

# ClorTec™

## On-Site Sodium Hypochlorite Generation Systems

Series MCT 12 to 36 lb/day (5.4 to 16.3 kg/day)

On-site sodium hypochlorite generation is unparalleled in safety and cost efficiency. ClorTec™ on-site systems generate 0.8% sodium hypochlorite by combining three common consumables:

salt, water and electricity



(Salt + Water + Power = Sodium Hypochlorite + Hydrogen)

ClorTec MCT systems easily control sodium hypochlorite production and provide a powerful disinfection method for any application. MCT systems meet requirements for 12 to 36 lb/day (5.4 to 16.3 kg/day) chlorine equivalent. Applications include potable water, wastewater, odor and corrosion control, cooling towers, oxidation and swimming pool disinfection.

The ClorTec MCT systems are supplied in a factory tested integrated skid mounted configuration. This compact design allows for easy maintenance and system expansion.



### Features:

- Integral skid mounted design
- High efficiency electrolytic cell(s)
- Integrated control panel/power supply
- Integrated brine proportioning pump
- On-board water softener

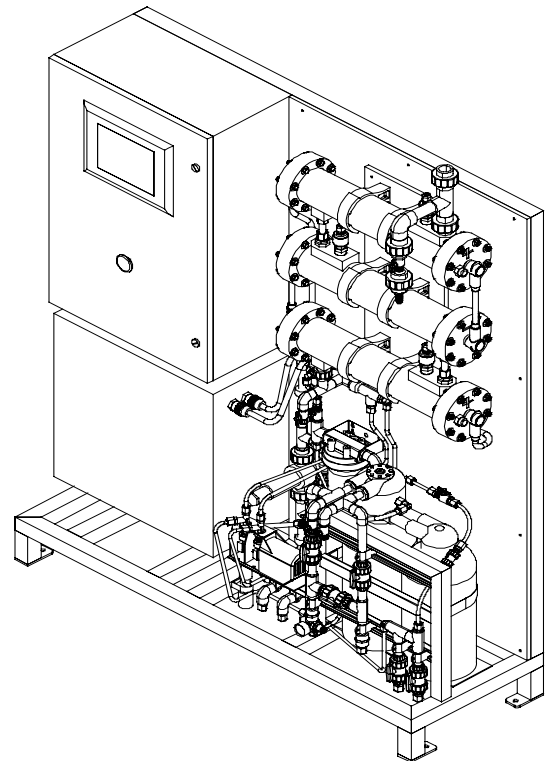
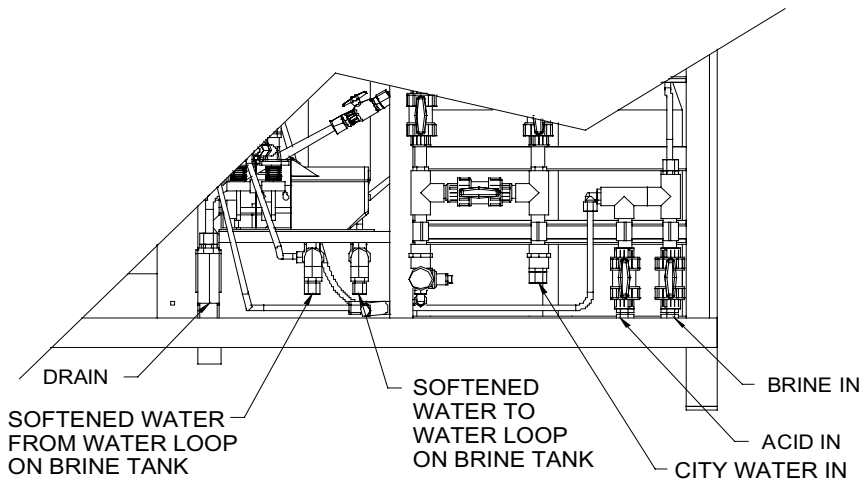
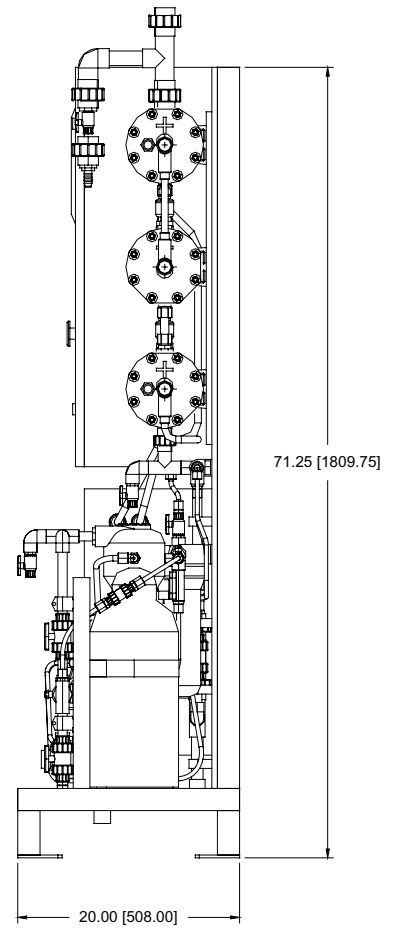
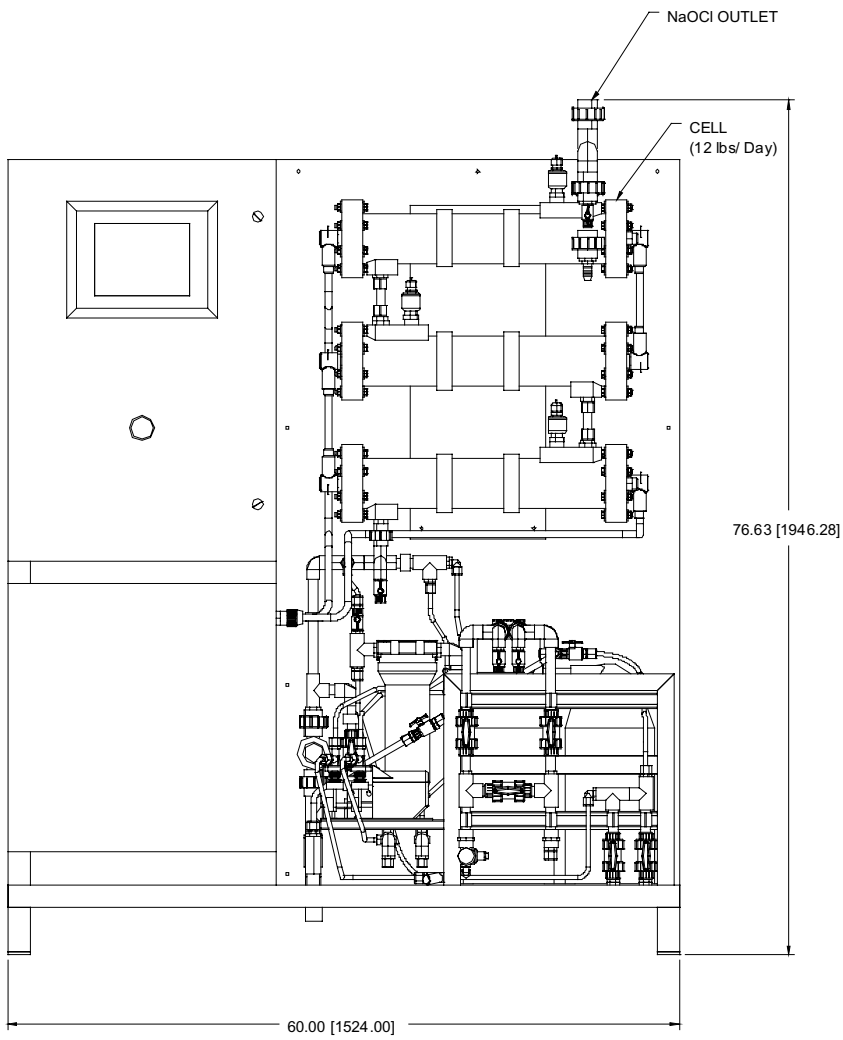
### Typical Accessory Components:

- Brine generator
- NaOCl storage tank
- NaOCl Metering pump
- Ultrasonic tank level control
- Hydrogen dilution blower
- Water chiller or heater

### Benefits:

- New cell design delivers 20% reduction in consumable operating cost
- On-demand sodium hypochlorite production
- No handling or transportation of hazardous materials
- Exempt from Process Safety Management
- Exempt from Risk Management Planning
- Superior Warranty
- Easy operation
- Minimizes disinfection by-products
- NSF 61 and 50 certified
- Optional hydrogen dilution blower safely removes and disperses H<sub>2</sub> gas, ensuring safe hypochlorite generation
- Optional water chiller reduces operating costs by increasing efficiency of sodium hypochlorite conversion





## MCT Series System Specifications

**Capacities:** 12-36 lbs/day (5.4-16.3 kg/day) - free available chlorine.

**Control:** Automatic batch, regulated by storage tank status.

**Hypochlorite:** 0.8% ± 0.05%.

**Raw Materials:** 3 lbs. (1.4 kg) salt, 2 kWh electrical energy, and 15 gal. (57 L) water per pound of free available chlorine produced.

**Water Supply:** Potable water @ 20-50 psi (1.4-3.5 bar), temperature range 65°F-80°F (18°C-27°C).

**Salt Quality:** 99.7% pure dry weight solar salt or equivalent.

### Electrical Power:

- Rectifier: 208-240 VAC 1 Phase, 60 Hz
- Control panel: 208-240 VAC 1 Phase, 60 Hz

### Operator Interface:

- 6 Inch monochromatic touch screen.\*  
or
  - 2 line LCD display with dedicated keypad.\*
- \* Data logging and communications capability.

**Control Panel:** Grey polyester coated NEMA 4 welded steel enclosure UL 508a

## Typical Accessories

**Brine Generator:** HDPE or FRP tank to store minimum of 1 weeks supply

**Hydrogen Air Dilution System:** Hydrogen by-product is exhausted to atmosphere by an active air dilution blower system.

**Water Chiller** - Recommended when water temperatures are over 80°F (27°C): Air cooled design. Classified by Underwriters Laboratories in accordance with ANSI/NSF 61, 1997b.

**Water Heater** - Recommended when water temperatures are below 65°F (18°C): UL® and CSA recognized and listed unitized assembly.

### Sodium Hypochlorite Tank

**Material:** HDXLPE or equivalent.

**Size:** One day storage recommended.

**Level Control:** Ultrasonic or mechanical level sensor in tank controls start/stop function of system.

Model Series	Cells Configuration	Output		Flow		Salt		Typical Circuit Capacity* ampere	Dry Shipping Weight
		lb/day	kg/day	gal/day	L/day	lb/day	kg/day		
MCT-12	1 x 12 lb/day cell	12	5.4	180	681	36	16.3	40	665 lbs.
MCT-24	2 x 12 lb/day cell	24	10.9	360	1363	72	32.7	50	680 lbs.
MCT-36	3 x 12 lb/day cell	36	16.3	538.0	2044	108	50	60	695 lbs.

\*Max @ 240VAC 1 phase, standard MCT system.

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# MCT Sodium Hypochlorite Generator Ordering Information

	MCT				P	
<b>System Capacity</b>	_____	_____	_____	_____	_____	_____
	12 – 12 lb/day Chlorine Equivalent					
	24 – 24 b/day Chlorine Equivalent					
	36 – 36 lb/day Chlorine Equivalent					
<b>Operating Voltage</b>	_____	_____	_____	_____	_____	_____
	208 – 208V/1 phase/60 Hz					
	240 – 240V/1 phase/60 Hz					
<b>Display/PLC</b>	_____	_____	_____	_____	_____	_____
	AB – 6" Monochrome Touchscreen/AB 1500 Micrologix, DF1 (RS-232)					
	2L – 2 Line Display/Integrated PLC, Modbus (RS-232)					
<b>Electrical Enclosures</b>	_____	_____	_____	_____	_____	_____
	P – Gray Polyester Powder coated carbon steel					
<b>Water Softener</b>	_____	_____	_____	_____	_____	_____
	W – On-Board Water Softener					

## Order Example:

MCT24240ABPW

24 lb/day system, 240V/60 Hz operating power, touchscreen, gray steel enclosures with an on-board water softener.

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## Typical Equipment Included on an MCT Sodium Hypochlorite Generator:

- Epoxy powder coated steel skid
- Cells/Electrodes
- Brine proportioning system
- Power supply/rectifier
- Water Softener
- Control Panel with:
  - PLC & HMI
  - SCADA ready (Modbus (RS-232) for 2 line display model or DF1 (RS-232) for AB touchscreen model)
  - Blower controls (blower package sold separately)
  - Intrinsically safe barriers for cell level & temperature safety switches
  - (Dosing Controls not included in PLC)
- One hardcopy O & M Manual and one CD Electronic version
- Supplied with domestic crating

## Severn Trent Services

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