CLORTEC®
ON-SITE
SODIUM HYPOCHLORITE
GENERATING SYSTEMS
MCT SERIES —
12 – 36 LB/DAY
(5.4 – 16.3 KG/DAY)

The ClorTec® on-site sodium hypochlorite generation process offers unparalleled safety and cost efficiency. ClorTec on-site systems generate typically 0.8% sodium hypochlorite by combining three common consumables:

NaCl + H₂O + electricity → NaClO + H₂ or salt + water + electricity = sodium hypochlorite + hydrogen gas

ClorTec MCT systems easily control sodium hypochlorite production and provide a powerful disinfection method for any application. MCT systems meet requirements for 12–36 lb/day (5.4–16.3 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 maker
- -NaOCI storage tank
- -NaOCl Metering pump
- Ultrasonic tank level control
- -Hydrogen dilution blower
- -Water chiller or heater



For more information on ClorTec® on-site sodium hypochlorite generating system visit **www.denora.com**

We Understand On-site Sodium Hypochlorite Generation

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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
- -Best warranty
- -Easy operation
- -Minimizes disinfection by-products
- -NSF 61 certified
- -Hydrogen dilution blower safely removes and disperses H2 gas, ensuring safe hypochlorite generation
- Optional water chiller reduces operating costs by increasing efficiency of sodium hypochlorite conversion

Typical Accessories

Brine Generator: HDLPE 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 for optimum efficiency 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 for optimum efficiency when water temperatures are below 65°F (18°C): UL® and CSA recognized and listed unitized assembly

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: $0.8\% \pm 0.05\%$

Raw Materials: 2.8 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*
- -2 line LCD display with dedicated keypad* *Data logging and communications capability.

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

Sodium Hypochlorite Tank

Material: HDXLPE or equivalent **Size:** One day storage recommended

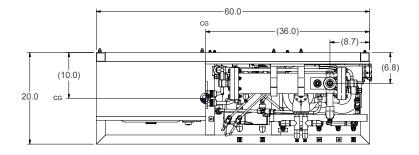
Level Control: Ultrasonic or mechanical level sensor in tank

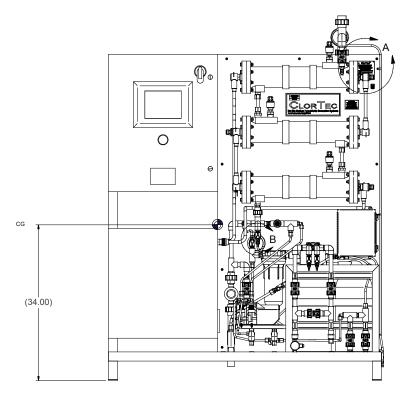
controls start/stop function of system

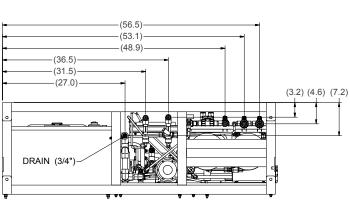
	Cells Configuration	Output		Flow		Salt		Max Circuit	D 61:
Model Series		lb/day	kg/day	gal/day	L/day	lb/day	kg/day	Capacity* ampere	Dry Shipping Weight
MCT-12	1 x 12 lb/day cell	12	5.4	180	681	33.6	15.3	40	665 lbs.
MCT-24	2 x 12 lb/day cell	24	10.9	360	1363	67.2	30.5	50	680 lbs.
MCT-36	3 x 12 lb/day cell	36	16.3	538.0	2044	100.8	45.8	60	695 lbs.

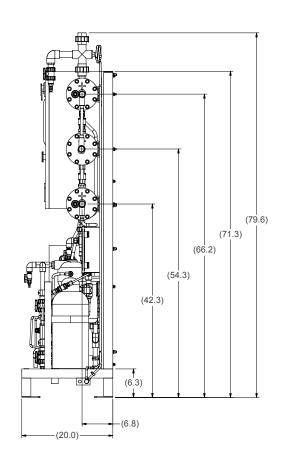
^{*}Maximum @ 240 VAC 1 phase, standard MCT system.

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ClorTec® On-site Sodium Hypochlorite Generating Systems MCT Series

MCT Sodium Hypochlorite Generator Ordering Information

MCT		Р
System Capacity 12 — 12 lb/day Chlorine Equivalent 24 — 24 lb/day Chlorine Equivalent		
36 — 36 lb/day Chlorine Equivalent Operating Voltage		
208 — 208 VAC/1 phase/60 Hz		
240 — 240 VAC/1 phase/60 Hz		
Display/PLC ————————————————————————————————————		
AB — 6" Monochrome Touchscreen/AB 1500 Microlo	ogix, DF1 (RS-232)	
2L — 2 Line Display/Integrated PLC, Modbus (RS-23.	2)	
Electrical Enclosures —		
P — Gray Polyester Powder coated carbon steel		
Water Softener		
W — On-Board Water Softener		

Order Example:

MCT24240ABPW

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

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
- -One hardcopy O & M Manual and one CD Electronic version
- -Supplied with domestic crating

Note: Dosing Controls are not included.

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