



Virus Sampler Filter Cartridges

NanoCeram-VS™ Series

NEW & IMPROVED

The New & Improved NanoCeram® Virus Sampler uses Argonide's patented electropositive non-woven filter media in a pleated cartridge. The family of NanoCeram® Virus Samplers are capable of meeting the rigid testing methodology for virus sampling as specified by the EPA (see USEPA Methods of Virology, Chapter 14, April 2001 and Method 1615), and has enhanced recovery.

The VS2.5-5 cartridge exceeds the EPA's desire for a low-cost virus sampler. The improved VS2.5-5 cartridge realizes a better recovery compared to original Argonide sampler cartridge. The VS2.5-5 is supplied in cases containing cartridges that are individually induction-sealed, and Electron Beam Irradiated by a Certified sterilization facility.

The new VS2.5-5 sampler has been tested and verified to remove Polio Virus as dictated by NELAC Quality Control Standards for demonstration of capability.

The testing was performed by an independent third party NELAC certified lab. The evaluation was run over a three month period. The results show the new sampler realizes enhanced performance when 3.0% eluent solution is used.

To meet the autoclaving protocol within the EPA's Methods, Argonide has incorporated high-temperature components.

In order to accomplish the desired retention characteristics, 3% Beef Extract solution must be used.

Media Retention Characteristics

- Virus Recovery: 80-90% (based on data for MS2 adsorption).
- Silt Density Index (SDI) 0.5 - 1.0
- <0.01 NTU until Terminal pressure drop of 35 psi, using A2 Fine Test Dust.
- Low pressure drop: less than 1 psi at 1.5 GPM.
- Dirt Holding Capacity (DHC): 82.3 g/ft² (A2 Fine Test Dust)



Features

- Reduced sample size as the filter is 50% the size of other virus sampler cartridges. (Part No.VS2.5-5 only)
- Effective in fresh, brackish or salt waters
- Pleated construction yields high flow rates & DHC
- Available in standard DOE configurations
- Manufactured in ISO 9001:2015 Facility.

Markets

- Ground Water
- Municipal & Industrial Water
- Laboratory
- Sea & Brackish Water

Applications

- Municipal (Potable Water Testing)
- Shoreline Water Testing (Fresh/Brackish/Salt)
- Ground Water Testing
- Laboratory



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NanoCeram-VS™ Series



Specifications

Part No	VS2.5-5	VS2.5-10
Dimensions	2.625 x 4.875" 6.67 x 12.38 cm	2.625 x 9.875" 6.67 x 25.08 cm
Temperature Range*	39-190°F 4-88°C	39-190°F 4-88°C
Peak Flow Rate**	5 gpm 19 lpm	10 gpm 38 lpm

* Temperature Range is an operational range.
** Peak Flow Rate based on initial flow using new filter cartridge and clean water during laboratory testing.
*** Maximum Capacity is dependent on water quality.

Retention of MS2 by 2.5" x 10" NanoCeram-VS™ Cartridge:

Test point, L	MS2 Removal		
	Influent PFU*/mL	LRV**	% Removal
Start	4.3×10^5	5.1	99.9992
1000	1.0×10^6	5.1	99.9992
2000	1.6×10^5	3.9	99.99
4000	1.0×10^6	3.8	99.98

Notes: * Plaque Forming Units ** Logarithm Removal Value

The results above indicate that in a clean (non-chlorinated) water environment, a single cartridge will have MS2 (bacteriophage with an average diameter of 27 - 34 nm) capacity greater than 4.0 LRV (99.99%) up to 4000 L in volume .

Materials of Construction

Media : NanoCeram® Media
Support: Polypropylene, Hot Melt High Temp
O-rings/Gaskets: EPDM Rubber

Ordering Information

Part No: VS2.5-5
VS2.5-10

Operating Conditions

Temperature: 39-190°F(4-88°C)
pH Range: 5 to 10
Terminal Pressure Drop: 35 psi (2.4 bar)