

Constant Chlor[®] Plus

Dry Calcium Hypochlorite Feeding System

Municipal Applications

Food Safety Applications

Industrial Applications



PATENTED
SPRAY
TECHNOLOGY



DELIVERS
UNPARALLELED
CONSISTENT RESULTS



The Constant Chlor® Plus Dry Calcium Hypochlorite Feeding System

The Constant Chlor® Plus dry calcium hypochlorite feeding system is designed to prepare and automatically deliver a consistently accurate dose of liquid available chlorine for disinfection applications. This patented feeding system can supply up to 250 pounds of AVCL/day.

The feeder uses NSF Standard 60 listed Constant Chlor® Plus dry calcium hypochlorite briquettes and patented spray technology to produce fresh liquid chlorine solution as needed. The fresh-made reservoir is filled with approximately 1.7% available chlorine solution and volume is maintained via an electronically controlled spray manifold (an optional dilution assembly to produce solution strengths below 1% AVCL is available). The hypochlorite solution is injected into the application with an appropriate, highly accurate positive displacement chemical metering pump specified for the application. Most metering pumps can be mounted directly to the pump mounting plate on the Constant Chlor® Plus skid.

FEATURES

- SCADA compatible for use with manually controlled pumps or speed/stroke controlled pumps
- Unit constructed of high impact LLDPE; all wetted areas internal fittings and level controls constructed of suitable plastics or other non-metallic material
- Micro-controlled spray cycle
- Automatic solution tank refill
- Pressure relief valve
- Mechanical overflow-prevention valve
- Nested configuration makes it easy to disassemble for installation and maintenance
- Convenient AVCL solution sample feature
- Large 220 lb. capacity briquette hopper
- Dual position controls allow for flexible installation configurations
- Magnetic stir bar to keep insolubles in suspension
- Integrated mounting plate for solution metering pump (pump not included)
- Remote location installation utilizing standard plumbing fittings not exceeding 1" pipe sizes
- **Optional:** Adjustable fresh hypochlorite solution strengths in the range 0.9% to 1.7% AVCL
- **Optional:** Sensor for low level in briquette hopper
- **Optional:** Direct measurement load cell



Constant Chlor® Plus control panel
(shown with protective cover open)

BENEFITS

- Effective alternative to liquid bleach and chlorine gas
- Capital cost of installation is 1/2 to 2/3rds less than sodium hypochlorite installations
- Efficiencies in bulk storage and man hours
- Consistent and reliable chlorine solutions
- Operates at normal atmospheric pressure and is readily serviceable for refilling and cleaning while in operation
- Eliminates metering pump air locks due to off-gassing
- Eliminates transfer spills
- Delivers up to 250 lbs. AVCL per day
- SCADA and modem compatible
- Skid mounted for easy installation on 14.5 sq. ft. footprint; easily fits through a 3 foot door
- Minimizes man hours for maintenance and shut downs

Specifications

Chlorine feed-rate	10.5 lbs. AVCL/hr up to 250 lbs. AVCL/day	Dry Chemical Capacity	220 lbs.
Discharge Pressure Range	0 - 150 psig	Site Requirements:	
Water Inlet Size	1/2 inch, F NPT	Inlet Water	2.6 gpm @ 50 - 150 psig
Solution Outlet (injector) Size	3/4 inch, M NPT	Electrical	20 amp @ 120V/1ph/60Hz
		Operating Temperature	40 - 120 degrees F

Patented Spray Technology

Patented Spray Technology + Constant Chlor® Plus Briquettes = Consistently Accurate Hypochlorite Solution

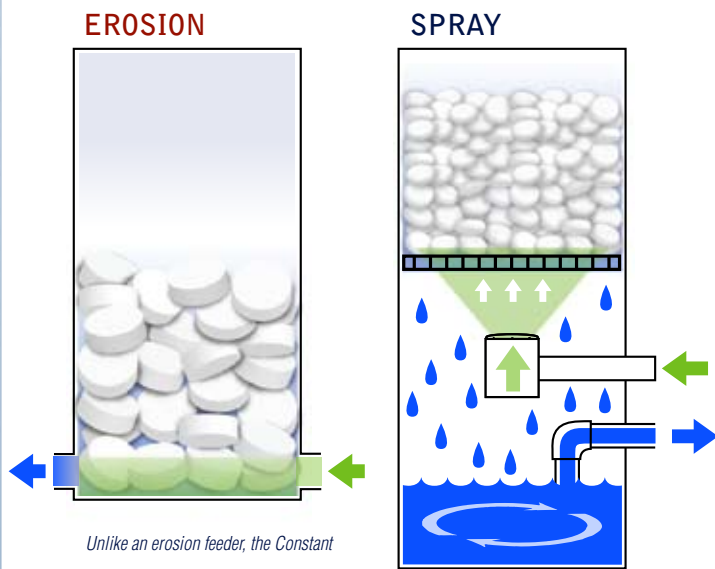


How it Works

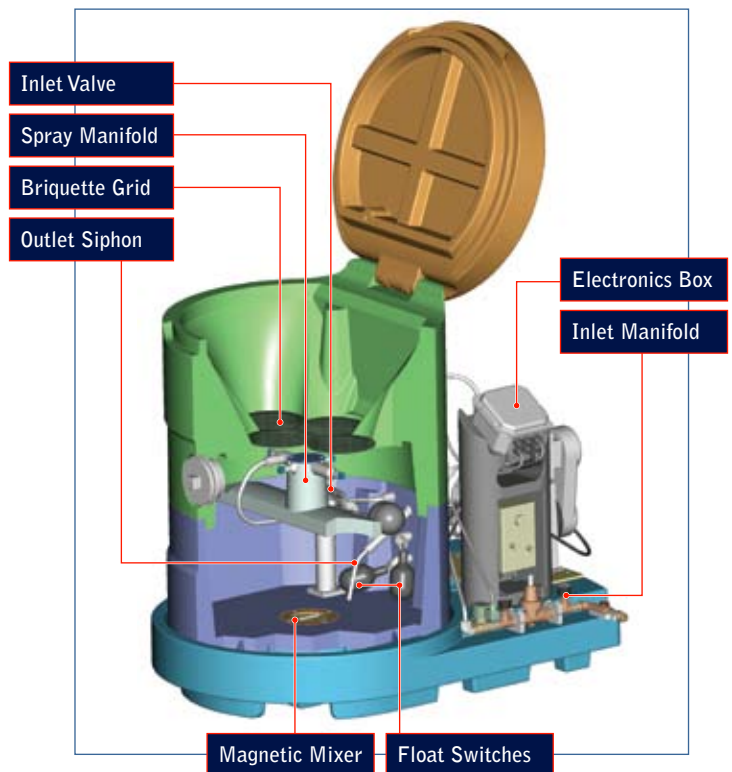
Supply water injected into the unit sprays upward into a bed of briquettes; this short intermittent spray cycle contacts the entire bottom of the bed evenly, not just the material resting on the grid.

Specifically designed for use in the Constant Chlor® Plus Spray Technology feed system, the briquettes are relatively small, smooth and "pillow shaped", for maintaining optimum packing in the spray bed.

Maintaining a well-packed bed of briquettes significantly reduces the potential for large voids in the spray surface that can result in inconsistent residual concentration in the final solution. Hypochlorite solution produced by the unit's short intermittent spray cycle is collected in a lower 32-gallon solution tank, where the total volume is slowly and continuously mixed, further enhancing concentration consistency.



Unlike an erosion feeder, the Constant Chlor® Plus Spray Technology feed system sprays upward to a well packed bed of briquettes, contacting the entire bottom of the bed evenly. Solution collected in a lower reservoir is continuously mixed. Due to the consistency of the chemical solution concentration, operator dosage adjustment is minimal.



NOT AN EROSION FEEDER

The Constant Chlor® Plus spray feed system is markedly different from erosion feeders currently on the market.

An erosion process dissolves material from the bottom of a tablet bed. The standard tablets, or "pill" shaped calcium hypochlorite media, are relatively large and have sharp edges, leaving large spaces or gaps, which can result in solution inconsistency and an uneven feed rate.

Municipal Applications

Arch Chemicals, Inc. provides municipalities across the country with products that meet the toughest regulations and standards including NSF/ANSI 61 for our feeding equipment and NSF 60 for **Constant Chlor® Plus Briquettes**, allowing the public to rest easy about the quality of their water supply.

- Remote Well Sites
- Reclaimed Water
- Booster Stations
- Surface Water Treatment Plants
- Waste Water
- Ground Water Treatment Plants

Potable Water

- Provides hypochlorination to disinfect water supplies in smaller communities
- Requires low initial investment
- Maintains economical operating costs

Private Water Supplies

- Sanitizes wells, natural springs, cisterns and storage tanks by destroying microbes
- Purifies by destroying harmful organic matter



Other Water Treatments

- Controls slime and maximizes cooling efficiency in cooling towers, ponds and reservoirs of power plants
- Controls growth of slime in commercial air conditioning systems, improving cooling efficiency and eliminating unpleasant odors
- Destroys disease-producing organisms in raw or treated sewage
- Keeps decomposing septic sewage odors and masonry disintegration in check by "up sewer hypochlorination"

Food Safety Applications

The Constant Chlor® Plus Feeder in combination with Constant Chlor® Plus calcium hypochlorite briquettes is a versatile, effective and cost efficient tool in an integrated approach to controlling food pathogens in pre-harvest, post-harvest and meat processing applications.

Pre-Harvest Applications

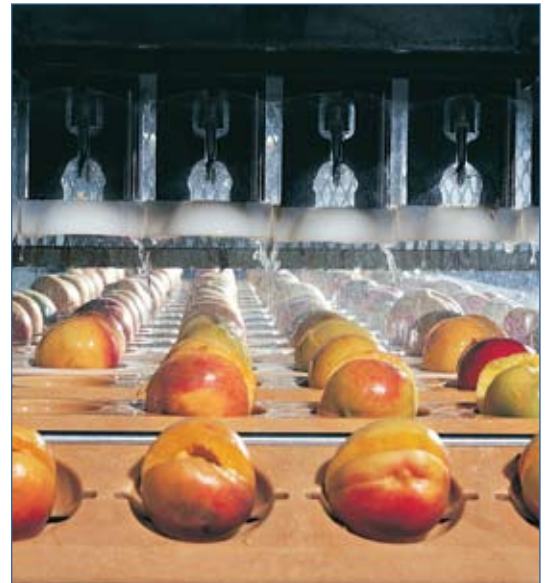
- Sanitization of irrigation lines
- Well treatment
- Prevention and elimination of bio-fouling in irrigation emitters
- Impoundment treatment
- Seed treatment

Post-Harvest Applications

- Disinfection of process water
- Packing sanitization
- Post-harvest washing of:
 - Apples
 - Peaches
 - Citrus Fruits
 - Asparagus
 - Mushrooms
 - Melons
 - Bean sprouts
 - Nectarines
 - Pears
 - Carrots
 - Nuts
 - Peppers
 - Cherry
 - Potatoes
 - Tomatoes

Meat processing

- Poultry
- Red Meat



Industrial Applications

- Bottling Plant Process Water
- Hot Pack Water
- Chemical Scrubbing
- Algae Control
- Foam Control
- Reclaimed Water
- Super Chlorination



Constant Chlor[®] Plus Briquettes

Constant Chlor[®] Plus Briquettes are designed for use in the Constant Chlor[®] Plus Chlorinator. The briquettes provide chlorine solution for use in many applications including the treatment of surface and groundwater for municipal drinking water use, as well as the treatment of wastewater effluent.

These patented, pillow-shaped briquettes contain a scale inhibitor designed to reduce maintenance and improve reliability of the feeder system.



FEATURES

- Dry Solid Product
 - Longer shelf life than liquid bleach
 - Occupies much less space than liquid bleach
 - Less hazardous than liquid bleach or gas chlorine
 - Easier to handle than liquid bleach or gas chlorine

SCALE INHIBITED

- Patented formulation
- Reduces maintenance of equipment

REGULATORY

- EPA No. 1258-1179
- NSF Standard 60, Drinking Water Additives
- Meets AWWA Standard B300

PROPERTIES

- Available Chlorine (wt%) 65% minimum
- Scale Inhibitor (wt%) 0.5%
- Weight 0.25 oz. (7 grams)
- Dimensions 1-1/4 in. X 3/4 in. X 1/2 in.
- Appearance Pillow Shaped Briquettes

PACKAGING

Constant Chlor[®] Plus Dry Chlorinator Briquettes are available in 50 lb. plastic pails



Arch also produces Dry Tec[®] FG Briquettes (Food Grade) for use with the Constant Chlor[®] Plus feeder. Dry Tec[®] FG contains an anti scale formulation for food industry applications.

CALL 1-800-478-5727

to find out more about
CONSTANT CHLOR[®] PLUS
or visit our website at
www.archwaterworks.com/municipal



Automatic. Accurate. Consistent.



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