

Management Summary

Legionella pneumophila removal of EAM Benelux modules

General

Five filter modules of EAM Benelux, coded modules Example 1 till 5, were tested under test conditions which are based on the ASTM F838-2020 at Vitens Laboratories, Leeuwarden, The Netherlands. Tests were performed at nov 2025; in order determine the LOG reduction of the filter module for the bacteria Legionella pneumophila.

Used methods

First, the filter module was flushed with water at 50 °C (122 °F) for 10 minutes. After thermal flushing, the module was rinsed with 1 L of filtered tap water, followed by a challenge of 1 L water containing a minimum concentration of 1.0×10^9 Legionella pneumophila per liter, in accordance with the ASTM F838 protocol. An effluent sample was taken at the end of the challenge. The feed and effluent sample taken from the challenge test were analyzed by Vitens Laboratories, Leeuwarden, The Netherlands. Analysis of the samples was conducted within 24 hours after the testing.

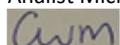
Test results

The table below displays the results of the Legionella pneumophila challenge experiments, using the data from the analytical report of Vitens.

Filter	CFU / liter	LOG	LOG reduction
Influent Example 1,2,3	1.16E+11	11.1	
Influent Example 4,5	1.34E+11	11.1	
Effluent Example 1	<10	<1	>10.1
Effluent Example 2	<10	<1	>10.1
Effluent Example 3	<10	<1	>10.1
Effluent Example 4	<10	<1	>10.1
Effluent Example 5	<10	<1	>10.1

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