



PFAS TREATMENT

MAKE WATER COUNT



 Pollet Water Group





PFAS POLLUTION, LET'S TAKE UP THE CHALLENGE!

PFAS is the collective name for thousands of synthetic chemical compounds used in commercial and industrial settings for decades. These compounds are either not degradable in nature or degrade only minimally, accumulating in the body. High concentrations can be harmful to health leading to developmental problems, disruptions in hormone function, and an elevated risk of certain types of cancer. No one is immune to exposure, and action is needed to phase out this harmful chemical. Make Water Count is not an empty promise. With Pollet Water Group, we take up the challenge and investigated the treatment of PFAS with our residential and industrial solutions.



The Pollet Water Group PFAS Treatment label guarantees you the effective treatment of PFAS according to European drinking water standards.



WHAT DO WE KNOW ABOUT PFAS?

PFAS (Per/Poly Fluoroalkyl substances) are anthropogenic compounds that have been used for many decades in industrial and commercial application. Their unique properties of resistance to heat and water have made them popular in products such as waterproof fabrics and firefighting forms. However, their strong chemical structure makes their breakdown very difficult and this results in their persistence in environment and human body. Consumption of drinking water contaminated with PFAS may result in adverse health effects including developmental issues, hormone disruption and increased risk of certain cancers. The European drinking water directive suggests a limit value of 100 ng/L for PFAS 20 as well as a limit of 500 ng/L for total PFAS concentration.

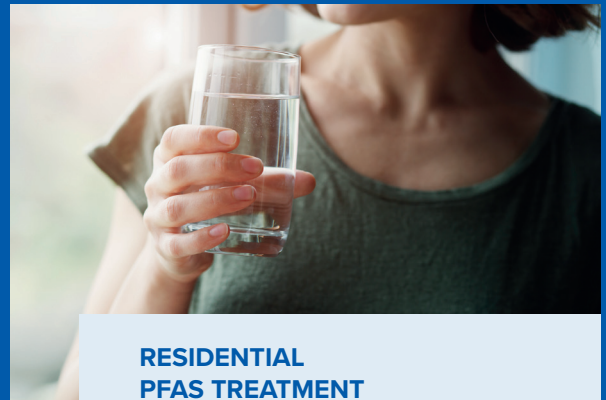
Until now, pollution in drinking water was mostly treated by municipal drinking water companies. However, we are facing challenges of which we were not previously aware. PFAS is one of the threats and is gaining more and more importance in the water treatment business. The problem has been known for some time but only recently this type of pollution is measured by municipal water treatment companies. Complementing the efforts of municipalities, Pollet Water Group strives to manufacture & distribute safe residential and industrial systems to protect our loved ones from these challenges.

SOLUTIONS TO TREAT PFAS

The effectiveness of PFAS treatment technologies can vary depending on many factors. At PWG, it was crucial to test our different products before claiming their effectiveness in treating PFAS in drinking water. Our R&D department worked closely with an independent lab to test our various solutions, resulting in a PFAS treatment label that guarantees the effective treatment of PFAS according to European drinking water standards.



SCAN & WATCH
OUR PFAS VIDEO



**RESIDENTIAL
PFAS TREATMENT**



**INDUSTRIAL
PFAS TREATMENT**

PFAS TESTING BY PWG R&D

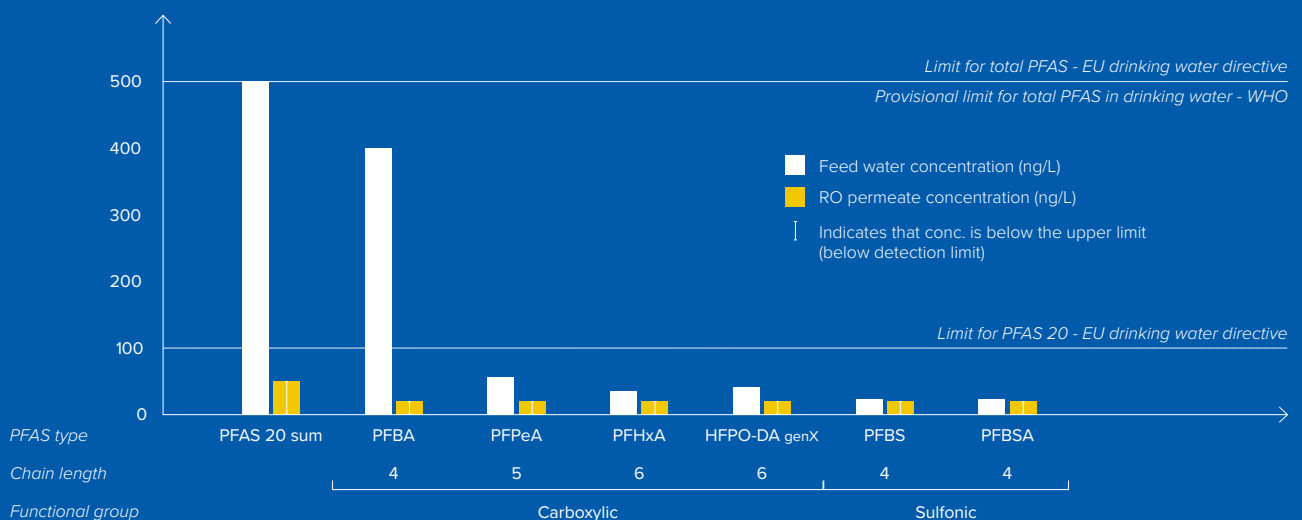
PALLAS & PALLAS PLUS RESIDENTIAL RO

Considering the importance of removing PFAS from drinking water, Pollet water group investigated the removal of PFAS from water using the residential RO unit. The removal efficiency of various types of PFAS by domestic RO were assessed. Tap water spiked with an elevated concentration of 500 ng/L was used as the feed solution, simulating a worst-case scenario. The samples were analyzed through an external laboratory using Liquid chromatography- tandem mass spectrometry method following the standards (CMA/3/D and WAC/IV/A/025) accredited by Energy and environmental information system for the Flemish Region (EMIS).



Results

The RO system was successful in reducing the sum PFAS20 concentration below the acceptable limit of 100 ng/L (EU water directive) when tested with extreme initial concentration. The Sum PFAS20 were removed to a level lower than the detection limit (<50 ng/L), at least exceeding 90% removal. The RO system was able to remove the challenging short chain PFBA, which are difficult to remove with other treatment techniques, below the detection limit of 19 ng/L, exhibiting a removal of > 95%. The residential RO system is anticipated to effectively remove longer chain PFAS, similar to or even better than it does with short chain PFAS. As a result, it can be affirmed that the RO system is a suitable choice for removing PFAS from drinking water, ensuring it meets safe limits.



PFAS TESTING BY PWG R&D

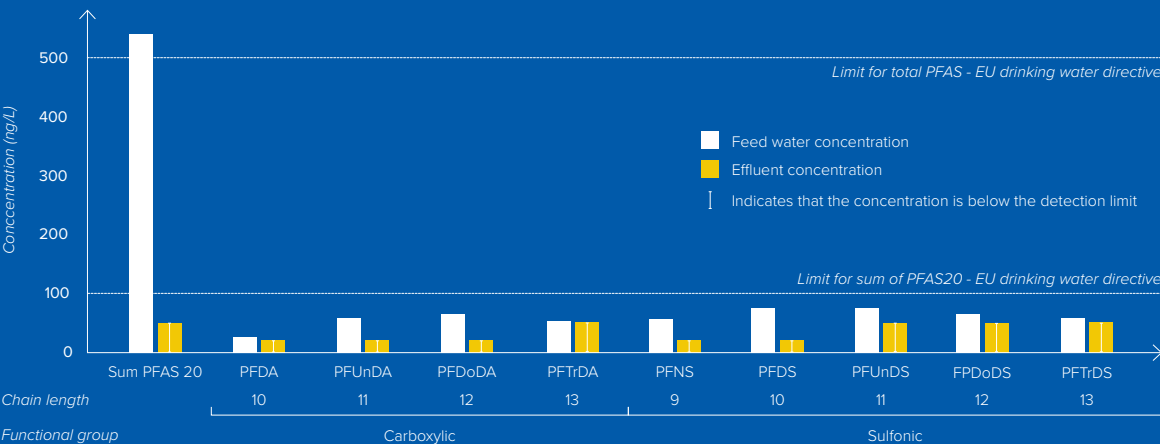
PALLAS PLUS ULTRA CARTRIDGES

The Pallas Plus Ultra Cartridges were tested in-house by the R&D Water Experts from Pollet Water Group. The purpose of this testing was to validate the removal efficiency of PFAS with the Pallas Plus Ultra Cartridges.



Results

The Pallas Ultra cartridge removed all PFAS effectively, with all the effluent values reported under the detection limits (< 0.02–0.05 µg/L). The minimum removal efficiency was above 90%, demonstrating strong adsorption performance. Because the effluent values were below the detection limits, the exact removal efficiency cannot be determined.



*PFTTrDA, PFODA, PFDDoDS, PFUnDS, PFTTrDS, 10:2 FTS, 6:2 diPAP, 6:2/8:2 diPAP and 6:2 FTS cannot be quantitatively determined due to insufficient recovery and adsorption. However, these PFAS have been indicatively calculated to have a total PFAS20 of 0,5µg/l.
*Analysis of the testing is available on request.



RESIDENTIAL PFAS TREATMENT

The presence of PFAS in residential drinking water has become a growing concern for communities around the world. Exposure to PFAS through contaminated drinking water is associated with various adverse health effects. Because PFAS is a problem that genuinely deserves a lot of attention, we at Pollet Water Group remain committed to Research & Development. Reduce the PFAS concentration in your drinking water according to the drinking water standards with our **Pallas Plus PFAS filter cartridges**. Or opt for the **residential RO systems** which are the best option for removing PFAS from drinking water, ensuring it meets safe limits.

PFAS REMOVAL

PALLAS ESTELLE



Our in-house-produced **residential RO systems** were subjected to a very high concentration of PFAS. To have the results assessed objectively, the tests were carried out with an external laboratory. This showed that the PFAS removal of RO systems scored extremely well. The residential ROs are perfectly capable of **removing PFAS to below the detection limit**. This means that water contaminated with PFAS, can be considered safe after treatment by one of our residential ROs.



FEATURES

- **5 stage RO system** with pump (EU or UK)
- **Direct flow** 600 GPD without storage tank
- **Digital real-time screen** of operation
 - Conductivity of treated water
 - Lifetime filters & membrane
 - Status: working or alarm
- The best option for **removing PFAS** from drinking water, ensuring it meets safe limits
- **Compact design**
- **Easy installation** (Installation kit included)
- **Quick connection**
- **PWG in-house** manufacturing



PFAS REMOVAL

PALLAS ESTELLE

KEY COMPONENTS

- 10" 5 Micron Spun Sediment Filter
- 10" Block Carbon Cartridge Filter (CTO)
- 10" Inline Activated Carbon Filter
- 10" Inline Post Stabiliser
- 3013 600 GPD Membrane
- RO Faucet
- Booster pump

DIMENSIONS

- 46 x 39 x 15 cm
- 9,5 kg

RESIDENTIAL RO SYSTEMS

TECHNICAL SPECIFICATIONS

Capacity	600 GPD - 1,6 LPM
Recovery	65%
PFAS rejection	99%
Type	Direct flow
Membrane	1 x 600 GPD
Pump	24V - 5A
Prefiltration 1	10" PP Sediment 5 µ
Prefiltration 2	10" CTO block carbon
Post membrane 1	10" Inline AC
Post membrane 2	10" Inline Stabilizer
System flush	Yes
Storage tank	Optional
Leak detector	Electronic
Faucet	SS 304 included
Connection type	Quick connect



PFAS REMOVAL

PALLAS PLUS ICONIC



Our in-house-produced **residential RO systems** were subjected to a very high concentration of PFAS. To have the results assessed objectively, the tests were carried out with an external laboratory. This showed that the PFAS removal of RO systems scored extremely well. The residential ROs are perfectly capable of **removing PFAS to below the detection limit**. This means that water contaminated with PFAS, can be considered safe after treatment by one of our residential ROs.



FEATURES

- **5 stage RO system** with pump (EU or UK)
- **Direct flow** 400 GPD (1.1 l/min.)
- **Digital real-time screen** of operation
 - Conductivity of treated water
 - Lifetime filters & membrane
 - Status: working or alarm
- The best option for **removing PFAS** from drinking water, ensuring it meets safe limits
- **Compact design**
- **Easy installation** (Installation kit)
- **Quick connection**
- **In-house** manufacturing
- Optional storage tank



PFAS REMOVAL

PALLAS PLUS ICONIC

KEY COMPONENTS

- 12" Pallas Sediment Filter
- 12" Pallas Granular Active Carbon (GAC) Filter
- 12" Pallas Carbon Bloc Coconut (CTO) Filter
- 10" Pallas Post Carbon Coconut Filter
- 2 x 200 GPD Direct flow Membrane (with pump)
- Metallic Ball Valve 3/8"
- 400 GPD Pump
- Transformer 24V 3A
- RO Faucet

DIMENSIONS

- 46 x 33 x 25 cm
- 9,5 kg

TECHNICAL SPECIFICATIONS

Capacity	400 GPD - 1 LPM
Recovery	45-50%
Rejection	>96%
PFAS rejection	99%
Type	Direct flow
Membrane	2 x 200 GPD Pallas
Pump	24V
Prefiltration	3 stage PP - CTO - GAC
Post filter	Yes – Stabilizer
System flush	Yes
Storage tank	Optional
Leak detector	Yes
Faucet	SS 304 Lux faucet
Connection type	Quick



PFAS REMOVAL

PALLAS PLUS IRIS



Our in-house-produced **residential RO systems** were subjected to a very high concentration of PFAS. To have the results assessed objectively, the tests were carried out with an external laboratory. This showed that the PFAS removal of RO systems scored extremely well. The residential ROs are perfectly capable of **removing PFAS to below the detection limit**. This means that water contaminated with PFAS, can be considered safe after treatment by one of our residential ROs.



FEATURES

- **5 stage RO system** with pump (EU or UK)
- **Direct flow** 600 GPD without storage tank
- **Digital real-time screen** of operation
 - Conductivity of treated water
 - Lifetime filters & membrane
 - Status: working or alarm
- The best option for **removing PFAS** from drinking water, ensuring it meets safe limits
- **Compact design**
- **Easy installation** (Installation kit included)
- **Quick connection**
- **Fully customizable**
- **PWG in-house** manufacturing



PFAS REMOVAL

PALLAS PLUS
IRIS

KEY COMPONENTS

- 10" 5 Micron Spun Sediment Filter
- 10" Block Carbon Cartridge Filter (CTO)
- 10" Inline Activated Carbon Filter
- 10" Inline Post Stabiliser
- 3013 600 GPD Membrane
- RO Faucet
- Booster pump

DIMENSIONS

- 46 x 33 x 25 cm
- 9,5 kg

TECHNICAL SPECIFICATIONS

Capacity	600 GPD - 1,6 LPM
Recovery	65%
PFAS rejection	99%
Type	Direct flow
Membrane	1 x 600 GPD
Pump	24V - 5A
Prefiltration 1	10" PP Sediment 5 µ
Prefiltration 2	10" CTO block carbon
Post membrane 1	10" Inline AC
Post membrane 2	10" Inline Stabilizer
System flush	Yes
Storage tank	Optional
Leak detector	Electronic
Faucet	SS 304 included
Connection type	Quick connect



PFAS TREATMENT

PALLAS PLUS ULTRA FILTER CARTRIDGES



Pallas Plus cartridges are high-end single point-of-use filter cartridges. The **Pallas Plus ULTRA Cartridge** is the advanced solution for safe, great-tasting water. Its 0.2-micron filtration technology effectively **reduces PFAS, microplastics, and heavy metals** such as lead, cadmium, uranium, chromium, nickel, and arsenic. It also removes unpleasant odors and tastes, reduces chlorine, and eliminates other contaminants, delivering naturally fresh and clean water with every sip.

FEATURES

- **High-end single** point-of-use filter cartridges
- **Treatment solution**
 - PFAS and microplastics
 - Bad odours
 - Off-tastes
 - Reduces chlorine
 - Reduces Lead, cadmium, uranium, chromium, nickel, arsenic, and other heavy metals.
- **Perfect to treat PFAS** contaminants:
 - 0.2 micron filtration technology
- **Designed for use in drinking water** (max. PFAS concentration of 500 ng/l)



PFAS TREATMENT

PALLAS PLUS ULTRA FILTER CARTRIDGES

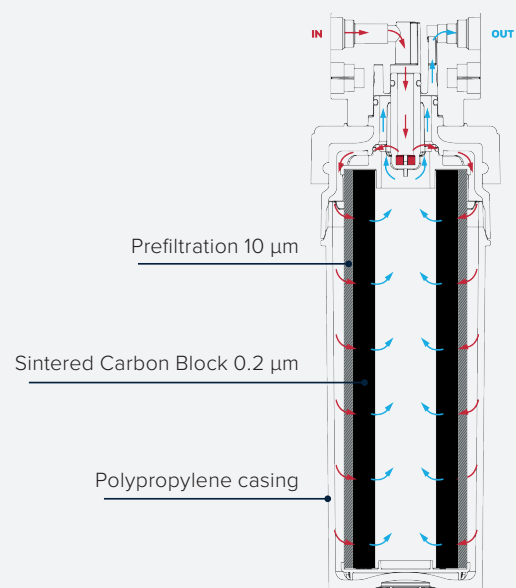
USP'S

- Easy installation (quick connect) with different connections available
- Large capacity for residential environment:
 - Small: 15.000L
 - Medium: 23.000L
- Low budget product
- Personalised sleeve design for private label

TECHNICAL DATA

	SMALL	MEDIUM
Nominal filtration	0,2 micron	0,2 micron
Nominal flow rate	3l/min*	5 L/min.*
Capacity	15.000 l*	23.000 l*
Pressure drop at nominal flow rate	0,55 bar	0,55 bar
Technology	Co-sintered carbon block with chelating media	Co-sintered carbon block with chelating media
Total PFAS reduction based on NSF/ANSI 53	≥ 99%	≥ 99%

*Capacities and flow rates may vary depending on the quality, pressure, and flow of the incoming water.



REFERENCE

- **SMALL**
 AX ref.: 1762010015/PWG-SMALL
 D365 ref.: 13670000137/C00002
- **MEDIUM**
 AX ref.: 1762010015/PWG-MEDIUM
 D365 ref.: 13670000137/C00001



INDUSTRIAL PFAS TREATMENT

There are several emerging technologies for the degradation or sorption of PFAS to treat contaminated water in industrial applications. Thanks to our know-how and engineering skills, Pollet Water Group experts can advise, design, and build installations that remove PFAS from your water. With a focus on the environment and cost reduction, we assist you from analysis to installation and automation. Check out one of our PFAS removal engineering projects below.

PFAS REMOVAL

A PROJECT BY ECO-VISION



For one of their industrial customers, Eco-Vision was asked to **engineer a solution to remove micropollutants from the wastewater streams.** Thanks to 2 mobile units equipped with triplex activated carbon filters and Closed Circuit Reverse Osmosis Technology, Eco-Vision achieved about 90% water efficiency and over **99% removal of PFAS.**



PFAS REMOVAL

A PROJECT BY ECO-VISION

ECO-VISION, CLOSING THE WATER LOOP

Water is our highest good! **Eco-Vision**, a PWG-company located in Belgium, is a visionary and expert in 'closing the loop'. Engineering, service, installation and advice make them **a unique player in the market for all industries**. Together with the customer, they think about how to improve a production process and save water. In this way, they not only achieve a smaller ecological footprint but also provide safe water.

Year	2023
Country	Belgium
Industry	Industrial Waste Solutions
Request	Removal of micropollutants from wastewater to recover the effluent from the membrane bioreactor (MBR).
Solution	2 Mobile units with triplex activated carbon filters, Closed Circuit Reverse Osmose (CCRO) - 6 to 10 m³/hour and post treatment dosing system
Results	Water efficiency of +/- 90% with the CCRO Removal efficiency of > 99% for PFAS

Find out more
on eco-vision.be

PFAS REMOVAL

A PROJECT BY HERCO WATER



The **Herco Service Package** ensures **PFAS-free water tailored to your requirements**. The removal of PFAS from water and the destruction of PFAS molecules requires a precisely tailored solution – depending on the level of contamination, the process, and the specific application. **We select the optimal treatment method based on your individual requirements.**



PFAS REMOVAL

OUR SERVICE PACKAGE ENSURES PFAS-FREE WATER

TAILORED TO YOUR REQUIREMENTS

The removal of PFAS from water and the destruction of PFAS molecules requires a precisely tailored solution – depending on the level of contamination, the process, and the specific application. We select the optimal treatment method based on your individual requirements. An overview of the process steps:

1. Analysis Service

Laboratory analysis allows for the precise determination of the PFAS content in your water. Depending on the application, we select the appropriate laboratory method to detect these so-called “forever chemicals.”

2. Technical Consultation

We select the appropriate approach for capturing and eliminating PFAS molecules – tailored to your specific requirements. As part of this, we advise you on the suitable technical treatment methods.

3. Removal of PFAS

Our experts develop a customised system solution for you. In the removal process, we take into account both long-chain and short-chain PFAS compounds.

4. Onsite or Offsite Destruction

Depending on the method, all PFAS molecules are either destroyed in the first step (onsite) or captured and completely eliminated in a second step (offsite).

5. Regular Monitoring

We offer regular laboratory monitoring after system implementation to ensure consistent water quality and long-term process reliability.

Find out more
on hercowater.com/en/pfas-removal



**PFAS POLLUTION,
LET'S TAKE UP
THE CHALLENGE!**

Make water count.
polletwatergroup.com