



IGNITION LANCE

IGNITION OF NOXIOUS GASES EMITTED FROM THE BURDEN

BENEFITS

The Ignition Lance provides the means to ignite the gas generated by furnace burden by burning a supply of coke oven gas and compressed air. The aim is to reduce the levels of toxic gases in order to minimise the risk for maintenance personnel while carrying out work on furnace top equipment.

FIELD OF APPLICATION

Blast furnace - maintenance

FUNCTION

When the furnace is blown off the noxious gases emitted from the burden surface (stockline) must be ignited in order to reduce the gas hazard to personnel working on the furnace top platforms. The retractable ignition lance provides the means to ignite the furnace stockline. The Ignition Lance, mounted in the furnace top tower, burns a fuel/air mixture to provide a flame which can ignite the stockline gases. An entry hatch incorporated in the furnace top cone allows the lance body to be driven down into the furnace via a geared electric motor.

A semi-automatic ignition unit fitted to the lance generates a spark at the lance tip to ignite a mixture of fuel gas (usually coke-oven gas, but can be natural gas) and compressed air. The fuel / air mixture can be adjusted to suit the furnace atmosphere, and once the lance tip reaches the proximity of the stockline, the gases will ignite and burn in a controlled manner. Flame detection provides re-ignition in the event of flame failure.

PRODUCT STRUCTURE

- Ignition lance
- Electric or air motor driven



1 | Ignition lance drive

2 | Ignition lance

3 | Ignition lance tip

Technical data

Fabricated outer housing with moving inner lance

Chain-driven by electric motor or air motor

Emergency hand winch for emergency manual withdrawal

Coke oven gas and compressed air supply via a remote control valve station

SERVICES

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

Primetals Technologies

A joint venture of Mitsubishi Heavy Industries and partners

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