# SAFE/REYCO® MORE THAN 35,000 VARIATIONS IN DIN EN AND ASME



# **SAFE**

Your complete safety system! NEW! SAFE / SAFE SN now with SHR\*





ARI SAFE SN (Semi Nozzle)



Certified acc. to ASME Code with UV Stamp

SAFE

Now up to DN 250 also in stainless steel



#### **Greater efficiency:**

- Advanced design features (raised seat in CrNi steel, better flow characteristics due to contouring of flow area as well as accurately guided plug and stem).
- Extended size range: now DN 15 250.
- Simplified servicing with removable lifting aid.
- Suitable for chemical applications: can be upgraded with rupture disc, stainless steel bellows seal and proximity switch.



Long lifetime because EPDM bellows and EPDM soft sealing disc avoit spring and guide corrosion in applications heating systems, water supply and water treatment.



SHR-Soft sealing: zero leakage in combination with the innovative premium soft seal (now up to +220°C) for steam and hot water.

#### **Greater reliability:**

- Type test approved acc. to VdTÜV.
- ASME certification from the U.S. National Board.
- Balanced piston and protective rim as standard with stainless steel bellows.
- Minimum emissions (stainless steel bellows seal available as an option for SAFE/SAFE P/SAFE TC).

SHR-Soft sealing Steam-/Hot Water Resistance (SHR)

#### **Higher profitability:**

- Cost savings (extended life through hardened plug).
- Simplified servicing through removable lifting aid.
- Long lifetime, because springs with premium coating.
- Straightforward product range: economical spring selection (large, uniform set pressure ranges).
- More efficient: ARI-myValve® sizing software ensures correct / economical valve selection.
- New SAFE-Check service for testing installed safety valves (test device that works without increasing the boiler pressure or interrupting operation of the plant; absolutely no media loss).



Simplified servicing: removable lifting aid makes relapping the plug much easier.



Integrated sensorics, proximity switch; used to return the feed-back signal to the control room.



Complete range acc. to API 526





# Accurate response, flip-over plug, optimal plug guiding – up to 6000 psi (414 bar)!

- Powerful: suitable for oil and gas processing (REYCO®).
- Flexible: optionally available in Monel, Duplex, Super Duplex or Hastelloy.
- Simple handling: easy to service due to the flip-over plug (double sided sealing system).
- Durable: increased service life due to the corrosionresistant bellows seals made of Inconel 625; the bellows also provides backpressure compensation as standard.
- Reliable and resistant: precise repeatability of the set pressure and increased service life due to the accurately guided nozzle (nozzle thread close to the seat).
- Reliable: high level of reliability due to the optimal guiding of the plug on the seat (two-piece stem).
- Flexible: multifunctional conversion in a few simple steps thanks to the modular system (standardised trim).



Nozzle guided close to the seat – for a more accurate response. Flip-over plug – double sided sealing system assures simple handling, easy servicing and a longer service life.



Bellows available as a retrofit option. Bellows seals made of standard Inconel 625.



More options with different flanges up to ANSI 2500. Also as butt-weld end and socket weld end available.

- Identical trim irrespective of the medium (steam, gases, liquids).
- Flexible / simple handling: broad array of applications due to the standardised O-ring soft sealing plug.
- Simple handling: identical nozzle ring for each orifice size (code letters).
- REYCO®: certified safety due to EC type examination (module B), quality assurance system (module D) and declaration of conformity acc. to PED 2014/68/EU.

#### Technical information at a glance

#### Type EN and ASME:

Direct-acting, spring-loaded

#### **Options:**

Closed bonnet, open bonnet, with / without lifting device (gas-tight)

#### Features:

EPDM bellows seal, stainless steel bellows seal, soft sealing plug, rupture disc, change over valve, proximity switch, jacketed valve

#### **Applications:**

For relieving vapour, gas or liquid pressure from pressure vessels and steam boilers as well as for steam

Now up to DN 250

#### **EN** standard:

Nominal diameter: DN 15 – 250 in stainless steel
Nominal pressure: PN 16 – 100 also with stainless

Set pressure: 0,2 – 100 bar steel bellows

#### EN materials / temperatures

EN-JL1040 -10° C to +300 °C EN-JS1049 -10 °C to +350 °C 1.0619+N -60 °C to +450 °C 1.4408 -60 °C to +400 °C 1.4581 -60 °C to +400 °C

#### Requirements:

DIN EN ISO 4126, VdTÜV leaflet 100, TRD 421 / 721, AD2000-A2

#### **ASME** standard

NPS 1/2"-8"

Class ANSI 150-2500

Set pressure: 15-6000 psi (414 bar)

#### **ASME** materials / temperatures:

SA216WCC

-20 °F to +800 °F (-29 °C to +427 °C) SA217WC6

-20 °F to +1000 °F (-29 °C to +538 °C)

SA352LCC

5A332L00

-51 °F to +653 °F (-46 °C to +345 °C)

SA351CF8M

-321 °F to +1000 °F (-196 °C to +538 °C)

#### **Special materials**

Monel, Duplex, Super Duplex and Hastelloy on request

#### Requirements

ASME Code Section XIII (formerly Section VIII Div. 1), API 526

# **SAFE Combi**

With changeover valves and / or rupture discs



#### SAFE Combi-C / REYCO® Combi-C: The 100% standby safety – even with critical media

- Two-fold safety: the Combi-C SAFE / change-over valve always keeps a second SAFE in standby. In other words, you can test or replace a valve at any time with no pressure or media loss and without interrupting operation!
- Extra-safe thanks to the Combi-R SAFE / rupture disc combination: 100% tight (no media loss if the rupture disc bursts), stable operation (no uncontrolled plant shut-downs).



SAFE Combi-R – zero leakage allows the use of certain types of media which tend to harden or become sticky when in contact with the atmosphere. Protects the safety valve against corrosion.

New from ARI®!

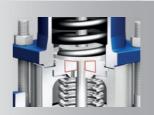
# SAFE AND SAFE-P NOW WITH LOW PRESSURE BELLOW

Balancing bellows now also from 0.3 bar

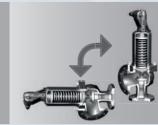


- Reliably build up back pressures compensation incl. redundant balanced piston
- Safer due to back pressure compensation in applications with main blow-out pipe
- Low pressure balanced bellows for blow-down systems in chemical industries.
- No CDTP differential pressure adjustment necessary.
- Redundant with primer- and secondary sealing

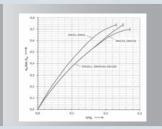
- Protection of the spring room and guiding against dirt particles and aggressive media. Avoid spring and guide corrosion.
- Reduction of fire hazards in thermal oil systems.
- Compliance with stricter emission limits in systems with critical media in accordance with EN ISO 15848-1, TA-Luft, VDI2440
- Also compliance with the specifications from the applications of energy supply e.g. diesel, petrol, bioethanol, biodiesel, biogases / methane and hydrogen.



More safety because stainless steel bellows DN 15 - DN 100 with redundant balanced piston as standard (EN-standard).



Horizontal installation for compact systems now also available for SAFE and SAFE-P



Lift limitation also in the pres range of 0.2-3.5 bar

# **ARI® PRODUCT DIVERSITY**



STEVI® Pro

(BR 422/462, 470/471)

**C**ontrol

Safety



STEVI® Vario (BR 448/449)



STEVI® Smart (BR 423/463, 425/426, 440/441, 450/451)



Control without auxiliary power PREDU®/PREDEX®/ PRESO®/TEMPTROL®



Process Valves
ZETRIX®
High Performance-Valves
ZEDIOX®



Butterfly valves
ZESA®/GESA®



Bellows sealed valves FABA® Plus, FABA® Supra I/C



Stop valves with gland seal STOBU®



Safety valves (DIN) SAFE



Safety valves SAFE TCP



Safety valves (API 526) REYCO®



Safety valves (ANSI) REYCO® RL-Series

### Steam trapping



Steam traps CONA® (mechanical ball float / thermostatic bimetallic and membrane / thermodynamic), monitoring systems
CONA® Control



Manifolds CODI® for collecting and diverting purpose



Steam traps with multivalving technology CONA® "All-in-One" (incl. stop valve, inside strainer, back-flow protection, drain valve)



**Mechanical pump systems** CONLIFT®, CONA® P

# **Application** technology



Pressure reducing station PREsys®



Heat exchanger ENCOsys®



Condensate return system CORsys®



Feedwater tank with deaerator dome

Profit from diversity made by ARI®.

Please don't hesitate to ask for more information!

