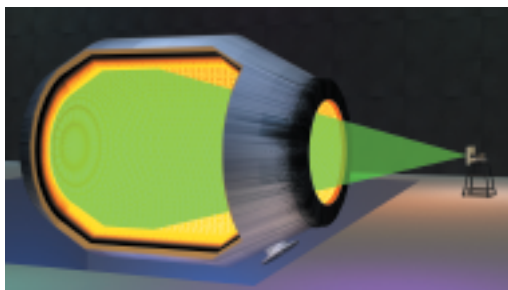


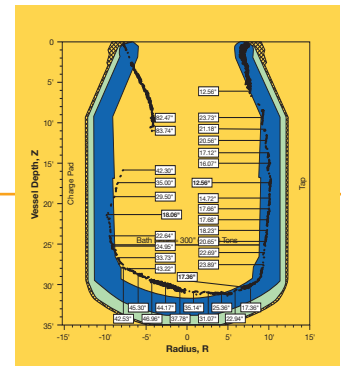
Berry Metal Company's partnership with Process Metrix provides steelmaking customers with advanced instruments that are easily interfaced to the steelmaking process, are simple to operate, and improve steel product throughput, quality and profitability.

LCS Laser Tracking Cart System

is a robust, mill-worthy, high-speed refractory thickness measurement system for BOF and ladle, maintenance and lining control.



Call today for the ROI and payback utilizing the LCS in your operation. For more information on this and other technological innovations made available through our partnering agreements, contact Berry Metal Company at 724-452-8040 or www.berrymetal.com or Process Metrix at 925-362-8568 or www.processmetrix.com.



- The LCS incorporates a laser tracking system to automatically determine the location of the cart relative to the vessel being measured. This eliminates the need for setup measurements and bottom fixing, reducing measurement time and simplifying the overall measurement process.
- The LCS provides quantitative assessment of lining thickness with minimal process interruption.
- The LCS refractory characterization results in extended ladle lifetime and reduced refractory costs. In addition to refractory savings, the LCS provides ladle breakout protection.
- The LCS incorporates a simple, straightforward software interface.
- Data output is clear and concise, with all information on a single screen.
- Panel view of data allows immediate detection of critical wear areas.
- Bath height measurements correlate with process operations.
- Measurement accuracy is ± 1 inch (Standard System for BOFs), and ± 0.5 inch (High Accuracy System for ladles).
- Total measurement time is 25 to 30 seconds, with 25,000 data points taken per second.
- Heat-to-heat measurements allow optimal refractory performance, maximum refractory life, and reduced possibility of ladle breakout.
- For fixed-head (or fixed-location) applications, the LCS is mounted in a water-cooled protective enclosure, with a pneumatically actuated and water-controlled door.
- Process Metrix will supervise on-site installation, commissioning and training of steel plant personnel, ensuring accurate, repeatable operation of all LCS systems.

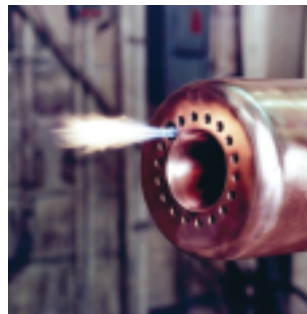


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TIP²

Lanced-Based Camera System for Vacuum Degassing Vessels

TIP² is a leading edge camera system located within the top blowing Berry Metal Water-Cooled Oxygen or Oxygen-Gas Burner/Lance used to view the interior of a vacuum degassing vessel.



- Real-time color video provides the pulpit operator with monitoring capabilities of the vacuum degassing vessel during all phases of the process, from vacuum-on to oxygen blowing to alloy additions.
- Video imagery can also be collected during vessel pre-heating.
- TIP² uses a miniature (1" diameter) color video camera located inside a specially designed Berry Metal Lance Tip. A fiber-coupled version is also available for smaller diameter Lances having limited internal volume.
- The Water-Cooled Camera Lance provides an optimal location for the instrumentation, protecting the optics from thermal and mechanical damage, as well as from optical contamination.
- Camera extraction and re-insertion can be easily accomplished without removing the Lance from the carriage.
- TIP² has been demonstrated to achieve continuous operation through more than 1,200 heats, with no degradation of image quality.
- Process Metrix will supervise on-site installation, including simple modifications of Lance carriage and installation of video cable from Lance station to pulpit.
- Berry Metal will upgrade existing Lances to accommodate the camera unit.
- Berry Metal Company and Process Metrix can also include an integral igniter with flame sensing capabilities for the Oxygen-Gas Burner/Lances.

Call today for the ROI and payback utilizing the TIP² System in your operation. For more information on this and other technological innovations made available through our partnering agreements, contact Berry Metal Company at 724-452-8040 or www.berrymetal.com or Process Metrix at 925-362-8568 or www.processmetrix.com.

