

PAUL WURTH SERVICING
BLAST FURNACE BLOW-DOWN ASSISTANCE


Dust / moisture pot on sampling lines from off-takes

EFFICIENT END OF CAMPAIGN PLANNING!

In case of a blast furnace shutdown realised in view of a revamping or major inspection, the crucial activity is to lower the burden down to tuyere level. This essential step for a safe campaign termination needs perfect preparation and planning.

During this operation, most of the coke inside the blast furnace is consumed, while the ferrous burden is reduced and tapped. Inside the furnace remains only hot metal accumulated in the BF sump below the taphole, called salamander, and the unconsumed coke contained in the "dead-man".

These processes have to be thoroughly monitored during the overall shutdown period, as potentially explosive conditions might occur inside the furnace given the high H₂-content resulting from the utilisation of top spray to control the top gas temperature.

Our blow-down assistance services

In order to achieve a safe, environmentally friendly as well as cost and time effective blow-down, **Paul Wurth** provides assistance to the plant operator by delivering following documentation:

- Definition of blast furnace operating set-points prior to blow-down
- Evaluation of burden descent and main operating set-points (blast flow rate and temperature, top pressure, etc.)
- Burden lowering procedure incl. BF stoppages
- Procedures to best manage auxiliary plants (i.e. stockhouse, gas cleaning plant, BF gas network, etc.)
- Risk analysis (HAZOP) in order to investigate all possible abnormal conditions
- Design of plant modifications and of provisional equipment

Considering all parameters

Paul Wurth performs this preparation work in a synergic interaction and with an analytic approach towards operating procedures, risk analyses and design of provisional equipment. Because it is fundamental to execute the BF blow-down in an organised manner, taking account of all possible operating conditions.



Headers and actuating valves at tuyere level



