

**HUF[®]**

High-Capacity Ultrafiltration Systems

Control of waterborne pathogens, including Legionella

Featuring ANSI/
NSF 419 certified
membrane technology

From Concept to Commissioning

Point-of-entry Legionella and pathogen control made simple

Your one-stop provider for custom-built High-Capacity Ultrafiltration systems

WCC's High-Capacity Ultrafiltration (HUF™) systems serve as a critical, point-of-entry firewall to pathogens, particulates, and many organic nutrients. Installing them on the cold water inlet to a facility provides permanent protection from the infiltration of viruses, protozoans, and bacteria (including Legionella, Pseudomonas, and E. coli) via the water mains. Their power to prevent the entry of pathogens makes them a perfect solution for a variety of applications, such as emergency water supply filtration, boil-water mitigation, Legionella/pathogen reduction, and general water quality improvement.

Typical System Specifications					
		Phoenix GT-1	Phoenix GT-2	Phoenix GT-3	Phoenix GT-4
Number of Membranes		1	2	3	4
Continuous Flow (gpm) ¹	5 PSID	40	71	94	108
	10 PSID	56	101	132	153
	15 PSID	69	124	169	187
	20 PSID	79	143	187	215
Short Term Peak (gpm) ² (Flush Valve % of Total Fixture Units) ³	60 Sec Draw (0-25%)	119	196	293	373
	45 Sec Draw (26-50%)	132	213	328	426
	30 Sec Draw (51%+)	158	249	398	532
Standard Hydro Tank Vol (gal)	158	211	211 x 2	211 x 3	
Required Space (LxWxH) ⁴ (in)	124 x 36 x 84 ⁵	146 x 48 x 84 ⁵	204 x 48 x 84 ⁵	262 x 48 x 84 ⁵	
Connections (in) ⁵	2 FLG	3 FLG	3 FLG	4 FLG	
Flush Volume (gal) ⁶	4	9	13	17	

System Overview

- ◆ 99.999% bacterial, protozoan, and sediment reduction
- ◆ 99.99% viral reduction
- ◆ Flow-through filter design (no constant waste stream), with low pressure loss
- ◆ Dissolved substances remain in water
- ◆ Long membrane life with EPA-compliant membrane integrity verification
- ◆ ANSI/NSF 419 certified membranes
- ◆ Minimal maintenance: Self-cleaning
- ◆ 6-month datalogging of GPM, inlet/outlet pressure, membrane condition, and system status
- ◆ BAS and Ethernet integration options
- ◆ Filtered bypass assemblies available for system servicing and emergencies
- ◆ California HCAI (OSHPD) pre-certified configurations available

¹ Assumes 50°F, reasonable-quality city water supply and normal membrane fouling

² Equals possible GPM flow for indicated draw duration @20 PSID, using 25% of nominal hydro tank volume

³ Percentage of total calculated fixture units derived from flush valves and other "short-cycle" fixtures

⁴ Other configs possible. Includes pre-filter(s) and standard hydro tanks

⁵ Drain line connection is 2" on all GT models

⁶ Standard flush duration is 10 seconds (may be increased, dependent on feed water quality)

Additional details



System Dimensions & Weights		
Model	Dimensions (L x W x H) (in)	Weight (lbs) (wetted)
Phoenix GT-1	55.75 x 23 x 75	400
Phoenix GT-2	75.5 x 23 x 75	600
Phoenix GT-3	94.5 x 23 x 75	800
Phoenix GT-4	114.75 x 23 x 75	1000

Operating Parameters	
Min/Max Water Temp	39°F / 104°F
Min/Max Room Temp	34°F / 104°F
Max Inlet Pressure ¹ (psi)	73
Max ΔP Across Membrane ² (psid)	36
Chlorine Tolerance (ppm hours ³)	200,000
Max Chlorine Concentration (ppm)	200 PPM
Required Pre-Filtration ⁴	100μ
Electrical Requirements	120V, 60 Hz, 7FLA ⁵

Materials of Construction	
Membranes	Modified polyethersulfone (PES) (hydrophilic, no plasticisers)
Membrane Potting	Polyurethane
Membrane Housings	UPVC
System Piping	Sch. 80 PVC (std), other materials available
Skid Base	304 stainless steel

¹ Exceeding max inlet pressure may damage membrane. Utilize PRV if needed. Avoid water hammer

² Exceeding 36 PSID during filtration may damage membrane (system will automatically shut down)

³ Equals chlorine concentration (ppm) x hours of operation

⁴ Pre-filters are included with system quotation. In challenging water applications, additional pre-treatment may be required.

⁵ Certain accessories may increase FLA requirements

A full array of water treatment solutions



**Commercial
Water Softening**



**Water
Reclamation**



**Legionella and
Pathogen Control**



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Water Systems**

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