

New ECL Smart On the Fly Inspection and Analysis (SOFIA)



Process parameters feeding through data
collection

- 100% of production measurement
- Characterization of the butt 3D geometry
- Fully automatic inspection
- Easy installation and low maintenance
- Low CAPEX



The smart solution to characterize anode assembly process parameters

SOFIA has been especially designed by Fives to measure the process parameters of conveyed butts in the Anode Rodding Shop including Volume / Shape, Distance / Diameter, Color.

PRINCIPLE

The conveyed butt passes in front of a set of fixed laser scanners positioned to be able to simultaneously determine the butt position and a portion of its geometry.

By grouping all the butt geometry portions and repositioning them in the butt reference, the whole butt 3D geometry can be modeled.



Measurement of 100% of the production and characterization of the butt 3D geometry:

- Geometrical measures : butt thickness, width and length
- Carbon volume
- Geometry defects: bent bottom
- Determination of the residual bath surface

Code	Benefits
●	Improve Performance
●	Increase Maintainability
●	Improve Process Reliability
●	Increase HSE

CUSTOMER BENEFITS

- Quantifying the anode behaviour
- Monitoring of bath cleaning quality
- Monitoring of the stems & stubs

OPERATIONAL ADVANTAGES

- — Measurement on the fly: can be fitted between two stations without conveyor adaptation. No moving mechanical part, no motor, no cylinder or additional MCC.
- — Light structure: no reinforcement or heavy support required. Only network cables and a power supply cable are required.
- — Easy adaptation to your plant: flexible laser scanner position to get the best configuration.
- — No enclosure: suitable in open environment: the path remains free for operators, vehicles and maintenance interventions.
- — Process continuous monitoring
- — Fully automatic inspection

Sofia can provide different levels of insight on your equipment, process and operations



REFERENCES

Trimet St Jean de Maurienne, France

Fives ECL
E-mail: fe.services@fivesgroup.com
www.fivesgroup.com


fives
Industry can do it