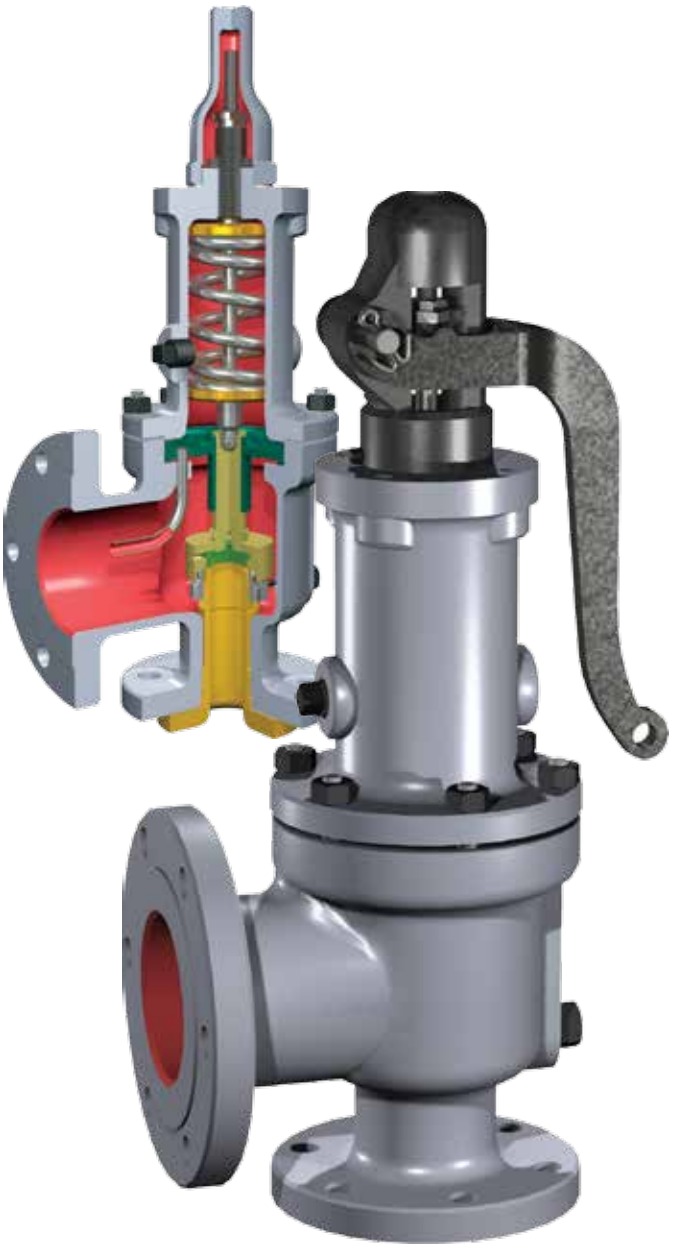
Consolidated* Products 1900 Series Safety Relief Valve

1900 Series - Conventional Design

The highly adaptable Consolidated 1900 series safety relief valve from GE Oil & Gas is designed to meet a wide range of industrial applications.



Specifications

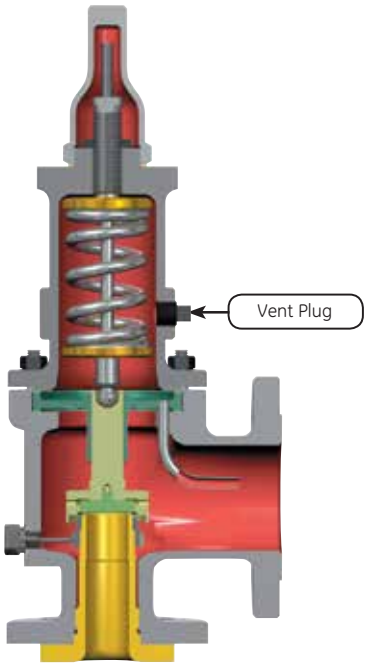
INLET SIZES	1” (25 mm) through 12” (305 mm)
INLET RATINGS	ASME Class 150 through 2500
OUTLET SIZES	2” (50 mm) through 16” (406 mm)
OUTLET RATINGS	ASME Class 150 and 300
ORIFICE SIZES	Seventeen sizes: D through W
TEMPERATURE RANGE	450°F (-267.8°C) to 1500°F (815.6°C)
MATERIALS	Cast-carbon steel body with stainless steel trim (standard) Optional materials available

Features

- Heavy-duty construction offers low cost of ownership by promoting a longer valve service life, lower maintenance costs and easy valve conversions.
- Design flexibility and parts interchangeability accommodate process changes through easy conversion to a variety of designs.
- An optional bellows design is a cost-effective solution that compensates for the effects of variable back pressure.
- A soft seat design enables the valve to remain leak free at 95 percent of set pressure over 100 psig (6.89 barg) with a back-up metal seat for additional safety and minimized product loss.
- Available with open bonnet for high temperature applications.

API Standard 526

- Pressure relief valves specified in this fact sheet comply with the latest edition of API Standard 526.
- When required for replacement, GE’s Consolidated 1900 valves are available with connections and dimensions in accordance with supplanted API Standard 526 sixth edition 2009 and prior editions.

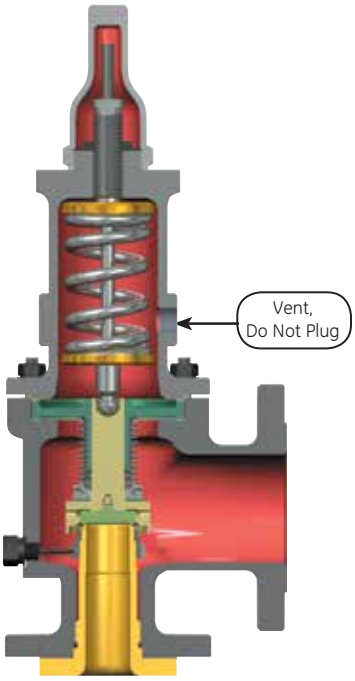


1900 Series—Conventional

This standard, rugged configuration of the 1900 series valve is equipped with stainless steel trim and a carbon steel body, bonnet and cap. The components are top guided, promoting free and repeatable action.

The flat disc seat offers easy maintenance and re-machining. Additionally, the Eductor Tube Advantage* minimizes bonnet cavity pressure for predictable product performance.

The full nozzle design allows for rigid construction and corrosion-resistant flow path and seat.



1900-30 Series - Balanced Bellows

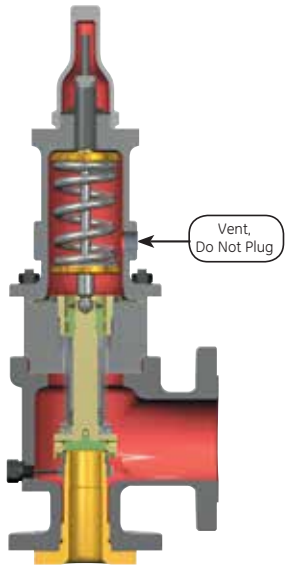
This valve is the same as the conventional design except it includes a balanced bellows. The installation of a bellows requires removal of the eductor tube.

It is necessary to add a bellows to the conventional valve to deal with several possible situations:

1. When superimposed variable back pressure at the outlet is greater than 10% of the set pressure or cold differential set pressure, a bellows is required. A bellows is also necessary if built-up back pressure exceeds 10 percent of the set pressure or cold differential set pressure.
2. If the process media is slurry, highly viscous or of a nature that it can enter the critical clearances between the guides and disc holder, protect that area with a bellows.
3. If the process media is corrosive to the valve's upper works, isolate the bonnet chamber with a bellows.

The 1900 series conventional relief valve can easily be converted to a 1900-30 series balanced bellows or visa-versa.

All Consolidated 1900-30 series valves are balanced bellows designs, meaning that they compensate for the effects of back pressure.



1900-35 Series Balanced Bellows

(with Auxiliary Balancing Piston)

The balanced bellows seals the body and fluid stream from the bonnet and working parts. An auxiliary balancing piston provides redundant back pressure balancing in the event of a bellows failure.

Product variations:

Product Variation	Description
1900	Conventional
1900-30	Bellows Construction
1900-35	Balanced Bellows with Auxiliary Balancing Piston
1900HA	Special Materials for Hydrofluoric Acid Service
1900N*	NACE™
1900DA	Soft Seat
1900LA	Liquid Trim with Metallic Seats
1900DA - LA	Liquid Trim with Soft Seats
1900TD	Special Trim for Steam and Organic Heat Transfer Media
1900-UM	Single Trim for both liquid and gas or multi-phase applications
1900-UM-CD	Reversed Thermolip Disc for Cryogenic applications

*C1900-SRV Tech. Spec. for NACE options

Note: Unless otherwise stated, the 1900 series safety relief valve is always supplied with a screwed cap. The exception to this is where ASME B & PVC, Section VIII requires levers for steam, air, and hot water service over 140°F (60°C).

Refer to the 1900-SRV Tech-Spec for available types of caps, levers, and accessories.

Standards and Regulation Compliance

Standard/Regulation	Authority	Applicability
ISO 9001	International Organization for Standardization (ISO)	Standard
ISO 14001	International Organization for Standardization (ISO)	Standard
ASME B & PVC, Section VIII (Gas, Liquid & Steam Service)	American Society of Mechanical Engineers	Standard
ASME B16.34	American Society of Mechanical Engineers	Standard
ASME B16.5	American Society of Mechanical Engineers	Standard
API 520, 521, 526, 527	American Petroleum Institute	Standard
CRN	Canada	As Required
NACE MR0175	Nace International Institute	As Required
NACE MR0103	Nace International Institute	As Required
PED 97/23/EC	European Union	As Required
ISO 4126-4	International Organization for Standardization (ISO)	As Required
Customs Union Technical Regulation (CU TR)	Customs Union	As Required
AQSIQ - China Manufacturing License	Peoples Republic of China	As Required
Australian Standards	Council of Standards Australia	As Required
NORSOK	Norwegian Petroleum Industry	As Required
ATEX 94/9/EC Zone 2 Group 2 Category 3	European Union	As Required
49 CFR 192.199	U.S. Department of Transportation (D.O.T.)	Standard
Korean High Pressure Gas Safety Control Act	Korea	Standard

GEA19546B (12/2014)