

### Who We Are

Cova is a nonprofit social enterprise building a healthier Central America through community-centered safe water solutions.



# Chlorinator ADEC (Agua de Calidad)

Cova's in-line water treatment technology is a low-cost, low-maintenance, locally-sourced solution that attaches to any rural community's water tank and inactivates pathogens in water systems by releasing a controlled dosage of chlorine. One system can provide safe water for up to 1,000 people (or more when installed in parallel) and requires no electricity to operate.



## Chlorinator Highlights

- No electricity required to operate
- Provides safe drinking water for communities up to 1,000 people
- Simple and robust design for dependable operation
- Easily integrates into most existing water systems
- Affordable operation, averaging \$0.15/household per month



## Installation Notes

- Uses locally-sourced materials, can be installed in-line to PVC or threaded metal pipe fittings
- Designed for use in rural areas with a gravity fed water system with a flow rate between 2 and 20 gallons per minute
- Precise control with the dosing valve that allows for easy and accurate chlorine dosing

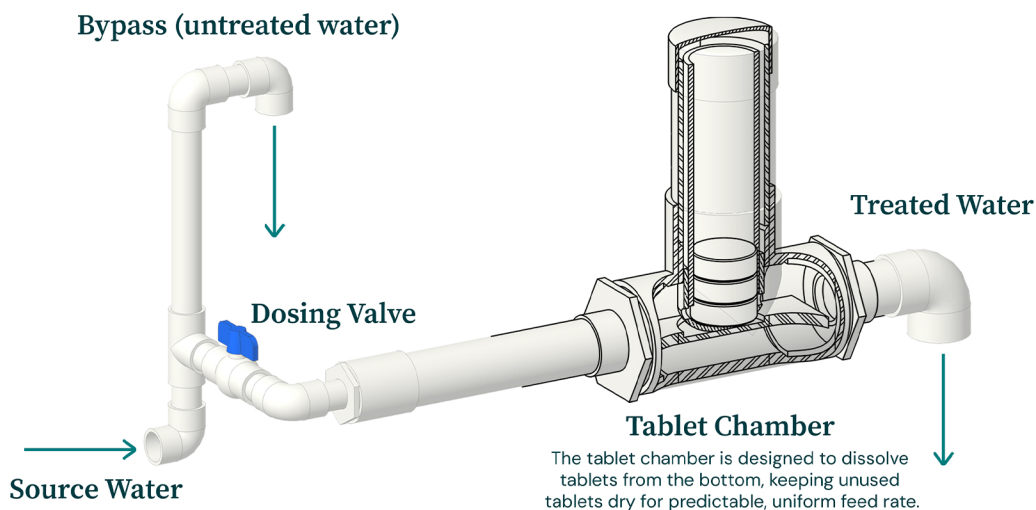


## Disinfectant Used

- Chlorine tablets are made of Calcium Hypochlorite, certified by the government for human consumption and recommended by the World Health Organization
- Chlorine tablets are stored within the tablet feeder, making it safe and easy for operators
- Dissolves tablets from bottom, keeping unused tablets dry for predictable, uniform feed rate

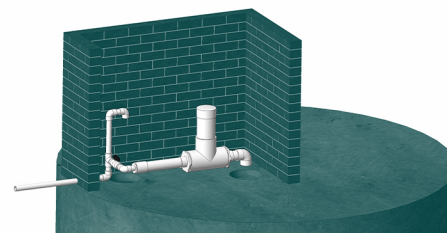
To ensure sustainable results and long-term success, Cova routinely travels to rural communities to provide training, capacity building, technical assistance, and water quality monitoring support to community water boards. Organized community water boards are tasked with establishing water user fees, training plumbers to maintain the chlorinator, and making sure chlorine dosage is measured weekly. Additionally, Cova has created over 50 centrally located chlorine distribution centers across Central America.

# Cova's Chlorinator ADEC



## Community Water System Requirements

- Requires a clean water source with minimal organic material
  - A closed water system from source to end user
  - With an open water system, must have functioning filtration and/or sedimentation reduction
- Organized community water board with established water user fee
- Trained plumber to maintain chlorinator
- Chlorine dose should be measured weekly



The Chlorinator ADEC is typically installed on top of the community's existing water storage tank.

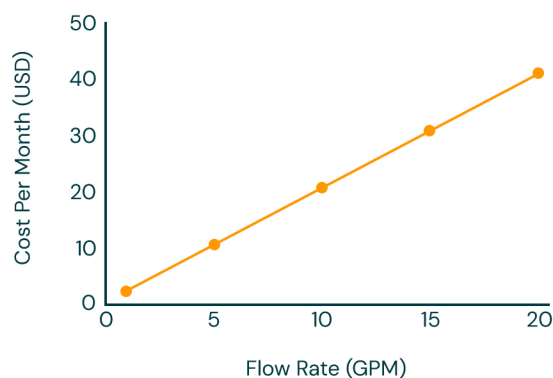
## Operational Requirements

Flow Rate*	2-20 gpm	7-75 lpm
Inlet Pressure	0-1 psi	0-0.07 bar
Operating Temperature	40-90° F	4-30° C
Feed Rate: Available Chlorine/Day	.1 to 2 lbs	.017 to .9 kg
Output Rate**	4 lbs/day w/o refilling	1.8 kg/day w/o refilling
Inlet Turbidity Level	< 5 NTU	
Approximate Population	100-1,000 people	

\* Systems can be installed in parallel

\*\* Output rate can be doubled with extended chamber

## Chlorine Tablet Cost Per Month



Cova's Chlorinator ADEC and Chlorine Tablets are available locally in Honduras, Nicaragua, and El Salvador. If you are interested in this chlorinator, please contact us by email at [Programs@CovaAgua.org](mailto:Programs@CovaAgua.org), or visit [www.CovaAgua.org](http://www.CovaAgua.org).