

MC4-50 Feeding System

Dry Calcium Hypochlorite For Municipal Applications



The
smarter
way to
water
quality

PATENTED
SPRAY
TECHNOLOGY



DELIVERS
UNPARALLELED
CONSISTENT RESULTS



The Constant Chlor® Plus MC4-50 Dry Calcium Hypochlorite Feeding System

Designed via feedback from actual field users, The Constant Chlor® Plus MC4-50 dry calcium hypochlorite feeding system prepares and automatically delivers a consistently accurate dose of liquid available chlorine for disinfection applications. This feeding system can supply up to 50 pounds of AvCL/day on a sustained basis without the storage and handling issues associated with liquid bleach or chlorine gas.

With the ability to stand alone or be integrated with other process and control equipment, this highly customizable 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 reservoir is filled and volume maintained via an electronically controlled spray manifold where it is continually circulated to maintain unparalleled solution consistency.

FEATURES

- Unit constructed of high impact HDPE; all wetted areas, internal fittings and level controls constructed of suitable plastics or other non-metallic material
- Utilizes patented spray technology
- Patent-pending mixing mechanism within solution reservoir
- SCADA compatible
- Automatic solution tank refill
- Mechanical overflow-prevention valve
- Large 62 lb. capacity briquette hopper
- Delivers up to 50 lbs. AvCL per day
- Skid mounted with secondary containment
- Area for pump mount

BENEFITS

- Compatible with all types of pumps including positive displacement pumps
- Customizable, convenient and easy to use
- Effective, safer, easier & less expensive alternative to gas and liquid bleach
- Reduced regulatory compliance required including eligibility for Material of Trade (MOT) exceptions for transport
- 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
- Minimizes man hours for maintenance and shut downs
- Pre-plumbed and skid mounted for ease of installation
- Internal mixing mechanism enables sustainable homogeneous solution and prevents solids build-up
- Option for pre-treatment



Specifications

Chlorine Delivery Rate*	1.0 - 50.0 lb. AvCL/day with 70° F inlet water temp.
Discharge Pressure Range	50 - 150 psig
Water Inlet Size	1/2 inch, FNPT
Solution Outlet (injector) Size	1/2 inch, MNPT

Dry Chemical Capacity	62 lbs.
Site Requirements:	
Inlet Water	1.0 gpm @ 50 - 150 psig
Electrical	20 amp @ 120V/1ph/60Hz
Operating Temperature	40° - 105° F

**Delivery rate is dependant on the dosing pump size*

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"

Patented Spray Technology

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

How it Works

Markedly different from erosion feeders currently on the market, the Constant Chlor® Plus MC4-50 feed system injects supply water into the unit by spraying 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 systems, 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.

The hypochlorite solution produced by the unit's spray cycle is collected in a 13-gallon solution tank, where the total volume is slowly and continuously mixed, further enhancing concentration consistency.

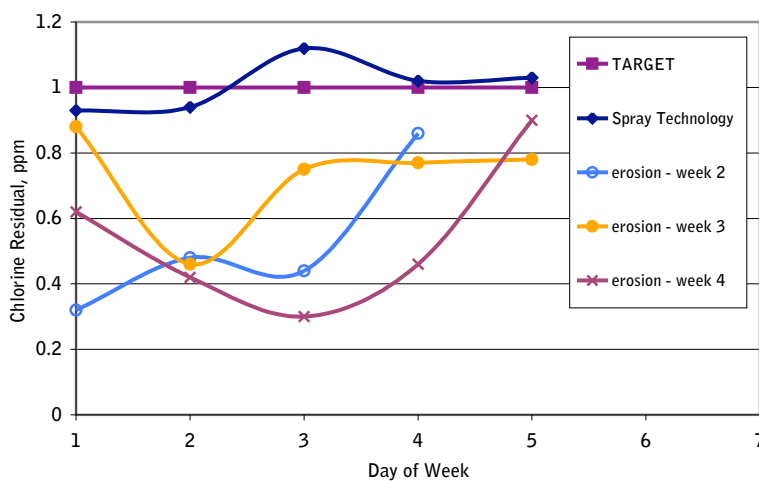


Unlike an erosion feeder, the Constant Chlor® Plus MC4-50 feeder sprays upward to a well packed bed of briquettes, contacting the entire bottom of the bed evenly. The chlorinated solution flows to the lower reservoir where it is continuously mixed. The accuracy and consistency of the resulting solution concentration far exceeds that achieved by an erosion feeder. Consequently, operator dosage adjustment is minimal.

EROSION

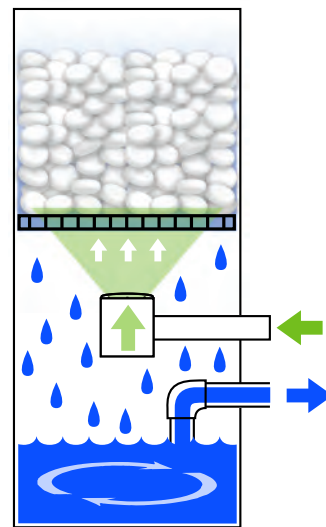


ACCURACY AND CONSISTENCY OF SPRAY TECHNOLOGY VS EROSION



Data source: Arizona test facility

SPRAY

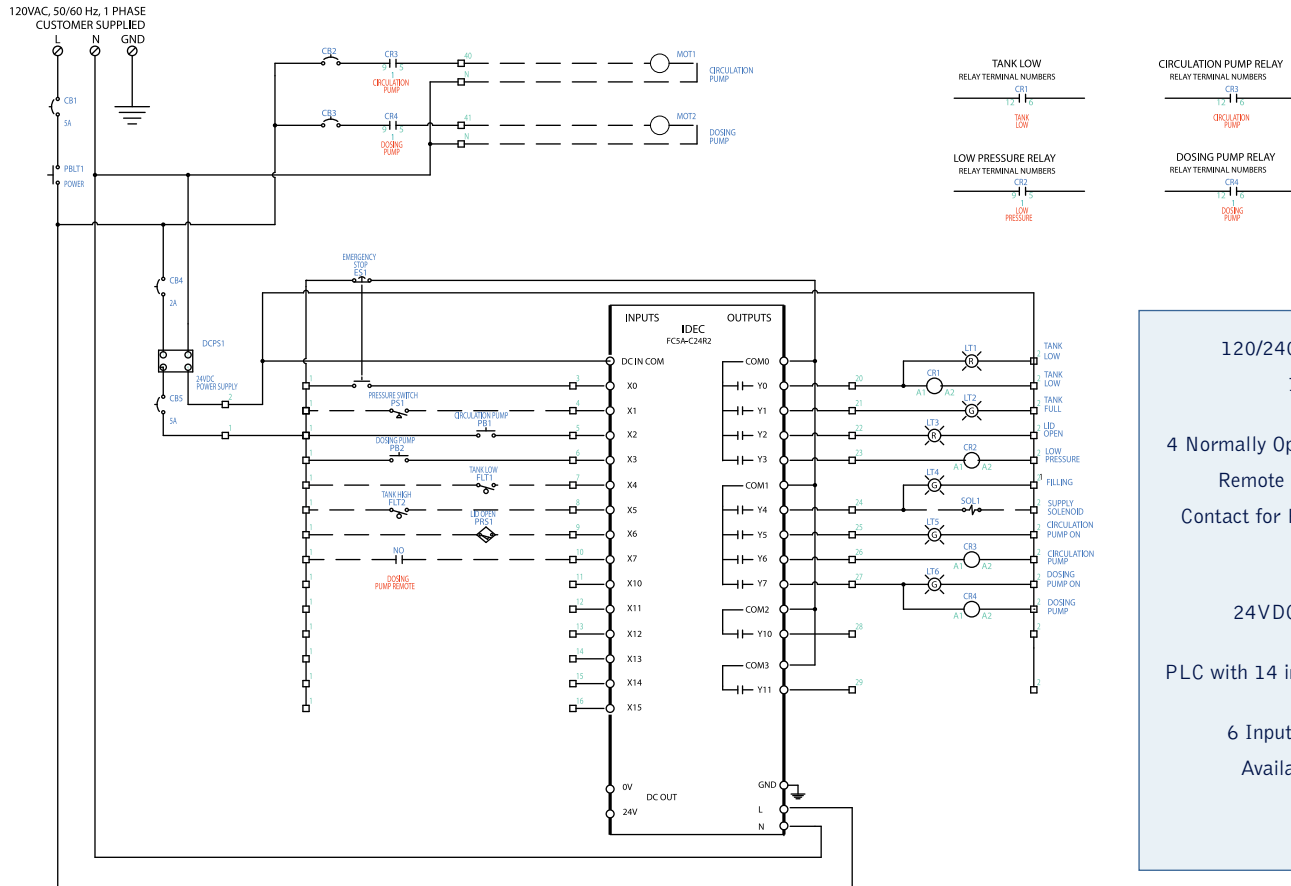


Product Stewardship



Arch is committed to maintaining and improving our leadership in Product Stewardship – from manufacture, marketing, distribution, use, recycling and disposal. Successful implementation includes educating all involved of their responsibilities to address society's interest in a healthy environment and in products that can be used safely. We are each responsible for providing a safe workplace, and all who use and handle products must follow safe and environmentally sound practices.

Electronics Panel and PLC Information



Constant Chlor® Plus Briquettes

Constant Chlor® Plus Briquettes are designed for use in the Constant Chlor® Plus MC4-50 feeding system. The briquettes provide chlorine solution for use in many applications including treatment of surface and groundwater for municipal drinking water use, industrial process water as well as pre- and post-harvest food safety.

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 MC4-50 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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