

Disruptor®

By AquaCo™

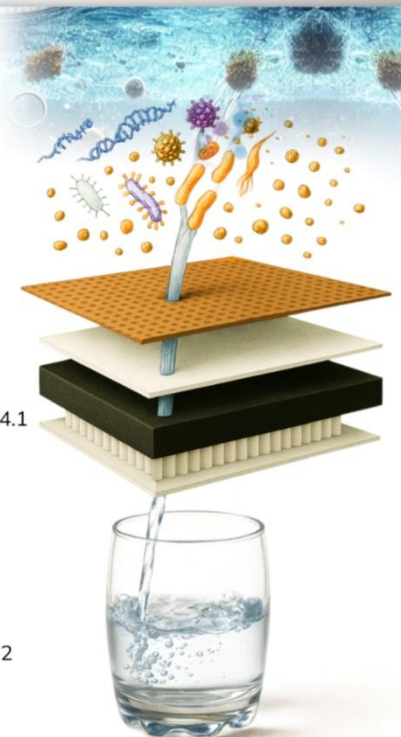
Unique 4-in-1 Technology

(Mechanical + Adsorption + Electroadsorption)
+ Bacteriostatic

SGS Contaminant Removal Claim

Test Report

- **Under NSF/ANSI Standard 53 – Health Effects Testing**
 - **PFOA (Perfluorooctanoic Acid):**
Tested and verified to remove > 98.9% using EPA 537.1:2020
 - **PFOS (Perfluorooctane Sulfonic Acid):**
Tested and verified to remove > 99.0% using EPA 537.1:2020
- **Under NSF/ANSI Standard 42 – Aesthetic Effects**
 - **Total Chlorine (Chloramines):**
Tested and verified to remove > 99.3% using testing method GB/T 5750. 11-2023 5.1
 - **Free Chlorine:**
Tested and verified to remove > 99.5% using testing method GB/T 5750. 11-2023 4.3 & 4.1
- **Lead (Pb) @pH 6.5:**
 - Tested and verified to remove > 99.3% using EPA 200.8
- **Lead (Pb) @pH 8.5:**
 - Tested and verified to remove > 99.4% using EPA 200.8
- **Copper (Cu) @pH 6.5:**
 - Tested and verified to remove > 99.9% using testing method EPA 200.8
- **Copper (Cu) @pH 8.5:**
 - Tested and verified to remove > 99.9% using testing method EPA 200.8
- **E. Coli (Total Coliforms):**
 - Tested and verified to remove > 99.9999% using testing method GB/T 5750. 12-2023 5.2
- **Coliphage (Bacterial Virus):**
 - Tested using method EPA 1602, achieving a reduction of 99.9995%



COMPONENTS



United States
Environmental Protection
Agency

EPA Testing Methods:
US EPA 537.1:2020
EPA 200.8
EPA 200.8
EPA Method 1602

Note: Tested to NSF/ANSI 42 and 53 standards for aesthetic and health effects.

PFAS Compounds Removal

The Disruptor® Filter Cartridge by AquaCo™ is Australia's first whole-house filter cartridge proven to **effectively reduce PFAS compounds—along with chemicals, bacteria, viruses, parasites, and heavy metals—all in a single, high-performance filter for your entire home.** It combines the highest-grade Activated Carbon Block (ACB) with advanced electroadsorptive nanotechnology to deliver exceptional contaminant removal and filtration efficiency.



1

**Removes
PFAS Compounds**

Over 98% of PFOS
and PFOA Removal.

2

**Patented
Filtration Media**

Electropositive
nanotechnology with
natural mineral-based
fibers.

3

**Broad-Spectrum
Filtration**

For viruses, bacteria,
parasites, chlorine,
chloramines, and
heavy metals.

4

**High-Performance
Carbon Block**

Highest-grade
activated carbon
block for powerful
adsorption.

5

**Super-Seal
Cap**

Prevents bypass and
washer damage
during tightening.

Why Choose Disruptor® ?



Limited Filtration

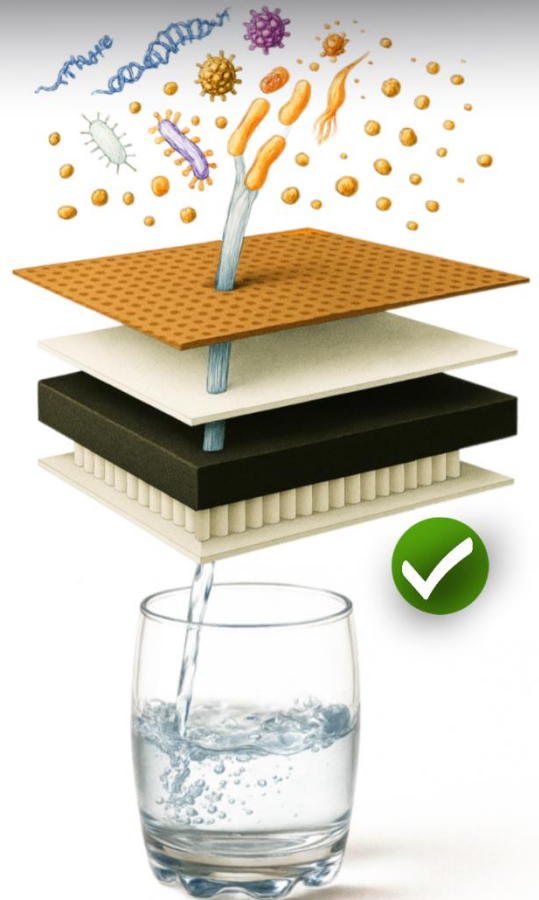
X Limited Filtration Capacity: No conventional whole house filter on the Australian market matches the broad-spectrum removal capabilities of the Disruptor®. While most filters can reduce chlorine, taste, odours, and occasionally some heavy metals, they lack the advanced nanofiber technology needed to remove viruses, PFAS compounds, pharmaceuticals, VOCs, and submicron pathogens — all in a single filter. Basic granular carbon filters offer limited, surface-level protection and leave critical contaminants untreated.

X Unsupported Claims: No validated lab results; performance claims are unsupported or exaggerated.

X Outdated Filtration Technology: Use mechanical or GAC filters only; ineffective against viruses, PFAS, and pharmaceuticals.

X Low Carbon Quality: Commonly use cheap granular carbon with lower adsorption and short lifespan.

X Restrict Low: Often restrict flow, especially when finer filtration is attempted; not suitable for whole-house flow demands.



Broad-Spectrum Filtration

✓ **All-in-One Contaminant Removal:** The only filter in Australia that removes:

- Toxic PFAS compounds (PFOA, PFOS)
- Viruses, bacteria, parasites, cysts
- Chlorine, chloramines, heavy metals
- VOCs, pesticides, industrial solvents
- Trace pharmaceuticals, turbidity — all in one filter

✓ **Verified Performance:** Backed by independent lab results and certifications for broad-spectrum contaminant reduction.

✓ **Filtration Technology:** Electroadsorptive nanotechnology captures submicron contaminants via electrostatic attraction.

✓ **Premium Carbon Quality:** Integrates ultra-premium carbon block, removing organic acids, membrane biofilms, and chemical residues.

✓ **Pressure & Flow Efficiency:** Maintains fast flow rates with low pressure drop across the system.

Disruptor®

By AquaCo™

Disruptor® combines electroadsorptive nanotechnology, premium activated carbon block, and precision membrane filtration to deliver advanced multi-stage contaminant removal—all within a single compact filter cartridge.

The Disruptor® filter cartridge is an advanced, multi-layered filtration solution that integrates advanced **electroadsorptive nanotechnology**, **premium-grade activated carbon block (ACB)**, and a **precision membrane layer** to deliver unmatched contaminant removal and superior filtration efficiency in a single, compact unit. Engineered with patented filtration media and one of the industry's most advanced carbon block formulations, the cartridge sets a new standard for performance in whole-house water treatment systems.

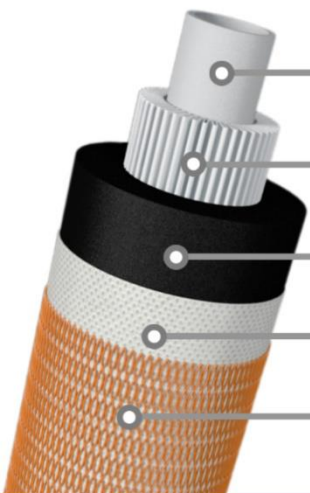
Unlike conventional mechanical filters, the Disruptor® cartridge employs a **powerful electrostatic charge field** throughout the full depth and void volume of the media. This charge is instantly activated upon water contact and remains stable across a wide pH range (5 to 9), ensuring consistent and reliable filtration under diverse water conditions.

This unique electrostatic property allows the use of larger pore structures, resulting in **higher flow rates and lower pressure drop**—while still capturing ultra-fine contaminants such as viruses, bacteria, cellular debris, organic acids, and trace pharmaceuticals. These performance characteristics also make the Disruptor® cartridge ideal as a pre-filter for reverse osmosis systems, reducing membrane fouling, improving energy efficiency, and increasing overall system output with less wastewater.

The Disruptor® filter cartridge delivers broad-spectrum protection for applications where water quality, taste, safety, and system longevity are priorities. It effectively reduces Legionella, other pathogens, chlorine, turbidity, and certain heavy metals, making it a highly effective solution for residential and commercial applications where taste, safety and system longevity are priorities.



Super-Seal Cap



Structural Support Core

Nanotechnology Membrane

Premium Activated Carbon Block Formula

Sediment Pre-Filtration Layer

Protective Outer layer and Pre-filtration Barrier

"Unlike traditional mechanical filters, the Disruptor® filter cartridge **employs a powerful electrostatic charge field that spans the entire depth and void volume of the cartridge**, ensuring consistent and effective filtration throughout its multi-layered structure."



Independent Lab Testing Results

Verified performance based on real-world, volume-based lifecycle testing.

Why Our Test Results Matter

Most companies send one clean sample to the lab and claim their filters remove metals or chlorine—when these contaminants were never in the water to begin with.

At AquaCo, we use **Volume-Based Lifecycle Testing** — a globally recognised method where a large tank of contaminated water is passed through the filter at real-world flow rates. **Water is sampled regularly across the filter's life, not just once.**

- ✓ We run this contaminated water through the filter, simulating **real-world flow rates and usage over time.**
- ✓ We **collect samples regularly**—not just once—to measure **average performance across the full life of the filter.**

That's how we know our filters deliver real protection — every day, not just on paper..

Why It Matters to You

- ✓ **Protects your family:** You know the filter truly removes dangerous metals, chemicals, and microorganisms.
- ✓ **Protects your investment:** You avoid filters that clog early or fail quietly.
- ✓ **Exposes fake claims:** You won't be fooled by empty promises or cherry-picked "lab results."

That's why we don't just say our filters are better—
We prove it.

Note: As per our internal IP protection policy, we cannot share full laboratory reports. However, the screenshots shown here are direct captures from certified lab tests, and accurately reflect the filter performance across all key contaminant categories.

Every filter is tested using strict international protocols — not one-off samples or marketing gimmicks.

Supporting Laboratory Test Results

SGS

Conclusion:

PFOA (Perfluorooctanoic Acid) removal efficiency >98.9%
PFOS (Perfluorooctane Sulfonic Acid) removal efficiency >99.0%

Test method (s):

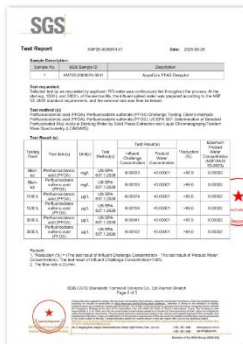
Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS) Challenge Testing: Client's methods.
Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS): US EPA 537: Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

Test Result (s):

Testing Point	Test item(s)	Unit(s)	Test Method(s)	Test Result(s)		*Reduction (%)	Maximum Product Water Concentration (NSF/ANSI 53-2023)
				Influent Challenge Concentration	Product Water Concentration		
Start-up	Perfluorooctanoic acid (PFOA)	mg/L	US EPA 537.1:2020	0.00033	<0.00001	>96.9	0.00002
Start-up	Perfluorooctane sulfonic acid (PFOS)	mg/L	US EPA 537.1:2020	0.00100	<0.00001	>99.0	0.00002
1500 L	Perfluorooctanoic acid (PFOA)	mg/L	US EPA 537.1:2020	0.00074	<0.00001	>98.6	0.00002
1500 L	Perfluorooctane sulfonic acid (PFOS)	mg/L	US EPA 537.1:2020	0.00104	<0.00001	>99.0	0.00002
3000 L	Perfluorooctanoic acid (PFOA)	mg/L	US EPA 537.1:2020	0.00041	<0.00001	>97.5	0.00002
3000 L	Perfluorooctane sulfonic acid (PFOS)	mg/L	US EPA 537.1:2020	0.00102	<0.00001	>99.0	0.00002

Remark:

- *Reduction (%) = (The test result of Influent Challenge Concentration - The test result of Product Water Concentration) / The test result of Influent Challenge Concentration × 100%
- The flow rate is 2L/min.



Supporting Laboratory Test Results



Conclusion:

Total Chlorine (Chloramines) removal efficiency >90%

Test method(s):

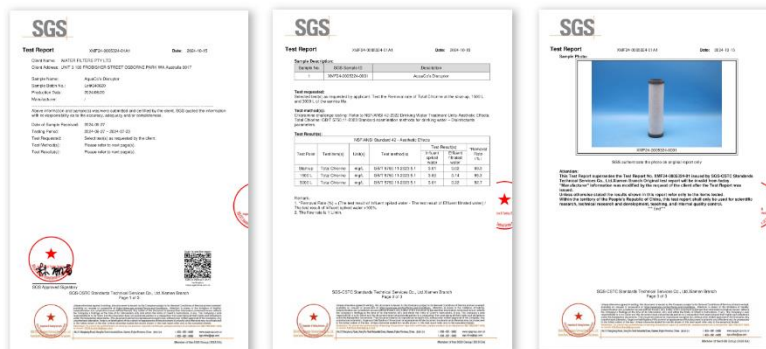
Chloramine challenge testing: Refer to NSF/ANSI 42-2022 Drinking Water Treatment Units-Aesthetic Effects.
Total Chlorine: GB/T 5750.11-2023 Standard examination methods for drinking water – Disinfectants parameters.

Test Result(s):

NSF/ANSI Standard 42 - Aesthetic Effects						
Test Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	Total Chlorine	mg/L	GB/T 5750.11-2023 5.1	3.01	0.02	99.3
1500 L	Total Chlorine	mg/L	GB/T 5750.11-2023 5.1	3.00	0.14	95.3
3000 L	Total Chlorine	mg/L	GB/T 5750.11-2023 5.1	3.01	0.22	92.7

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent spiked water x100%
- The flow rate is 1 L/min.



Supporting Laboratory Test Results

SGS

Conclusion:

Free Chlorine removal efficiency 99.5%

Test requested:

Selected test(s) as requested by applicant: Test the Removal rate of Free Chlorine at the start-up, 1500 L and 3000 L of the service life.

Test method(s):

Free chlorine challenge testing: Refer to NSF/ANSI 42-2022 Drinking Water Treatment Units-Aesthetic Effects.

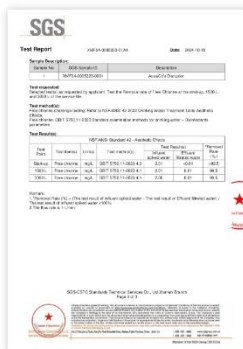
Free chlorine: GB/T 5750.11-2023 Standard examination methods for drinking water – Disinfectants parameters.

Test Result(s):

NSF/ANSI Standard 42 - Aesthetic Effects						
Test Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	Free chlorine	mg/L	GB/T 5750.11-2023 4.3	2.01	<0.01	>99.5
1500 L	Free chlorine	mg/L	GB/T 5750.11-2023 4.1	2.01	0.01	99.5
3000 L	Free chlorine	mg/L	GB/T 5750.11-2023 4.1	2.00	0.01	99.5

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent spiked water x100%
- The flow rate is 1 L/min.



Supporting Laboratory Test Results

SGS

Conclusion:

Lead removal efficiency >99.5% @pH 6.5

Test requested:

Selected test(s) as requested by applicant: Test the Removal rate of Lead at the Start-up, 1500 L and 3000 L of the service life. The pH of influent spiked water is 6.5.

Test method(s):

Hygienic Function Testing (Lead Challenge Testing): Refer to Ministry of Health of the People's Republic of China Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water – General Device.

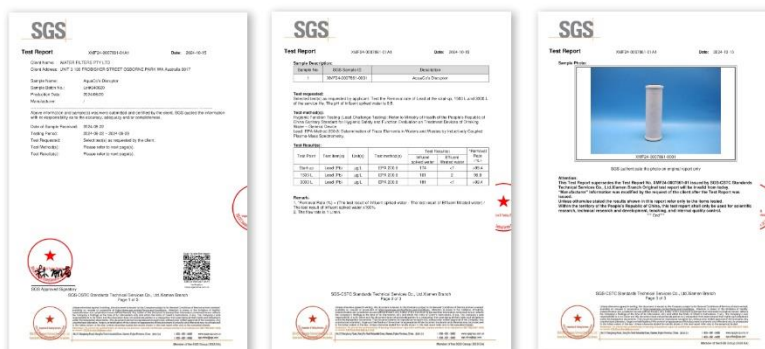
Lead: EPA Method 200.8: Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry.

Test Result(s):

Testing Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	Lead (Pb)	µg/L	EPA 200.8	144.5	<0.6	>99.5
1500 L	Lead (Pb)	µg/L	EPA 200.8	145.9	<0.6	>99.5
3000 L	Lead (Pb)	µg/L	EPA 200.8	152.7	<0.6	>99.6

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent spiked water x 100%
- The flow rate is 3 L/min.



Supporting Laboratory Test Results



Conclusion:

Copper (Cu) removal efficiency > 99.9%

Test requested:

Selected test(s) as requested by applicant: Test the Removal rate of copper at the strat-up, 1500 L and 3000 L of the service life. The pH of influent spiked water is 6.5.

Test method(s):

Hygienic Function Testing (Copper Challenge Testing): Refer to Ministry of Health of the People's Republic of China Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water – General Device.

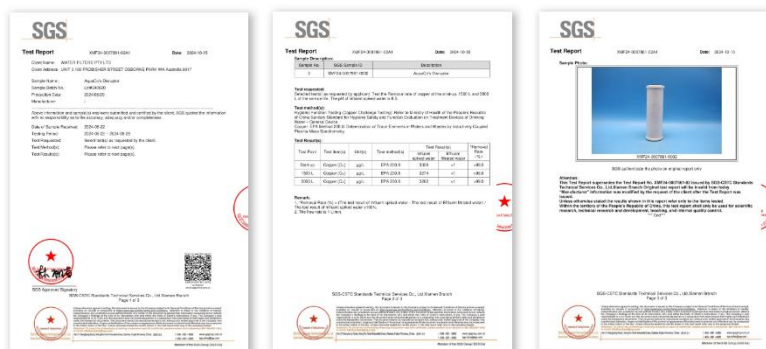
Copper: EPA Method 200.8: Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry.

Test Result(s):

Test Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	Copper (Cu)	µg/L	EPA 200.8	2992	<1	>99.9
1500 L	Copper (Cu)	µg/L	EPA 200.8	3118	<1	>99.9
3000 L	Copper (Cu)	µg/L	EPA 200.8	3094	<1	>99.9

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent spiked water x100%
- The flow rate is 1 L/min.



Supporting Laboratory Test Results



Conclusion:

Total Coliforms (Bacteria) removal efficiency >99.9999%

Test requested:

Selected test(s) as requested by applicant: Test the removal rate of Total coliforms at the start-up of the service life.

Test method(s):

Hygienic Function Testing (Total coliforms and MS2 Challenge Testing): Refer to Ministry of Health of the People's Republic of China Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water – General Device.

Total coliforms: GB/T 5750.12-2023 Standard examination methods for drinking water–Microbiological parameters.

Test strain(s):

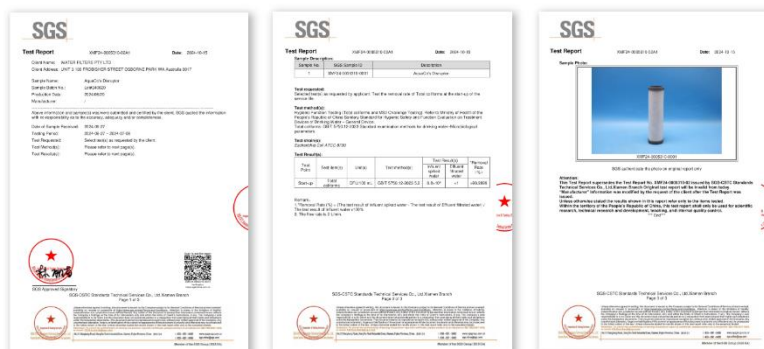
Escherichia Coli ATCC 8739

Test Result(s):

Test Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	Total coliforms	CFU/100 mL	GB/T 5750.12-2023 5.2	6.8×10^6	<1	>99.9999

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent water x100%
- The flow rate is 2 L/min.



Supporting Laboratory Test Results

SGS

Conclusion:

MS2 Coliphage (Bacterial Virus) removal efficiency - 99.9995%

Test requested:

Selected test(s) as requested by applicant: Test the removal rate of MS2 Coliphage at the start-up of the service life.

Test method(s):

Hygienic Function Testing (Total coliforms and MS2 Challenge Testing): Refer to Ministry of Health of the People's Republic of China Sanitary Standard for Hygienic Safety and Function Evaluation on Treatment Devices of Drinking Water – General Device.

MS2 Coliphage: Refer to EPA method 1602 Male-specific (F+) and somatic coliphage in water by single agar layer (SAL) procedure MS2 ATCC15597-B1—Coliphage (Bacterial virus).

Test strain(s):

MS2 ATCC15597-B1—Coliphage (Bacterial virus)

Escherichia Coli ATCC 700891—Host bacteria

Test Result(s):

Test Point	Test item(s)	Unit(s)	Test method(s)	Test Result(s)		*Removal Rate (%)
				Influent spiked water	Effluent filtrated water	
Start-up	MS2 Coliphage	PFU/mL	Refer to EPA method 1602	2.3×10^6	11	99.9995

Remark:

- *Removal Rate (%) = (The test result of Influent spiked water - The test result of Effluent filtrated water) / The test result of Influent water x100%
- The flow rate is 2 L/min.

