



EQUALISING AND RELIEF VALVES

EQUALISING AND RELIEF SYSTEM

BENEFITS

Equalizing and Relief Valves are suitable to withstand high gas temperatures in emergency conditions. The flap type valve seal and lid are protected from damage and erosion from the unrestricted passing gas flow as it acts as an “open pipe” for the gas flow conditions.

FIELD OF APPLICATION

Blast furnace – equalizing and relief system

FUNCTION

For modern high-pressure blast furnace operation, a system that pressurizes the material hoppers in order to charge the burden material into the furnace is required. Primetals Technologies has designed two kinds of equalizing valves for different equalizing and relief layouts. The valves are situated in the furnace top area and are typically mounted with a slide valve or goggle valve for isolation during maintenance. All these valves are operated using a hydraulic cylinder.

Flap type valves have a swinging flap, which can be tilted by approximately 90 degrees from open to closed position. The valve is designed for a layout where direct gas flow is required. When open, the valve lid is positioned away from the direct gas flow path. Plug type valves are vertically mounted plug (mushroom) valves, which open and close in straight-line motion against a machined seat. The valve is designed for a layout where a 90° change in gas flow is required.

PRODUCT MODEL RANGE

- Flap type E&R valve ø 300 mm
- Flap type E&R valve ø 400 mm
- Flap type E&R valve ø 500 mm
- Plug type E&R valve ø 500 mm



1 | Flap type E&R valve Ø 300 mm



1



2



3

2 | Hydraulic operation

3 | Plug type E&R valve

Technical data

Opening time	4 sec.
Closing time	4 sec.
Design pressure	3.0 bar
Valve operation	Hydraulic cylinder
Gas temperature	Nominal 80°C
Gas temperature	Maximum 200°C

SERVICES

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

OTHER CUSTOMERS BOUGHT ADDITIONALLY

- Gas recovery valves Ø 500 mm
- Gas recovery valves Ø 600 mm

Primetals Technologies

A joint venture of Mitsubishi Heavy Industries and partners

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