

Consolidated™ 1900/P Series Safety Valve

With the Educator Tube Advantage™

The Consolidated 1900/P Series Safety Valve is designed to easily adapt to a wide variety of application requirements.

Features & Benefits

- **Low cost of ownership** – Heavy duty construction provides longer valve service life, reduced maintenance costs, and easy valve conversions.
- **Simplified conversion** – Design flexibility and parts interchangeability accommodate process changes by simplifying conversion to a variety of designs.
- **Improved leak protection and safety** – A soft seat design feature helps keep the valve leak free at 95 percent of set pressure over 100 psig., while a backup metal seat provides additional safety.
- **Enhanced seat tightness** – The patented *Thermodisc*™ Seat (standard on the 1900/P1 and 1900/P3 Series valves) delivers enhanced seat tightness.
- **Compliance to the latest edition of API Standard 526** – When required for replacement, Consolidated 1900/P Series valves are also available with connections and dimensions in accordance with supplanted API Standard Third edition 1984 and prior editions.



Consolidated

a Baker Hughes business

Scope of Design

The Consolidated 1900/P Series Safety Valves are designed for ASME B and PVC, Section I Steam Economizer applications and organic vapor service applications only. Standard in all three types, the Thermodisc Seat feature of these valves provides a high degree of seat tightness for steam service or organic fluid applications.

Note: For liquid only Economizers, refer to the 1900 and 2900 Series "LAI" options.

1900/P1 Series (Conventional Design)

Exclusive to Consolidated valves, an Eductor Tube removes pressure from the bonnet when the valve is open.

1900-30/P1 Series (Balanced Bellows Design)

The balanced bellows design offers a cost-effective solution that significantly reduces the negative effects of variable or constant back pressure at the outlet side of the valve. In order to protect internal components above the bellows from exposure to process fluid, the guiding area and upper valve parts are sealed off.

1900/P3 Series (Exposed Spring Design)

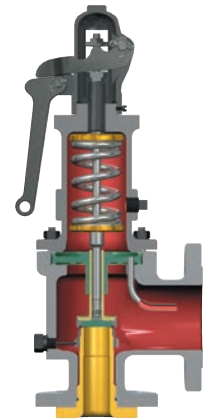
The spring in this design is exposed to allow for atmospheric cooling.

Specifications

Inlet Sizes	1 inch through 8 inch (25.4 mm through 203.2 mm)
Inlet Ratings	ASME Class 150 through 2500
Outlet Sizes	2 inch through 10 inch (50.8mm through 254mm)
Outlet Ratings	ASME Class 150 and 300
Orifice Sizes	14 sizes: D through T ¹
Temperature Range	-90°F to 850°F (32°C to 454°C)
Materials	Cast-carbon steel body with stainless steel trim (standard)
Certifications	ASME B and PVC, Section I - Material (Steam Service) ASME B16.34 and ASME B16.5 API 520, 526 and 527 ISO 4126 NACE MR0103-2003 Standard Material Requirements

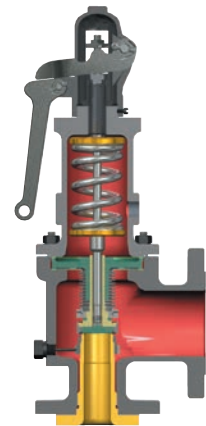
1. The D and E orifice sizes are restricted lift in the 1900/P1 and 1900-30/P1 Series valves.

1900/P1 Series



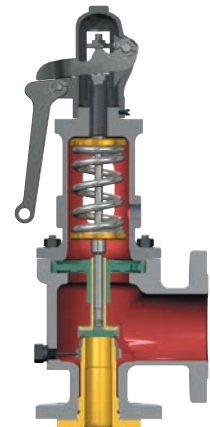
Conventional Design

1900-30/P1 Series



Balanced Bellows Design

1900/P3 Series



Exposed Spring Design

Baker Hughes 