



OVERVIEW

A common misconception is that clear water is safe water. While a clear water source may appear to be safe, it may be contaminated with harmful bacteria and viruses that are not visible to the human eye. Thus, Water Mission uses the Erosion Chlorinator to disinfect water: a patented water treatment device with over 1,000 units in use across the world.

The Erosion Chlorinator is ideal for use in developing countries and disaster areas. It has no electrical requirements, has been designed to minimize maintenance and operating expenses, is easily transported, and simple to operate.

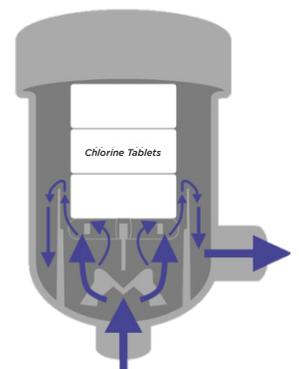
For more information, visit watermission.org/equipping or contact partnershipsupport@watermission.org.

The Erosion Chlorinator is designed to chlorinate water by a simple erosion process in which raw water flows over chlorine tablets (the ideal location for installing the Erosion Chlorinator is before a storage tank). The chlorine tablets erode as water flows over them, leaving a residual dose of chlorine in the water. The erosion chlorinator is setup with a bypass and the amount of chlorine added to the water is determined by how much water flows through the chlorinator versus the bypass.

Water Mission's Erosion Chlorinator is built using **durable, best-in-class parts and materials so that it can be used in even the harshest environments.**

- **All valves are Georg Fischer Type 546.** These valves are of the highest quality available and built to last. They were selected by Water Mission because of their extreme durability and long life.
- **A linear flow control valve is used to allow for incremental chlorine adjustment.** This highly engineered valve has a unique orifice that provides significant advantages over traditional ball valves and allows users to easily set the correct chlorine concentration.
- **A check valve is positioned to allow drainage of the unit while preventing the pipes upstream of the Erosion Chlorinator from draining.**

Cross-sectional View of Water Mission's Erosion Chlorinator



EROSION CHLORINATOR MODELS

The Erosion Chlorinator from Water Mission is currently available in two different models. Associated accessories can be added.

EC 75-85 AV1

This Erosion Chlorinator model consists of the molded PVC chlorinator housing with 1-inch SCH 80 PVC piping to direct the flow of water, valves to control the amount of chlorine added, and a sample port to test the chlorine concentration. This model is also equipped with a pressure relief valve with a maximum operating head of 85 m (120 psi) and flow of 75 LPM (20 GPM).

EC 75-105a

This Erosion Chlorinator model consists of the molded PVC chlorinator housing and mounting bracket only. The maximum operating head is 105 m (150 psi) and flow of 75 LPM (20 GPM).

USE SPECIFICATIONS

- **Water Sources:** The Erosion Chlorinator is intended for use on protected water sources with low turbidity (preferably below 1 NTU, but up to 5 NTU) such as sealed boreholes or protected springs, or in conjunction with pre-filtration. No matter how clear the water, chlorination without prior filtration is not recommended for surface water due to potential contamination by chlorine-resistant protozoa.
- **Flow Rates:** The Erosion Chlorinator is designed for flow rates of 12-75 LPM (3-20 GPM). For higher flow rates, Water Mission recommends installing multiple chlorinators in parallel or using an external bypass.
- **Chlorine Concentration:** The erosion chlorinator is designed for use with Trichlor tablets and Water Mission's preferred tablet is OxyChem's ACL® 90 tablets. Chlorine concentration is adjustable up to 5.0 mg/L total chlorine. The Erosion Chlorinator can hold five 76.2mm (3-inch) 200-gram (7-ounce) chlorine tablets. Five tablets can chlorinate up to 900,000 liters of water at 1 mg/L of total chlorine.



ACCESSORIES FOR THE EROSION CHLORINATOR

The following accessories are available for use with the Erosion Chlorinator:

- Chlorine Test Kit (007005)
- Union Spare O-Ring (002804)
- Hose Barbs (033005) and Clamps (001452)
- Extra Reagents for Chlorine Test Kit (007024)
- Valve Spare O-Ring (002810)
- PVC Primer (008035) and Cement (008006)
- Chlorine Spare O-Ring (002814)
- Masonry Screws (001480) and Drill Bit (000001)
- Additional accessories upon request