# FISH BOX AUTO WASHER





## **Developed background**

Wooden box makes to breed and increase various bacteria easily as organic matter in material.

As the result of sanitary tests, we are aware that there is inhibited bacillus over limited level.

It is one of the reasons to be effected the fish price at market. Also the wooden box is consumable part as weak durability.

Substituted plastic fish box as using normally is the reason why replaced even though material cost higher than wooden box.

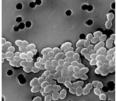
however, using the plastic box also have problems with demerits.

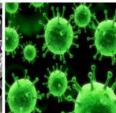




















# Demerits of using plastic fish box

- 1) Very hard to remove scares on plastic surface due to close adhesion
- 2) Fish oil also hard to remove as strong adhere to the plastic surface
- 3) Product cost higher than low grade wooden box

### Merits of plastic fish box

- 1) Sanitary reason as keep good
- 2) Propagate prevention by water adsorption
- 3) Easy control as standard sized
- 4) Easy lay up fishes with no load
- 5) Washable so that keep on clean

# Effects of WOORI developed Fish Box Washer

### **Demerits in existing status**

- 1) Very hard to remove fish scares and oil plastic surface by water flushing
- 2) Deformity possibility as used hot temperature water for box washing
- 3) The fish box should be carried to washable area.
- 4) Required costs and time consumption for fish box transportation.
- 5) 2nd contaminate possibility through transport time with keeping carriage even through wash clean out.

# **Developed effects**

#### 1. Eco friendly

- 1) Minimized water consumption by recycle used water over 90%
- 2) No possibility of 2nd contaminant and lower cost as no use synthetic detergents.
- 3) Excellent sterilize effect and harmless to human body as use alkali water(over ph11)

#### 2. Save costs for operating and management

- 1) WOORI's fish box washer can make to reduce transport costs and spend time as use the machine at work site (plastic box load capacity 650ea ~ 900ea/8tons cargo truck)
- 2) No problem from 2nd contaminant through transportation therefore can be reused clean boy any time by high washing efficiency.

#### 3. Washing efficiency.

- 1) Best wash condition by charged each side each washing brush
- 2) Most suitable washing condition as used PVC brush with technology which is excellent flexibility and stability.

#### 4. High durability and convenience

- 1) All electrical devices are applied over IP64 grade, all required metals are used SUS material and also used non corrosive plastic bearing which are proud of high durability.
- 2) Maximized work efficiency by inlet / outlet auto leading system.
- 3) Operator can take information easily through monitor screen for operating conditions.

# **Designed Features**

#### 1. Washing system

- Installed heavy duty electrolyzer in washing machine.
   It should be supported to carry out for all washing process with using high alkali water.
   This system is highly effect to remove fish smell with clean by powerful washing and sterilizing action.
- 2) Take to comfortable work condition with harmless as no used synthetic detergent
- 3) Excellent washability PE brush instead of water flushing for all sides.
- 4) Save costs and Eco friendly as recycled over 90% of supply water.

### 2. Device for high durability

- 1) Applied over IP65 grade for electrical device.
- 2) Applied plastic bearings against water.
- 3) Easy cheek operating conditions on screen monitoring information.
- 4) To see and check washing process through semi transparent plate of washing machine.

# Sectional system / Detail view



Inlet tempering sys.



Blowing & drying sys.



Rinse device



High pressurized Spraying sys.





Brushing device for sides.





Internal washing sys.





Horizontal washing sys.



Circular filtering sys.



# **Dimensions & Specifications**

Model	SONAGI-3
Washing capacity	Min.130/units ~ Max.260 units/Hr - [multi stage speed control]
Dimensions(mm)	Tempering size : W (860) x L (1,480) x H (1,180) Inlet / Outlet : W (1,100) x L (1,450) x H (1,750) Washing space : W (1,100) x L (4,500) x H (1,750) Overall size : W (1,100) x L (7,430) x H (1,750)
Install space(M)	Width: 2,1 X Length: 10 X Height: 2,5
Electricity	AC380V - 60hz – 3Ph : 5wires :[3ph+N+G] 13kw
Water supply	City water or underground water 300Lts/Hr
Water tank (L)	1) Receive water: 1,461Lts 2) fresh water: 1,052Lts 3) alkali water: 458Lts
Air pressure	5Bar ~ 7Bar : Air receiving tank capacity - 40Lts.
Waste water treat	3 steps filtering system
Ambient temp.	0°C ~ +40°C (under no freeze condition)
Washing process	1st : tempering wash 2nd : high pressure wash 3rd : brushing and vibrating for inside
Sterilization	Alkali (over ph11) wash