

# RSVP TECH \* E - CHLOR (ELECTRO CHLORINATORS)

### **INTRODUCTION:**

Electro chlorination is a simple and proven technology to convert ordinary salt water [or brine or seawater] into Sodium Hypochlorite by means of Electrolysis. It is produced and applied on-site. The device which uses this technology is named as Electro chlorinator or Onsite Hypo Generator. Sodium Hypochlorite is universally accepted for combating slime, algae and other Bio-organisms in Water. The most important aspect of Sodium Hypochlorite usage is its economy and effectiveness in killing bio-organisms thereby disinfecting water. Electro chlorinators find application where Chlorine is not readily available or where operation with chlorine is not acceptable. Electro chlorinators therefore, find application in Drinking Water Treatment, Cooling Water Treatment, Waste Water Treatment, Bleaching, Pharmaceutical formulations and other industrial applications. The Industries that benefit includes Chemicals & Fertilizers, Refineries, Petrochemicals, Power Stations, Steel Plants, Cement Plants, Pharmaceutical Industries, Pesticide Industries, Food Industries, Dairy Industries, Textiles, Paper & Pulp Industries, Sugar Plants, Municipalities, Corporations, Townships, Water Boards, Theme Parks, Hotels, Apartment Complexes, Aqua culture Units, Bottling Plants, Swimming Pools, Hospitals etc. RSVP TECH markets a wide range of Chlorination Equipments & related accessories to cater to this requirement. Depending upon the mode of operation, Electro chlorinators are classified into two types namely Batch Production Electro chlorinators with capacity ranging from 15 gms/hr to 500 gms/hr and Continuous Production Electro chlorinators with capacity ranging from 15 kgs/hr.

#### **BATCH PRODUCTION:**

#### **DESCRIPTION**

Batch Production Electro chlorinators are designed for small capacities and are available from 15 gms/hr to capacity of 500 gms/hr chlorine equivalent, using our unique Multimetallic Oxides Titanium Nobel Anodes and Electrochemical Process. Production of Sodium Hypochlorite is completed in a batch of every 8 hours, to concentration of around 6-8 gms/litre



#### **OPERATION:**

A metered amount of water is mixed with common salt to form brine of required concentration [or Seawater is used]. This is the electrolyte used in the process. Electrolyser Cells are dipped in this measured quantity of Brine Solution, contained in a specially made FRP Tank [Bisphenol Resin]. These cells are connected to a rectifier, which converts Alternate current to Direct Current. When DC Current passes through these Titanium Anodes with MMO Coating, Sodium Hypochlorite evolves instantaneously with negligible quantities of hydrogen rising up to the surface, which is vented out. This process is based on the chemistry of Electrolysis of Sodium Chloride. The Sodium Hypochlorite thus generated is collected in a storage Tank and applied directly or pumped to the point of application.



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# TECHNICAL SPECIFICATIONS / REQUIREMENTS:

MODEL	E-CHLOR 50G	E-CHLOR 100G	E-CHLOR 200G	E-CHLOR 300G	E-CHLOR 500G
Operation Mode	Batch Process of 8 hours				
Capacity (Chlorine Output )	50 Gms	100 Gms	200 Gms	300 Gms	500 Gms
Electrolyte Cells	1	1	2(1)	3(1)	5
Strength	6-10 gms / litre				
Salt Consumption per 8 hors batch	2.25 kgs	4.5 kgs	9 kgs	13.5 kgs	22.5kgs
Power Consumption /(approx) / kg of	4.oKwh				
chlorine					
Water Consumption	75 Litres	150 Litres	300 litres	450 litres	750 Litres
Maximum treated water @ 1ppm Free	400 M <sup>3</sup>	800 M <sup>3</sup>	1200M <sup>3</sup>	2000M <sup>3</sup>	4000M3
Residual chlorine dose /batch					
AC Input	230 V ,Single phase or 440 V Three Phase (as per requirement) 50 Hz, AC Supply				

## **CONTINUOUS PRODUCTION:**

Continuous Production Electro chlorinators are On-Site Sodium Hypochlorite [Hypo] Generator designed for small/medium/large capacities. Continuous Production Electro chlorinators are capable of producing from 500 gms/hr to 15 Kgs/hr active chlorine using our unique Multimetallic Oxides Coated, Titanium Nobel Anodes and Electrochemical Process. Brine solution passes though an Online Electrolyser cell with inbuilt heat exchanger pack. This is connected to a DC Rectifier. When low voltage DC is passed through the Electrolyser Cell, Sodium Hypochlorite solution to concentration of 6-8 gms/litre approx. is evolved continuously. This can be stored in a Storage Tank and pumped/used at required rates.

### **OPERATION:**

A metered amount of water is mixed with common salt to form brine of required concentration [or Seawater is used]. This is the electrolyte used in the process. This electrolyte is pumped to Electrolyser cells, when DC Current passes through these Titanium Anodes with special MMO Coating, Sodium Hypochlorite solution to concentration of 8 gms/litre approx. evolves continuously and this is collected in Hypo Storage Tank and applied directly or pumped to the point of application at required rates. To maintain the temperature at correct levels, prevent dissipation and get correct concentration of Sodium Hypochlorite output, Brine/seawater in cooled through a chiller or heat exchanger.



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# **TECHNICAL SPECIFICATIONS:**

MODEL	E-CHLOR C500G
Mode of production	Continuous / Online
Capacity	500 gms / hr
Salt Consumption / Kg	5.7 Kgs
Power Consumption	4.5 Kwh
Water Consumption	85 litres / hour
Max. Treated water	500 M <sup>3</sup>
AC input	44oV, Three Phase, 50Hz /AC Supply

# FEATURES OF E-CHLOR (ELECTRO CHLORINATORS) SAFE:

No hazardous gas to Store or handle. Concentration of 0.08% is Classified as non-hazardous Chemical, although a strong disinfectant.

## EASE TO OPERATE AND MAINTAIN:

Very Little Operator training is required.

### **FIELD PROVEN:**

This technology is proven and time tested , Life Cycle Services: After Sale Support Assured by our 24/7 Team.

#### **Customised System:**

Available in Wide range of Capacities and models as required by customers need and can be customized as system requirements.

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