

EQUALIZING AND RELIEF VALVES

SAFE AND RELIABLE SEALING FOR CHARGING OPERATIONS

YOUR CHALLENGE

Equalizing and relief valves control the gas flow to and from the material hoppers when charging modern, high-pressure blast furnaces. Key features are reliability of sealing operations 24/7, with the ability to withstand high gas temperatures in emergency conditions

OUR SOLUTION

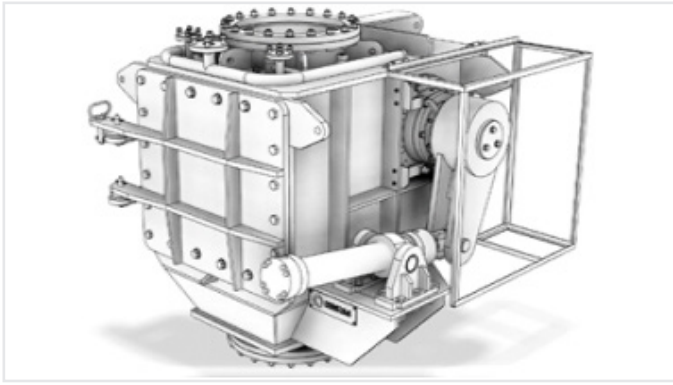
Designed in accordance with the current Pressure Equipment Directive (PED) requirements, Primetals Technologies offers two variants of equalizing and relief valves for differing layout scenarios. The valves are located in the furnace top area and are typically mounted with a slide or goggle valve isolation to allow for maintenance. All valve types are hydraulic cylinder actuated.

THE TECHNOLOGY PRINCIPLE

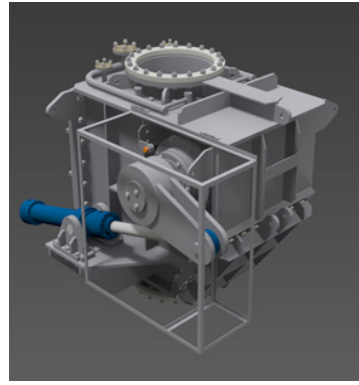
Flap type valves have a swinging flap, which can be tilted by approximately 90 degrees from open to closed position. The valve is designed for straight-line duct arrangements. When open, the valve lid is positioned away from the direct gas flow path.

Plug type valves are vertically mounted plug valves, which open and close in straight-line motion against a machined seat. These valves are utilized when layout demands a 90° direction change in gas flow.

**DESIGNED IN
ACCORDANCE
WITH THE
PE DIRECTIVE**



Flap-type valve with side door maintenance access



Flap-type valve



Plug-type valve

PRODUCT FEATURES

- Steam heated and nitrogen purged seat prevents dust build up
- Cone/spherical metal to metal seats or bull nose/soft seal options to suit customer requirements
- Hydraulic cylinders can be changed without entering the pressure envelope

PRODUCT MODEL RANGE

- Flap type equalizing and relief valves are available in the following diameters:
 - \varnothing 300 mm, \varnothing 400 mm, \varnothing 500 mm
- Plug type equalizing and relief valves are available \varnothing 500 mm

TECHNICAL DATA

Opening time	4 sec
Closing time	4 sec
Design pressure	3.0 bar standard (higher available)
Valve operation	Hydraulic cylinder
Gas temperature	Nominal 800°C
Gas temperature	Maximum 2000°C

MAIN BENEFITS

- Highly reliable
- Low dust build up
- Secure sealing
- Ease of maintenance

Primetals Technologies Ltd
A joint venture of Mitsubishi Heavy Industries and partners

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