Delivering safety and reliability for power plant boilers

How every dollar invested in PRV can protect $100 of a boiler system

Customer Challenge

- Over-pressure level in boilers can lead to catastrophic damages
- Regulatory penalties, loss of production and unplanned shutdowns can cost millions of dollars

Emerson Solution

Emerson's trusted pressure relief valve range offers:

- ISOFLEX® design provides unmatched seat tightness
- World-class steam testing and global service network
- Compliance with industry regulatory standards

Crosby™
Style HCA-I

Customer Benefits

Pressure Relief Valve range

Emerson's proven, reliable PRV solutions combine unparalled technical expertise with deep applications knowledge for the best power plant protection.

Capex Benefits

- Each dollar value invested in PRV is to protect a hundred dollar value of a boiler system
- For example, a 1000 MW boiler typically costs US$ 77 million, while one PRV package for the boiler costs US$ 0.7 million

Opex Benefits

- Reduce product loss
- Keep operating costs under control
- Improve overall safety and reliability of the plant

EMERSON™

Meeting all your pressure relief needs

Crosby™ Style HCI ISOFLEX®

The HCI provides exacting protection for boiler drums and super-heaters, reheaters or any other high pressure steam applications. Available with restricted lift for full flexibility according to the needs of the application.

Seat tightness 93% of set pressure or higher.

Two control rings design.

ISOFLEX® seat design technology.

Weld end valves shipped as two assemblies to minimize installation time and labor. Restricted lift from 100% to 30% (HCI-R).

Full flexibility to balance the relieving capacity requirements between the boiler valves.

Technical Data

Sizes:
1 1/2 x 3 to 6 x 10 in. /
DN 40 x 80 to150 x 250

Set Pressures:
Up to 3000 psig / 207 barg

Temperature Range:
Up to 1120°F / 604°C

Connections:
ANSI flange inlet and outlet
Butt-weld inlet with ANSI flange outlet

Applications

Boiler drums and super-heaters, reheaters.

Saturated and super-heated steam.

Global Standards

ASME Section I
ASME Section VIII
ISO EN4126

Anderson Greenwood™ Series 5200

Developed specifically to address economizer applications requiring premium performance on both steam and hot water mixed phase.

Being a fully modulating pilot operated pressure relief valve, the Series 5200 is the ideal solution to this difficult application.

Metal seat tightness to 96% of set.

Non-flowing full modulating pilot.

Unique condensate trap to handle changing service conditions between steam and water. Field test connection, and complete scope of accessories and configurations.

Technical Data

Sizes:
1 1/2 x 2 to 8 x 10 in. /
DN 40 x 25 to 200 x 250

Set Pressures:
Up to 6250 psig / 431 barg

Temperature Range:
Up to 1000°F / 538°C

Connections:
ANSI flange inlet and outlet

Applications

Economizer.

Saturated steam.

Hot water.

Global Standards

ASME Section I (Economizer)
ASME Section VIII
ISO EN4126

Sempell™ Type EPRV

This power-actuated relief valve provides venting capacity as required for ASME I boilers.

The SEP valve is pneumatically actuated by the STE8 control unit for total control of the performances of the valve.

Forged body construction.

Helical or disc spring.

Adjustable small opening and closing pressure difference.

Adjustments and checks possible without lowering the system pressure.

Easy in-line maintenance.

Technical Data

Sizes:
2½ x 4 in. / DN 65 x 100
with 3 different nozzle sizes available

Set Pressures:
Up to 7250 psig / 500 barg

Temperature Range:
Up to 1300°F / 700°C

Connections:
Flanges, ANSI or DIN / EN
Butt-welded inlet and outlet

Applications

Steam boilers venting.

High pressure steam venting.

Global Standards

ASME Section I
ISO EN4126

Email PressureManagement.AP@Emerson.com for queries or details.

EMERSON™