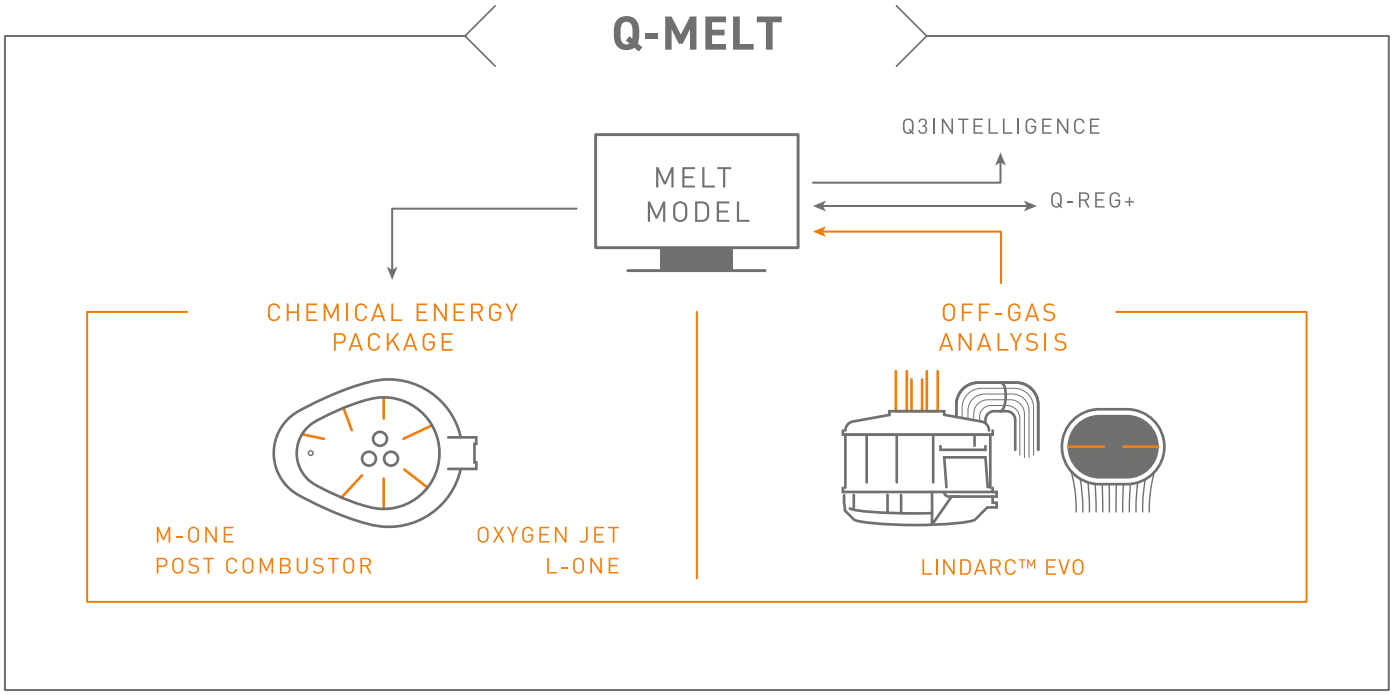
HIGHLIGHTS
MAY 2019

LINDARC™ EVO
NEW GENERATION OFF-GAS ANALIZER

MORE
INNOVATION IN STEELMAKING

Q-MELT AUTOMATIC FURNACE

LINDARC™ EVO data are used to optimize the EAF melting process by Q-MELT, the advanced DANIELI software based on neural networking and self-learning capabilities to reach complete automatic control in each stage of the EAF melting process.



FEATURES

Statistics approach to identity process deviations in real time

Process models to reach tapping with correct %C, O_2 content and temperature

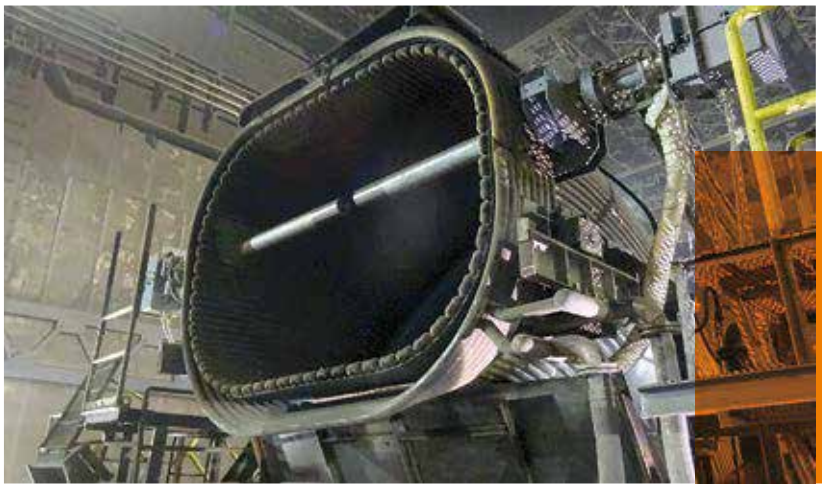
Dynamic set-up of chemical and electrical energy

Dynamic foamy slag control by electric arc and carbon/lime adjustements

Q-MELT
achieves the best operational practices with immediate benefits to the performances and consumption levels.

REAL TIME OFF-GAS ANALYSIS SYSTEM

The innovative **LINDARC™ EVO** off-gas analysis technology, installed on the fix duct uses the innovative technique of "Multiplexed Tunable Diode Laser Absorption Spectroscopy" (WM-TDLAS) which combines lasers and fiber-optics to obtain exact data of various gas species in the EAF off-gas system in real time.



LINDARC™ EVO
is used to further optimize the EAF melting process controlling fuel and oxygen post-combustion by Q-MELT

FEATURES

CO, CO_2, H_2O and off-gas temperature measurement

Fast response time (less than 2 seconds)

Dynamic water leak detection

Finger tips auto-cleaning system

Lasers heads auto-aligment system

Multiplex optical fiber transmission

SAFETY

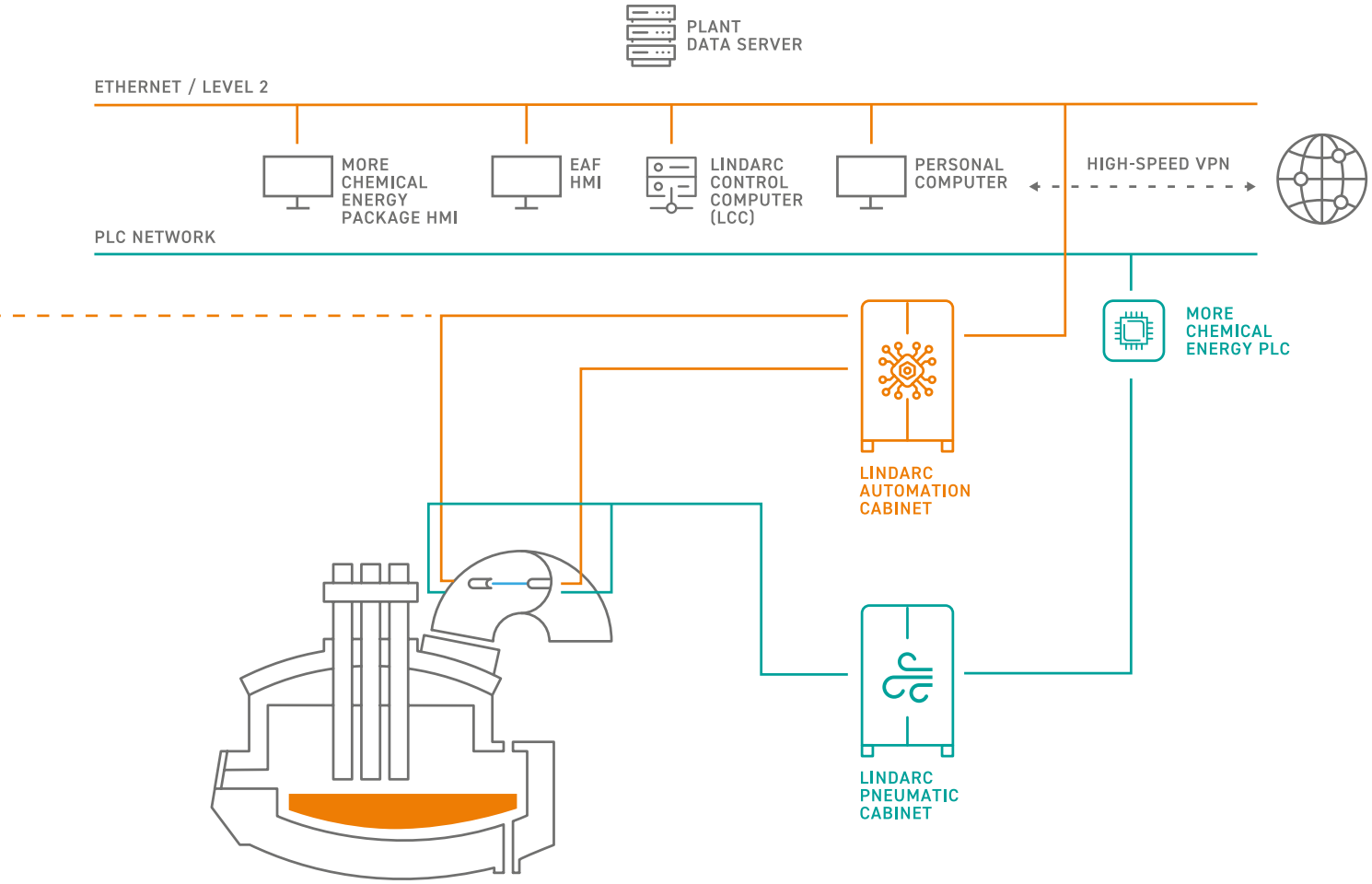
- Real-time signal of H_2O will prevent explosions generated by water leaks.
- Real-time signal of CO will prevent explosions in the dust settling chamber or bag house.
- Possible set-up of gap / dumpers position.
- Real-time signal of CO will prevent excessive release of CO in the atmosphere.

OPTIMIZATION

- Fine tuning of burners settings.
- High yield of CO combustion due to precise O_2 injection.
- High system functionality thanks to minimized maintenance design.
- All readings made on the real off-gas volume (no sampling, drying or filtering needed).
- Dynamic closed-loop control of burner and injection system by Q-MELT.

SAVINGS

- Maximum yield of oxygen requirements.
- Low maintenance cost (no filters, no driers installed).
- Reduced electric energy requirements as CO is combusted in the EAF shell.



LINDARC VS **LINDARC™ EVO**

	LINDARC™	LINDARC™ EVO
CO, CO_2 and H_2O analysis		●
Off-gas temperature measurement	●	●
Finger tips auto-cleaning system		●
Laser Heads auto-aligment system		●
Multiplex optical fiber transmission		●
Nitrogen purging not used		●

MORE

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