FIL-TREK CORPORATION

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Advanced Carbon Technology

- 6" OD, 1.9" ID carbon block filters
- Easy change-out within minutes
- Excellent adsorption capacity

Achieve better results than traditional GAC filters at a fraction of the footprint while decreasing capital investment, replacement and maintenance costs.

SUITABLE USES









ADDITIONAL FEATURES

Cartridges have excellent adsorption capacity with minimal flow resistance.

Ideal for use in removal of organics, PFAS and other contaminants that granular activated carbon is used.

No backwashing or flushing needed.

Available in a variety of end cap configurations to fit your applications and current housings.

Certified to NSF/ANSI 42 and NSF/ANSI 61.

External rigid cage adds additional support and built in handle makes filter change out fast, easy and safe.

Thermally bonded.

Fully incinerable for complete chain of custody.

REMOVAL CAPABILITIES

- Chlorine
- Chloramines
- PFA's
- VOCs
- Colors
- Lead
- Arsenic
- Heavy metals
- and more...



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- Dual flow design options



ELEMENT SPECIFICATIONS

RECOMMENDED FLOW RATE	4 GPM per 10"			
MAX. FLOW RATE	8 GPM per 10"			
DIMENSIONS				
Outside Diameter	6" (15.24 cm) 1.9" (2.82 cm)			
Inside Diameter				
AVAILABLE LENGTHS	20", 26", 40", 60", 80" (50.8, 66, 01.6, 152.4, 203.2 cm) *Additional lengths available			
MAX. TEMPERATURE	180°F (82°C)			
USEABLE CARBON MEDIA	5 lbs carbon per 10" length			
PRE-RINSE	Pre-rinsing is suggested to remove any non-binded carbon dust.			

MATERIALS AVAILABLE

Media	O-Rings
Carbon Block	Buna-N, EPDM, Silicone,
Core, Cage and End Caps Polypropylene	· Viton, TEV

OUR CARBON

CARBON FORMULATIONS

We use over a hundred different carbon formulations to achieve ideal contaminant removal based on your application.

REPLACE OR ENHANCE

- Use these elements and system in place of a traditional GAC system.
- Can be used to replace existing GAC applications or systems.
- Implement as a polisher to existing systems.



OUR DESIGN

- Designed with a robust outer cage to protect the carbon block during handling for easier installation and removal.
- A double o-ring seal to ensure a zero bypass connection.
- NSF/ANSI certified for potable water applications.

ELEMENT LIFESPAN ESTIMATIONS

*Based on a 40" lg filter



AVAILABLE END CONFIGURATIONS

OPEN END CONFIGURATIONS

























For more information, e-mail: info@fil-trek.com or visit Fil-Trek.com







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COMPLETE SYSTEM SOLUTIONS

SYSTEM BENEFITS

- Estimated 1/15 of the footprint size required in comparison to conventional GAC systems.
- Estimated 1/20 of the capital investment in comparison to conventional GAC systems.
- No backwashing or flushing required.
- No effluent or waste streams generated.
- No channelling with ACT, 100% of available surface area is utilized prior to filter exhaustion.
- Exhausted elements can be easily changed by maintenance crew in minutes with minimal downtime.
- Elements are fully incinerable for complete chain of custody,
 EPA manifestation documents can be provided upon request.

STANDARD SYSTEM COMPONENTS

- Pre-treatment filter, ideal at 1 micron absolute
- ACT carbon filter
- Pressure gauges
- Flow meter

ADDITIONAL CUSTOMIZATION/OPTIONS

- Skid assembly
- Polishing filters
- Automated control panel/instrumentation
- Automated valves and more...

100 GPM SYSTEM COMPARISON



SYSTEM DESIGN

- NSF/ANSI 61 certified SS304 or SS316 filter housings
- Designed to accept up to 36 elements with a 50" diameter and accommodate 750+ GPM for a single element housing.
- A single vessel footprint can be as small as 5ft x 3ft.
- Additional housings can be easily manifolded together to meet greater flow requirements or increased surface area.
- For certain contaminants, flows of < 40 GPM can be handled by a single element housing with a 10" diameter body.







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PRODUCT NOMENCLATURE

ACT	014	40	226	BN	
MODEL	FORMULATION	LENGTH	CONFIGURATION	O-RING	OTHER
ACT – Advanced Carbon Technology	 010 - General Industrial 011 - Chlorine, taste, odor 012 - Lead 013 - Chloramine 014 - PFAS 015 - Color 016 - VOC's 017 - Plating 019 - Arsenic 	20 26 40 60 80	362 - 362 top cap, closed bottom 435 - 435 top cap, closed bottom 226 - 226 base w/ handle 225 - 225 base w/ handle 2WS - #2 wedge seal	BN – Buna-N (std) ED – EPDM SI – Silicone VI – Viton TEV - Tef. Enc. Viton	(-) Rigid cage (std) AC - Acid wash

Additional lengths, end caps or other customization may be available, contact Fil-Trek for part number information

CASE STUDY - ACT FOR PFAS REMOVAL

Fil-Trek implemented the Advanced Carbon Technology (ACT) for the removal of PFAS contaminants at a drinking water bottling plant. The raw water inlet concentrations of combined PFAS reached levels greater than 40 PPT. ACT through a single pass was able to drop the levels of combined PFAS to non detectable levels for over 500,000 gallons using only ~50Lbs of Carbon. PFBS was the first PFAS compound to break through as it is the most soluable and hardest to remove. PFOA/PFOS did not break through until 900,000 gallons passed though.

	CONTAMINANT	RAW WATER CONCENTRATION	186,400 GAL TREATED	489,400 GAL TREATED	734,500 GAL TREATED	971,300 GAL TREATED	1,219,100 GAL TREATED	System design: Raw spring water > sediment filtra-
	PFOS	27.4	Non Detectable	of 17 GPM.				
	PFOA	5.48	Non Detectable	Non Detectable	Non Detectable	2.0	2.86	Extrapolating to an ACT 6" x 40" lg, 100 GPM system.
	PFOS + PFOA	32.88	Non Detectable	Non Detectable	Non Detectable	2.0	2.86	
	PFBS	4.23	Non Detectable	Non Detectable	2.0	2.0	3.26	
	PFHpA	4.13	Non Detectable	Non Detectable	Non Detectable	2.0	2.746	The estimated footprint size is 5' x 5'
								x 6' for a single pass system.

All Measurements are in ng/L - (PPT)

