Valves for Delayed Coking
Special Valves

Taking advantage of its long-standing know-how in designing and supplying special valves for severe operating conditions for metallurgical plants like blast furnaces, the Paul Wurth Oil & Gas division today develops, manufactures and distributes special valve solutions for refineries and petrochemical plants.

Automatic Bottom Unheading Valves

In the field of Delayed Coking process, Paul Wurth offers Automatic Bottom Unheading Valves tailored to your needs. Given the innovative design features, a patent application was introduced by Paul Wurth.

The unique Paul Wurth design combines the tightness of the classical Double Disc design and the low weight and small footprint of the classical single gate design.

The Paul Wurth Double Disc/Gate design with an external, active sealing force applied to the floating lower valve-body seat together with a circular shaped lower disc, guided by spherical caps, combines the advantages of the single-plate design with those of the double-disc design.

Subsequently, it offers an important innovation to the industry eliminating the disadvantages of competing classical concepts.

The new Paul Wurth sealing is a “floating” system, which is unaffected by any deformations caused by thermal stress or pressure issues.

The valves are available with different actuator systems, with hydraulic power and control units as well as with steam purge systems.

Typical Figures

- typical size 60”
- outside dimensions: 9,500 × 2,900 × 1,100 mm
- weight: approx. 42,000 kg
- operating temperature up to 550°C
- operating pressure up to 10 bar(g)
- actuation: hydraulic or electric

Other sizes, design features and/or operating features are available on request.
Key features

- Small footprint, light weight
- Special disc / gate design in combination with active, mechanical sealing force provides positive, tight shut-off when shut
- True Double Block and Purge performance within one valve body
- Open throughway without flow restrictions in open position
- Valve design according to customer demands and licensors/customers specifications
- Electrical, hydraulic or pneumatic options available for valve actuation
- On/off as well as modulating service possible
- Paul Wurth provides system package comprising Valves, Actuators, Hydraulic Power Station, Hydraulic manifolds, Steam Purge Systems and PLC control system out of one hand
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:**
  - Valve Solutions for Oil & Gas Downstream Processes
  - Solutions for Decentralised Energy Production
  - Intralogistics Solutions for Heavy Loads
  - Engineering & Project Management for Civil Construction and Infrastructure Projects

**Feasibility Studies** – **Conceptual, Basic and Detail Engineering** – **Project Management** – **Plant and Components Supply** – **Turnkey Projects** – **Assistance in Plant Assembly and Commissioning** – **Technology and Operations Consultancy** – **On-site and Remote Operational Assistance** – **After-sales Services**

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**Engineering & Technology worldwide**

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