



BLEEDER VALVES

SAFETY RELIEF VALVE FOR HOT AND DUSTY ENVIRONMENT

BENEFITS

Proven design over 20 years of operation with over 90 operating references. The Bleeder Valve with its outward opening valve and with seats and operating mechanism out of gas flow, is the only genuine safety relief valve on the market. The hydraulic valve with triple opening operation responds to over-pressure with its over centre spring system allowing emergency relief via mechanical blow-off. A dual self-aligning seat arrangement provides a primary metal to metal seal with secondary metal to rubber seal. All seats are designed to be replaced in-situ.

FIELD OF APPLICATION

Blast furnace - top gas system
Corex and Finex - Melter gasifier

FUNCTION

The Bleeder Valve is a specialised safety relief valve for the hot and dusty environment of a blast furnace top gas situation. Typically 3 or 4 valves in total are mounted at the top of the dirty gas system (the highest point of the downcomer) and protect the furnace from accidental overpressurisation.

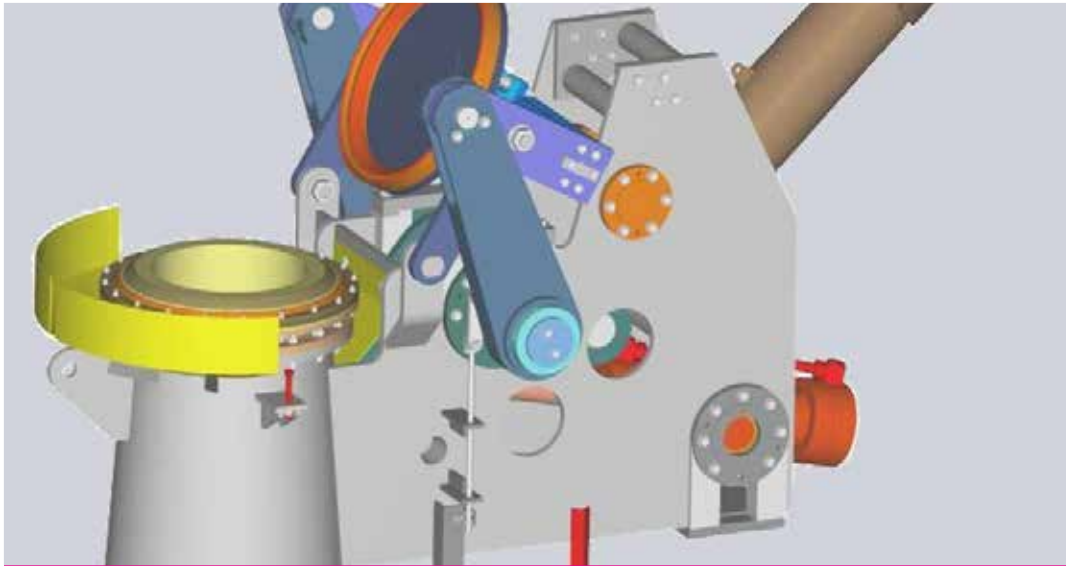
The operation of the Bleeder Valve is performed by a hydraulic cylinder built into the design of the valve. The valve is opened by the hydraulic cylinder when the furnace control system senses a rise in pressure above a pre-set value via pressure sensors in the uptakes of the blast furnace. The control system opens the valve to its fully-open position in order to relieve the pressure. The valve will then only return to its closed position upon receipt of a "close" signal from the control room. In the event of a hydraulic or electric failure and a pressure increase in the blast furnace, the bleeder valve will open when the furnace pressure exceeds the mechanical pre-set value of the spring nest.

PRODUCT MODEL RANGE

- Valve - hydraulic disc spring type - up to 5.5 bar (g)
- Valve - hydraulic disc spring type - 1.0 to 3.0 bar (g)
- Valve - hydraulic counterweight type - up to 1 bar (g)

PRODUCT FEATURES

- Hydraulic nip - 5 sec. load applied for good valve seating
- Nitrogen purge on lid when valve is closing to clean seat
- External deflector plate for personnel safety



1 | Corex - Finex safety valve

2 | BF disc spring valve

3 | BF Counterweight valve

Technical data*	
Opening time	6 sec.
Closing time	8 sec.
Design pressure	3 bar
Valve operation	Hydraulic Cylinder

* Valid for all variants

SERVICES

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

OTHER CUSTOMERS BOUGHT ADDITIONALLY

- Purge bleeder valve ø 500 mm
- Corex / Finex Safety Valve ø 535 mm

Primetals Technologies
A joint venture of Mitsubishi Heavy Industries and partners

Ashmore house | 7 Fudan Way |
Thornaby Stockton-on-Tees | TS17 6ER
primetals.com

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