

SAFETY VALVES, RELIEF VALVES AND SAFETY AND RELIEF VALVES

These valves work to release overpressure in a piping system. **WALWORTH** offers these kinds of valves as a solution for the automatic release of pressure from either a boiler, pressure vessel or other systems when the pressure or temperature exceeds preset limits.

WALWORTH offers the following types of valves:

a) Safety Valves.- These valves are made from Bronze and used for gas and steam only. Its main use is to relieve the pressure from the system such as boilers, autoclaves, compressors, steam generators, pressure vessels, bronze air or gas pipelines.

b) Relief Valves.- This type of valve is typically made from Bronze and used only for water service. Its purpose is to release of pressure acting due the static pressure of the liquid against the vessel or container, releasing the pressure accordingly with the increase of pressure over the opening pressure, protecting the equipment or system of damage. Only used for liquids it is commonly used in bronze tanks, pipelines or other vessels where is not required a big relief capacity.

c) Safety and Relief Valves.- This design is made from carbon steel, or stainless steel and may be used for any fluid (gas, steam or water). This is a valve which automatically releases the pressure when the over pressure is achieved and can be used as a Safety Valve or a Relief Valve depending on application.

WALWORTH offers an array of materials used for this product line, including but not limited to:

- For Safety Valves and Safety and Relief Valves:
 - a) Bronze as per ASTM B62 grade 83600.
- For Safety and Relief Valves:
 - b) Carbon Steel such as WCA, WCB, WCC, etc.
 - c) Stainless Steel such as CF8, CF8M, CF8C, etc.
 - d) Low Carbon Stainless Steel such as CF3, CF3M, CG3M, etc.

We offer a variety of trim materials including but not limited to the following:

- a) Bronze trim for Bronze valves.
- b) Stainless Steel trims for carbon steel or stainless steel body.

DESIGN FEATURES

For Safety valves (Gas or steam service).

- Lateral discharge (to the pipeline).
- NPT threads, in accordance with ANSI B1.20.1.
- Minimum calibration pressure 0.35 Kg./cm² (5 psig).
- Maximum operation pressure with steam 250 psig to 300 psig.
- Maximum operation pressure with air or gas 300 psig to 350 psig.

For Relief valves (non corrosive bronze liquid service).

- Lateral discharge (to the pipeline).
- NPT threads, in accordance with ANSI B1.20.1.
- Minimum calibration pressure 0.35 Kg./cm² (5 psig).
- Maximum operation pressure with steam 300 psig except for 3" which is 150 psig.
- Maximum operation temperature 406°F (208°C).

For Safety and Relief valves (Air, Gas or liquid service depending on application required).

- Conventional, Bellows, soft seat, open bonnet, closed bonnet designs as per Customer requirement.
- Metal to metal seat or soft seat (resilient).
- High capacity for pressure release.
- Stainless Steel trims.
- Bellow design with pressure compensator which cancel the backpressure effect.
- Flanged ends as per ASME B16.5 or threaded ends as per ASME B1.1.
- Orifices from D to T.



PRODUCT RANGE

TYPE	SIZE	PRESSURE CLASS	ENDS
Safety Valves Bronze	1/2" to 2 1/2"	250 to 300 PSIG (Steam), 350 (Air or Gas)	Threaded
Relief Valves Bronze	1/2" to 3"	300 PSIG Except 3" which is 150 PSIG.	Threaded
Safety And Relief Valves Steel	3/4" X 2" to 8" X 10"	150 X 150, 300 X 150, 600 X 150 PSIG.	Threaded, socket weld or RF or RTJ
Safety And Relief Valves Steel *	3/4" X 1" to 2" X 2"	2000 to 5000 PSI	Threaded, socket weld or RF or RTJ

*Only for open or closed Bonnet design.