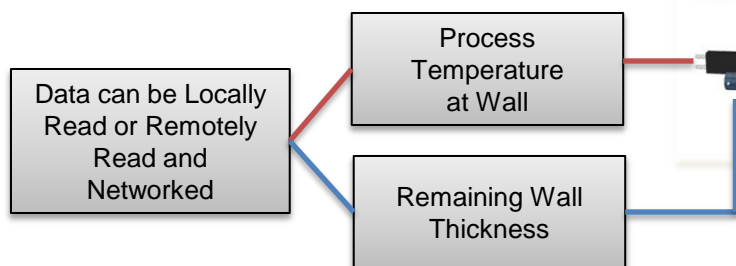
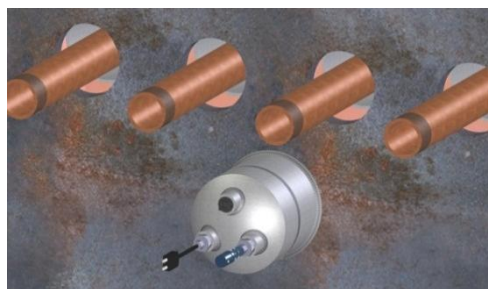




Stave and Refractory Wear Monitoring System

(Patent Pending)



Wear Monitor System Retrofit to Drilled and Plugged Staves

Wear Monitor System Description

By installing the combination of wear monitors and thermocouples into blast furnace staves you are able to continuously monitor process information to optimize operations, establish stable accretions, and increase furnace life.

Other stave wear monitor systems incorporate copper bars to measure stave thicknesses. The Berry Metal Wear Monitor System™ accurately measures stave and refractory thicknesses.

Wear monitors can be installed relatively inexpensively at the stave during routine furnace outages. They can be read during these outages or they can continuously transmit “real time” data during operation via network connections.

When read through network connections, operators and engineers will see the immediate effects of practices to the stave and refractory. This will allow adjustments to optimize stave performance.

This system can be retrofit to existing installed stave systems or included as part of the original installation.

Installing this Wear Monitor System with the Berry Metal Company Ultralife® Staves and Double Locking Refractory provides the ultimate protection and monitoring capabilities.

With the combination of the Wear Monitors and the unique features of the Double Locking Refractory System it will be possible to identify if the refractory is wearing and to replace it during a short outage without removing the staves. This is not possible with other stave and refractory systems.

Implementing the Double Locking Refractory System also eliminates stave deflection, ram gaps, protruding edges and stress concentrations that cause isolated loss of refractory.

Regardless of the type of stave and refractory system installed, the Berry Metal Wear Monitoring System is an invaluable tool to blast furnace personnel. It is another feature which will help extend furnace campaigns and improve operating methods.



ADVANCED IRONMAKING TECHNOLOGY

For more information on this and other technological innovations made available through our partnering agreements, contact Berry Metal Company at: 724-452-8040 or info@berrymetal.com

