



November 23, 2020

The Clean Water Institute of Calvin University certifies that it is possible and expected that Sawyer tap water filters can filter over 500 gallons of water in less than 24 hours. We base this conclusion on experimental evidence collected wherein all three filters tested were each able to filter over 500 gallons of water in less than twelve hours. As these three filters were out of their original packaging, we conclude that it is reasonable to expect that any Sawyer tap filter will likewise be capable of such capacity.

This certification does not claim that all Sawyer filters under all conditions will be able to filter 500 gallons of water in less than 24 hours. If the filter is not used as prescribed by the instructions, or if the water is sufficiently dirty, or if the water pressure is too low, or if the tap diameter is too small, then it may not be possible to filter 500 gallons in less than 24 hours. Our tests were conducted with municipal tap water, on a 20 mm (outer diameter) tap, and with sufficient water pressure to achieve at least 5 gallons per minute of flow. The details of our work are presented on the attached page.

Sincerely,

Douglas A. Vander Griend, Ph.D.
Director
Clean Water Institute
Calvin University



Filter Certification Report

Date: November 21 – 22, 2020.

Company: Sawyer

Test Subject: Three filters (pictured) received in their original packaging.

Model #: SP134-EPA-Est. No: 58188 FL-1

Bar code: 0-50716-00134-1 (common to all three)

Water Source: Grand Rapids City tap water¹

Setup: all three filters attached to single garden hose with brass splitter. The filtered water from each filter was captured in separate pre-calibrated 55 Gallon plastic drums.

Spigot: Filters were attached to smooth plastic pipe with an inner diameter of 16 mm and an outer diameter of 20 mm, which is the maximum that will fit inside the sizing ring provided with the product.

Trial	Gallons	Minutes	Comment
1	5.0 × 10 ¹	38	
2	5.0 × 10 ¹	32	
3	5.0 × 10 ¹	33	
4	5.0 × 10 ¹	40	One of the filters disconnected and had to be reconnected by hand after flow rate was reduced.
5	5.0 × 10 ¹	103	All three filters backwashed for 1-2 minutes before this trial. Discharge water was yellowish for a few seconds.
6	>5.5 × 10 ¹	<116	Water was not shut off until drums were overflowing
7	5.0 × 10 ¹	121	
8	5.0 × 10 ¹	55	All three filters backwashed for 1-2 minutes before this trial. Discharge water was yellowish for a few seconds.
9	5.0 × 10 ¹	55	
10	5.0 × 10 ¹	45	
11	5.0 × 10 ¹	58	
Total	>5.0 × 10 ²	<698	This corresponds to 11 hours and 38 minutes of total filter run time for each filter.

All three filters tested were capable of filtering 500 gallons of water in less than 12 hours.

Tester: Douglas A. Vander Griend, Ph.D.

Organization: Clean Water Institute of Calvin University, Grand Rapids, Michigan

¹ www.grandrapidsmi.gov/Government/Departments/Water-System/Water-Quality-Reports/2019-Water-Quality-Report