



Home Water Plant

PHASE 1 TREATMENT SEDIMENTS REMOVAL SPECIFICATIONS SCIENCE AND TECHNOLOGY

SEDIMENTS

Water discharged from your city plant is only “pretty safe.” And then, sediments, dirt and the like, enter the water stream at reservoirs and pump stations and through miles of city water mains. Many of these pipes are over 100 years old. Some are cracked, or scum lined. There are 240,000 city water main breaks in the US annually.

TREATMENT

Home Water Plant 1st phase treatment is a sediment prefilter, and more. The filter housing contains an inexpensive, easily replaced, radial flow, dual-gradient filter cartridge. Its primary purpose is to filter out sediments which might, otherwise, reduce Phase 2 efficiency and leave your water turbid, but it captures many contaminant particles as well.

“Radial flow” means that entry water flows laterally, from the outside to the inside of the filter cartridge. These cartridges are manufactured from spun polypropylene fibers. Fiber density increases toward the center, or inner gradient, of the filter cartridge, thus “dual gradient.” Outer gradient fibers capture sediments greater than 25 μm ; inner gradient fibers capture sediments greater than 1 μm , e.g., cysts. (A μm , a micron, equals 39 millionths of an inch; a red blood cell is 6-8 μm .)

Effective filter depth equals 230% of standard spun-polypropylene or string-wound filters, providing very high particulate reduction efficiency and added loading capacity. *The Home*



Water Plant 1st phase filter captures up to three times the sediment of other similarly-sized cartridges.

The sediment reduction efficiency of first phase treatment is about 92% of particle sizes above 10 µm and 98% of particle sizes 70 µm and above.

Our experience is that, in moderate-use household conditions, Phase 1 cartridges will last up to 16 months. But water quality and circumstances vary widely. Four pre-teen or teenage daughters will run through a filtration system rather more quickly. City water main breaks, virtually ingesting dirt, may quickly exhaust a prefilter. We strongly recommend annual replacement. A noticeable drop in water pressure in less than 12 months tells you the prefilter cartridge should be replaced. Cartridges are inexpensive and easily replaced.

Tested and certified by NSF International to NSF/ANSI standard 42 for material requirements only.



TECHNICAL SPECIFICATIONS

Dimensions — 4 ½ X 20"

Media — polypropylene

Temperature rating — 40-145° F

Outside micron rating (nominal) — 25 µm

Inside micron rating (nominal) — 1 µm

Approximate pressure drop at 8 gpm — ½ psi (8 gpm approximates a shower, two faucets and a washing machine operating simultaneously). Typically, home water pressures approximate 75 psi, so a ½ psi differential is unnoticeable.