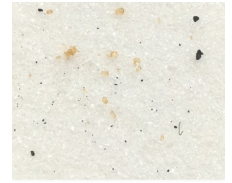


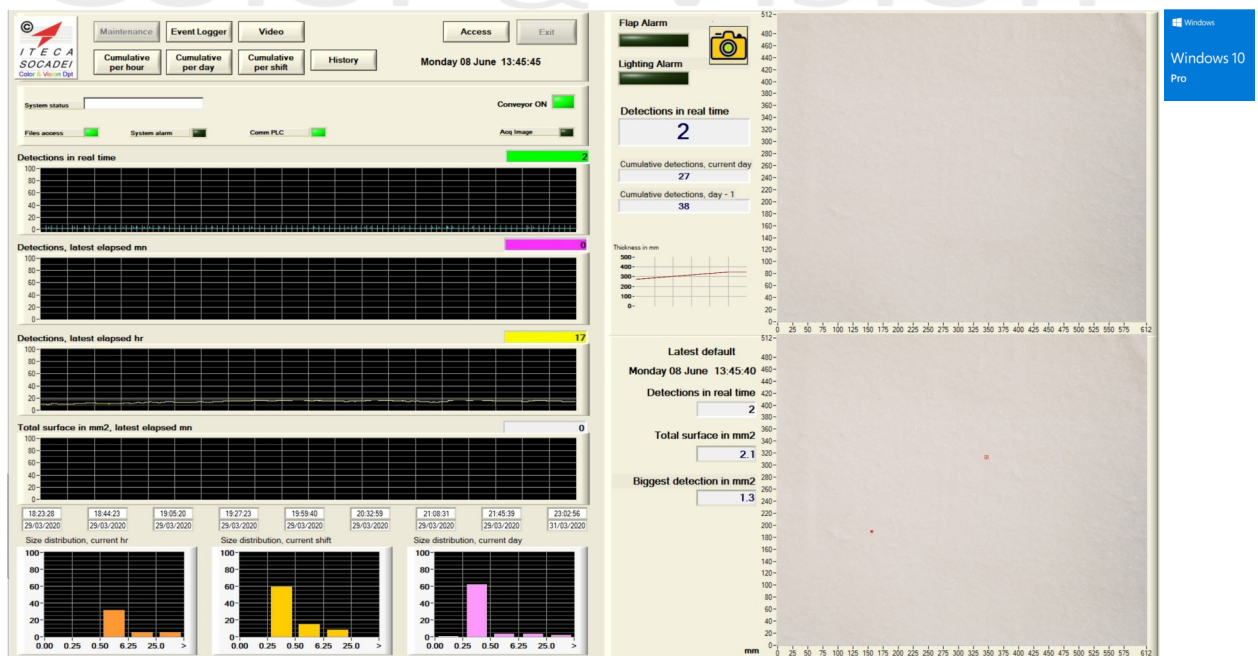
# SpotObserver®

*On-line black spot analyser*



- Detect and sort black spots from 250 x 250 µm on dry sugar above conveyors
- Scan 100% of the running production with a high resolution camera
- Display size distributions and the latest image of non conformity
- Record all data and videos for a complete traceability
- Set alarms for activating a diverter and avoiding contamination of the silo
- Guarantee the quality of all sugar shipped
- Comply with explosive dusty atmosphere

Color & Vision



## Real-time detection, sorting and counting of black spots

Using a very high resolution sensor and a reliable bright LED lighting system (explosion proof) the analyser Spotobserver® performs an accurate acquisition and a highly sophisticated image treatment in real time.

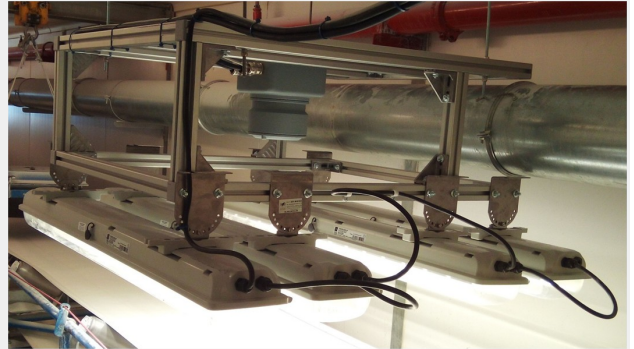
The Spotobserver® sorts and counts the black spots according to configurable distribution classes.

Images are stored on events over the whole campaign for full traceability.

It triggers alarms on the number of detections and/or on the black spots size, with statistical calculations over customizable periods.

Alarms can be used to divert the off-spec sugar avoiding any contamination or customer claims.

The Spotobserver® constantly controls the wearing and ageing of the light system to make sure it remains stable in time.



Maintenance can be performed remotely by ITECA engineers using the available plant Internet access, with secure screen sharing software.

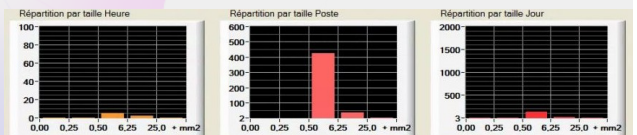
## Principle and performances

Spotobserver® features:

- Vision module with camera and lighting system installed directly above the conveyor (explosion proof)
- Laser level sensor to check the sugar thickness
- Electrical cabinet with PLC
- Computer in control room with ITECA dedicated and customizable software

The main display shows the video of the sugar surface in real time and the image of the last detection or any image chosen on manual request.

The statistical data gives the number of black spots detected over certain periods of time and a size distribution according to predefined classes.



100% of the data and alarms are stored for a complete traceability of the production issues.

Overall sugar quality is improved.

## SpotObserver® specifications



|                       |  |
|-----------------------|--|
| Environment           | ATEX 22  |
| Communications        | High speed logical output<br>Modbus TCP, Profibus DP, ProfiNet |
| Calibration           | stable, automatic, no drift                                    |
| Dimensions and weight | 140 x 105 x 120 cm, 120 Kg                                     |
| Power supply          | 110/230 VAC, 50/60 Hz, 1.5kW                                   |
| Support frame         | All sizes and material available                               |

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