# Performance Data

## Model WHAFFS Kitchen & Bath Water Filtration System

**IMPORTANT NOTICE:** Read this performance data and compare the capabilities of this unit with your actual water treatment needs. It is recommended that, before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs. This filter system is designed to be used for the reduction of the performance claims listed below. Do not use where water is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. While testing was performed under standard laboratory conditions, actual performance of this system may vary based on local water conditions. Some or all of the contaminants reduced by this unit may not be in your water supply. See elsewhere in this owner's manual for further instructions on filter cartridge replacement, system installation, operating procedures, and warranty. The maintenance instructions must be followed for the product to perform as indicated below.

### General Information

This system has been tested according to NSF/ANSI 42, 53 and 401 for reduction of substances listed above. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42, 53 and 401. The testing was performed using spiked tap water at a flow rate of 2.2 gallons per minute (8.3 L/min.), pH of 7.5 ± 0.5, pressure of 60 psig, and temperature of 68 ± 5°F.

This product is protected by U.S. patent no's: 6,866,704; 6872.311; 7,276,166; 7,296,691; 7,241,388; 7,287,650; 7,566,014; 8,056,733; applicable U.S. patent applications; foreign patents and foreign patent applications.

### Installation Requirements

Pressure Range .....30-100 psig (207-689 kPa)
Temperature Range.....40-100°F (5-38°C)
Service Flow Rate.....2.2 GPM (8.3 LPM)
Service Life.....660 gallons (2,500 Liters)

### Maintenance

Filter cartridges should be replaced every 660 gallons (2,500 liters) or six months, whichever comes first. For replacement elements, call 1-800-986-3223 or visit www.whirlpoolwater solutions.com. Replacement filter prices will vary. Estimated cost of replacement filter cartridge WHAFFS ranges from $70 to $100.

The system is to be supplied only with cold water.

The system and installation shall comply with applicable state and local regulations.

Compounds certified under NSF/ANSI 401 have been deemed as 'incidental contaminants / emerging compounds'. Incidental contaminants are those compounds that have been detected in drinking water supplies at trace levels. While occurring at only trace levels, these compounds can affect the public acceptance/perception of drinking water quality.

Spent adsorption media will not be regenerated and used.

# Performance Data

| PERFORMANCE CLAIMS | | |
|---|---|---|
| **Substance** | **Required Influent Challenge Level (mg/L)[1]** | **Maximum Permissible Product Water Concentration (mg/L)[1] or Reduction Requirement** |
| Chlorine Taste & Odor | 2.0 ±10% | ≥50% reduction[3] |
| Particulate, Class I (0.5 to <1 micron) | ≥10,000 particles/mL | ≥85% reduction[3] |
| Microplastics (0.5 to <1 micron) | ≥10,000 particles/mL | ≥85% reduction[3] |
| Asbestos | $10^7$ to $10^8$ fibers/L (fibers > 10 microns in length) | 99% reduction[3] |
| Cyst | ≥50,000 particles/mL | 99.95% reduction[3] |
| Lead | 0.15 ±10% | 0.005 |
| Mercury | 0.006 ±10% | 0.002 |
| PFOA / PFOS | 0.0015 ±20% | 0.00002 |
| **Substance** | **Required Influent Challenge Level (ng/L)[2]** | **Maximum Permissible Product Water Concentration (ng/L)[2]** |
| Atenolol | 200 ±20% | 30 |
| Bispenol A | 2,000 ±20% | 300 |
| Carbamazepine | 1,400 ±20% | 200 |
| DEET | 1,400 ±20% | 200 |
| Estrone | 140 ±20% | 20 |
| Ibuprofen | 400 ±20% | 60 |
| Linuron | 140 ±20% | 20 |
| Meprobamate | 400 ±20% | 60 |
| Metolachlor | 1,400 ±20% | 200 |
| Naproxen | 140 ±20% | 20 |
| Nonylphenol | 1,400 ±20% | 200 |
| Phenyltoin | 200 ±20% | 30 |
| Trimethoprim | 140 ±20% | 20 |
| **VOCs (by surrogate testing using chloroform)** | **Required Influent Challenge Level** | **Maximum Permissible Product Water Concentration** |
| Alachlor | 50 µg/L | 1.0 µg/L |
| Atrazine | 100 µg/L | 3.0 µg/L |
| Benzene | 81 µg/L | 1.0 µg/L |
| Carbofuran | 190 µg/L | 1.0 µg/L |
| Carbon Tetrachloride | 78 µg/L | 1.8 µg/L |
| Chlorobenzene | 77 µg/L | 1.0 µg/L |
| Chloropicrin | 15 µg/L | 0.2 µg/L |
| 2,4-D | 110 µg/L | 1.7 µg/L |
| Dibromochloropropane (DBCP) | 52 µg/L | 0.02 µg/L |
| o-Dichlorobenzene | 80 µg/L | 1.0 µg/L |

1 Milligrams per liter, which is equivalent to parts per million (PPM).

2 Nanograms per liter, which is equivalent to parts per trillion (PPT).

3 NSF/ANSI 53 minimum percent reduction requirement. The acceptance level for this substance is based on percent reduction, rather than maximum effluent concentration.

# Performance Data

| VOCs (by surrogate testing using chloroform) | | Required Influent Challenge Level | Maximum Permissible Product Water Concentration |
|---|---|---|---|
| p-Dichlorobenzene | | 40 µg/L | 1.0 µg/L |
| 1,2-Dichloroethane | | 88 µg/L | 4.8 µg/L |
| 1,1-Dichloroethylene | | 83 µg/L | 1.0 µg/L |
| cis-1,2-Dichloroethylene | | 170 µg/L | 0.5 µg/L |
| trans-1,2-Dichloroethylene | | 86 µg/L | 1.0 µg/L |
| 1,2-Dichloropropane | | 80 µg/L | 1.0 µg/L |
| cis-1,3-Dichloropropylene | | 79 µg/L | 1.0 µg/L |
| Dinoseb | | 170 µg/L | 0.2 µg/L |
| Endrin | | 53 µg/L | 0.59 µg/L |
| Ethylbenzene | | 88 µg/L | 1.0 µg/L |
| Ethyl Dibromide (EDB) | | 44 µg/L | 0.02 µg/L |
| Haloacetonitriles (HAN) | Bromochloroacetonitrile | 22 µg/L | 0.5 µg/L |
| | Dibromoacetonitrile | 24 µg/L | 0.6 µg/L |
| | Dichloroacetonitrile | 9.6 µg/L | 0.2 µg/L |
| | Trichloroacetonitrile | 15 µg/L | 0.3 µg/L |
| Haloketones (HK) | 1,1-dichloro-2-propanone | 7.2 µg/L | 0.1 µg/L |
| | 1,1,1-trichloro-2-propanone | 8.2 µg/L | 0.3 µg/L |
| Heptachlor | | 25 µg/L | 0.01 µg/L |
| Heptachlor Epoxide | | 10.7 µg/L | 0.2 µg/L |
| Hexachlorobutadiene | | 44 µg/L | 1.0 µg/L |
| Hexachlorocyclopentadiene | | 60 µg/L | 0.002 µg/L |
| Lindane | | 55 µg/L | 0.01 µg/L |
| Methoxychlor | | 50 µg/L | 0.1 µg/L |
| Pentachlorophenol | | 96 µg/L | 1.0 µg/L |
| Simazine | | 120 µg/L | 4.0 µg/L |
| Styrene | | 150 µg/L | 0.5 µg/L |
| 1,1,2,2-Tetrachloroethane | | 81 µg/L | 1.0 µg/L |
| Tetrachloroethylene | | 81 µg/L | 1.0 µg/L |
| Toluene | | 78 µg/L | 1.0 µg/L |
| 2,4,5-TP (silvex) | | 270 µg/L | 1.6 µg/L |
| Tribromoacetic acid | | 42 µg/L | 1.0 µg/L |
| 1,2,4-Trichlorobenzene | | 160 µg/L | 0.5 µg/L |
| 1,1,1-Trichloroethane | | 84 µg/L | 4.6 µg/L |
| 1,1,2-Trichloroethane | | 150 µg/L | 0.5 µg/L |
| Trichloroethylene | | 180 µg/L | 1.0 µg/L |
| Chloroform (THM) | | 300 µg/L | 15 µg/L |
| Bromoform (THM) | | | |
| Bromodichloromethane (THM) | | | |
| Chlorodibromomethane (THM) | | | |
| Xylenes (total) | | 70 µg/L | 1.0 µg/L |