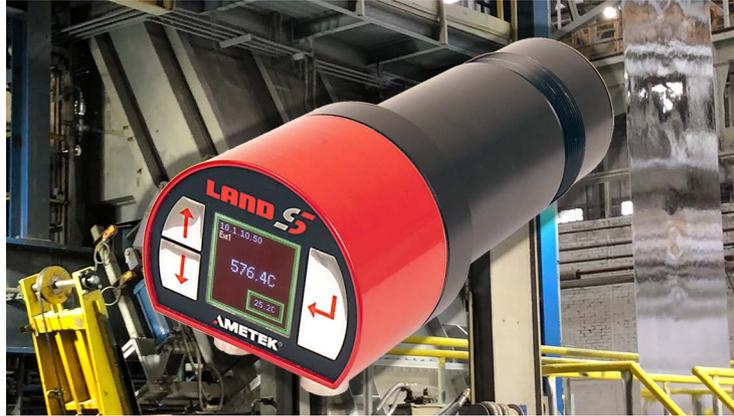


OPTIMIZING QUALITY AND EFFICIENCY IN PRODUCTION OF GALVANNEALED AND GALVANIZED STEEL STRIP

The automotive market, which is one of the largest consumers of galvanized and galvanized steel, continues to seek higher quality, lower weight and improved mechanical properties of Advanced High Strength Steels (AHSS) to satisfy the ever-increasing demands of fuel saving and electro mobility.

To provide producers with a competitive edge in this sector AMETEK Land has developed the innovative new SPOT GS (Galvanized Strip) pyrometer. The SPOT GS is designed to accurately measure the temperature of steel strip during the heat treatment and galvanizing reaction in a CGL (Continuous Galvanizing Line), allowing it to run at optimum throughput rates and ensure consistent, high-quality, premium galvanized steel demanded by the automotive industry. This unique application pyrometer implements a special algorithm to provide accurate temperature readings through all stages of the process, even on the exit of the zinc pot where the mirror-like metal surface makes accurate measurement of temperature a major technical challenge.

Christopher Leonard, Director Development and Product Management for AMETEK Land, said: "We have developed a market leading temperature measurement solution with SPOT GS that will optimize efficiency and achieve cost savings for steel producers. A world first for non-contact temperature measurement, the SPOT GS even offers accurate measurement of liquid zinc and is an enabler for AHSS producers to push the quality and performance of their products to the next level."



The SPOT GS pyrometer enables automated furnace management to provide close control of the reaction and position of the reaction zone, delivering tighter control of product quality. By maintaining control of the reaction zone, the steel application pyrometer accommodates rapid changes of line speed and furnace power. This allows for furnace optimization, reduced energy costs and maximized throughput. Additionally, this will optimize the product and process quality and reduce reject rates.



The smart SPOT GS application pyrometer can be easily integrated with furnace controls, PLCs and control software by using the Modbus/TCP interface or analog outputs. As a result, furnaces can run reliably and consistently produce the highest quality products, with minimal scrap. Industry 4.0 enabled, the SPOT GS has a

wealth of analog and digital inputs and outputs including emissivity out and LED switching, which are available as analogue/digital control I/O as well as over Ethernet.

In addition to the integrated webserver, which can be operated by all browsers, the free to download SPOTViewer software allows for the configuration, display and logging of data. In addition, AMETEK Land offers a range of mountings and accessories that are compatible with all SPOT pyrometers to optimize each installation.

Simple to set up and intuitive to operate, SPOT pyrometers provide a rich stream of accurate, repeatable real-time temperature data delivered locally via the unit or remotely with custom SPOT software. Set-up and operation are simple and in most applications the SPOT GS works out-of-the-box without any additional configuration. Intuitive local and remote interfaces manage operational and sophisticated processing functions, while digital and analogue communications and alarm contacts are all included as standard.

Patented bright green, easy-to-see pulsed LED sighting

patterns ensure optimum focus and exactly confirm the target spot's location and size. The SPOT's optics feature a motorized focus that can be easily accessed locally at the pyrometer or remotely over an Ethernet link. The integrated visible camera provides a remote view into the process at the measuring position to aid initial targeting and ongoing inspection.

Integrating motorized focus and sophisticated target alignment technologies help the user to precisely focus SPOT's advanced infrared optics. Its 'point and play' design gives an accurate, stable measurement more quickly, reducing maintenance time and enabling faster process adjustments.

SPOT pyrometers enable easy temperature control and analysis through integrated measurement control, ensuring that highly detailed process optimization decisions can be made.

All AMETEK Land SPOT pyrometers are designed for high accuracy, reliability, simple installation, configuration and flexible digital communications compatible with Industry 4.0 demands. The SPOT GS was specifically developed in close collaboration with industry-leading steel producers and plant control system engineers. The SPOT GS pyrometer is set to lead the way in improving steel strip throughput via quality and energy efficiency.

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