO: Please seek approval from a geotechnical/structural engineer as to what backfill should be used.</p>			
10.	Has an internal plate configuration been specified?	<input type="checkbox"/>	<input type="checkbox"/>
	<p>If YES: Please select from the following:</p> <input type="checkbox"/> 4 Plates <input type="checkbox"/> 5 Plates <input type="checkbox"/> 7 Plates <input type="checkbox"/> 9 Plates <input type="checkbox"/> Titan Tank		
10.1	Is the strength capacity of the tank greater than the loads applied on it?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Project was consulted upon and approved by qualified engineers	<input type="checkbox"/>	<input type="checkbox"/>

Company: _____ Date: _____

Designer: _____ Signature: _____

Note: Atlantis products are manufactured by independent factories from high quality recycled materials, carefully selected and under strict quality control procedures. The strength could vary slightly due to raw material, country of manufacture, manufacturing process and external conditions.

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INSTALLATION CHECKLIST

Atlantis system specified:

 Infiltration

 Harvesting (Reuse)

 On Site Detention (OSD)

*Impermeable liner required
Always include section 4*

*Impermeable liner required
Always include section 4*

YES	NO
-----	----

Does the P.O./ Batch Number match the designed load specified by the authorized engineer?

<input type="checkbox"/>	<input type="checkbox"/>
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1. EXCAVATION

Note: Please ensure a temporary perimeter fence is erected before excavation.

YES	NO
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a. Is the base compacted and leveled?

If NO: Correct unsatisfactory conditions before commencement of base preparation layer.

<input type="checkbox"/>	<input type="checkbox"/>
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d. Are contaminated/acid soils and/or filling present? Is the site a landfill?

If YES: Design must be approved by an authorised qualified engineer

<input type="checkbox"/>	<input type="checkbox"/>
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c. Are clay/soft/muddy soils and/or high water table present?

If YES: Design must be approved by an authorised structural engineer

<input type="checkbox"/>	<input type="checkbox"/>
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2. GROUND FOUNDATION - BASE PREPARATION

YES	NO
-----	----

a. Does the foundation of the excavation have a minimum CBR of 3-5% in accordance with AS 1289.6.1.1?

If NO: Design must be approved by an authorised structural engineer

<input type="checkbox"/>	<input type="checkbox"/>
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b. Is the base layer minimum meeting authorised engineer's depth requirements?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

c. Is the base well compacted according to AS 1289.5 and the site graded?

<input type="checkbox"/>	<input type="checkbox"/>
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3. GEOTEXTILE USE

YES	NO
-----	----

a. Is your geotextile hydrophilic?

If NO: Ensure the geotextile is hydrophilic

<input type="checkbox"/>	<input type="checkbox"/>
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b. Is there enough overlap available to fold over the top of the tank?

If NO: Ensure an overlap by a minimum of 300mm (12")

<input type="checkbox"/>	<input type="checkbox"/>
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4. OSD & REUSE INSTALLATION

YES	NO
-----	----

a. Is there enough overlap for the impermeable liner?

If NO: Ensure overlap is available to fold over the top of the tank. Minimum overlap of 1m (3 ft.)

<input type="checkbox"/>	<input type="checkbox"/>
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b. Is there a geotextile layer to protect the liner?

If NO: Ensure a geotextile/sand protection layer

Note: Please consider the use of an extra strip of geotextile on the corners to protect the liner.

<input type="checkbox"/>	<input type="checkbox"/>
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5. INSTALLING ATLANTIS MODULES

YES	NO
-----	----

a. Are string lines around the boundaries to ensure straight lines

If NO: Ensure the tanks are aligned according to original design

Note: Best practices recommend that boundaries of the tank should be carried out by surveyors to ensure a straight installation.

<input type="checkbox"/>	<input type="checkbox"/>
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b. Are the modules stacked firmly against each other?

If NO: Gaps should not be greater than 5mm (1/4").

<input type="checkbox"/>	<input type="checkbox"/>
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INSTALLATION CHECKLIST (Continued)

6. INSTALLING MAINTENANCE PORTS

		YES	NO
a.	Inspection/Vent/Flushing Ports If NO: Atlantis tanks must be vented to prevent vacuum effect and may require specific maintenance according to the authorised engineer	<input type="checkbox"/>	<input type="checkbox"/>

7. BACKFILLS

		YES	NO
a.	Backfill material: Either Coarse washed sand with less than 5% fines passing 75micron sieve or Aggregate of angular material up to 19mm (3/4") or Other granular material graded to AS 1141? If NO: Any other backfill material must be approved by the authorised engineer Note: Backfill materials containing clay should never be used	<input type="checkbox"/>	<input type="checkbox"/>
b.	Backfill sides between 200-500mm (7.87" - 19.68")? If YES: Compact according to AS 1289.5 If NO: Design must be approved by a structural engineer. Note: When backfilling and compacting, make sure that you do not pinch the liner or rub the compactor against the liner. Protect it with a plywood sheet 20mm (0.8") thick	<input type="checkbox"/>	<input type="checkbox"/>
c.	Is the top backfill meeting Australian Standards (or local standards) minimum cover requirements and not exceeding 1600mm (5.3ft)? If YES: Compact according to AS 1289.5 If NO: Structural engineers' approval needed. Note: Ensure an equally distributed load light vehicle (i.e. Posi Track) is used to spread and level top backfill	<input type="checkbox"/>	<input type="checkbox"/>
d.	Placing and handling the backfill material: Is the backfill material placed alongside the excavation line around the tank?	<input type="checkbox"/>	<input type="checkbox"/>

8. GEOGRID (Optional)

		YES	NO
	If YES: Ensure a minimum Overlap of 1m (3ft) Note: Tensar BX 1200 or similar	<input type="checkbox"/>	<input type="checkbox"/>

9. PIPING

		YES	NO
	Are pipes no greater than 225mm (9")? <ul style="list-style-type: none"> • Inlet: ϕ _____ mm / (_____ ") • Outlet: ϕ _____ mm / (_____ ") • Overflow: ϕ _____ mm / (_____ ") • Other: _____ ϕ _____ mm / (_____ ") If YES: Installed according to Atlantis installation guidelines If NO: Ensure pipes greater than 225mm (9") do not penetrate the Tank structure. Note: Overflow according to AS3500.1	<input type="checkbox"/>	<input type="checkbox"/>

INSTALLATION CHECKLIST (Continued)

10. PROJECT DOCUMENTS

	YES	NO
Maintenance manual provided to the end user?	<input type="checkbox"/>	<input type="checkbox"/>
Handover Document provided to the end user?	<input type="checkbox"/>	<input type="checkbox"/>

11. SITE FINAL CLEANING

	YES	NO
Has cleaning been arranged?	<input type="checkbox"/>	<input type="checkbox"/>

12. PERMANENT PERIMETER

	YES	NO
a. Did you install signage to prevent any traffic from entering the location?	<input type="checkbox"/>	<input type="checkbox"/>
If NO: Ensure a signage is present		

COMMENTS (For quality and training purposes)

	YES	NO
After the excavation: _____ Size / cross section / design matches the site Other: _____ _____ _____	<input type="checkbox"/>	<input type="checkbox"/>

Company: _____ Date: _____

Designer: _____ Signature: _____

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END USER CHECKLIST

NOTE: The tank is solely used for its purpose to temporarily detain or permanently store potable or treated stormwater

MAINTENANCE GUIDANCE OF PRE-TREATMENT/FILTRATION SYSTEMS

<p>1. Monthly/after significant storm events</p> <p>a. <i>No clogging at inlet/outlet structures/trash racks</i></p> <p>b. <i>Clean when there is excessive sediment build up in the pre-treatment device</i></p> <p>c. <i>Inspect, lubricate and conduct routine test to check reliability of pump(s)</i></p> <p>d. <i>Check condition and conduct function test of all pump starters and their controls including level control systems</i></p> <p>e. <i>No obstruction of maintenance access/openings</i></p> <p>f. <i>Access into the tank system is secure (out of bounds to public and unauthorised personnel)</i></p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>2. Yearly as required</p> <p>g. <i>De-silting of the tank has been carried out, trash screens have been cleaned</i></p> <p>h. <i>Inspect, service, replace, lubricate and test performance of pump(s)</i></p> <p>i. <i>Check condition and conduct function test of all pump starters and controls including level control systems.</i></p> <p>j. <i>Replace faulty and worn out parts if required.</i></p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

INSTALL PERMANENT SIGNAGE

Signage Should Read:

CAUTION:

UNDERGROUND STORMWATER TANK BELOW *Underlining maximum vehicle loads*