SOPRECO® –
Single Oven Pressure Control
High gas emissions generated during the first phases of coke distillation as well as air suction through oven doors at the end of distillation time are always a crucial concern for coke oven battery operators.

Driven by this environmental challenge, Paul Wurth developed **SOPRECO** (Single Oven Pressure Control), a system able to control the pressure independently in each oven of the coke battery.

Thanks to the innovative SOPRECO system, the pressure in the collecting main can be maintained below zero, optimizing the suction effect during the first phase of the coking process.

Pressure regulation with SOPRECO guarantees a positive pressure at the base of the oven, even at the end of the carbonisation phase, thus avoiding air suction into the ovens.

**Description**

The valve is actuated in a continuous way by a hydraulic, pneumatic or electrical system, controlled by a PLC in function of the relevant oven pressure detected at the base of the ascension pipe.

The system includes for each ascension pipe:
- a special shape regulating valve
- a hydraulic/pneumatic/electrical actuator
- a pressure sensor
- a valve position sensor
- an insulating valve

Hardware and software for operating all ascension pipes complete the scope.
Main advantages

- up to 90% reduction of emissions (doors, lids, stand pipes)
- minimization of stack emission by reduction of leakage between oven and heating wall (due to reduced pressure difference between oven and heating walls)
- simple mechanical device
  - easy installation
  - easy operation
  - robust design for a long life time
  - low maintenance
  - easy adaptation to existing batteries for retrofit

Paul Wurth’s experience in cokemaking technologies assures the best solutions tailored to the customer’s requirements!
Engineering & Technology worldwide

The Paul Wurth Group is today one of the world leaders in the design and supply of complete plants, systems and processes as well as specialised mechanical equipment for

- **the iron & steel industry:**
  - Blast Furnaces & Auxiliary Plants
  - Coke Making Plants
  - Agglomeration Plants
  - Direct Reduction Plants
  - Environmental Protection, Recycling & Energy-Saving Technologies

- **other industries:**
  - Systems & Equipment for Non-Ferrous Pyrometallurgy, Electrometallurgy & Residue Treatment
  - Intralogistics Solutions for Heavy Loads
  - Engineering & Project Management for Civil Construction and Infrastructure Projects


© Copyright 2012-2015 Paul Wurth S.A. – all rights reserved
Non Contractual Data: Paul Wurth believes that the data contained in this folder are correct and accurate, but cannot guarantee same or better performances for any specific site without a detailed quote. Patents and Patents pending. — Paul Wurth equipment and processes are protected in many countries by patents.
Paul Wurth, the Paul Wurth Logo and SOPRECO are trademarks of Paul Wurth S.A. and may be registered in your jurisdiction.