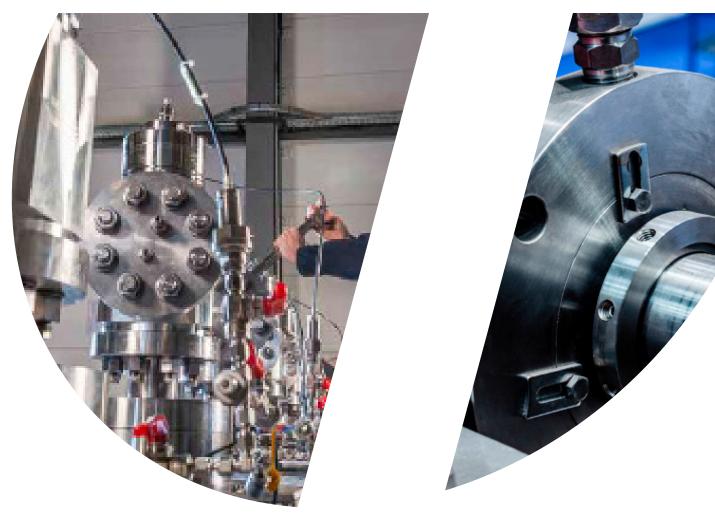
# SEBIM® PILOT OPERATED PRESSURE RELIEF VALVES





TRILLIUMFLOW.COM





### MAIN STREAM LINES OVERPRESSURE PROTECTION

### **RCS RHR OVERPRESSURE PROTECTION**



### **RCS RHR OR SMR MAIN STREAM LINES OVERPRESSURE PROTECTION**

# PRG 3000 - SUPER COMPACT SINGLE SAFETY VALVE

Sizes: DN 100 – DN 400 (4"- 16") Pressure: From 1 to 40 MPa (145 to 5800 PSI) Temperature: High Temperature Applications up to 600°C (1100° F) Pressure Class: ASME Class 150# – 2500# or customized Applications

- On all type of nuclear reactors (PWR, BWR, CANDU PHWR, RBMK LWGR, HTGR, ...)
- RCS / RHR overpressure protection
- Qualified for Inside & outside reactor containment
- Safety functions during accidental conditions (Feed & bleed ...)

### Features and Benefits

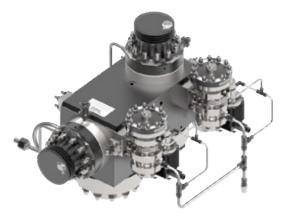
- Excellent operation whatever the type of medium: steam, gas , liquid or two phases
- Prevent LOCA (Loss of Coolant Accident): Possibility to use the unique feature to guarantee a reliable closing (Emergency Shut Off (ESO))



# CTSV 3000 - COMPACT TANDEM SAFETY VALVES

Sizes: DN 100 – DN 400 (4"- 16") Pressure: From 1 to 40 MPa (145 to 5800 PSI) Temperature: High Temperature Applications up to 600°C (1100° F) Pressure Class: ASME Class 150# – 2500# or customized Applications

- On all type of nuclear reactors (PWR, BWR, CANDU PHWR, RBMK LWGR, HTGR,  $\ldots$ )
- · High & low pressure overpressure protection on steam, water, gas or mixture lines
- Qualified for Inside & outside reactor containment
- Safety functions during accidental conditions (Feed & bleed, ...)



# **PRG 2000 - TANDEM SAFETY VALVES**

Since 1981, SEBIM<sup>™</sup> RCS tandem has been installed in a large number of Nuclear Power Plants worldwide, with reactors from 600 MW up to 1450 MW including the 58 French PWR reactors



# DSM 3000 - SMALL SIZE REACTOR SAFETY VALVE

Sizes: DN 15 – DN 65 (1/2" - 2"1/2) Pressure: From 1 to 20 MPa (145 to 2900 PSI) Temperature: High Temperature Applications up to 600°C (1100° F) Pressure Class: ASME Class 150# – 2500# or customized Applications

- On all type of nuclear reactors (PWR, BWR, CANDU PHWR, RBMK LWGR, HTGR, ...)
- SMR primary and secondary coolant safety valves
- · Qualified for inside & outside reactor containment
- Safety functions during accidental conditions (Feed & bleed ...)

#### **Features and Benefits**

· Leak tightness up to the set-pressure minimises the mechanism's rate of ageing



# SCGVG 3000 - SUPER COMPACT STEAM GENERATOR SAFETY VALVE

Sizes: DN 100 – DN 400 (4"- 16") Pressure: From 1 to 20 MPa ( 145 to 2900 PSI ) Temperature: High Temperature Applications up to 600°C ( 1100° F ) Pressure Class: ASME Class 600# – 2500# or customized Applications

- Steam generator safety valves for PWR, VVER, EPR & CANDU,
- Flow rate up to 1600t/h (Saturated steam)

#### **Features and Benefits**

- · Forged body carbon steel Special material upon request
- Leak tightness up to the set-pressure minimises the mechanism's rate of ageing
- · Soft opening/closing decreases load on surrounding equipment



# COMMON FEATURES AND BENEFITS OF SEBIM™ PRODUCTS

- Accuracy of pilot set pressure value with repeatability better than 1%
- · Low or high pressure in-situ test during operation for preventive maintenance
- · Perfect stability even when flow capacities are well below the maximum rate
- No erosion of sealing faces, no chattering and reduced maintenance
- Non-flowing pilot valve minimises mechanism's rate of ageing
- Proven perfect reliability
- Compact design, reduced size and weight
- · Interfaces (upstream & downstream pipes) customized to special constrain
- · Improved Leak tightness compared to spring loaded safety valves

# **SERVICES AND TRAINING**

- · Worldwide support for onsite service, annual outage and maintenance
- Life extension upgrade and expansion
- Training for WPI France valves servicing
- Training for expert in system design



# **SPECIAL TOOLS**

- Mobil Adjustment and Testing System (MATS) use latest version of software and highest equipment standard in order to maintain our piloted safety valves
- Operational setting verification can be done on line with or without pressure in the protected system
- Set pressure checking report is done automatically



• The Sebim<sup>®</sup> products equip more than 160 nuclear reactors worldwide Each product fits to the relevant standards & regulation and is qualified accordingly (Including RCC-M, ASME, OTT, IEEE, NNSA, ESPN...).





### **Trillium Flow Technologies France SAS**

106 Boulevard Paul Raphel 13730 Saint Victoret, France T: +33 442 070 095 E: controlvalves@trilliumflow.com

### TRILLIUMFLOW.COM