Strong disinfecting & deodorizing power  |  Convenient & Cost effective  |  Eco-friendly & zero pollution  |  Safe for human & environment  |  Use only a small amount of salt

Prevent diseases to keep your health!

Cleaning without Chemicals!

Detergent
Disinfectant
Water
This system ensures reliable supply of electrolyzed disinfectant based highly active sodium hypochlorite. Without affecting the pH level, just electric current passes through tap water mixed with a small amount of salt in undivided electrolytic bath (Non-diaphragm cell). Then the machine generates sodium hypochlorite water which is powerful & safe sanitizer. Also, you can use other active matters such as hydrochloric acid (HCl) instead of salt to produce the hypochlorous acid (HOCl) and other disinfecting solutions.

Chlorine disinfectants are the most widely used sanitizer for tap water. Disinfectant based on NaOCl is mainly used to prevent foot-and-mouth disease and avian influenza.

A strong disinfecting power
It can fully sterilize bacteria in a shorter time at lower concentrations than chemical disinfectants. And as neutral water, it maintains the freshness of food and does not damage nutrients. By eliminates germs on fruits, vegetables or fish, NaOClean can prevent various diseases.

Deodorization
NaOClean effectively eliminates foul odor and offers excellent results without damaging the environment or the human health, whereas chemical disinfectants such as ultraviolet, ozone, and alcohol come with negative consequences.

Safe and Convenient
NaOClean is safer on your skin than chemicals. It leaves almost no chlorine residual, thanks to a quick dissolution of residual chlorine. Also, It generates a steady stream of powerful disinfecting water at a constant concentration, allowing users to use the disinfecting water at anytime and anywhere.

Zero pollution
Discharging untreated electrolyzed disinfectant directly into the sewage system will not damage the environment or the system. Nor is it a violation of any sewerage acts. NaOClean generates safe and clean solution without producing a toxic smells and ensures good working conditions.
### Enhanced sanitation practices & Lower production costs

#### Test Results

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>Escherichia coli</th>
<th>E.coli 0157 bacteria</th>
<th>Staphylococcus Aureus</th>
<th>Salmonella Typhi</th>
<th>Vibrio Parahaemolyticus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cl residual</td>
<td>7.5 x 10^5 CFU/ml</td>
<td>4.1 x 10^5 CFU/ml</td>
<td>3.6 x 10^5 CFU/ml</td>
<td>2.7 x 10^5 CFU/ml</td>
<td>2.8 x 10^5 CFU/ml</td>
</tr>
<tr>
<td>Cl residual 30 sec</td>
<td>99.999%</td>
<td>99.999%</td>
<td>99.999%</td>
<td>99.999%</td>
<td>99.999%</td>
</tr>
</tbody>
</table>

Chlorine residual on the fruits and vegetables using chemicals (100ppm) and NaOClean (150ppm) after soaking for 5min.

#### Chlorine residual after soaking for 5min.

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>1.75 ppm</th>
<th>NaOClean</th>
<th>0.03 ppm</th>
</tr>
</thead>
</table>

**Chlorine residual is decreased by 1/100 times**

#### The number of rinse cycle & Chlorine residual

<table>
<thead>
<tr>
<th>Rinse cycle</th>
<th>Chlorine residual (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 times Chemicals</td>
<td>0.01~0.02 ppm</td>
</tr>
<tr>
<td>1 times NaOClean</td>
<td>0.01~0.02 ppm</td>
</tr>
</tbody>
</table>

**Water consumption, Manpower is decreased by more than half**

#### Economic Efficiency

Korea food research institute

**Enhanced sanitation practices & Lower production costs**

**Installation**

NaOClean is used for hygiene of food materials, equipment and work places all around the world.

USA, China, Indonesia, Malaysia, Singapore, Norway, Greece, Iran, Bahrain and more.

**Research papers** by Ministry for Food, Agriculture, Forestry and Fisheries (Joint research : D&D Electronics Co., Ltd)
## Disinfectant Generator (Wall-mounted type)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Generating</th>
<th>Salt tank</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-10K</td>
<td>AC 110 or 220V, 50/60Hz, 1.4kW</td>
<td>(W) 480 X (D) 300 X (H) 490 (mm)</td>
<td>25kg</td>
<td>15~20L/min</td>
<td>10kg</td>
<td>100/200ppm Adjustable (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type) / HCl (Depends on the purpose)</td>
<td>Ambient temp. 5<del>40°C, Water temp. 5</del>30°C, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

**Make a clean & safe work area.**
This generator can make disinfectant 1.2t /hr, and better use of a space with wall-mounted type.

## Disinfectant Generator (High-capacity storage system)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Generating</th>
<th>Salt tank</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-8000E</td>
<td>AC 110 or 220V, 50/60Hz, 1.4kW</td>
<td>(W) 630 X (D) 560 X (H) 1280 (mm)</td>
<td>80kg</td>
<td>20~25L/min</td>
<td>30kg</td>
<td>100/200ppm Adjustable (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type) / HCl (Depends on the purpose)</td>
<td>Ambient temp. 5<del>40°C, Water temp. 5</del>30°C, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

**Better effective method for hygiene management.**
This generator is suitable for a large factories which are needed sterilizing, deodorizing and clean in one-step without lots of time & labor.

## Disinfectant Generator (Portable type)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Generating</th>
<th>Salt tank</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-P450E</td>
<td>AC 110 or 220V, 50/60Hz, 330W</td>
<td>(W) 180 X (D) 486 X (H) 463 (mm)</td>
<td>17kg</td>
<td>2~3L/min</td>
<td>4L</td>
<td>100ppm (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type)</td>
<td>Ambient temp. 5<del>40°C, Water temp. 5</del>30°C, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

**Prevention of disease to keep your health.**
It is a small size generator for home use or small restaurants, etc.

## Hand washing stand for Personal hygiene (Pedal type)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Generating</th>
<th>Salt tank</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-WS850E</td>
<td>AC 110 or 220V, 50/60Hz, 400W</td>
<td>(W) 500 X (D) 500 X (H) 850 (mm)</td>
<td>35kg</td>
<td>3~4L/min</td>
<td>10kg</td>
<td>100ppm (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type)</td>
<td>Ambient temp. 5<del>40°C, Water temp. 5</del>30°C, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

**Keep the personal hygiene before & after work.**
This generator helps to keep the personal hygiene by removing dirt and bacteria before and after finishing work. With one movement by footsteps, you can effectively sterilize and deodorize on your hands and all kinds of other things.

## Sanitizer for utensils [Approval]
A substance that can be used to sterilize utensils, food containers, or packing materials, and this indirectly affects food.

## Registered food additive [Approval]
A substance for cleaning and disinfecting food ingredients, equipment, containers, and packing materials, and all of them are used to produce, process, or preserve food by being added, mixed, or absorbed into the food.

※ Under Korean Food Sanitation Act, all substances for disinfecting vegetables, fruits, and utensils (equipment) must obtain permission from the KFDA.

- Effectively remove 'Biofilm' on the floor which is a colony of bacteria and makes clean and safe work area.
- Easily sterilizes and deodorizes the boots rubber gloves, and all kinds of equipment.
## High Pressure Washer

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Flow rate</th>
<th>Max pressure</th>
<th>Condition of use</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-WA100E</td>
<td>AC 110 or 220V, 50/60Hz, 3.2kW</td>
<td>(W) 520 X (D) 585 X (H) 970 (mm)</td>
<td>65kg</td>
<td>8~11L/min</td>
<td>100~130 bar</td>
<td>Ambient temp. 5<del>40℃, Water temp. 5</del>30℃, Humidity less then 95%RH</td>
<td>All stainless steel</td>
</tr>
</tbody>
</table>

### Combined model with Disinfectant generator
- It uses disinfectant produced from generator with high-pressure. As it is made with all stainless steel, it improves durability and minimizes the concern of corrosion.

## High Pressure Sterilizing Washer

(It can make disinfectant by itself)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Flow rate</th>
<th>Max pressure</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-WA50E</td>
<td>AC 110 or 220V, 50/60Hz, 2.4kW</td>
<td>(W) 615 X (D) 767 X (H) 1005 (mm)</td>
<td>50kg</td>
<td>6~7L/min</td>
<td>100 bar</td>
<td>100ppm (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type)</td>
<td>Ambient temp. 5<del>40℃, Water temp. 5</del>30℃, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

### Easy to use with movable type.
- The mobility of this washer enables users to sterilize effectively from large area to small and narrow gap. It solves the problem of slimy on the floor and keeps the safe environment.

## Sterilizing Washer

(Portable type)

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Flow rate</th>
<th>Max pressure</th>
<th>Tank capacity</th>
<th>Active chlorine</th>
<th>Additive</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES-WD30 / DES-WD40</td>
<td>AC 110 or 220V, 50/60Hz, 300W / 1.2kW</td>
<td>(W) 440 X (D) 400 X (H) 930 (mm) (690mm if the handle is separated.)</td>
<td>25 / 35kg</td>
<td>3~6L/min</td>
<td>11 / 80 bar</td>
<td>45L full</td>
<td>100ppm (7.0~7.5pH Neutral)</td>
<td>Salt (Granule type)</td>
<td>Ambient temp. 5<del>40℃, Water temp. 5</del>30℃, Humidity less then 95%RH</td>
</tr>
</tbody>
</table>

### Combined model with Disinfectant generator.
- It uses disinfectant produced from generator with high-pressure. As it is made with all stainless steel, it improves durability and minimizes the concern of corrosion.

## Gun type

- **High pressure gun (Long barrel)**
  - (ALL-STAINLESS STEEL)
- **High pressure gun**
- **Compact short gun**
  - (ALL-STAINLESS STEEL)

- It disinfects effectively and removes bad odor in many places where should be cleaned including fish, meat, vegetables processing plants, feeding facilities, restaurant kitchens, restrooms, floors and any places needed to control for hygiene.
- It is mainly used in the large area to clean in a short time effectively.
- User enables to remove the bacteria easily with using a roll-around type model.
BETTER SAFE & BETTER CLEAN
WITH NAOCLEAN!

“Researched for 35 years on Electrolyzed water”

NaOClean
High capacity
Storage system
DES-8000E System
with DES-WA100E

Certifications
Approval of Excellent Product (Disinfectant Generator)
NaOClean New Excellent Product (NEP)
Selected as one of the leading venture company
Disinfectant and Cleaning Device K-mark Certification
ISO 9001 Certified Enterprise
License Registration (Disinfectant Generator and others)
Designation for an Excellent Export Company
Recognized as a great performance machine
Disinfectant Generator Approval (No.2006-5 Issue)
Food Additive Production Approval (No.2006-D-0001 Issue)

Korea Public Procurement Service
Ministry of Commerce, Industry & Energy
Gyeonggi Provincial Government
Ministry of Commerce, Industry & Energy
Korea Quality Guarantee Committee
Patent Office
Korea Public Procurement Service
Small Business Administration
Korea Food and Drug Administration
Korea Food and Drug Administration

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