EASY REPLACEMENT
No Tools Means **No Tools!**

FOR BEST RESULTS:
Use with pre- and post- ACS filtration product solutions.

APPLIED CARTRIDGE SYSTEMS

ACS ATOMUS® PF8 PFAS REMOVAL CARTRIDGE

ACS ATOMUS® PF8 features an NSF/ANSI 61 certified and proprietary filtration solution for the water treatment industry specifically designed to remove PFAS forever chemicals from drinking water. Extremely user friendly with no hazardous waste streams or bulk media replacement, **ACS ATOMUS® PF8** is proven to remove PFAS to non-detect levels (<1 ng/L). Additionally, spent cartridges will be returned to Applied Cartridge Systems for PFAS extraction, destruction and media reuse—a first-of-its-kind technology and program!

ACS ATOMUS® PF8 provides molecular selectivity to both long- and short-chain PFAS (poly- and perfluoroalkyl) substances, whose adsorption is not affected by the co-presence of inorganic ions or other water characteristics like pH and TOC. The technology has greater than 25x adsorption capacity compared to GAC and IX resins that can be affected by biofouling. Like all adsorbents, suspended solids, iron and manganese should be removed in a pre-filtration step before water contact with PF8.

With no backwash requirement, low pressure drop, high treatment capacity, resistance to fouling, and a tiny footprint when used in the ACS-M® system, ACS ATOMUS® PF8 cartridges will provide filtration to non-detect for **eight** PFAS chemicals with service flow rates per cartridge up to 5 gpm (18.9 lpm). For PFAS concentrations at 3,000+ ppt, the filter will provide non-detect levels of PFAS removal for greater than 150,000+ gallons of water. In more common water test results of 100 ppt, the expected life of a single cartridge is 350,000+ gallons of treated water.

The ACS ATOMUS® PF8 cartridge solution is ideal for small to medium size POE (point-of-entry) residential and light commercial water filtration installations, including RV parks, hotels, casinos and resorts, military bases, aquaculture, food processing, manufacturing plants, and multi-user wells of all sizes. The filter will remove to non-detect under these challenge conditions:

TESTING PARAMETERS—CONCENTRATION (NG/L)		
PFHpA: 48.9	**PFHxS:** 419.0	**PFOA:** 557.7
PFOS: 1107.2	**PFNA:** 63.9	**PFBS:** 345.3
GenX: 987.0	**PFDA:** 12.4	**Total:** 3541.5
Performance Results: Non-Detect (<1 ng/L)		

Lightweight and cost effective with multiple configuration options, from high flow commercial/industrial applications to stand-alone residential point-of-entry (POE) installations for city and well water applications, this is the filtration solution of the future—100% non-metallic!

ACS ATOMUS® PF8 magenta series filters are available in the following configuration:

FL-PF8-042: PFAS chemicals removal cartridge with ATOMUS® PF8 inside

APPLICATIONS
Ideal for residential, food service, rental fleets, commercial and industrial applications
Make-up water, RO pre-filtration, cooling towers, chill water loops
Process water (turbidity, particulate, colloidal suspensions)
Reduction of unwanted bad taste and odor from potable drinking water
Other water-based fluid solutions

ACS ATOMUS® PF8 INTERNAL TESTING DATA

Internal testing to NSF/ANSI Standard 53 for PFAS reduction, with two filters challenged at a flow rate of 7 gpm (26.5 lpm) for 8 PFAS chemicals for a 50/50 testing cycle. A cocktail solution was made of the following PFAS in background free distilled water with an allowed variance of +/-10%. NSF/ANSI Standard 53 establishes minimum requirements for material safety, structural integrity, product literature, and health-related contaminant reduction performance claims.

Water Throughput (Gallons)	PFHpA (Influent)	PFOA (Influent)	PFNA (Influent)	PFDA (Influent)	PFBS (Influent)	PFHxS (Influent)	PFOS (Influent)	GenX (Influent)	Total (Influent)
350	36.3	380.7	41.5	9.6	230.0	294.7	787.6	634.8	**2415.1**
28000	38.9	487.7	55.0	9.5	267.5	283.3	844.2	684.1	**2670.1**
84000	35.2	415.8	50.2	9.7	261.9	306.9	816.1	735.1	**2630.9**
126000	54.5	371.3	43.1	8.9	246.1	295.5	838.3	628.2	**2485.9**
168000	45.5	305.8	37.4	7.3	198.4	234.9	676.6	550.3	**2056.2**

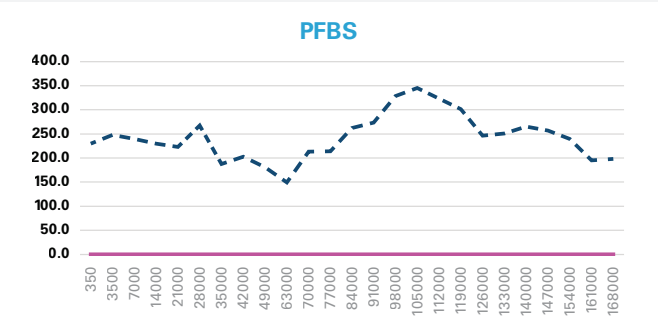
ACS ATOMUS® PF8 INTERNAL TESTING DATA—CHARTS

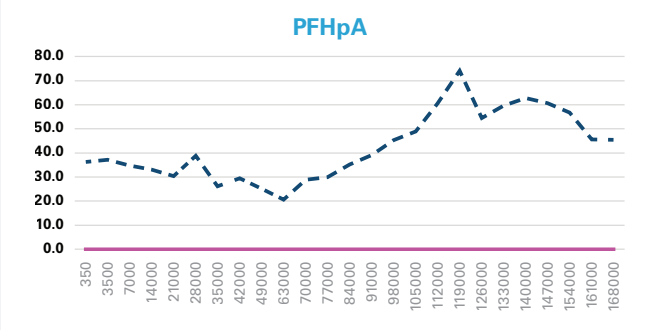
INFLUENT CHEMICAL(S)

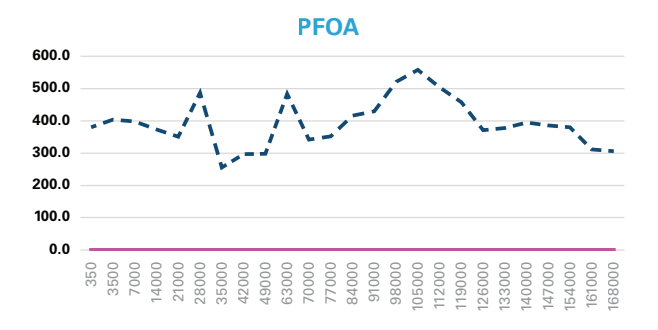
CONCENTRATION (NG/L)

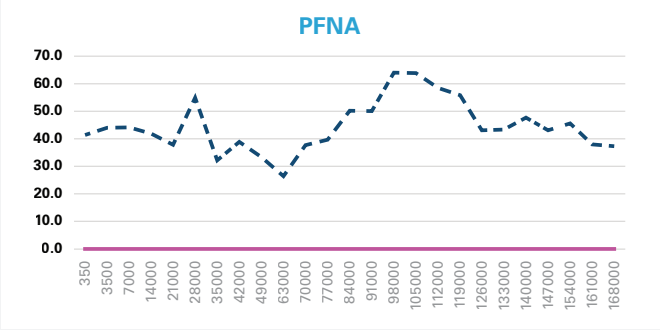
REMOVAL RESULT

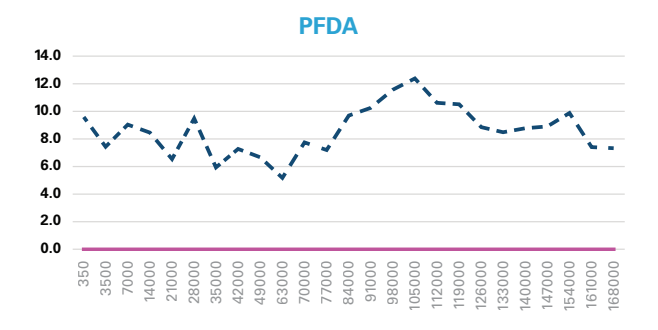
THROUGHPUT (GAL)









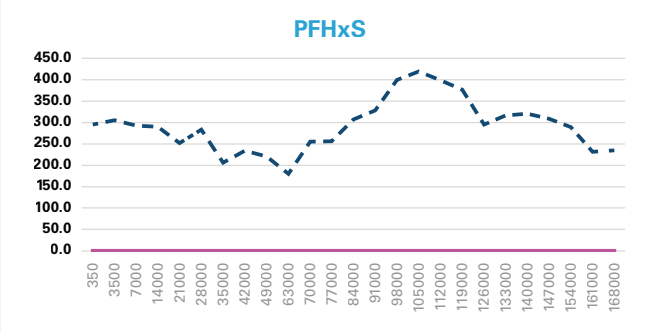


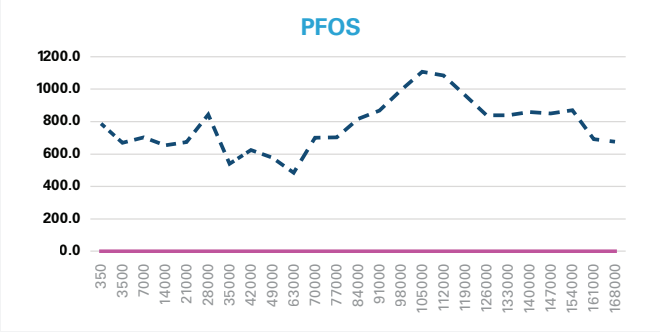
ACS ATOMUS® PF8 INTERNAL TESTING DATA—RESULTS

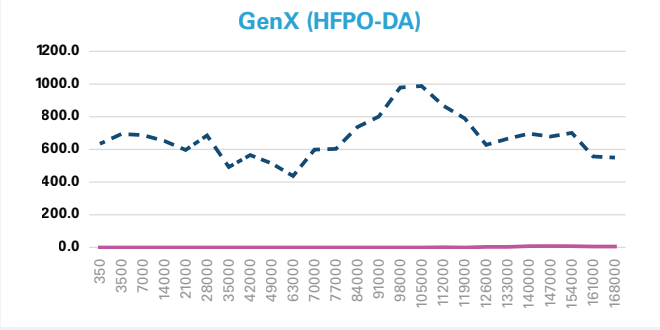
Test results to NSF/ANSI Standard 53 provided for PFAS removal to non-detect levels (<1 ng/L), and below the proposed EPA National Primary Drinking Water Regulation for PFOA and PFOS. The rule would set a Maximum Contaminant Level, or MCL, for all public water systems at 4 parts per trillion. MCLs are enforceable, regulatory levels.

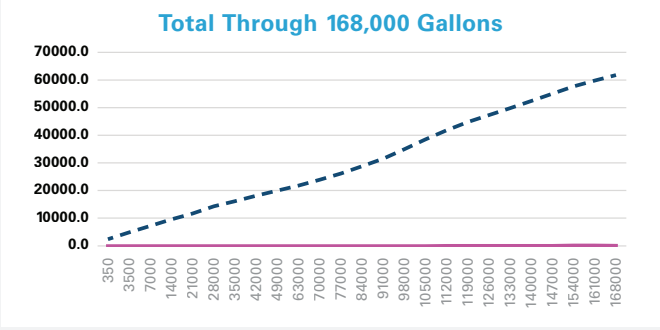
^Note: EPA Health Advisory at 10 ppt.

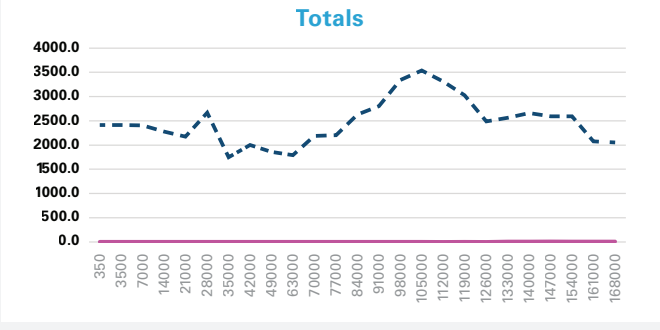
Water Throughput (Gallons)	PFHpA	PFOA	PFNA	PFDA	PFBS	PFHxS	PFOS	GenX	Total
350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
28000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
84000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
126000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3^	**2.3**
168000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6^	**5.6**











ACS ATOMUS® PF8 has superior characteristics, including rapid kinetics, high treatment capacity, resistance to fouling, regeneration, and an extended duty-cycle. ACS ATOMUS® PF8 has been proven to remove PFAS to non-detect levels.

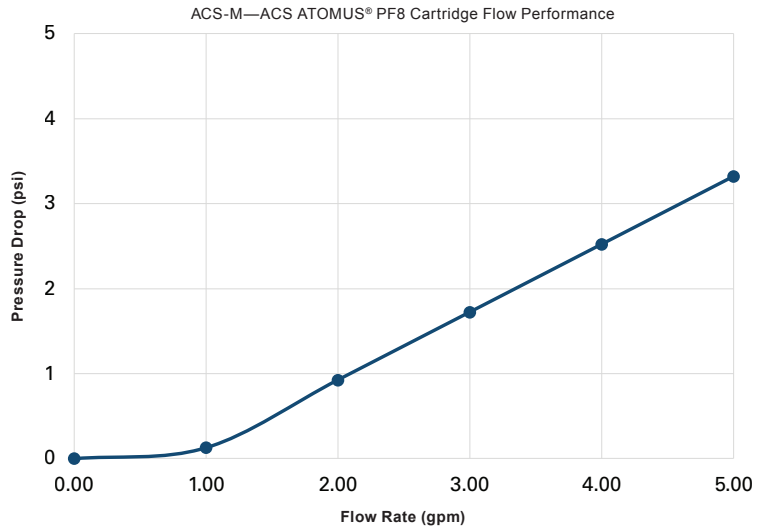
For PFAS concentrations at 3000+ ppt, ACS ATOMUS® PF8 will provide non-detect levels of PFAS removal for up to 150,000+ gallons of water. In more common water test results of 100 ppt, the expected life of a single cartridge is 350,000+ gallons of treated PFAS-free water.

NOTE: Periodic testing of the treated water for PFAS is necessary to determine when the filter has reached its usable capacity for PFAS reduction.

	7 STANDARD SIZES—STAINLESS STEEL CONSTRUCTION						
	5 GPM	**10 GPM**	**15 GPM**	**20 GPM**	**25 GPM**	**50 GPM**	**100 GPM**
Model	ISO-5-SS	ISO-10-SS	ISO-15-SS	ISO-20-SS	ISO-25-SS	ISO-50-SK	ISO-100-SK
Maximum Flow Rate	5 gpm	10 gpm	15 gpm	20 gpm	25 gpm	50 gpm	100 gpm
Number of Vessels	1	1	1	1	1	2 (on skid)	4 (on skid)
Number of Cartridges	1	2	3	4	5	10	20
System Maintenance	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED	BACKWASHING NOT REQUIRED
Pre-Filter	10" 1-micron cartridge filter; polypropylene	20" 1-micron cartridge filter; polypropylene	20" 1-micron cartridge filter; polypropylene	20" 1-micron cartridge filter; polypropylene	1-micron, 1 bag filter; stainless steel	1-micron, 1 bag filter; stainless steel	1-micron, 3 bag filter; stainless steel
Vessel Size	6.5" OD x 53" H	10" OD x 58" H	10" OD x 58" H	12" OD x 58" H	14" OD x 67 ⅜" H	N/A	N/A
Vessel Construction	100 psi/304 SS	100 psi/304 SS	100 psi/304 SS	100 psi/304 SS	150 psi/304 SS	150 psi/304 SS	150 psi/304 SS
Cartridge Size	4.5" OD x 42" L	4.5" OD x 42" L	4.5" OD x 42" L	4.5" OD x 42" L	4.5" OD x 42" L	4.5" OD x 42" L	4.5" OD x 42" L
Shipping Weight	27 lbs.	71 lbs.	71 lbs.	105 lbs.	330 lbs.	675 lbs.	1,200 lbs.
Inlet/Outlet Connection	1.5" FPT	1.5" FPT	1.5" FPT	2" FNPT	2" ASME flange	2" ASME flange	3" ASME flange
System Footprint	10" L x 10" D x 53" H	15" L x 15" D x 59" H	15" L x 15" D x 59" H	18" L x 18" D x 59" H	22" L x 22" D x 67" H	64" L x 18" D x 75" H	58" L x 39" D x 75" H
Minimum Headroom for Cartridge Removal†	82"	84"	84"	84"	108"	120"	120"

† Low-profile custom models are available as required by application.

FILTER PERFORMANCE*



**Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings based on 85% or greater removal of a given particle size. Flush new cartridges TO DRAIN until water runs clear prior to use. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

WATER CHEMISTRY AND LIMITATIONS

Free Chlorine: Up to 2 ppm	H2S: No limit
Iron, Ferrous: Up to 0.5 ppm	pH Range: 6–9
Flow Rates: Up to 5 gpm	Silica: < 35 mg/L
Hardness: Up to 500 ppm (29 gpg)	Temperature: 41–140 °F
Manganese: Up to 0.05 ppm	Copper: No limit
Total Suspended Solids: < 5 mg/L	Pre-filtration: 5 micron
Oil & Polyphosphates: Remove prior	Turbidity: 5 NTU

NOTES:

- *Water conditions outside of the above specified limits may lead to a shortened filtration life.*
- *Cartridges may contain a very small amount of fines. After installation, flush the cartridges TO DRAIN for at least 10 minutes prior to use.*
- *A ratio of 1:3 silica vs total hardness will maintain silica in solution and optimize performance.*
- *Adsorption is not affected by the co-presence of inorganic ions or other water characteristics like pH and TOC. Suspended solids should be removed in pre-filtration.*
- *Non-detect means <1 ng/L (1 ng/L = 1 ppt).*
- *Periodic testing of the treated water for PFAS is necessary to determine when the filter has reached its usable capacity for PFAS reduction.*

System installation and cartridge disposal to comply with federal, state, and local laws and regulations.

APPLIED CARTRIDGE SYSTEMS

The ATOMUS® PF8 media inside this system is Certified by NSF International to NSF/ANSI 61 for Material Safety and NSF/ANSI 372 for Low Lead Content.

The ACS system is Certified by IAPMO R&T to NSF/ANSI 61 for Material Safety and NSF/ANSI 372 for Low Lead Content.

UPC ®

IAPMO R&T WATER QUALITY PLATINUM SEAL NSF/ANSI 42 IAPMO RESEARCH AND TESTING

For more information, visit AppliedCartridgeSystems.com

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