



Anode Oven Press

Temperature Control of Green Anodes During the Pressing Process

Q

Question

How do you monitor temperature to insure the pressed anode retains its shape?

A

Answer

Situation Analysis

To produce a green anode for anode ovens, a carbon and pitch mixture called paste mix, is heated to a temperature of 165°C (329°F), loaded onto a conveyor system, and then cooled to approximately 100°C (212°F). This mixture is put into a large hydraulic press and formed into a green anode block that measures about 61x61x91cm (24X24X36in) in size. If the mixture is too cool or too hot, the anode will not maintain its shape as it is moved from the press to the anode oven for curing.



A

Answer

Solution and Improvements

As the paste mix is moving on the conveyor belts and being cooled, several Ircon Modline® 4, 44 series are positioned to measure the cooling down to 100°C (212°F). Once the mix is cooled down to the right temperature, it is poured into the press. A final instrument is placed on the conveyor, just as the material enters the press, to insure the anode block is pressed at the right temperature. The temperature is recorded for reference and to advise the operator that the cooling is being done properly. If the material is too hot or too cool, the anode will not stay together during its movement to the anode oven for curing.

Ircon Product

Modline 4, 44-02C sensor with a linear 4-20 mA output

Accessories

- Air purge
- Swivel base

Benefits

- Improved product quality
- Reduced scrap