

**TREATMENT PLANT APPROVAL 18/2020**  
*Plumbing and Drainage Act 2018*

**Approval**

1. The **Concrete/Poly ABS1500 (10EP/1500L)** (“the system”) described in the Specifications and Drawings in the attached Schedule and manufactured by **Taylex Industries Pty Ltd** (“the manufacturer”) (ABN 35 113 453 091) (“the manufacturer”) has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code) dated 26 March 2019.
2. Approval is granted for the advanced secondary quality wastewater treatment system, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Regulation 2018*, and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Treatment Plant Approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

**Conditions of approval**

5. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
6. The system when tested by a certification accreditation body in accordance with AS1546.3:2017 was found to comply with the advanced secondary 10EP/1500L level without nutrient reduction effluent criteria and must continue to meet the following requirements:

**TABLE 2.1 (AS1546.3:2017)**  
**EFFLUENT COMPLIANCE CRITERIA**  
**FOR AN STS WITH NO NUTRIENT**  
**REDUCTION FACILITIES**

Parameter	Secondary effluent		Advanced secondary effluent	
	90% of samples	Maximum	90% of samples	Maximum
BOD <sub>5</sub>	≤20 mg/L	30 mg/L	≤10 mg/L	20 mg/L
TSS	≤30 mg/L	45 mg/L	≤10 mg/L	20 mg/L
<i>E. coli</i> *	≤10 cfu/100 mL	30 cfu/100 mL	≤10 cfu/100 mL	30 cfu/100 mL
FAC	Minimum 0.5 mg/L†	N/A	Minimum 0.5 mg/L†	N/A
Turbidity	N/A	N/A	N/A	5 NTU

\* Where disinfection is required.

† Minimum level, not 90% of samples.

7. Each system must be serviced in accordance with the accreditation certificate and details supplied in the owner’s operation and maintenance manual.

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Department of Housing & Public Works



8. Each system must be supplied with —
- (a) a copy of this Treatment Plant Approval document;
  - (b) details of the system;
  - (c) instructions for authorised persons for its installation;
  - (d) a copy of the owner's manual to be given to the owner at the time of installation; and
  - (e) detailed instructions for authorised service personal for its operation and maintenance.
9. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the supplier's nominated NATA accredited laboratory which systems are to be audited for BOD<sup>5</sup> and TSS. The sampling and testing of selected systems, if required, is to be done at the supplier's expense. The following results must be reported to the Chief Executive;
- (a) Address of premises;
  - (b) Date inspected and sampled;
  - (c) Sample identification number;
  - (d) BOD<sup>5</sup> for influent and effluent; and
  - (e) TSS for influent and effluent.
10. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier fails —
- (a) to comply with one or more of the conditions of approval; or
  - (b) within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
11. This approval may only be assigned with the prior written consent of the Chief Executive.
12. This approval expires on 12 November 2025 unless cancelled earlier in accordance with paragraph 10 above.

Lindsay Walker

**Director  
Plumbing, Drainage and Special Projects  
Building Legislation and Policy**

Date approved: 13 November 2020

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**Facsimile** +61 7 3237 1248  
**Website** [www.hpw.qld.gov.au](http://www.hpw.qld.gov.au)

ABN 61 331 950 314

**Treatment Plant Approval**  
Approved by: Lindsay Walker  
Delegated Authority  
Department of Housing & Public Works

**TREATMENT PLANT APPROVAL No. 18/2020**  
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**SCHEDULE**

**Attachment 1**

Drawings and Specifications for the

**Concrete/Poly ABS1500 (10EP/1500L)**

**Treatment Plant Approval**

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Delegated Authority

Department of Housing & Public Works

# PRODUCT CERTIFICATE OF REGISTRATION



## Global Certification Pty Ltd

Number 40/22

Product Performance Testing

**AS 1546.3:2017**

**Advanced Secondary 1500 L/day or 10EP Level**

Issued to

## Taylex Industries Pty Ltd

56 Prairie Road Ormeau Qld 4208

Certification Date: - 19 August 2020

Expiry Date: - 19 August 2025

### Product Certified:

Model	Disinfection	Average Results over the Test Period	Servicing Frequency	Discharge	Manufactured and assembled
Taylex Concrete ABS 1500 and Taylex Poly ABS 1500	Yes	TSS 7.6mg/l BOD <sub>5</sub> 1.5mg/l E coli 1.4 CFU/100ml	3 Monthly Service  3.2 yearly sedimentation pump out or as required	Pumped via disinfection/pump chamber with chlorine dispenser	Manufactured and Assembled at: 56 Prairie Road Ormeau Qld 4208

The system took 4 weeks to meet the advanced secondary standard.

Note: The Ecoli result was compliant for the entire period from installation.

The vertical axis tanks are certified to AS/NZS 1546.1:2018 for both the Poly and Concrete systems.

NACE CODES: 3700

*This Certificate of Conformance to the Product Certificate Scheme for "Domestic Wastewater Treatment Units (Septic Tanks) and Rainwater Tanks" remains the property of Global Certification Pty. Ltd. and is granted subject to the terms and conditions of the Contract Application, in respect of the Product certified on this page and the attached schedule to the Certification of Conformance, bearing the same number as this certificate.*

Date of Issue: 19<sup>th</sup> August 2020

Bruce Smith Director



Signed for and on behalf of Global Certification Pty Ltd  
PO Box 953 Belconnen ACT 2616

[www.jas-anz.com.au/register](http://www.jas-anz.com.au/register)

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**TAYLEX® CONCRETE ADVANCED BLOWER SYSTEM 1500  
ABS1500**

**Specifications**

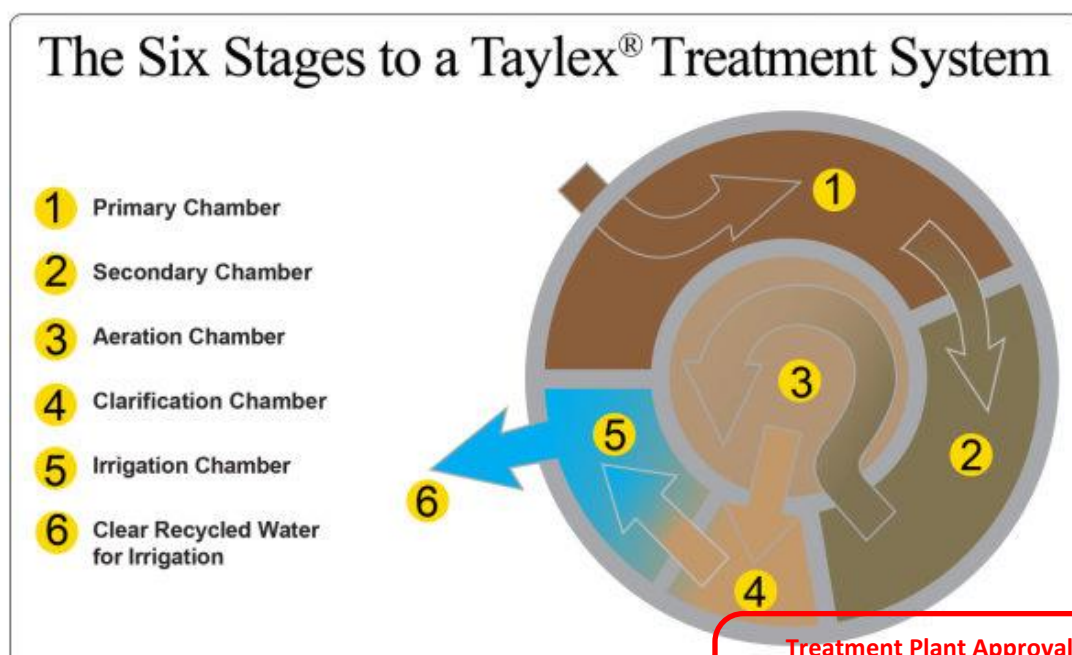
**General Description**

The Taylex® ABS1500 (Concrete Advanced Blower System 1500) Secondary Treatment System (STS) is designed to treat the wastewater from a residential dwelling up to 1,500 Litres per day, with a daily flow of 150 Litres per person and an average daily BOD<sup>5</sup> 70g per person.

The Taylex® ABS1500 STS is contained in one vertical axis type cylindrical precast Concrete collection well with a design capacity of 9,320 Litres and an operating capacity of 5,880 Litres.

Flow path of wastewater:

1. A primary pre-treatment chamber, with a capacity of 1,684 Litres.
2. A secondary pre-treatment chamber, with a capacity of 842 Litres.
3. An aeration chamber, with a capacity of 2,071 Litres. This chamber is fitted with bio block media, 9" disk diffuser and air lift.
4. A sedimentation / clarifier chamber, with a capacity of 662 Litres, containing a Taylex® Disk Filter fitted to the outlet, and a sludge return to the primary.
5. An irrigation chamber, with a capacity of 621 Litres, incorporating a capacity of 300 Litres for chlorine contact of effluent. A chlorine disinfection unit is installed on the inlet to the irrigation chamber. The system is fitted with either a Davey D25 or D42 Irrigation Pump.
6. The automatic irrigation pump transfers the treated effluent to the effluent disposal area / land application area (LAA).



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## Product Specification Table

Australian Standards Compliance		
Effluent Testing	AS1546.3:2017	
Tank Design and Testing	In Ground	AS1546.1:2008
	Above Ground	AS3735:2001
System Model	ABS1500	Concrete
Treatment Level	Advanced Secondary	

Tank Capacity		
Total Tank Capacity	9320L	
Operating Capacity	5880L	

System Chamber Capacities		
Primary Chamber	1684L	
Secondary Chamber	842L	
Aeration Chamber	2071L	
Clarifier Chamber	662L	
Irrigation Chamber	621L	
Maximum Hydraulic Loading Capacity	1,500 litres per day	

Design Parameters		
Parameter	Total Per Day	Total Per person per day
Daily flow	1500L	150L
Maximum Organic Loading BOD <sup>5</sup>	700g	70g
Total Suspended Solids (TSS)	700g	70g
Total Nitrogen (TN)	150g	15g
Total Phosphorus (TP)	25g	2.5g

Effluent Compliance: AS1546.3:2017		
Biochemical Oxygen Demand (BOD <sup>5</sup> )	≤10mg/l	
Total Suspended Solids (TSS)	≤10mg/l	
E. Coli	≤10cfu/100ml	

Temperature		
	Minimum	Maximum
Operating Temperature C°	-2°C	45°C

Electricity Consumption		
Kilowatt hours per day (kWh/d)	2.21	
Kilowatt hours per 1000L (kWh/1000L)	1.62	

Servicing and Maintenance		
Servicing Frequency	Every 3 months	

**Treatment Plant Approval**

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**TAYLEX® POLY ADVANCED BLOWER SYSTEM 1500  
PABS1500**

**Specifications**

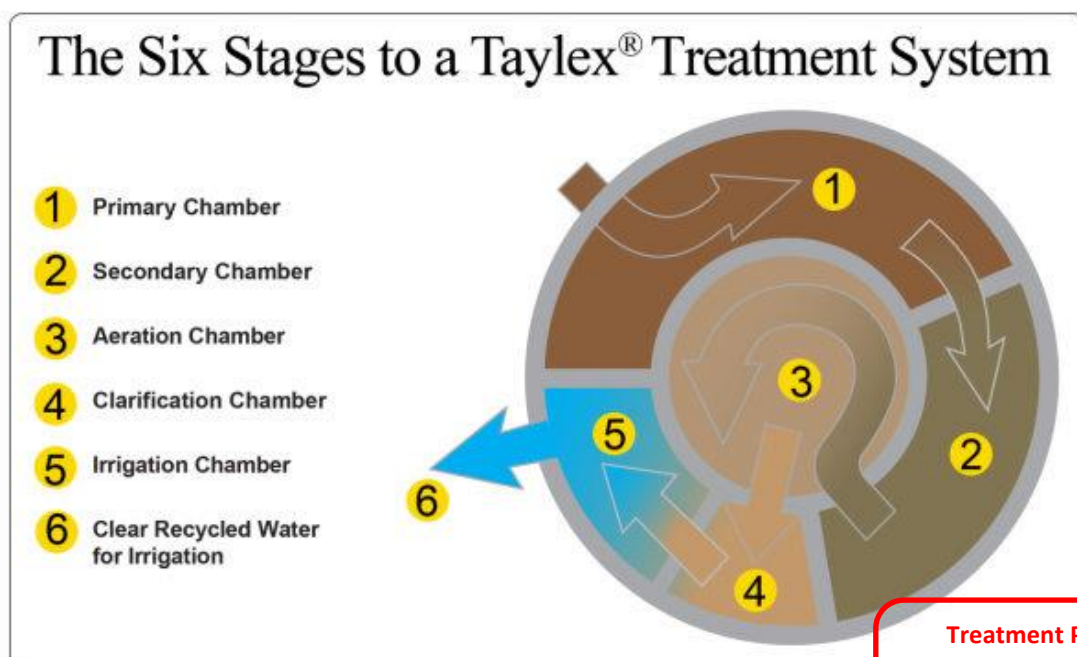
**General Description**

The Taylex® PABS1500 (Poly Advanced Blower System 1500) Secondary Treatment System (STS) is designed to treat the wastewater from a residential dwelling up to 1,500 Litres per day, with a daily flow of 150 Litres per person and an average daily BOD<sup>5</sup> 70g per person.

The Taylex® PABS1500 STS is contained in one vertical axis type cylindrical moulded polyethylene collection well with a design capacity of 7,108 Litres and an operating capacity of 6,066 Litres.

Flow path of wastewater:

1. A primary pre-treatment chamber, with a capacity of 1,708 Litres.
2. A secondary pre-treatment chamber, with a capacity of 911 Litres.
3. An aeration chamber, with a capacity of 2067 Litres at high level. This chamber is fitted with bio block media, 9" disk diffuser and air lift.
4. A sedimentation / clarifier chamber, with a capacity of 685 Litres, containing a Taylex® Disk Filter fitted to the outlet, and a sludge return to the primary.
5. An irrigation chamber, with a capacity of 685 Litres, incorporating a capacity of 300 Litres for chlorine contact of effluent. A chlorine disinfection unit is installed on the inlet to the irrigation chamber. The system is fitted with either a Davey D25 or D42 Irrigation Pump.
6. The automatic irrigation pump transfers the treated effluent to the effluent disposal area / land application area (LAA).



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## Product Specification Table

Australian Standards Compliance		
Effluent Testing	AS1546.3:2017	
Tank Design and Testing	In Ground	AS1546.1:2008
	Above Ground	AS3735:2001
System Model	PABS1500	POLY
Treatment Level	Advanced Secondary	

Tank Capacity		
Total Tank Capacity	7108L	
Operating Capacity	6066L	

System Chamber Capacities		
Primary Chamber	1708L	
Secondary Chamber	911L	
Aeration Chamber	2067L	
Clarifier Chamber	685L	
Irrigation Chamber	685L	
Maximum Hydraulic Loading Capacity	1,500 litres per day	

Design Parameters		
Parameter	Total Per Day	Total Per person per day
Daily flow	1500L	150L
Maximum Organic Loading BOD <sup>5</sup>	700g	70g
Total Suspended Solids (TSS)	700g	70g
Total Nitrogen (TN)	150g	15g
Total Phosphorus (TP)	25g	2.5g

Effluent Compliance: AS1546.3:2017		
Biochemical Oxygen Demand (BOD <sup>5</sup> )	≤10mg/l	
Total Suspended Solids (TSS)	≤10mg/l	
E. Coli	≤10cfu/100ml	

Temperature		
	Minimum	Maximum
Operating Temperature C°	-2°C	45°C

Electricity Consumption		
Kilowatt hours per day (kWh/d)	2.21	
Kilowatt hours per 1000L (kWh/1000L)	1.62	

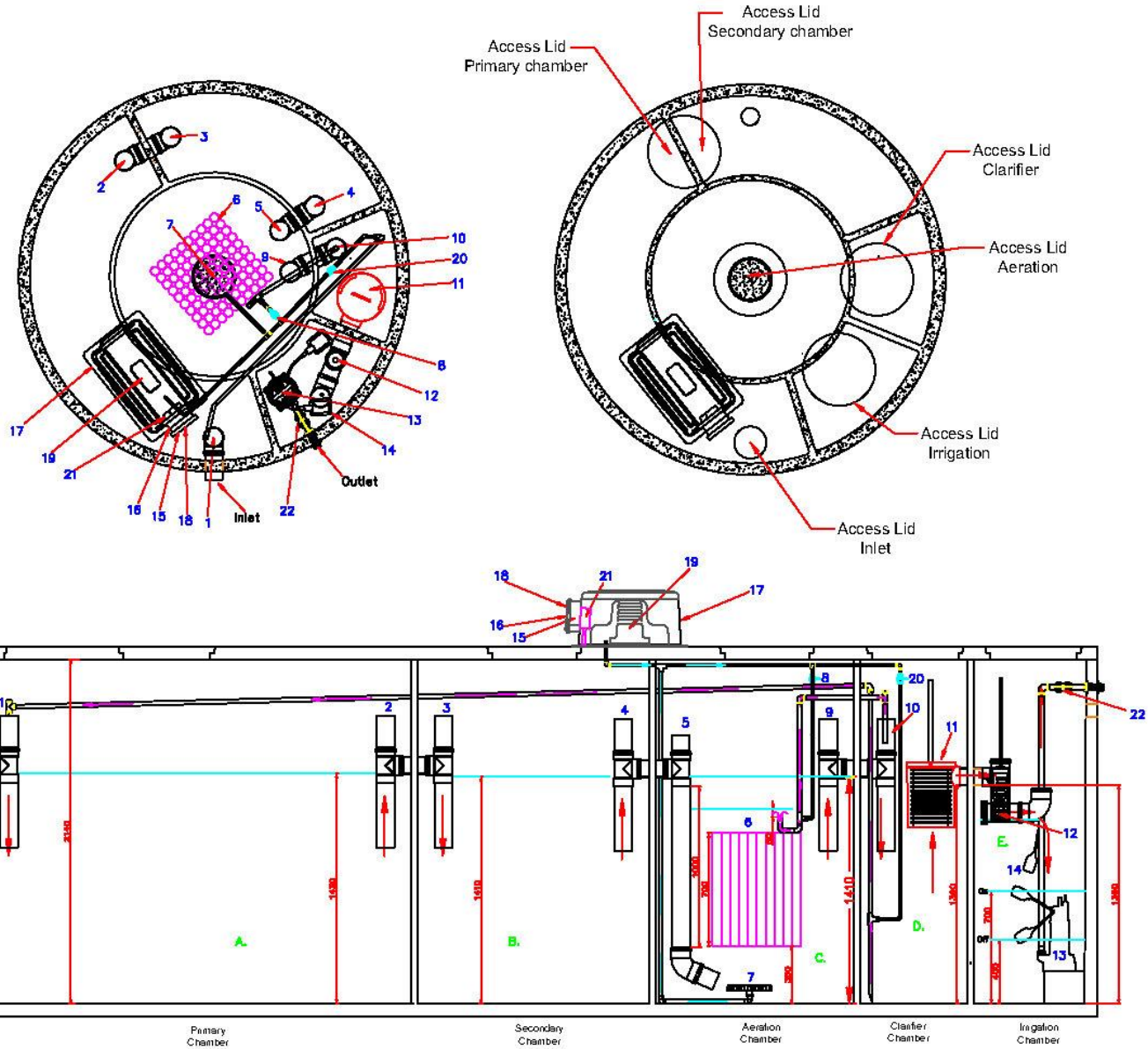
Servicing and Maintenance	
Servicing Frequency	Every 3 months

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TANK DETAILS	
TAYLEX CONCRETE ABS 1500 Concrete Tank	
A. PRIMARY PRE-TREATMENT CHAMBER	1,684L
B. SECONDARY TREATMENT CHAMBER	842L
C. AERATION CHAMBER	2,071L
D. CLARIFIER	862L
E. CHLORINATION PUMPWELL	821L
WORKING VOLUME 5,880 Litres	
TOTAL VOLUME 9,320 Litres	

INDEX	
1.	PVC JUNCTION 100MM X 90
2.	PVC JUNCTION 100MM X 90
3.	PVC JUNCTION 100MM X 90
4.	PVC JUNCTION 100MM X 90
5.	PVC JUNCTION 100MM X 90
6.	BIO BLOCK
7.	DISK DIFFUSER
8.	AIR LIFT
9.	PVC JUNCTION 100MM X 90
10.	PVC JUNCTION 100MM X 90
11.	TAYLEX TFG FILTER
12.	CHLORINE DISPENSER
13.	IRRIGATION PUMP
14.	HIGH LEVEL ALARM
15.	CONTROL PANEL
16.	PANEL BOX
17.	BLOWER BOX
18.	LIGHT
19.	BLOWER
20.	SLUDGE RETURN
21.	WEATHERPROOF GPO'S
22.	NON-RETURN VALVE

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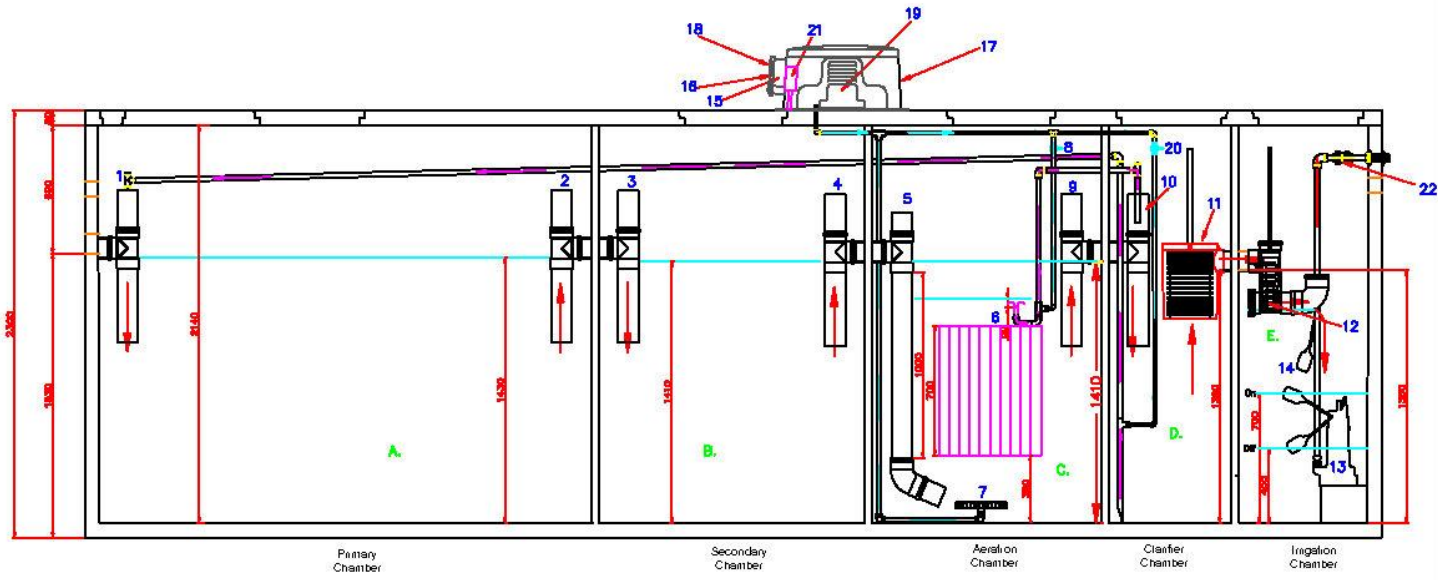
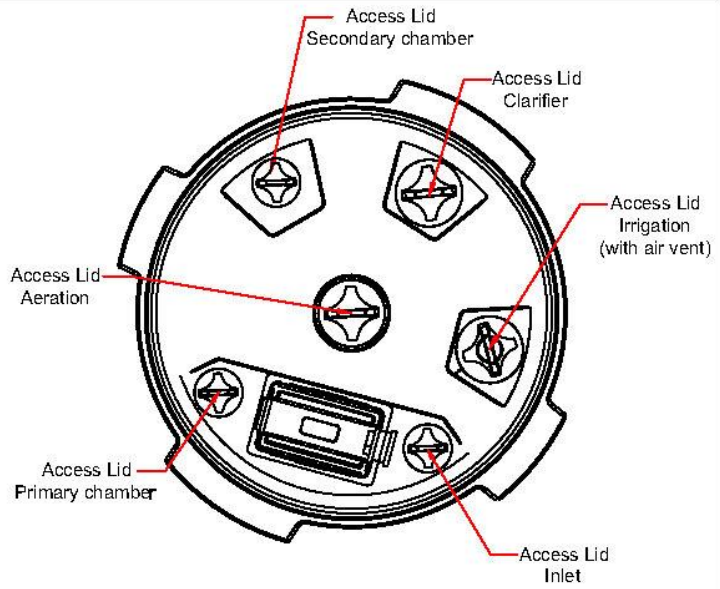
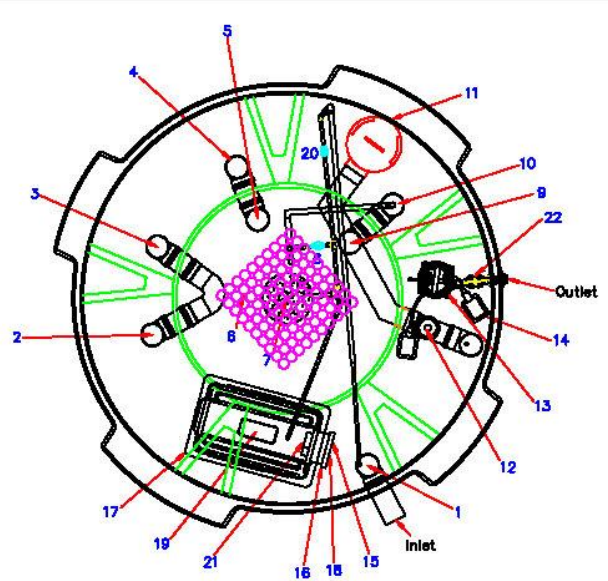



DESIGNED: IH	SCALE: MTS	DESIGN: MTS
DRAWING: IH		
CHECKED: IH		
CAD FILE:		

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CLIENT: TAYLEX GROUP	PROJECT: ABS CONCRETE 1500
Taylex PROJ No.:	DRAWING No.: 1 of 1

TITLE: TAYLEX CONCRETE ABS 1500	
SERIES: 2	ISSUE No.:



**TANK DETAILS**

**TAYLEX PABS1500**  
Poly Tank

A. PRIMARY PRE-TREATMENT CHAMBER	1,718L
B. SECONDARY TREATMENT CHAMBER	911L
C. AERATION CHAMBER	2,067L
D. CLARIFIER	885L
E. CHLORINATION PUMPWELL	885L
<b>WORKING VOLUME</b>	<b>6,066 Litres</b>
<b>TOTAL VOLUME</b>	<b>7,108 Litres</b>

**INDEX**

1. PVC JUNCTION 100MM X 90
2. PVC JUNCTION 100MM X 90
3. PVC JUNCTION 100MM X 90
4. PVC JUNCTION 100MM X 90
5. PVC JUNCTION 100MM X 90
6. BIO BLOCK
7. DISK DIFFUSER
8. AIR LIFT
9. PVC JUNCTION 100MM X 90
10. PVC JUNCTION 100MM X 90
11. TAYLEX TFC FILTER
12. CHLORINE DISPENSER
13. IRRIGATION PUMP
14. HIGH LEVEL ALARM
15. CONTROL PANEL
16. PANEL BOX
17. BLOWER BOX
18. LIGHT
19. BLOWER
20. SLUDGE RETURN
21. WEATHERPROOF GPC'S
22. NON-RETURN VALVE

**Treatment Plant Approval**  
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DESIGNED: DE	DATE: 22.4.2020	SCALE: MTR	DESIGN: MTR
DRAWN: DE			
CHECKED: ST			
GD FILE:			

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CLIENT: TAYLEX GROUP	PROJECT: PABS1500
Taylex PROJ No.:	DRAWING No.: 1 of 1

TITLE: TAYLEX PABS1500	
SERIES: 1	ISSUE No.: