



SLAG-DETECT

PC-based IR Slag Detection System

System Description

The SLAG-DETECT system uses Infrared (IR) technology to detect slag during tapping even under harsh environmental conditions. So the operator can control the steelmaking process to optimize the compromise concerning yield and slag carry-over.

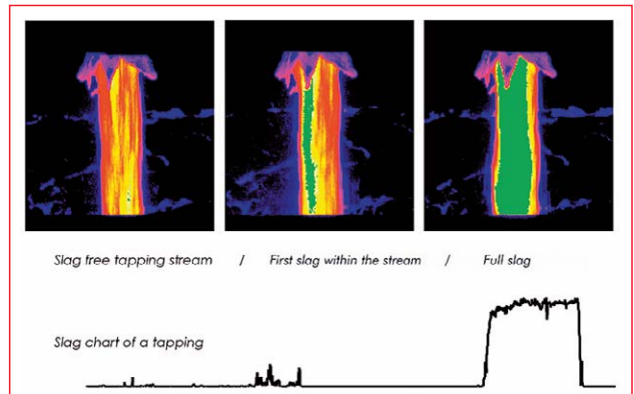
The SLAG-DETECT system uses an IR camera to permanently supervise the tapping process. As soon as slag replaces steel in the tapping stream, a slag alarm is released.

The SLAG-DETECT system is an efficient instrument for quality assurance and minimisation of yield losses in the production of alloy steel. The SLAG-DETECT system is also applicable to detect steel during deslagging.



System Features

- Online calculation and monitoring (display) of slag amount
- System alignment and adjustment to the process conditions
- Decentralised monitoring of system status
- Flexible process adoption, recording of tapping related process values and data exchange with existing systems via TCP/IP or electrical interface connection in the main cabinet
- Reliable alarm release to activate a pneumatic slag stopper, Filing of alarm screenshots, live tapping pictures of the whole tapping and process data arranged according to tapping time or heat number
- Easy to operate data presentation via web interface – standard or professional package – in the steel plant network
- Remote access available



The Following Interfaces Are Available in the Main Cabinet (Selection):

- Potential-free: System OK
- Potential-free: IR camera temperature OK
- Potential-free: Slag detection active/inactive
- Potential-free: Slag warning
- Potential-free: Slag alarm
- Analogue output signal: Slag amount (4 ... 20 mA)
- Relay input signal: Start/Stop detection
- Analogue input signal: BOF tilting angle



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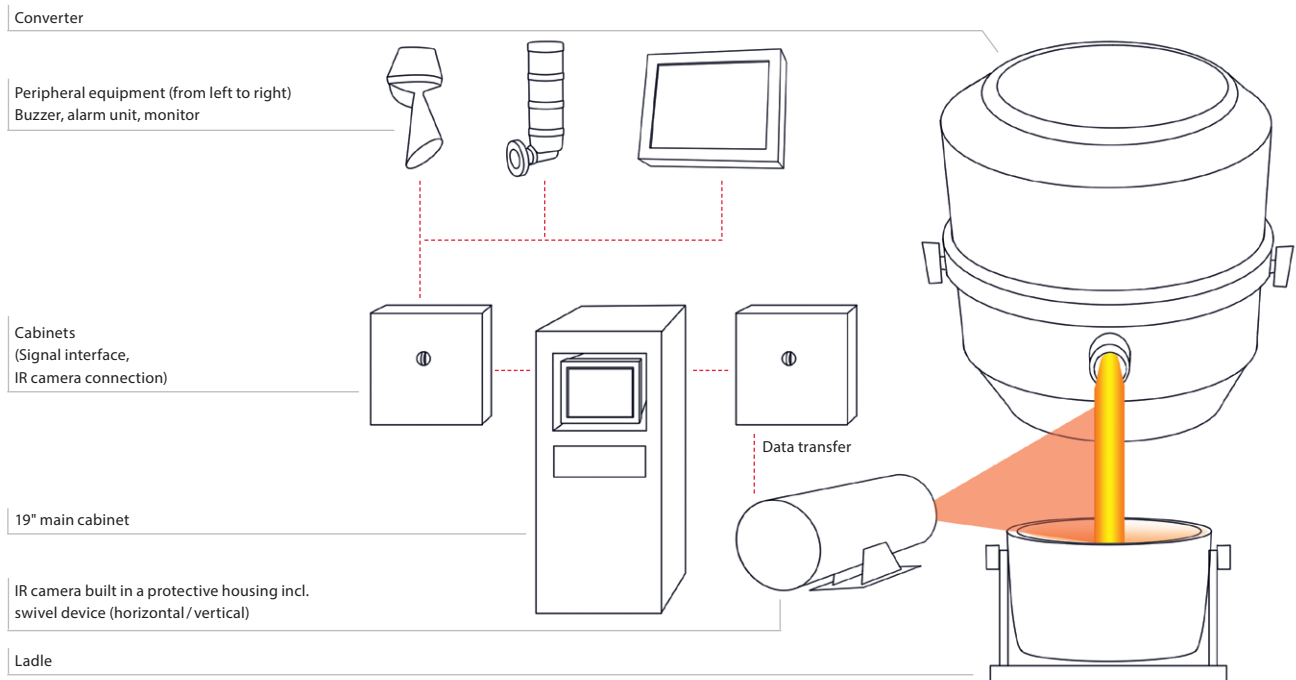
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Pictures



Construction / Design

- Main cabinet, 19", industrial standard
- Protective housing made of stainless steel designed to withstand the harsh environmental conditions in a steel plant
- IR camera guarantees exact and reliable slag detection
- Nearly maintenance-free, no wearing parts
- Decentralised installable components (IR-camera, monitor, alarm unit), cable distances less than 300 m via CAT cables, more than 300 m via fibre optics

