Copper Stave Thickness Measurement System for Blast Furnaces

**WHY IS IT REQUIRED?**

✔ Severe wear in stave can lead to catastrophic failure by water ingress.
✔ Several such failures have been reported in blast furnaces worldwide. (Source: World Steel Association)
✔ Unexpected stave failures can be averted by periodic inspection during the entire campaign life of blast furnace.

**HOW IT WORKS**

✔ Ultrasonic sensor based technology.
✔ The challenge of inaccessibility and reliability was overcome by an innovative sensor design.
✔ Three versions of Technology:
  • 1G – Enables point measurements at inlet/outlet pipes of staves. Upto 8 measurements per staves.
  • 2G – Continuous online measurement with permanently embedded sensors.
  • 3G – Cutting-edge technology enables multi-point measurements along the entire channel of staves. Provides a comprehensive thickness profile along the entire stave.

**WHAT IT DELIVERS**

✔ The measurements provide a comprehensive assessment of stave condition across the blast furnace.
✔ Periodic/continuous assessment of stave health is a valuable tool for optimizing campaign life.
✔ Aids in safe operation of blast furnaces.
✔ Helps as a feedback to the operator to control process parameters.
Contact

S Balamurugan
Email: s.balamurugan@tatasteel.com
Mobile: +91 9204651390

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