

Job Title:	Camden Town Hall			Job Number:	261250
Job Stage:	Stage 4	Status:	Stage 4	Made by:	AD
Revision:	00	Date:	27/09/2019	Checked by:	DH
Revision Description:					

General Information

Number Required	1
Location	Greywater recycling plant B.04
System	Packaged greywater recycling plant (GWR/B1/01) with mains water & RW top up
Type	Membrane bioreactor

Suggested Supplier

Model Reference	Aqua-Recycling-Control 120B+
Manufacturer (or equal and approved)	Aquality
Contact Name	Christopher James
Telephone Number	(44) 020 8991 3725

Performance Data

	Required	Offered	
Actual Capacity	3000		litres/day
Pre-treatment	Coarse filtration		
Primary treatment	Settling		
Secondary treatment	Membrane bioreactor		
Tertiary treatment	UV disinfection		
Post tank booster set as part of packaged system	Y		
Greywater nominal flow	3000		litres/day
Greywater minimum flow			litres/day
Greywater peak flow	3000		litres/day

Materials and Components

Description	Packaged greywater recycling with filters and membrane bioreactor in HDPE tanks	
Mains water top up required	Y	
Mains water top up size	25	mm
Mains water max pressure	200	kPa
Mains water flow rate	0.23	litre/s
Airgap type	AA	
Membrane type	MS	
Membrane location	In tank	

Water Quality Produced

Max total coliforms out	nil		per 100ml
Max E. coli	nil		per 100ml
Max I. enterococci	nil		per 100ml
Turbidity	<0.5		NTU
BOD	<5		mg/l
COD	<5		mg/l
TSS	<600		mg/l
Max. working temperature	20		°C
Min. working temperature	10		°C

Tank Construction Data

Arrangement	Mounted on PE chassis
Type of Construction	Factory manufactured HDPE
Construction Standard	BS 8515 & BS 8525
Tank Material	High quality HDPE

Tank Dimensional Data

Overall Length	5500	mm
Overall Width	4000	mm
Overall Height	2600	mm
Plant footprint	22	m2
Inlet Connection Size	100	mm
Outlet Connection Size	42	mm
Overflow Size	100	mm
Warning Pipe Size	100	mm
Vent Pipe Size	100	mm
Drain Outlet	100	mm

Treatment Electrical Data

	Required	Offered	
Electrical Supply	230		V/Ø
Electrical Frequency	50		Hz
Set Load	0.4		kW
Starting Current	3		A
Running Current	3		A
Power Source	Single phase		
Normal Feed	N		
Essential Feed	Y		

Control Panel Data

Overall Length	650	mm
Overall Width	570	mm
Overall Height	1750	mm
IP Rating	IP 65	

Booster Set Electrical Data

	Required	Offered	
Electrical Supply	400		V/Ø
Electrical Frequency	50		Hz
Set Load	2.2		kW
Starting Current	3		A
Running Current	3		A
Power Source	Three phase		
Normal Feed	N		
Essential Feed	Y		

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Controls

	Required	
	Yes	No
High Level Alarm Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mid Level Alarm Switch	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Low Level Alarm Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pump 1 Start Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pump 2 Start Switch	<input type="checkbox"/>	<input type="checkbox"/>
Pump Panel Links	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lockable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fully Automatic in Operation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Touchscreen Interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Start/Stop Button	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Auto On/Off Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Indicators

	Required	
	Yes	No
Auto Draindown of Storage Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gauge Pressure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Self Test Lamp	<input type="checkbox"/>	<input checked="" type="checkbox"/>
On Supply Lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Test Switch Lamp	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individual Pump Run Lamp	<input type="checkbox"/>	<input type="checkbox"/>
Online Redox Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mains Water Top Up Flow Rate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greywater Produced Flow Rate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Storage Tank Levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Warning Pipe Screening	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BMS Links

Common Alarm Volt Free Contact	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Additional Information

- 1 All inputs/outputs to be wired to numbered terminals within the control panel.
- 2 All alarm volt free contacts shall be fail safe. Contacts shall be normally open, closed when healthy, open on alarm or loss of power.
- 3 All volt free contacts to be rated at 3A inductive at 230 VAC.
- 4 Power supply and control cables that are not part of the package are to be provided by the electrical / controls engineer.
- 5 Greywater filter IF2 to be installed as in the packaged system specified by the manufacturer.
- 6 MS : manufacturer standard
- 7 Power supply cables that are not part of the package are to be provided by the electrical subcontractor. Interconnecting power supply cables between the packaged components are to be provided by the manufacturer.
- 8 Control cables that are not part of the package are to be provided by the controls subcontractor. Interconnecting control cables between the package components are to be provided by the manufacturer.
- 9 Interconnecting pipework and valves between components to be specified by manufacturer. Interconnecting pipework and valves to be provided and installed as part of package.
- 10 Greywater system will include but not be limited to required components listed in this datasheet.
- 11 Refer to the related packaged system datasheets listed above for further controls and instrumentation data, specific to the individual components
- 12 Where the system has touchscreen interface, then the controls and indicators listed may be displayed on this.
- 13 Final equipment selected by contractor must be compliant with the project design and sustainability targets.

Comments

[illegible]