



STUB ALIGNMENT VISION SYSTEM ALUMINIUM SMELTER

The Stub Alignment Vision System sorts out anodes needing alignment and repair.



CLASSIFICATION

based on the measured values, the system classifies each anode in one of the following states:

- Anode ok
- ANODE SHOULD BE ALIGNED
- ANODE TO ALIGNMENT
- ANODE TO REPAIR
- Anode to repair and alignment
- CAN NOT MEASURE



Inspection result with measured values and Pareto graph.

Anode ready for stub alignment

MEASURED VALUES
Each rod is checked for:

- Cowboy effect
- Too short rods
- Too long rods
- Corrotion and remains of bath, coal and iron

This is obtain by measuring in mm:

- Rod position
- Rod length
- Minimum diameter in upper region
- Maximum diameter in upper region
- Maximum diameter in lower region

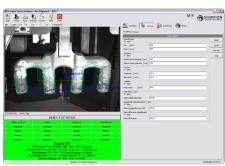
For more information:

IMPEC AS Phone +47 4000 5212 Fax +47 5720 5319 post@impec.no www.impec.no



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The system operator can set the sorting limit for each measurement defining the system classification.

Results

The system displays the following information on screen, for each anode:

- The classification state
- The measured values

In addition the system has the following features:

- Real time presentation of camera images with fault indication
- Curves for all measured parameters
- Pareto, a pareto distribution is available for the classification states
- · A classification counter

For all vision tasks, the software of choice is Scorpion Vision Software®. Scorpion is an independent, configurable and open software tool for industrial vision. It is ideal for increased automation and improved quality in production output.

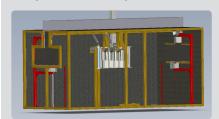
TECHNICAL DATA

EQUIPMENT

19" cabinet IP56 and cooling device, Industrial Computer, Color Touch Screen, Scorpion Vision Software, two digital cameras, two halogen lamps, two multi line lasers, Devicenet interface, Ethernet connection for remote control

CABINET DIMENSION
W= 19", L=600 mm, H = 2000 mm

MEASUREMENT AREA W=2500, L=6000, H=2500 mm



MEASUREMENT CYCLE TIME 15-20 Sec