

Edstrom Central Proportioner



Model No. CP-654 Part No. 7130-6540 Optional 7130-8596 - pH Analyzer Kit 7215-6750-500 - Remote Alarm Indicator Kit

Description

The Central Proportioner is an automated, inline unit that provides treated drinking water to animal watering systems. The central proportioner provides a constant ratio of chlorine, acid, or medication to water as it flows through the unit. The addition of chlorine or acid controls the growth of bacteria in the entire watering system and removes potential variables from research. The Central Proportioner can also be used to constantly medicate animal drinking water, improving efficiency and consistency.

The central proportioner consists of a stainless steel framework and cabinet, a pressurized storage tank, a chemical solution tank, an injection pump, and controller. The unit features an on-device alarm display, and inlet and outlet pressure gauges. The proportioner can be connected to a Remote Alarm Indicator or Watchdog V5 for remote alarming. An optional pH Analyzer Kit provides additional monitoring for acidification.

The central proportioner automates the water treatment process, reducing labor costs and improving water quality. The only on-going maintenance of the central proportioner is the addition of chlorine, acid and medication. The central proportioner provides a reliable source of treated drinking water to protect your system and your animals with minimal maintenance.

Features & Benefits

- · Easy method of chlorinating or acidifying animal watering systems to maintain water quality.
- Automated system of medicating animal drinking water, assuring consistent proportions and delivery.
- 316 stainless steel cabinet with corrosion resistant wetted parts for long-term durability.
- Optional connection to Remote Alarm Indicator or Watchdog V5 allows for remote alarming.
- Optional pH Analyzer Kit for monitoring acidification.
- Low operating costs.



Central Proportioner

Specifications

HARDWARE

- Cabinet Dimensions:
 28 in W x 48 in H x 17 in D
 [711 mm W x 1219 mm H x 432 mm D].
- · Cabinet: 316 stainless steel (SS).
- Piping/Tubing CPVC, polypropylene, polyethylene.
- Inlet/Outlet Connection (options)
 - 1/2 in. FPT.
 - CPVC: 5/8 in. or 7/8 in.
 - ID socket.
 - 1/2 in. compression for 1/2 in. OD SS tubing.
- · Solenoid Valve: 316 SS.
- Inlet Low Pressure Switch: 316 SS.
- Differential Pressure Switch: 316 SS.
- Injection Pump: Positive displacement type.
- Solution Tank: Polyethylene, 5 gallons [19 L].
- Pressurized Storage Tank: Holds 10 gallons [38 L] of treated water.

CONTROL PANEL

- · Power on switch and light.
- Solution Tank: Low liquid warning light and beeper.
- Inlet Pressure: Low pressure warning light and beeper.
- · Remote alarm contacts.

UTILITY REQUIREMENTS

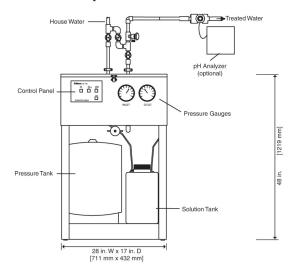
- · Water: Purified or potable.
 - 4 gpm minimum at 40 to 75 psi [15 L minimum at 2,8 to 5,2 bar; 280 to 530 kPa].
- Electrical: 120 VAC, 50/60 Hz, 1 Amp.
 - Ground Fault Interrupt (GFI) circuit.
 - Use transformer for 230 VAC operation.

OPERATIONAL PARAMETERS

- Outlet Pressure Range: 25 to 35 psi typical [1,7 to 2,4 bar; 170 to 240 kPa].
- Proportioner Output Rate: 3.5 gallons/minute [13,3 Lpm] sustained.
- Mixing Ration: 7.5 mL solution/gallon of water (max) [7,5 mL per 3,785 L].

All specifications are subject to change without notice.

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Operation

The Central Proportioner is designed to operate on a pressurized inlet water supply of 40 to 75 psi [2,8 to 5,2 bar] which is typical of most house water supplies. The central proportioner makes treated water in batches to refill the pressurized storage tank. A pressure switch controls the start/stop cycle. As water is used in the automated watering system, the pressure in the storage tank drops. When this pressure reaches the low setpoint, water flows through the proportioner at a controlled rate of approximately 3.5 gallons per minute [13.3 Lpm], and simultaneously, the injection pump injects the additive into the water at a constant rate to give the desired mix. A mixing chamber mixes the injected chemical with the flow of water before it enters the pressurized storage tank. When the high pressure set-point is reached, the fill cycle is stopped.

The central proportioner control panel will alarm for low inlet pressure and low chemical additive. If the inlet water pressure drops below a specified set-point, the injection pump will turn off to prevent excessive additive concentrations, but will still allow water to be supplied to the animals. The chemical additives are stored in a solution tank located under the cabinet. A level sensor in the tank notifies you when it needs to be refilled.

The central proportioner unit has a 10 gallon [37,85 L] storage capacity pressure tank located under the cabinet. It also has stainless steel and plastic wetted components for treatment of either normal potable water or RO purified water.

To distribute treated water from the central proportioner to an automated watering system, a dedicated treated water header pipe must be installed between the central proportioner outlet and the pressure stations. When the central proportioner is used for acidification, an optional pH monitor can be installed in the treated water piping.

