Office of Drinking Water

Acceptable bag and cartridge filters

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We will accept the following bag and cartridge filters for piloting or other state-approved field evaluations (WAC 246-290-676). Lab or field studies demonstrated that these filters remove acceptable levels of *Cryptosporidium* (or an acceptable surrogate) and meet the required material performance standard (WAC 246-290-220(1)).

Applicable Requirements

Our acceptance of these bag and cartridge filters does not diminish the need to conduct a pilot test or other state-approved field evaluation. We still require a predesign study to establish the best way to produce satisfactory finished water quality and to justify the choice of filtration technology (WAC 246-290-250).

Requirements that apply to each bag and cartridge filter listed below:

- Disinfection (WAC 246-290-662)
- Turbidity performance (WAC 246-290-660): ≤ 1.0 NTU in 95 percent of all measurements taken each month, never to exceed 5.0 NTU.
- Turbidity monitoring (WAC 246-290-664): Daily grab (minimum required frequency) or continuous (preferred) on the combined filter effluent.

Refer to the manufacturer's product-specific information prior to design.

Manufacturer	Model			Log Removal Credit			Maximum Flow Module‡	Maximum Differential Pressure	Last Review Date
	Prefilter	Main Filter	Housing	Crypto	Giardia	Viruses			
ANSI/NSF 53	Various models that demonstrated >3.3-log removal of *Cryptosporidium* are listed as point-of-entry devices, but may be large enough to serve as centralized treatment for some very small systems.			2.0	2.0	0.0	Varies	Varies	Not Applicable
Harmsco	Not Applicable	HC/170-LT2	MUNI-1-2FL-304	2.0	2.0	0.0	100 gpm	30 psi [A]	3/2013
Rosedale	PS-520-PPP-241	GLR-PO-825-2	8-30-2P	2.0	2.0	0.0	12 gpm	20 psi [B]	8/2005
Strainrite	HPM99-CC-2-SR	HPM99-CCX-2-SR	AQ2-2	2.0	2.0	0.0	20 gpm	25 psi [B]	6/2008

‡ Maximum flow rate for the bag and cartridge filter systems may not be economically viable (excessive change outs), and should be verified through piloting. Additional prefiltration and low raw water turbidity is usually required to avoid excessive change outs.

[A] Absolute pressure drop across the final filter.

[B] Absolute pressure drop across both filters.

For more information
Call your ODW regional office.

Eastern Region: Spokane Valley (509) 329-2100
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