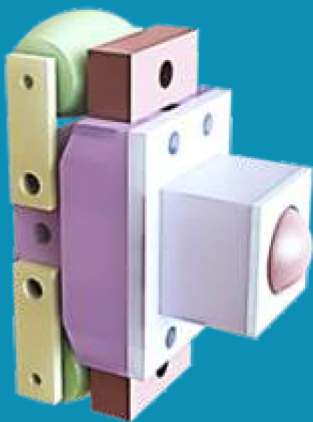


Copper Stave Thickness Measurement System for Blast Furnaces

WHY IS IT REQUIRED?

- ✓ To eliminate the risk of potential catastrophic failure in a severe wear condition of the staves.
- ✓ Predictive Maintenance is enabled by periodic stave inspection during the entire campaign life of blast furnaces.
- ✓ Maximizing the campaign life without the risk of unsafe operation.



HOW IT WORKS?

- ✓ Ultrasonic sensor-based technology.
- ✓ The challenge of inaccessibility and reliability was overcome by an innovative sensor design.
- ✓ **Three versions of The 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.



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.
- ✓ Feedback based corrective actions such as redistributing the burden for the prolonged campaign life.
- ✓ Aids in safe operation of blast furnaces.

