

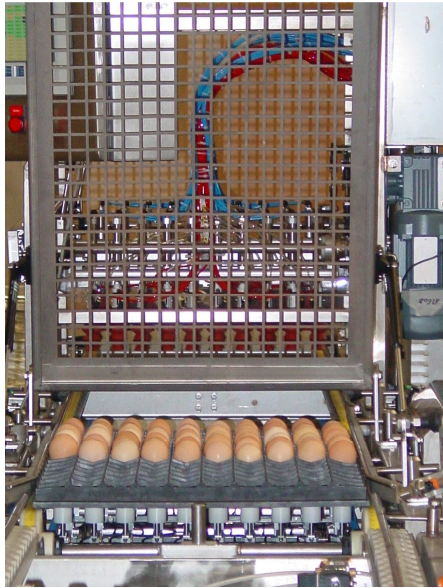


# ECAT

Egg Chick Automated Technologies

[www.ecat-com.fr](http://www.ecat-com.fr)

## AUTOMATED EGG GRADING & WEIGHING SYSTEM



### General characteristics:

The machine is designed :

to transfer the eggs from egg flats to setter trays,

to weigh hatching eggs individually & to classify them into up to 5 different categories:

1- Main category of graded Eggs ready for incubation, set directly on setter trays.

2- Eggs of small calibre (underweight)

3- Eggs of large calibre (overweight)

4- Eggs of medium calibre

The weight limits are selected & fixed by the operator before the beginning of the process

The Egg Weighing unit includes:

A setter tray conveyor throughout the system

1 weighing module with weighing cells

Data collector for the transfer of information to the removal system

The egg removal unit includes:

1 stainless steel framework equipped with a robotic removal head

same conveyor as for the Egg Weighing unit

1 pneumatics & electrical control panel

Capacity: 25-30.000 eggs /hour.





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## **Description & function of the egg weighing system**

### **1-Egg weighing unit:**

The setter trays are carried forward by means of a tray conveyor.

The tray loading station can be done manually or automatically.

The eggs on the trays are carried to the weighing station and stopped for the weight detection.

Each tray remains still during the weighing process, avoiding damage to the eggs.

The weighing module is equipped with 1 or 2 rows (depending of setter tray type) of weighing cells which will move beneath the conveyor of eggs.

Each weighing unit is equipped with a cup which lifts each egg slightly off the tray to take the individual weight of each egg.

The weight accuracy is +/- 0.4 gram

### ***The weighing module includes:***

weighing cells

Sensors and data processor board are safely placed inside a waterproof control box

1 motorised step by step movement conveyor

### **2-Egg removal unit:**

The egg removal unit removes the eggs from the setter trays & set them on the related grading selection line.

### ***The egg suction head unit includes:***

1 robot arm

Venturi vacuum connections to avoid cross contamination between each egg.

Egg suction cups mounted directly onto the vacuum circuit

Egg suction head

## **Advantages of the system**

1-The eggs are handled with lots of care

2- Very few cracked eggs compared to manual egg handling .

3- The system is compact, simple to use & requires 2-3 people for the functions of weighing, the removal of "out of range" eggs, removal of egg trays.

Optional : An automatic refilling station for the missing eggs on the tray can be added to the system

