# Consolidated

a Baker Hughes business

1900/P Series Safety Valve

With The Eductor 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.
- 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.



# 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 "LA1" 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<sup>1</sup>

Temperature Range -90°F to 850°F (32°C°C to 454°C)

Materials Cast-carbon steel body with stainless steel trim

(standard)

Code & Standards ASME B and PVC, Section I

ASME B16.34 and ASME B16.5

API 520 and 527

ISO 4126

NACE MR0103-2003 Standard Material Requirements

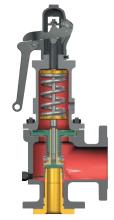
1. The D and E orifice sizes are restricted lift in the 1900/P1 and 1900-30/P1 Series valves.

#### 1900/P1 Series



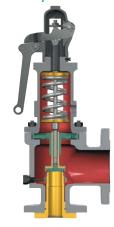
Conventional Design

### 1900-30/P1 Series



Balanced Bellows Design

#### 1900/P3 Series



**Exposed Spring Design** 

