

Water Chlorinator

CTI has developed a device capable of disinfecting water in gravity-fed potable water systems. The device, called the CTI 8 Chlorinator is an inexpensive, low-maintenance, non-electrical, appropriate-technology apparatus. It is capable of delivering a controlled dosage of chlorine sufficient to inactivate most pathogens (disease-causing organisms) found in most rural potable water systems. The CTI 8 accomplishes disinfection by directing water flow over solid chlorine tablets in a simple configuration of PVC tubing. A CTI 8 chlorinator can be built and installed for around \$100.00 US per unit. For a typical community of 200 people, monthly operational costs including chlorine can be expected to be between \$5 and \$10 US, depending on various factors such as temperature, level of contamination and quantity of water flow.

The chlorinator is constructed of 3-inch and 4-inch PVC pipe and fittings, and ¼-inch PVC plate. The CTI 8 can be built in a matter of hours using basic hand tools. It uses chlorine in the form of calcium hypochlorite or trichloro-s-triazinetrione tablets approximately 2 ½ inches / 6.35 cm in diameter.

The development of the CTI 8 involved three years of research and development, plus two years of field-testing in fifteen rural water systems in Nicaragua.



Villagers building a brick housing for their CTI 8 Chlorinator.



Checking the tablet tube after several days in service.

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A CTI 8 workshop for technicians and local water committees.



A village introduction to the CTI 8 chlorinator.



Pre-installation instruction on chlorine residual testing.



A tank-top installation in progress.

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Washing the chlorinator parts.



Field installation of a CTI 8 chlorinator.



Field assembly of pre-cut chlorinator parts.



Village women practicing assembly of a CTI 8 chlorinator.

If you are interested in making an inquiry regarding applying this chlorinator technology, please print out the evaluation form found on the CTI website and fax it to CTI at 651-204-9033.