

# STERIFLO - OHT

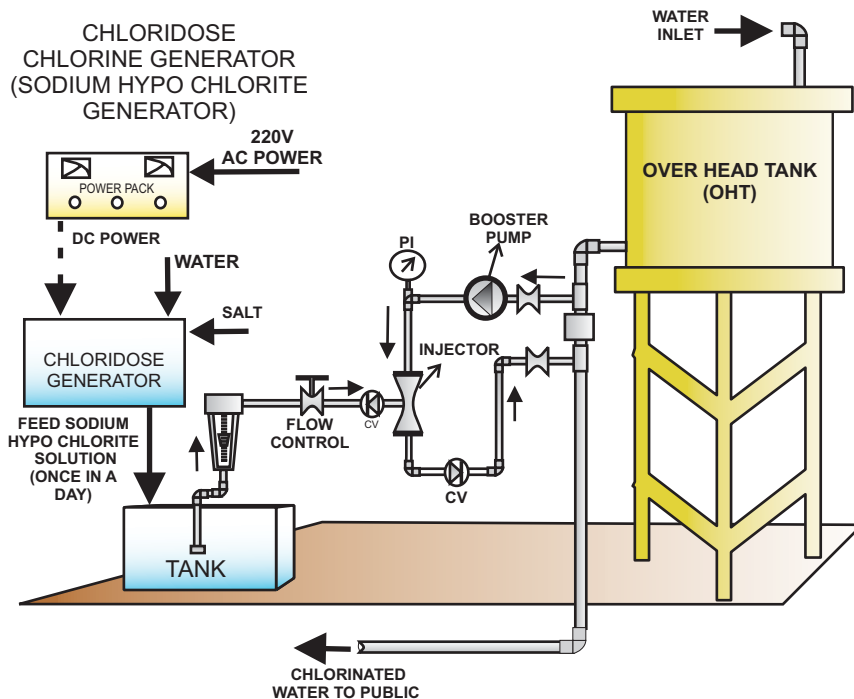
## RURAL WATER SUPPLY DISINFECTION SYSTEM

### ONLINE CHLORINE DOSING

### OVER HEAD TANK INSTALLATION UPTO 1,00,000 LITRES CAPACITY



### FLOW DIAGRAM SCHEME DRAWING



### WORLD HEALTH ORGANIZATION



World Health Organization  
Geneva

### Guidelines for Drinking-Water Quality

SECOND EDITION

Volume 1  
Recommendations

### 6.3.4 Disinfection

Terminal disinfection of piped drinking-water supplies is of paramount importance and is almost universal, as it is the final barrier to the transmission of water borne bacterial and vital diseases.

Normal conditions of chlorination (i.e., a free residual chlorine of 0.5 mg per litre,)

### DISINFECTION BY STERIFLO - OHT

IEC's STERIFLO - MODEL OHT Water Disinfection System provides safe sterilized water to rural areas. The technology is user-friendly and safe to operate.

An ideal situation would be to sterilize water at the spot of pumping i.e., at the discharge of the borewell or at the overhead tank supply pipeline.

IEC FABCHEM LIMITED provides a reliable Chloridose Generator to produce Sodium Hypochlorite at site using common salt, single phase AC power supply and water. A dosing pump is used to dose the CHLORINE solution for Disinfection of drinking water.

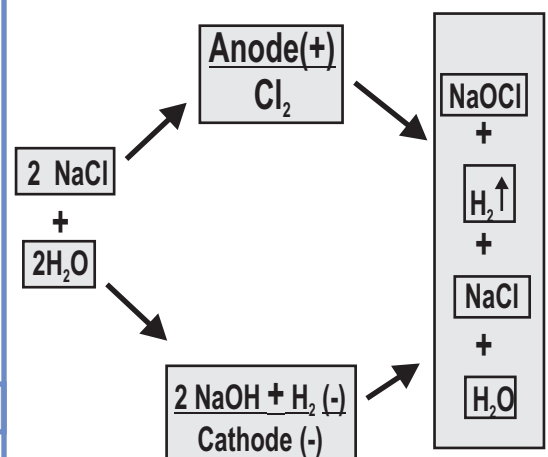
To meet the requirement of rural water supply, IEC offers STERIFLO - OHT Models for economical disinfection of large quantities of water. The micro organisms are killed by the disinfectant produced using only common salt, power and water. The treatment meets the standards set by WHO for disinfection of drinking water.

### ADVANTAGES OF STERIFLO-OHT

1. Only common salt and AC power is required.
2. Online chlorine generation and dosing.
3. Not dependent on chemicals.
4. Helps in ensuring tail end ppm of minimum 0.5 as per WHO requirements, when water Distribution from the over Head tank is delivered to the consumer in a short span of time.
5. Least attention is required by the operator.
6. Simple and easy maintenance procedure.
7. A permanent solution to eliminate possible water borne diseases.
8. Eliminates problems associated with bleaching powder /Toxic Chlorine gas.

### CHEMISTRY OF ELECTROLYSIS

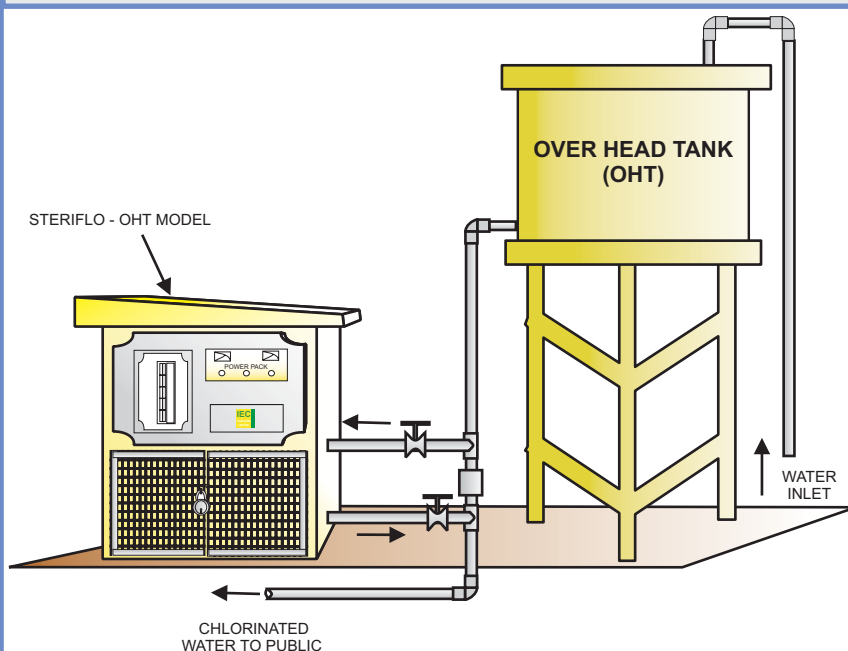
When a direct current is passed through electrodes immersed in a brine solution, Chlorine and sodium hydroxide are liberated and it mixes with each other and forms sodium Hypochlorite.



PREPARED BRINE + ENERGY = SODIUM HYPOCHLORITE

9. Avoids hazards associated with chlorine Gas which requires Elaborate safety system
10. Assured system quality, performance with service back up for long Term operation.
11. Very Cost Effective

## STERIFLO - OHT INSTALLATION



## SEQUENCE OF OPERATION OF STERIFLO-OHT

- Add common salt of specified quantity and ensure the salt is dissolved.
- Fill specified level of water into the Chloridose generator.
- Immerse the Chloridose cell.
- Switch on the power supply of the generator
- Now the generator works for next 22 hours to produce the solution.
- After 22 hours Switch off the power supply.
- The Chloridose solution is ready for Dosing
- Chloridose automatically injects solution in to the water supply main when unit is started.

## STERIFLO - OHT MODELS

### STERIFLO- OHT Model (OVER HEAD TANK)

Steriflo disinfection units for drinking water supply schemes is available in four standard models. Water distribution is considered as Litres/day capacity @ 1 ppm Chlorine dosage . .

O.H. TANK CAPACITY	STERIFLO SYSTEM MODEL	CHLORINE DOSE ppm	CAPACITY LIT/DAY	CHLORINE GMS/DAY	SALT KG/DAY
15,000	3L	1	30,000	30	0.09
30,000	6L	1	60,000	60	0.18
50,000	10L	1	1,00,000	100	0.30
1,00,000	20L	1	2,00,000	200	0.60
2,00,000	40L	1	4,00,000	400	0.20

STERIFLO OHT system doses a pre-measured quantity of Sodium hypochlorite solution into the water supply.

### OPERATION

Steriflo generates 7 to 10gpl concentration of sodium hypochlorite solution. The solution is transferred to the dosing tank. From dosing tank the solution is injected into the water main by dosing pump.

### DOSING

As soon as the water flows in the distribution main. Steriflo injects chlorine Solution at preset value. Operator can observe the flow of solution through the flow meter. The dosage can be adjusted to obtain the desired chlorine residual level in ppm.

Water sample can be drawn after injection point and analyze for availability of free residual chlorine in water by a test kit provided.

The system can be operated with least attention. Once it is preset for the required dosage level, there is no need to adjust the flow every day.

## INSTALLATION

To meet the requirement of safe Rural Drinking water supply, IEC offers Steriflo OHT Models for economical disinfection of drinking water supply. Micro organisms, bacteria and viruses are killed by disinfectant (Chlorine) produced by Steriflo OHT using only common salt, power and water. The treatment meets the Standards of WHO for disinfection of drinking water.

Steriflo OHT model can be installed below the overhead tank or nearby. It can be installed in open . The entire unit is housed in a lockable cubicle for operation and safety.

The weatherproof construction of the model can withstand all weather conditions. The installation is very simple and all the auxiliaries and accessories are supplied along with the plant. It requires only joining of the pipeline supply to the distribution main from the Overhead tank as shown in the drawing.

## COST OF CONSUMABLE FOR DISINFECTION

For example, to treat 1,00,000 litres per day, select Model 10 L. It can meet 50,000 litres capacity Overhead tank which can be filled and distributed two times a day. The cost of consumable is only 600 gms of edible salt which will be less than Re.1.0 per day. Hence the Steriflo OHT model is highly cost effective and ideal for rural water supply schemes.

In remote places availability of chlorine gas in cylinder, bleaching powder and Hypochlorite solution are difficult for regular supply to disinfect the drinking water. In case of Steriflo, only common salt is the consumable which is very easily available.



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