

# eggytizer

Automatic and und chemical-free:  
Hatching egg sanitization with electrons





**e-ggytizer**

Safe, efficient  
and sustainable!

The e-ggytizer sets new standards in hatching egg sanitization. Low-energy electron radiation is used to effectively reduce the bacterial load on hatching eggs. This leads to improved hatching rates, higher chick quality and lower chick mortality - without the use of chemicals!

# Hatching egg sanitization is essential

## **Protecting animals and guaranteeing quality**

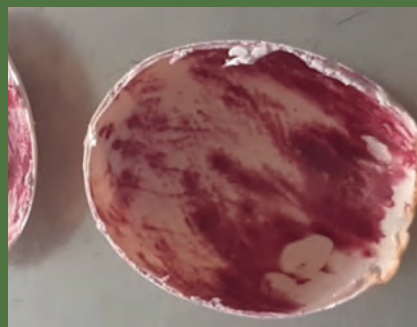
Microbial contamination of hatching eggs can significantly reduce hatching success and thus cause costs in the millions of euros. In modern poultry farming, the sanitization of hatching eggs is therefore an indispensable part of hygiene management, ensuring not only the protection of the animals but also the quality of the end products. Hatching egg sanitization is required by law to prevent animal diseases.

Conventional sterilization methods are based on chemicals. For example, fumigation with formalin is a common method worldwide. Although the use of formaldehyde is effective, it is already banned in many countries due to potential health risks for chicks and employees. The same applies to other chemicals such as peracetic acid, chloramine T or hydrogen peroxide. Alternatively, UV or ozone treatments are used. However, due to lower penetration depths, neither method alone has sufficient sanitizing power.

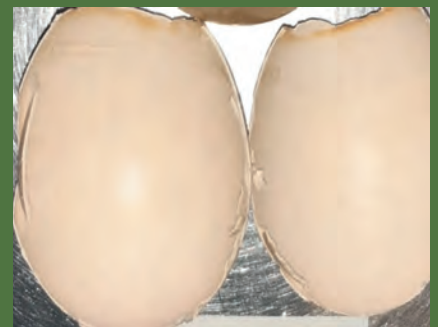
## **Chemical-free and sustainable**

The e-ggtyzer not only offers a significantly higher sanitization performance than conventional methods. By completely dispensing with potentially hazardous chemicals, it also improves occupational safety for employees and protects the environment. This is because the fully shielded system impresses with its simple and absolutely safe handling without any consumables.

## **Egg Shell Penetration Test**

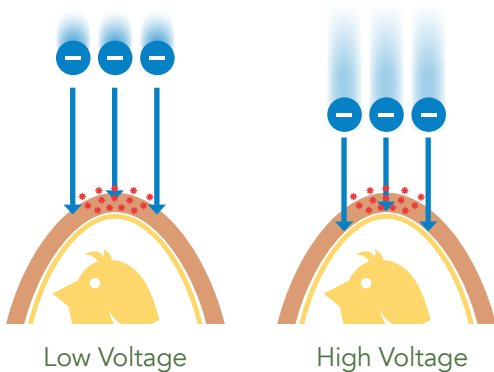


Control Group (no treatment)



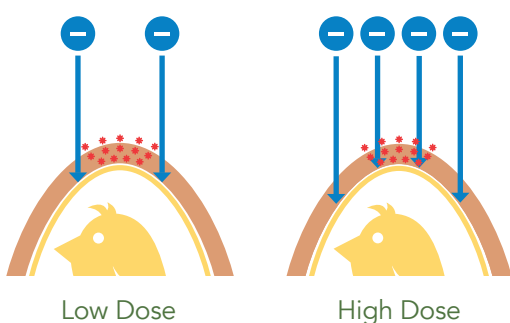
e-ggtyzer (25 kGy)

# Innovative germ reduction with electricity



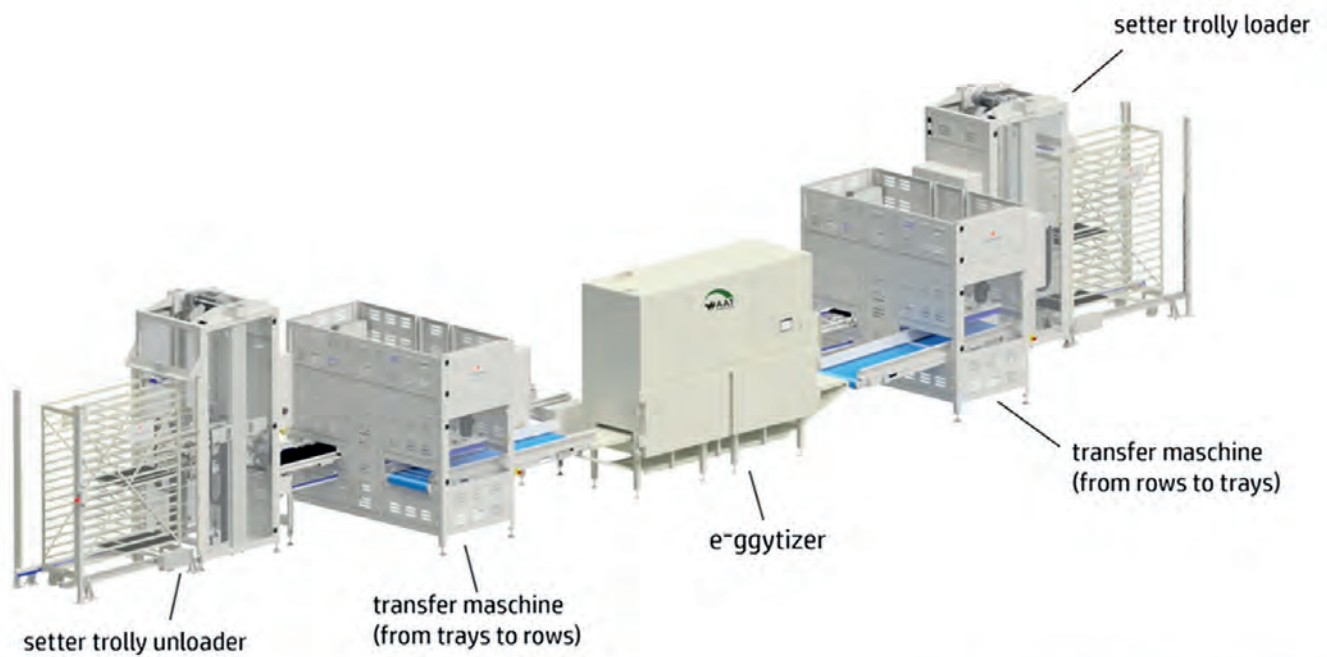
## Absolutely safe

The e-ggytizer effectively reduces germs using low-energy electrons. Germ growth is prevented by inactivating the ability to reproduce. The germ load is reduced by up to 5 log levels using this innovative process. The dose and intensity of the energy input can be regulated and thus precisely controlled. This eliminates germs inside the eggshell. The inside of the egg remains protected during the process, as the electrons do not pass through the egg membrane.



## Highly effective

Compared to conventional methods, the e-ggytizer offers a significantly higher disinfection performance. This reduces the number of infected hatching eggs and improves the incubator climate. In trials, the hatching rate increased by 1.65 percent compared to the control group. Overall, you benefit from improved animal welfare and lower mortality. Thanks to the significant reduction in germs, a reduction in antibiotics in rearing is possible. The innovative process is also suitable to produce clean eggs and SPF eggs, which are used to produce vaccines.



Automated process designed with our partner



## Cost-efficient and powerful

### Fully automatic and profitable

The process of hatching egg sanitization can be fully automated with the e-ggytizer. The clever and robust design enables a sanitization capacity of up to 25,000 hatching eggs per hour. Only a power connection is required. There is no need for additional operating resources such as chemicals or their disposal.

The efficiency of the e-ggytizer is also increased by the higher hatching success. Compared to conventional methods, the hatchability rate increases by up to 1.65 percent. In a hatchery with 50 million chicks per year, this means an increase of almost 1 million chicks per year with the same amount of hatching eggs!





## Advantages of **eggytizer**



- + Reduced germ load leads to healthier chicks, a lower mortality rate and better overall chick quality
- + Significant increase in profitability due to proven 1.65% improvement in hatch rate
- + Lower operating costs due to the elimination of chemicals and their disposal
- + Fully automated and resource-saving process with the treatment of up to 25,000 eggs per hour
- + Chemical-free sanitization protects the environment and increases safety for employees and animals
- + Antibiotics can be reduced in rearing thanks to a significant reduction in germs



## Technical specs\*

<b>Dimensions</b>	Length: 2,650 mm Width: 1,050 mm Height: 2,250 mm
<b>Weight</b>	4,500 kg
<b>Floor loading</b>	Min. 1,750 kg / m <sup>2</sup>
<b>Material</b>	Stainless steel, welded frame, Lead (stainless steel clad)
<b>Electric requirements</b>	400 V 3PNPE CEE32
<b>Water cooling</b>	Integrated water cooling unit
<b>Conveyor format</b>	4 eggs per row
<b>Speed</b>	Up to 25,000 eggs / hour 2-6 m / min
<b>Acceleration voltage</b>	120-200 kV, 170-200 kV typical
<b>Emission current</b>	1-15 mA, 1-6 mA typical
<b>Dose range**</b>	1-75 kGy, 10-25 kGy typical
<b>Exhaus air flow</b>	DN200
<b>Software &amp; controller</b>	→ Touch display → Siemens PLC → Remote control for service (optional)
<b>Scope of application</b>	Decontamination of hatching eggs

\* Preliminary data

\*\* Dose is dependent on voltage, emission current and speed.

# Agri Advanced Technologies: From research to practice.

We are happy to help you with any questions about e-ggalyzer and advise you according to your needs. Please contact us at [info@agri-at.com](mailto:info@agri-at.com).

## Technologies for poultry breeding and husbandry

Agri Advanced Technologies GmbH (AAT) founded in 2015 is a subsidiary of the family holding EW GROUP, headquartered in Visbek, Germany. Our main field of activity is the development of specialized application technologies for poultry breeding and husbandry, for example machines for in ovo sex determination of layers, grading and vaccination devices for broiler breeders or technical solutions for feed and egg disinfection.

### Our aim

Our specialized application technologies help customers to further improve animal welfare and health through automated solutions, while also performing efficient production processes.

### Our global network

As part of a global network, we work closely with all stakeholders in the value chain, as well as in research. We regularly cooperate with external institutions such as universities, research service providers, but also agricultural organizations, producers, and commercial enterprises.

### Solutions from one hand

Our solutions encompass the entire process of development, from the idea to the market-ready product. We implement theoretical knowledge gained through research into practical applications and provide a range of solutions for customers all over the world.

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