



RADAR LEVEL DETECTION

MEASUREMENT OF STOCKLINE HEIGHT OR LIQUID METAL LEVEL

BENEFITS

The Radar Level Detection provides non-contact measurement that is not influenced by operating temperature with no errors despite changing gas compositions. The small sensor unit provides maintenance-free operation and can be easily retrofitted into any existing furnace installation.

FIELD OF APPLICATION

Blast furnace auxiliaries - burden measurement, torpedo level measurement

FUNCTION

The radar level indicator system is a perfect solution to measure either the stockline height within the blast furnace or the liquid metal level in a torpedo car / ladle. The equipment incorporates the Primetals Technologies SITRANS LR560 unit in order to detect and indicate the general stockline or hot metal levels. The signal generated is used to trigger furnace charging operations or alternatively permit the operator to safely control the hot metal level during the drainage of liquid iron during tapping of the furnace.

The unit is mounted in a protective enclosure, supplied with both nitrogen purging to suppress dust ingress and to keep the unit cool and incorporated control valves to cool and clean the radar lens. In the case of stockline measurement, the protective enclosure is provided with a manual isolation valve for direct mounting onto the customer's branch on the furnace top cone. For liquid level measurement, the enclosure is designed to be mounted directly at the floor steelwork above the torpedo car.

PRODUCT MODEL RANGE

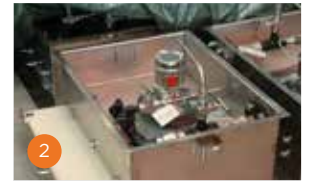
- Radar stockline detection
- Liquid iron level measurement in torpedo ladle or car



1 | Stockline radar recorder

2 | Torpedo car level recorder

3 | Recorder and valve



Technical data	
Measuring range	up to 100 m
Frequency	78 GHz FMCW
Measuring principle	FMCW radar level measurement
Communication / Programming	HART, PROFIBUS PA, SIMATIC PDM
Analogue output	optically isolated 4 to 20 mA

* SITRANS LR560 unit

SERVICES

- Integration engineering
- Erection advisory
- Commissioning advisory
- Logistics
- Spare parts

OTHER CUSTOMERS BOUGHT ADDITIONALLY

- Mechanical Stockline Recorder
- Above Burden Temperature Probe
- Profilemeter
- Ignition Lance

Primetals Technologies Ltd
A joint venture of Mitsubishi Heavy Industries and partners

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