

## Specifications

Product name	LifeStraw® Community
Composition (elements in contact with water)	Dirty water container: HD-PE (Food grade compliant) Safe storage container: PP (Food grade compliant) Silicone hoses (Food grade compliant) Cartridge housing: PP (Food grade compliant) Filtration membrane: PES (Food grade compliant) Backwashing bulb: LD-PE
Structural elements	Frame and feet: PP reinforced with glass fibre (40%) Backwash handle: Nylon (Pa6 reinforced with 30% glass fibre) Lock: Nylon (Pa6 reinforced with 30% glass fibre)
Food grade quality	All the raw materials in contact with water are FDA compliant
Safety	When the filter reaches its full capacity (i.e. the end of its lifetime) the membrane clogs naturally, thus eliminating the possibility of anyone ever drinking contaminated water from the filter.
Purification capacity	LifeStraw® Community is estimated to have a minimum capacity of 70,000 - 100,000 liters**
Filtration rate	Estimated 12L/hour
Flow rate	When tap is opened, it takes a few seconds to fill a glass
Dimensions	550x550x850mm <sup>3</sup> when unfolded/ in-use
Weight	Approximately 8Kg when empty
Packing	Each product is protected in a PE Film (polybag) and then packed in an individual five-layer cardboard box
Shipping	Outer dimensions of cardboard box are 570x570x620mm <sup>3</sup>

\*\* Based on a turbidity level of 4-5 NTU, under laboratory conditions

### CERTIFICATE OF QUALITY

Each shipment of LifeStraw® Community is accompanied with a Certificate of Quality (COQ). The COQ summarises quality control testing data, including antimicrobial efficacy and physio-chemical parameters for every batch or shipment of LifeStraw® Community. It is sent to the customer at the time of shipment.



# LifeStraw® Community

A high-volume, point-of-use community water purifier with built-in safe storage, which provides microbiologically-safe drinking water for community, educational and institutional environments



## Features

### EFFECTIVE

- Meets the world's most rigorous standards for microbiological performance\* as it removes:
  - a minimum of 99.9999% (log 6) of bacteria
  - a minimum of 99.999% (log 5) of viruses
  - a minimum of 99.99% (log 4) of protozoan parasites
  - turbidity by filtering particles of approximately 0.02 microns

### SAFE

- Uses no chemicals
- Uses raw materials that meet US Food and Drug Administration regulations and standards

### EASY-TO-USE

- Clean water is easily accessible via one of the four taps for drinking and hand washing
- Ensures a high flow rate and high volume of purified water
- Requires no electrical power, batteries or replacement parts
- Requires no running water or piped-in water supply
- Requires no lifetime indicator (product is functional until water can no longer pass through the filter)
- Has an easy-to-clean pre-filter and purification cartridge

### LONG-LASTING

- Provides a minimum of 70,000 - 100,000 liters\*\* of safe drinking water, reducing the need for repeat interventions
- Is sufficient to serve large groups of people for several years

### SCALABLE

- With minimal training, sustained use is achieved

\*Uses LifeStraw® Family ultrafiltration technology, which:

- Satisfies the criteria of the "Highly Protective" category for microbiological performance specifications as defined in WHO's 2011 'Evaluating Household Water Treatment Options: Health-based targets and microbiological performance options'<sup>1</sup>
- Complies with the US Environmental Protection Agency (EPA) 1987 Guide Standard and Protocol for Testing Microbiological Water Purifiers<sup>2</sup>



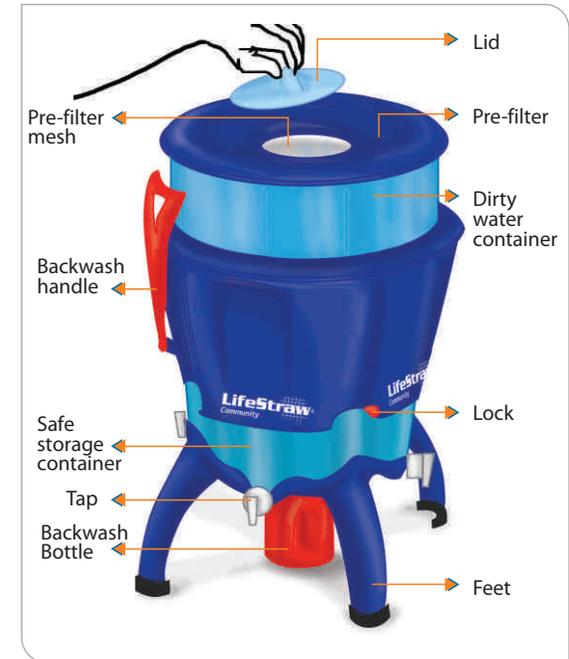
\*\* Based on a turbidity level of 4-5 NTU, under laboratory conditions

1 Naranjo J, Gerba CP. Assessment of the LifeStraw® Family unit using the World Health Organization Guidelines for "Evaluating household water treatment options: health-based targets and performance specifications"

2 Clasen T, Naranjo J, Frauchiger D, Gerba C. Laboratory assessment of a gravity-fed ultrafiltration water treatment device designed for household use in low-income settings. Am J Trop Med Hyg. 2009 May;80(5):819-23

## Functioning

- 25 litres of untreated water is poured into the top of the unit, also called the **dirty water container**
- The **pre-filter** removes coarse particles larger than 0.080mm
- The **ultrafiltration hollow-fibre membrane cartridge** then stops all turbidity particles and pathogens larger than 20 nanometres (including all bacteria, viruses and protozoan cysts). Particles and microbes larger than 20 nanometres stay on the dirty side of the membrane and clean/purified water passes through the membrane
- **Purified water** can be collected from any of the **four taps**
- The **backwashing handle** allows semi-automatic backwashing; when it is pulled down and released, pathogens and dust particles on the dirty side of the membrane are lifted by backpressure and then flushed out into the **red backwash container**



Since all microbes are stopped by the 20 nanometre membrane, the **purified water complies with the US EPA requirements of LOG 6/4/3 reduction** of microbes concentrations (bacteria, virus, and protozoa respectively) for water purifiers. It also **satisfies the criteria of the "Highly Protective"** category for microbiological performance specifications as defined in **WHO's 2011 'Evaluating Household Water Treatment Options: Health-based targets and microbiological performance options'**<sup>3</sup>. The **0.03 bar pressure** that allows the purification process to take place also leads to an estimated **flow rate of 12L/hour of purified water**.

3 Available from:  
[http://www.who.int/water\\_sanitation\\_health/publications/2011/household\\_water/en/index.html](http://www.who.int/water_sanitation_health/publications/2011/household_water/en/index.html)

