



# MORE SCIENCE BEHIND LOOLOOP

LooLoop<sup>®</sup> was built to out-perform and outlast the competition. Our patented advanced treatment system employs separate aerobic and anaerobic environments to remove pollutants from wastewater. These complimentary biological processes allow LooLoop<sup>®</sup> to achieve maximum pollutant reduction. LooLoop's<sup>®</sup> mechanical components are simple and durable, built to last for decades.

The BioFilter Cabinet<sup>®</sup> contains high surface-area media, where the aerobic portion of the process takes place. Here, bacteria attached to the media feed on the typical constituents in residential waste. As the wastewater passes through the filter, some of the biological matter sloughs off of the media, falling into the tank below. These aerobic microbes convert ammonia ( $\text{NH}_3$ ) into nitrates ( $\text{NO}_3$ ) and carbonaceous matter into carbon dioxide and more bacteria.

The sloughed bio-matter collects in the LooLoop<sup>®</sup> Tank, bringing about anaerobic conditions by depleting the water of oxygen. Nitrates ( $\text{NO}_3$ ), are reduced by anaerobic microbes to form nitrogen gas ( $\text{N}_2$ ) and methane ( $\text{CH}_4$ ). The nitrogen gas disperses into the top of the tank, and eventually into the atmosphere. Nitrogen is the primary gas in our atmosphere, so its gaseous release is completely benign.

Both aerobic and anaerobic processes rely on the concentration of several chemical components of wastewater but the optimal concentration for each chemical differs between the two processes. The critical components include organic nitrogen, BOD (biochemical oxygen demand), TSS (total suspended

## LOOLOOP EFFLUENT

	Conventional Septic	LooLoop	% Reduction
(Total Nitrogen) TN	60 mg/L	13 mg/L	78%
Biological Organic Demand (BOD)	200 mg/L	7 mg/L	97%
Total Suspended Solids (TSS)	130 mg/L	6 mg/L	95%

Results compiled from internal testing and verified NSF certification reports

*LooLoop's groundbreaking performance comes from being created and tested in real-world conditions, not a lab.*

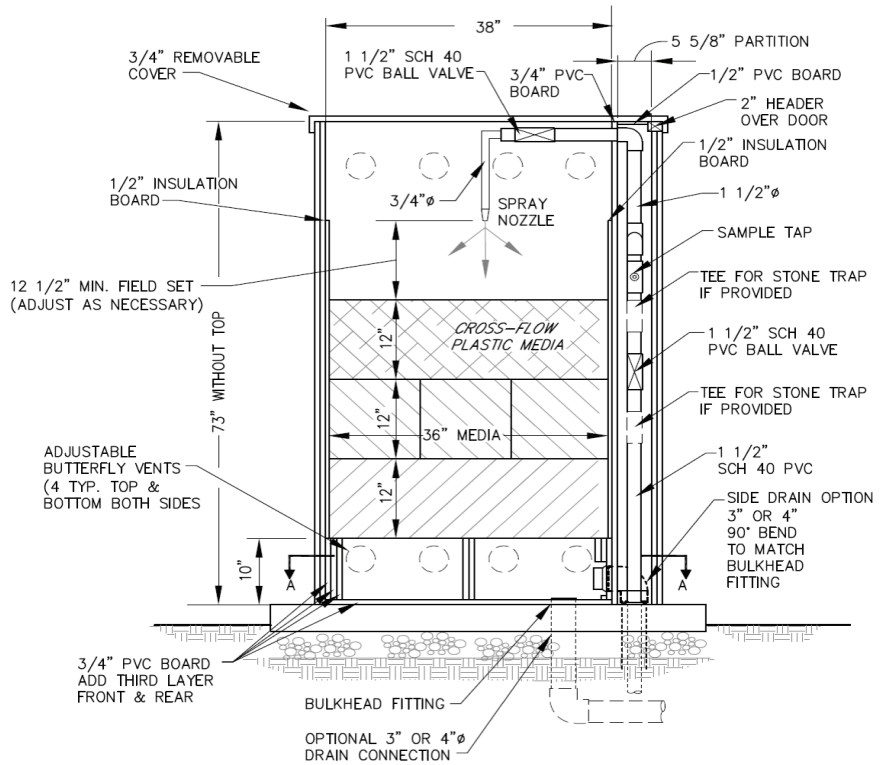
solids), dissolved oxygen, alkalinity, pH, and temperature. LooLoop® is designed to promote and sustain the optimal environment for each process given the unique mixture of the various components in the millions of residential settings. If necessary, the LooLoop® on your property can be easily tailored to the component concentrations in your system by adjusting the recirculation rate to achieve maximum pollutant reduction.

The LooLoop® system is engineered to reclaim residential wastewater the way nature does it. LooLoop® harnesses the power of biology to protect what matters most. This approach to wastewater treatment is adaptable to any existing or new septic system, and it is durable enough to last as long as the building it serves. You can rest easy knowing your environment and your property are in good hands.



The BioFilter Cabinet houses the aerobic component of LooLoop. You can decide the placement on your property, and pick from a number of stylish exterior panelling options to match your property's aesthetic. The cabinet also allows easy access for testing system optimization.

**LOOLOOP BIOFILTER CABINET SIDE VIEW SECTION**



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