VALVES





VALVES overview

Combining years of experience, proven technology and the newest innovations, Woodings leads the way in the development of leading-edge blast furnace valves.

As a recognized world leader in the design and manufacture of hot metal equipment, Woodings has the experience and technical know-how to meet any valve need. We can provide you with a full complement of stove and blast furnace valves that can take the heat and deliver superior performance over the long haul.

And we can do that anywhere in the world.



HOT BLAST VALVES

Woodings hot blast valves are the strongest on the market and are designed to withstand free-standing pressure test with no structural back up support required. As North America's leading provider of new and reconditioned valves, Woodings can supply you with a variety of valve operators including hydraulically or electromechanically driven valves with a manual back up system.



CHIMNEY VALVES

GOGGLE VALVES

To match your requirements, Woodings offers both gate type and elbow type chimney valves. The operators may be electro-mechanical or hydraulic with a manual back up.



Features & options:

- Seat bodies are produced from pressure vessel carbon steel
- For sealing, Woodings offers high temperature shaft/stem packing assemblies and metal-to-metal seats between disc and valve body seat
- Relief port may be built in to eliminate need for blow-off valve
- · Overlay on disc and valve seats

DUST CATCHER VALVES

These valves are designed for use at the bottom of the dust catcher to periodically empty the dust from catcher. Because of the severe environment, Woodings pays special attention to the disc and valve seats to ensure durability and long life.

Features & Options:

- Hydraulic or manual valves with stainless steel slide gates
- Grease design to improve long-term usage

Used as isolation valves for maintenance work or when furnace is at a stop. The positive shut-off prevents downstream leakage of gas.

Features & Options:

- Enclosed type or open type
- Mechanical, hydraulic or thermal valves
- The plate is manufactured from stainless steel with rubber seats on both the open and closed rings
- Valve seats have overlay protection
- Goggle valve disc may be pivot or gate type

BURNER VALVES

Fabricated from pressure vessel carbon steel, these valves utilize high-velocity water cooling to help prevent material fallout.

Features & options:

- Gate type shut off valve
- Valve seats and disc seats are produced from alloy forgings
- Built to withstand freestanding pressure test
- Overlay on disc and valve seat
- Adjustable wedges to seat disc
- Operators: electro-mechanical or hydraulic with manual back up



EQUALIZING AND **RELIEF VALVES**

Features & Options:

- Manufactured from pressure vessel carbon steel
- Serpentine body design for high water velocity, which improves cooling capability and minimizes material build up
- Valve seats and disc seats are produced from alloy forgings

High efficiency HBV

- Water cooling in disc and valve seat area
- Refractory lined valve body and bonnet
- High velocity water passage minimizes settlement of material from cooling water
- Normally used with closed loop water systems
- Effective design for once-through water system

Fully water cooled HBV

- For once-through water systems with high velocity water flow
- · Entire valve is water cooled
- High velocity water passage minimizes settlement of material from cooling water
- · Particularly efficient when used with oncethrough water systems
- Water-cooled bonnet using the water from the valve body
- The throat and disc are refractory lined

HBV Drive Options

- · Hydraulic cylinders with separate hydraulic system
- Self contained electro hydraulic linear actuators
- Electro-mechanical drives

Woodings offers a unique design and engineering breakthrough for E & R valves—an integrated manhole access door. Maintenance time and cost are slashed, and efficiency increases dramatically.

Features & options:

- Pneumatic operation

• Hydraulic operation

BACK DRAFT VALVES

Woodings' back draft valves utilize the same efficient, reliable design as our hot blast valves. Designed as fully water-cooled or high efficiency.

BLEEDER VALVES

LEVER VALVES



The opening mechanism is actuated by a hydraulic cylinder and features an over-center spring assembly, providing automatic pressure relief. Once open, the valve lid is positioned out of the gas flow.

Features & Options:

- Diameters up to 31" (800mm)
- Manual override available
- Available with non-hydraulic counterweight that opens from pressure

OFFSET BUTTERFLY VALVES

Offset design does away with the need for a rubber lined body that wears very quickly. The Woodings valve is rubber seated for positive shutoff.

Features & Options:

- Eccentric shaft design
- Pressure vessel quality steel
- Counterweighted to close

These valves are used in gas mains and air combustion mains to the mechanical or ceramic burners. Cold blast valves are provided with bypass for pressurization of stove while chimney valves are provided with bypass for relief of stove pressure.



Features & options:

- Pressure vessel carbon steel to produce valve bodies and discs
- A stainless steel overlay is used for both the valve body seat and disc seat
- A high temperature o-ring or rope packing seal is used on the disc seat. Some valves will be metal to metal seats
- Robust design for valve linkages, pins, and bushings translates into long service life
- Stainless steel valve pins and hardened steel bushings contribute to long life and superior performance
- Full shop operation and pressure testing ensures proper valve operation and seat/disc sealing
- Hydraulic, pneumatic or electro-mechanical drives available

Bringing the most reliable, most innovative hot metal equipment to applications around the globe.

Woodings' 100 years of experience has led to expertise that can make a difference in your operation. Our involvement in all aspects of the hot metal process has provided Woodings with a profound understanding of the mechanical and environmental requirements. We design our equipment to meet those requirements. The result: new and improved products that consistently meet the ever-changing needs of iron and steelmakers.

If you need it, we can make it.



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