

Cartridge Selection/Sizing Guide

2-3/4 and 4-1/2" O.D. 9-3/4" and 20" Premium Carbon Cartridges

Product Code	Type	Max Flow Rate (GPM)	Max Flow Rate (LPM)	Max Capacity Chlorine (Gals.)	Max Capacity Organic Chemicals (Gals.)	Max Capacity Lead (Gals.)	Length (in.)	O.D. (in.)	No./Case
HAC-10-W	Activated Carbon	1.5	5.7	5,000	500	—	9-3/4	2-3/4	24
HAC-20-W	Activated Carbon	3	11.3	10,000	1,000	—	20	2-3/4	24
HAC-10-LR-W	AC & Lead Removal	0.75	2.8	7,000	500	4,000*	9-3/4	2-3/4	24
HAC-BB-10-W	Activated Carbon	5	18.9	20,000	1,000	—	9-3/4	4-1/2	8
HAC-BB-20-W	Activated Carbon	10	37.8	40,000	2,000	—	20	4-1/2	4

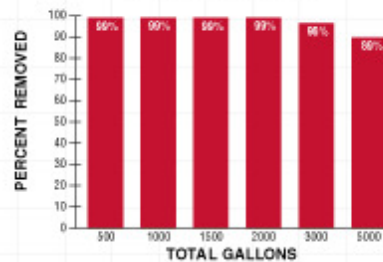
* 99% lead removal typical with low pH and alkalinity to 4,000 gals. 98% to 92% removal typical with high pH and alkalinity to 3,000 gals. Data shown above is approximate and depends on filter life relative to solids content.

Note: Test data shown above is for HAC-10-W cartridge. Results may vary depending on water chemistry and other factors.

Superior Performance

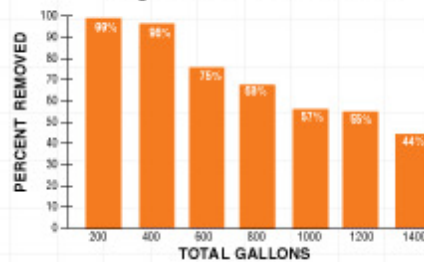
Harmsco's activated carbon cartridges outperform "canister" and "impregnated" types of cartridges due to their increased carbon content, cellulose-free construction, wet molding process and dual-stage construction. They have been tested by a certified national laboratory using test procedures described in NSF Standards 42 and 53. Test results are shown below:

Chlorine Removal



Test data generated by independent laboratory at 1 gpm using test procedures described in NSF Standard 42. Average chlorine feed at 2 ppm.

Organic Chemical Removal

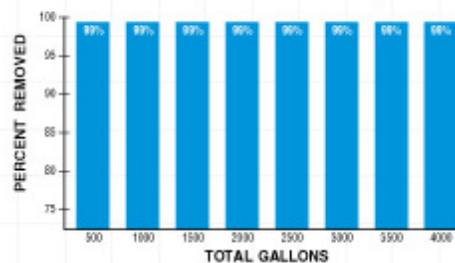


Test data generated by independent laboratory at 1 gpm using test procedures described in NSF Standard 53. TCE used as test contaminant at average feed of 300 ppb.

Lead Removal and Performance

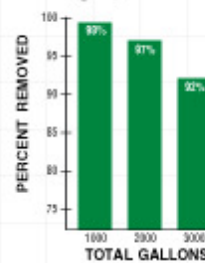
Harmsco's HAC-10-LR-W lead removal cartridges employ the use of a specially formulated ceramic lead removal matrix plus pulverized activated carbon to reduce lead concentrations up to 99% with very short contact time. The "ATS"[™] adsorbent material works well in hard water and in the presence of iron and manganese. Performance is relatively unaffected by pH. They have been tested using the test protocol described in NSF Standard 53 and certified by an independent laboratory. The test results shown below indicate our HAC-10-LR-W lead removal cartridge will effectively reduce lead concentrations up to 99% for 4,000 gallons of low pH water and up to 92% for 3,000 gallons of high pH water.

Low pH and Alkalinity



Test data generated by certified national laboratory using the protocol described in NSF Standard 53 using a flow rate of 0.75 gpm and an average feed of 150 ppb lead. Water's pH was 6.5 and alkalinity 10-30 ppm as CaCO₃.

High pH and Alkalinity



Test data generated by certified national laboratory using the protocol described in NSF Standard 53 using a flow rate of 0.75 gpm and an average feed of 150 ppb lead. Water's pH was 8.5 and alkalinity 170-250 ppm as CaCO₃.