PAUL WURTH
SMS group

PAUL WURTH SERVICING

MEASUREMENT OF CU-STAVE THICKNESS

FOR AN INCREASED BF CAMPAIGN!

The importance of monitoring the residual thickness of the cooling elements has grown in the market after the recent discovery of the copper staves wear phenomena.

Paul Wurth offers its customers the possibility to determine the evolution of the residual thickness of the staves by making use of different technologies. These can be installed as a turnkey service on blast furnaces built by Paul Wurth or on existing blast furnaces depending on the customer needs under the supervision of Paul Wurth specialists.

Permanent probes

- Measure physically the residual thickness during the blast furnace shutdown.
- Monitor stave wear during normal running conditions.

Depending on stave design and existing plant arrangements, the installation of measuring probes may require shell core drilling.

Non destructive tests

During a blast furnace shutdown, Paul Wurth is able, by means of ultrasonic measurements, to assess the status of the cooling elements, from the outside of the furnace, by inserting a special UT probe through the cooling pipes of selected staves.

Ultrasonic measurements allow:

- A first assessment of the presence of wear to be further investigated by installing thickness measuring probes.
- To perform measurements without any modifications to the existing plant.

Main advantages of our methodologies

- Being able to rely on the cooling elements installed in the plants
- Detect possible wear presence and consequently act by modifying the BF operation in order to control the phenomena
- Prepare in advance all the activities in case of severe wear in order to minimize the loss of production





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