

# Immersion Vaccinator and Anesthetizer

AUTOMATED FEEDING SYSTEMS FOR AQUACULTURE



## Features

- Can hold **up to 50 liters of vaccine solution** at standard dilution (expandable to 150 liters using an optional kit).
- **Vaccination time can be configured** from 33 to 85 secs by the operator.
- Fed by a fish pump, the vaccinator **can work with variable water flows** up to 15 m<sup>3</sup>/hr.
- Can be equipped with oxygenation of the vaccine solution.
- Possible adaptation to a 4" fish pump.
- **Can also be used for anesthetic bath** or other therapeutics.
- **Low energy input** (0.55 kW).
- Requires an additional external flow of clean water of around 1-1.5 m<sup>3</sup>/hr to carry the fish post-vaccination.
- **Capacity of the vaccinator: 1000 to 1500 kg/day** @ around 2 g average body weight.

## Standardization of the Vaccination Procedure

- Fish juveniles are smoothly “dewatered” automatically during a standard time before being admitted in the vaccination bath.
- The **vaccination time (bathing duration) can be adapted** by the operator and easily modified at any time.
- The standard volume of the vaccination reservoir is 50 liters and **can be extended up to 150** liters using the optional kit.
- The number of cycles can be counted.



## Benefits

### Easiness of Use

Vaccinator is on wheels to be moved easily inside the hatchery.  
Using the legs optional kit the vaccinator **working height can be adapted easily** to any reception tank wall height up to 1.30 m.  
VACCINATOR is meant for **direct connection to a fish pump**.

### Labour Savings

The vaccinator remains under the control of a single operator for the whole process when vaccination at hatcheries often requires a team of 5 or 6 people to reach the same vaccination rhythm.

### Tough Construction

The vaccinator is built from carefully chosen material and equipment. It is seawater resistant and highly reliable.

### Commissioning

Very easy and shall not require specific assistance. However, FFF is keen to support any new user if needed.



## FEEDING SYSTEMS



Live feed

### HATCHERIES

Pellet 50-800  $\mu$   
 $\varnothing$  Pipe 20 mm



Dry feed



### PRE-GROW

Pellet 1-4 mm  
 $\varnothing$  Pipe 25-40 mm



### ONGROWING

Pellet 4-20 mm  
 $\varnothing$  Pipe 50-90 mm



## EQUIPMENT



Propeller Pumps



Spreaders



Immersion Vaccinator

