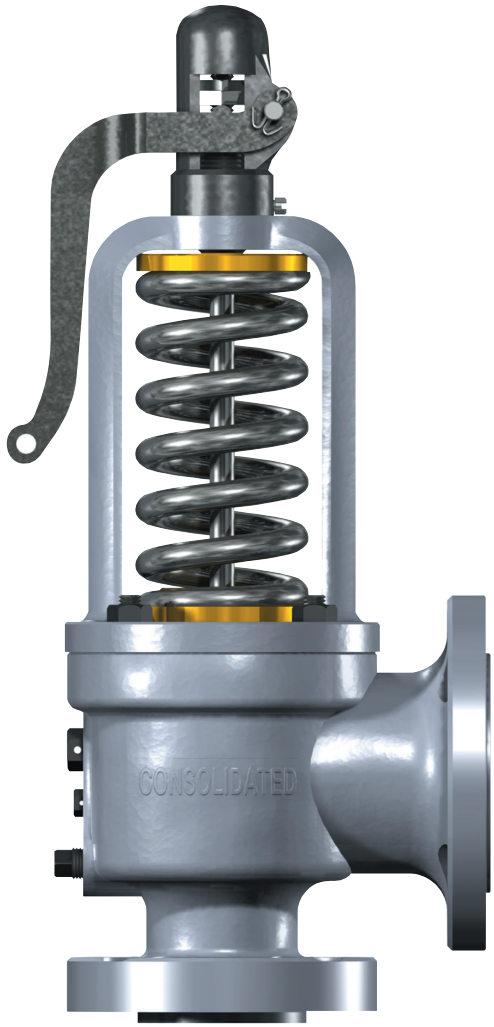
Consolidated

a Baker Hughes business

1811 Series Safety Valve

The **Consolidated™** 1811 Series Safety Valve is a cost-effective, high-capacity, flanged steel safety valve designed for steam service.



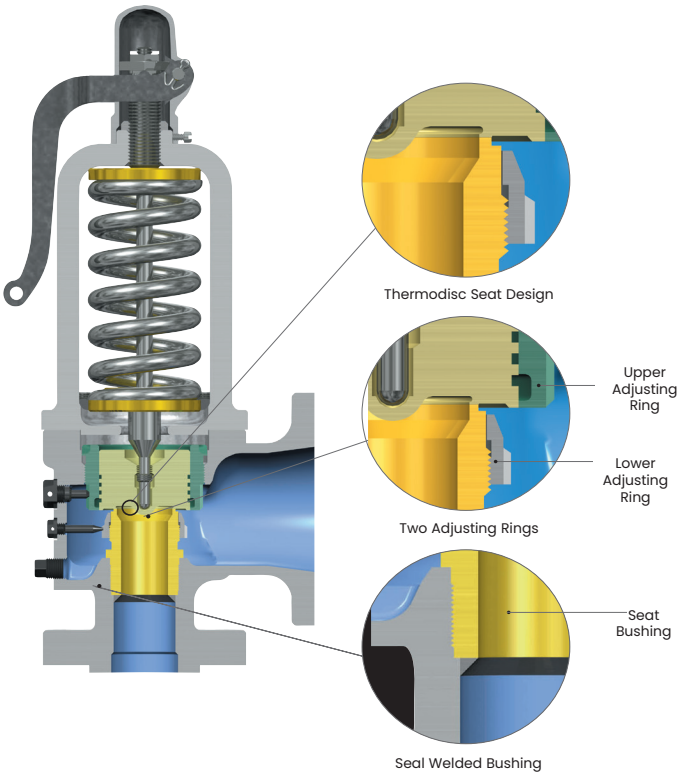
Features and Benefits

- A variety of pressure/temperature classes, orifice sizes and inlet/outlet combinations provide a flexible selection of safety valves to meet industrial needs at the lowest cost.
- Low spindle bearing point and concentric spindle loading virtually eliminate the natural tendency for the disc to assume a horizontal position during the opening and closing cycle of the valve.
- The mechanical flexibility of the thermodisc allows the system pressure to assist in sealing the contact surface between the valve seat and thermodisc.
- Seal welding the seat bushing into the base assures no leakage of steam past the threaded area of the seat bushing.
- Dual ring adjustments allow fine tuning of the safety valve performance characteristics needed to meet the steam system conditions that vary at each installation. A sharp, clean opening assures long valve seat life and reduced maintenance costs. Consistent opening and closing pressures contribute to efficient steam system operation.

Note:
Because the 1811 Series valve is not totally enclosed, upon actuation the system media will escape from the following locations:

1. The valve outlet that is the main discharge area.
2. The open yoke, which will also allow a small amount of steam to exhaust vertically.
3. The drain hole at the base of the valve.

Specifications



Inlet Sizes	1.25″ (31.75 mm) through 6″ (152.4 mm) flanged
Inlet Ratings	ASME Class 150, 300 and 600
Outlet Sizes	1.5″ (38.1 mm) through 8″ (203.2 mm) flanged
Outlet Ratings	ASME Class 150
Orifice Sizes	Ten sizes: F through Q
Temperature Range	-20°F to 1000°F (-28.9°C to 537.8°C)
Materials	Alloy and carbon steel cast body with stainless steel trim is standard.
Certifications	ASME B&PVC Section I (V Designator) and XIII (UV Designator)
Blowdown	4 percent
Back Pressure Limit	20 percent of Set Pressure

Maximum Set Pressure[1,2]

Temperature			Pressure Class					
°F	°C	Valve Temp Class	150		300		600	
400	204	1811B	200	13.79	320	22.06	725	49.98
750	399	1811B	95	6.55	320	22.06	725	49.98
950	510	1811D	N/A	N/A	320	22.06	640	44.12
1000	538	1811D	N/A	N/A	215	14.82	430	29.64

1. For intermediate temperatures, interpolation is permitted per ASME B16.34, 1996 edition, paragraph 2.1.
2. For set pressures higher than those listed, factory approval is required.

Baker Hughes

Copyright 2025 Baker Hughes Company. All rights reserved.