

4 FILTERS

4.1 50M COMPETITION POOL FILTERS

No. Off:	4 No.
Size:	3.0m Diameter
Type:	Euro Pools plc medium rated sand filter.
Material:	Mild Steel, Shell - 8mm Thick & Ends - 10mm Thick. Internally hypalon lined
Working Pressure:	2.5 bar max.
Filtration Rating:	22.24 m ³ /m ² hr
Filtration Area:	7.06 m ² (per filter)
Plant Flow:	157 m ³ /hr (per filter)
Backwash Flow:	247 m ³ /hr (per filter) 5 min – air only, / 5 min – No air at full wash volume.
Collector System:	Header, Lateral, Nozzles
Media Depths & Types:	1000mm of 16/30 Filtering Sand - Top Layer / 150mm of 6mm Peg Gravel - Bottom Layer
Ancillaries:	1 No. Auto Air Release Valve (per filter) 1 No. Outlet Gauge 1 No. Manual Air Release Valve (per filter) 1 No. Differential Pressure Monitor 1 No. Inlet Gauge

	Mid Filter No. 3	Mid Filter No. 4	End Filter No. 1	End Filter No. 2
Criteria	Check / record	Check / record	Check / record	Check / record
Check for sand crowning	Ok	Ok	Not level	Ok
Check sand integrity	Getting sticky	Getting Sticky	Getting Sticky	Getting Sticky
Inspect for filter lining damage	Notes 1 & 2	Notes 2 & 3	Notes 1, 2 & 4	Notes 2 & 3
Inspect top header and diffusers	Ok	Ok Note 5	Ok	Ok
Test air scour bubble performance	Ok	Ok	Ok	Ok
Test pressure gauges	X Note 8	Ok	Ok	X Note 8
Conduct backwash	N/A	N/A	N/A	N/A
Test manual and auto air venting	Auto release passing	Auto release passing	Auto release passing	Ok
Check general external condition	Ok	Ok	Ok	✓ Note 7
Test drainage to BWH tank and drains	✓	✓	✓	✓
Auto Valve Operation	Valves Ok	Valves Ok	Note 6	Valves Ok

Notes:

Note 1: Surface of filter Hypalon lining is degrading but areas underneath appear to be solid.

Note 2: Small rust spots noted in all filters in certain sections.

Note 3: Filter lining has totally failed, it is split and hanging down away from the filter body.

Note 4: Bubbles in areas within the filter lining, indicating the lining is failing and water is getting underneath.

Note 5: 1 No. top header tundish is cracked but operation does not seem to be compromised. Will be checked on next service.

Note 6: Drain valve not operating, valve ok. Requires replacement actuator and solenoid (63mm valve).

Note 7: Rusting on external of the filter due to something dripping onto the filter from the duct above.

Note 8: Outlet pressure gauge not working, requires replacing.

General Note: The Auto valve actuators and solenoids throughout the plant room are becoming compromised due to the excessive water in the system. This is affecting the timing and speed which the valves move at causing sequencing issues. Plantroom humidity issues have still not been addressed which is a major contributing factor to this.

Vessel Inspection Note:-

4.2 LEARNER POOL, FUN POOL AND SPA FILTERS

	Learner Pool Filters	Fun Pool Filters	Spa Filter
No. Off:	2 No.	2 No.	1 No.
Size:	1.5m Diameter	1.8m Diameter	1.2m Diameter
Type:	Euro Pools plc medium rated sand filter.		
Material:	Mild Steel, Shell - 8mm Thick & Ends - 10mm Thick. Internally hyposal lined		
Working Pressure:	2.5 bar max.		
Filtration Rating:	24.15 m ³ /m ² /hr	23.62 m ³ /m ² /hr	26.55 m ³ /m ² /hr
Filtration Area	1.76 m ² (per filter)	2.54 m ² (per filter)	1.13 m ²
Plant Flow:	42.5 m ³ /hr (per filter)	60 m ³ /hr (per filter)	30 m ³ /hr
Backwash Flow:	62 m ³ /hr (per filter)	89 m ³ /hr (per filter)	40 m ³ /hr
Minimum Duration:	5 min – air only / 5 min – No air at full wash volume.		
Collector System:	Header, Lateral, Nozzles		
Media Depths & Types:	1000mm of 16/30 Filtering Sand - Top Layer / 150mm of 6mm Pea Gravel - Bottom Layer		
Ancillaries:	1 No. Auto Air Release Valve (per filter) 1 No. Outlet Gauge 1 No. Manual Air Release Valve (per filter) 1 No. Differential Pressure Monitor 1 No. Inlet Gauge		

Criteria	LP Filter No. 1	LP Filter No. 2	FP Filter No. 1	FP Filter No. 2	Spa Filter
Check for sand crowning	Check / record	Check / record	Check / record	Check / record	Check / record
Check sand integrity	Ok	Crowning badly	Ok	Ok	Crowning badly
Inspect for filter lining damage	Fair	Fair	Sticky	Note 7	Poor
Inspect top header and diffusers	Note 1	Note 4	Note 1	Note 1	Note 11
Test air scour bubble performance	Ok	Ok	Ok	✓	Ok
Test pressure gauges	Ok	Note 2	Ok	Note 5	Ok
Conduct backwash	N/A	N/A	N/A	N/A	Ok
Test manual and auto air venting	Ok	Ok	Manual Ok, Auto passing slightly	Auto release passing badly	Auto release passing
Check general external condition	Note 3	Note 3	Ok	Ok	X
Test drainage to BWH tank and drains	✓	✓	✓	✓	Ok
Auto Valve Operation	Ok	Ok	Note 6	X	Note 8 & 9

Notes:

Note 1: Surface of filter Hyposal lining is degrading but areas underneath appear to be solid.

Note 2: Inlet gauge bezel rusting badly.

Note 3: Chlorine injector has been leaking and has badly corroded airline fittings.

Note 4: Filter is corroding badly inside, extremely large patches of barnacles/rust.

Note 5: Filter gauge bezels badly rusting and outlet gauge pipework badly corroded.

Note 6: Backwash valve (No. 4) solenoid passing badly. Filter outlet valve (No. 6) will not close as is seized (110mm valve + shim required to fit in actuator).

Note 7: Sand sticky and nearing end of serviceable life, recommend replacement.

Note 8: Air scour valve (No. 9) seized open and solenoid in poor condition (63mm).

Note 9: Pool return valve (No. 13) was not closing, has been adjusted and now operating correctly but recommend replacement solenoid.

Note 10: Severe rusting on filter lid. As reported previously, still no action taken to address.

Note 11: The filter lining is very poor and is bubbling and peeling off.