



# Consolidated\* 1900/P Series Safety Relief Valve

## Overview

The Consolidated 1900/P series safety relief valve from GE 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 API Standard 526-2002. These valves comply with API Standard 526 Fifth edition, 2002. 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.



## 1900/P Scope of Design

The Consolidated 1900/P series safety relief valves are designed for ASME B and PVC, Section I steam and flashing water 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: The 1900/P1 and 1900/P3 series designs are not intended for ASME B and PVC, Section I boiler drum, superheater or reheater applications.*

### 1900/P1 Series (Conventional Design)

Exclusive to GE's 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

<b>INLET SIZES</b>	1 inch (25.4 mm) through 8 inch (203.2 mm)
<b>INLET RATINGS</b>	ANSI Class 150 through 2500
<b>OUTLET SIZES</b>	2 inch (50.8 mm) through 10 inch (254 mm)
<b>OUTLET RATINGS</b>	ANSI Class 150 and 300
<b>ORIFICE SIZES</b>	Fourteen sizes: D through T

*Note: The D and E orifice sizes are restricted lift in the 1900/P1 and 1900-30/P1 series valves.*

**TEMPERATURE RANGE** 90°F (32°C) to 850°F (454°C)

**MATERIALS** Cast carbon steel body with stainless steel trim is standard.

### CERTIFICATION

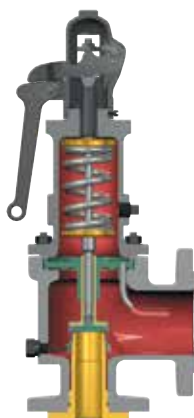
ASME B and PVC, Section I - Material (Steam Service) ASME B16.34 and ASME B16.5

API 520, 526 and 527

ISO 4126

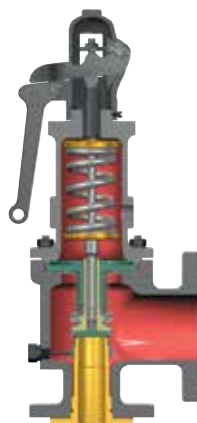
NACE MR0103-2003 Standard Material Requirements

1900/P1 Series



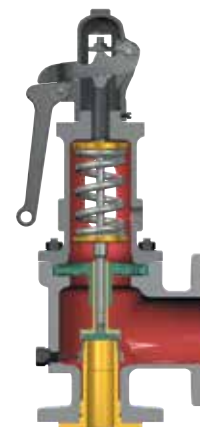
Conventional Design

1900-30/P1 Series



Balanced Bellows Design

1900/P3 Series



Exposed Spring Design

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