

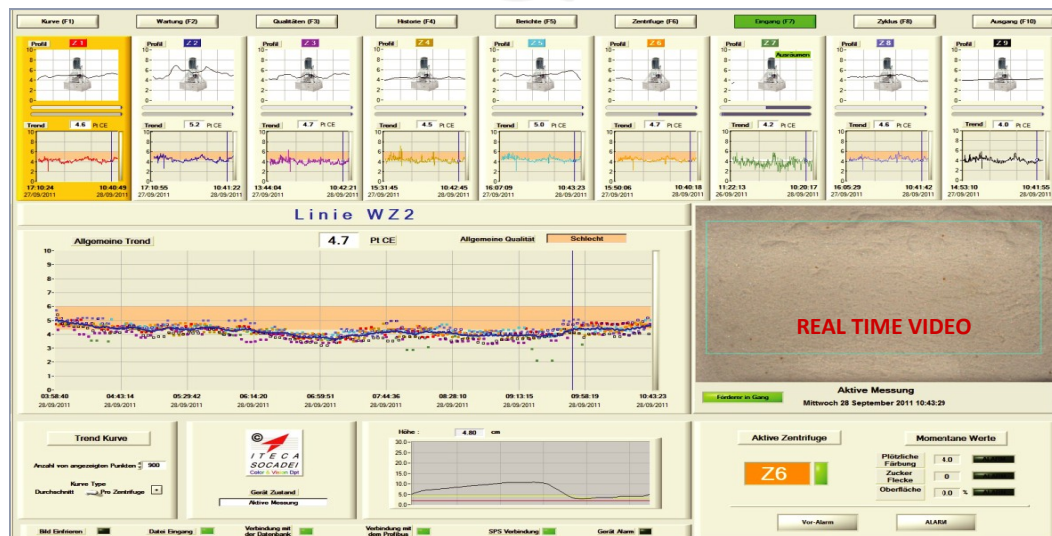
ColObserver®

On-line colour analyser



- Control the sugar colour*, raw or white, in Real Time
- Display colour trends for each centrifugal and for the overall production in ICUMSA Units
- Detect the brown lumps and out of spec colour
- Possibly **divert** the non conformities for recycling
- Trigger alarms and record video sequences on events
- Individually optimize centrifugals wash water usage to reduce the remelting of good sugar
- Maintain the colour within target for any sugar grade

Color & Vision

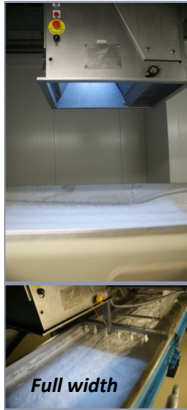


* Reflectance Indirect Method of Analysis correlated to sugar plant laboratory measurements using official ICUMSA methods GS1/3-7 (2011), GS2/3-9 (2005), GS2/3-10 (2011) or GS9/1/2/3-8 (2011)

On-line image analysis
dedicated to the Sugar industry since 1993

On-line Colour and Image Analysis

Using the latest image processing techniques, the ColObserver® performs an accurate image acquisition and highly sophisticated analysis to **measure the colour of brown or white sugar, wet or dry, in real time.**



Installed above any type of conveyor - screw, belt, shaker, drag, etc, it controls the sugar colour of up to 15 centrifugals. The HD camera detects and possibly diverts the off spec products to avoid an impactful contamination of the drier.



In control room, our customizable software displays the colour trends and the Real Time video of the ongoing production.

It records video sequences on events and historical data for a full traceability and further analysis of the process all along the campaign.



Example of automation with a driven flap for remelting

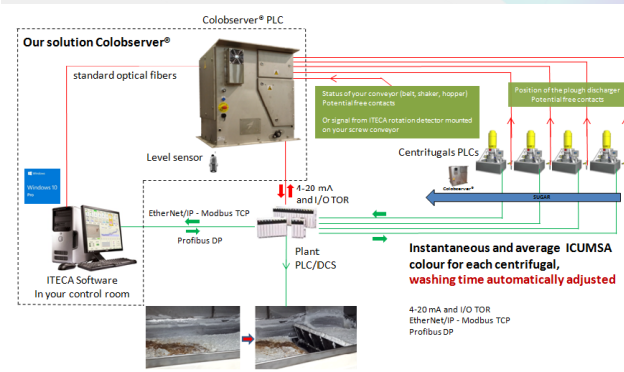
Connected to the centrifugal PLCs and DCS, the ColObserver® **reduces the spray water** of each centrifugal ensuring a short payback period.

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

Principle and performances

ColObserver® features :

- Stainless steel enclosure with light sources, calibrated camera, PLC, Peltier temperature controller
- Computer in control room with ITECA software running on Windows 10 Pro



Further Advantages

- Measure the ICUMSA colour for each batch
- Detect and possibly divert non conformities
- Display the video of the running production
- Record videos on events for full traceability
- Optimize washing times to reduce remelting and increase production efficiency
- Reduce costly fluctuations of the process
- Facilitate the maintenance with the use of detailed images of the non conformities
- Manage blending recipes on wet or dry sugar
- Meet the stringent demands of colour target
- Ensure maximum and quick ROI

ColObserver® specifications

Digital camera	Full visible spectrum
Stroboscopic flash lamps	LED or lightproof XENON
Communications	4-20mA
	Modbus TCP, Profibus DP, ProfiNet
Calibration	stable, automatically performed, adjusted by independent systems, no drift
Dimensions and weight	935 x 710 x 830 mm, 120 Kg
Power supply	110/230 VAC, 50/60 Hz, 1.5kW
Material	Stainless steel 316L and IP65
Sight glass	Polycarbonate



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