SEeMAx

Egg Candling
Candling of eggs by vision is a fatiguing occupation, especially to the eyes of the employee, leading to a lack of attention and accuracy during the candling process. The result may be too many 2nd quality eggs in the boxes and on the shelf of the supermarket. This is an undesirable situation for both your company and your retailers and even not to speak about complaints by consumers. Subjective candling of eggs is therefore no longer sufficient as retailers are looking for assurance that the eggs meet their quality standards.
During the early nineties the French company Messrs. SD2B has developed electronic candling systems (Evolution up to 270,000 eggs/hour (!) and Prem’s up to 50,000 eggs/hour) that automatically candle the eggs.

SEeMAx Systems are compatible on all electronic graders existing today. Modifications of the graders are not necessary. The SEeMAx systems are available in 3 versions for each model: 6, 12 or 18 rows.

The operator only has to install the quality parameters for the candling in the Windows based software (in English) and the system will do the rest and only quality eggs will arrive in the boxes for the consumers.
INTRODUCTION TO THE DIFFERENT MODELS OF THE SEeMAx EGG CANDLING SYSTEMS
Prem’s Farm Sorter is an automatic candling and separator that fits in-between the hens House outlet egg conveyor and Farm packer. Eggs are loaded on the roller band as on a grader then pass under the SEeMax® automatic candling system. SEeMax® uses its latest version with light underneath to obtain best accuracy on micro-cracks.
PREM’S: 6 rangs (rows) max. 60,000 eggs/hr
PREM’S: 6 rows (rows) with Blood Detector max. 60,000 eggs/hr
**Blood Detector SEeMAx®**

**Application**
The Quality Control of consumption eggs, operated by the SEeMAx Systems®, may be completed by the detection of blood inclusions inside the egg. All systems of SEeMAx "Evolution" and "Prem’s" can be equipped with a blood detector. This system is dedicated to this research of blood, and runs on both white and brown eggs. However, this system is not autonomous: it must be placed on the conveyor belt, most commonly just before the main box of the vision system. The Blood Detector must be connected directly to the SEeMAx’s control unit.
SEeMAX Evolution: 6 rows / max. 90,000 eggs/hr
SEeMAx Evolution + blood detector + operator’s center:
12 rows / max. 90,000 eggs/hr
SEeMAXx Evolution: 12 rows - max. 180,000 eggs/hr
Operator’s cabinet SEeMAX Evolution
ATI / SEeMAx Evolution: max. 270,000 eggs/hr
ATI / SEeMAx Evolution: 270,000 eggs /hr.
Why do the SEeMAx electronic egg candling systems deserve your attention?
1. You will save the salary costs of at least 2 co-workers
2. The efficiency of your grading machine will be improved considerably
3. External egg quality will be strongly improved
4. No complaints or claims from your customers
5. The return of investment will be most interesting
6. SD2B candling systems don’t have moving parts so no wear and tear
7. Therefore, SD2B candling systems require no expensive maintenance contracts
8. Helpdesk and maintenance through Internet
9. The Windows based software will be in English (other languages can be discussed)
10. Software compatibility between your electronic grader and the candling system is no problem
11. **Gross cracks and leakers, hairline-cracks, holes, stains, spots, misshapen eggs, calcification defects, abnormalities in form and color... All that you don’t like to see in your egg boxes is seen by Evolution and Prem’s and rejected before grading!!**

12. Moreover a mixture of brown and white eggs can be candled

13. Any rejection parameter can be modified from the screen while maintaining access to the rejection “level” at all times. The system is fully independent. You can return to manual candling at any time!

14. Installation on the conveyor belt near or instead of the candling booth and instruction to the operators takes appr. one week

15. Candling of the eggs is done by **“Vision”** (cameras). Each egg is photographed 36 times!

16. The cameras and all other parts are bought from first class and world leading manufacturers

17. The high intensity LED lights have a duration of nearly 100,000 hours

18. **Optional:** steering of the drop-gates for leakers and blood spot detection
Cracked eggs: A danger to consumer’s health!

Cracks in the shells of eggs can allow bacteria or other pathogens to contaminate the egg and cause illness. Cooking does not remove the contaminants completely. Checking the eggs before buying them reduces the possibility being exposed to food-borne diseases caused by cracked eggs shells. Cracked eggs always contain higher levels of bacteria and may not be considered as safe to eat.
The reality:
Dirty eggs (stains or spots) are covered with bacteria that will cause spoilage if they enter the egg. It’s not too difficult to remove dirty eggs during visual candling. Washing of eggs could be an option but is not preferred as washing may remove the cuticle on the egg shell leading to an unnecessary loss of moisture of the internal egg contents, an undesirable situation in hot and/or humid climates. Bacteria like Salmonella enteritidis can enter eggs through (hairline) cracks and the (9000 !+) pores in the shell. Chickens can also pass bacteria through the shell pores and (hairline) cracks into the inner egg when the egg is laid. Chickens can harbor Salmonella without being sick themselves.

The above alternatives show you the importance of rejecting cracked eggs before grading.
The solution:
SD2B candling systems reject any cracked or other 2nd quality eggs.

SD2B candling systems are your best support in supplying your customers with a maximum number of safe eggs and protect the health of the consumers!

SD2B electronic egg candling systems will even more contribute to your reputation as an already reliable supplier of table eggs and makes your business more profitable!

Please contact us for more information at:
EPAC – Hoogerheide, The Netherlands
Tel: +31-(0)164-660158
Mobile: +31-(0)651 804 676
E-mail: epacho@planet.nl