

# CONA<sup>®</sup>

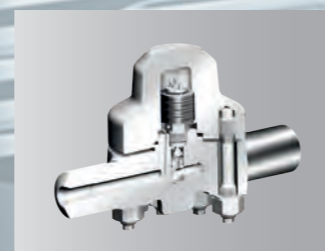
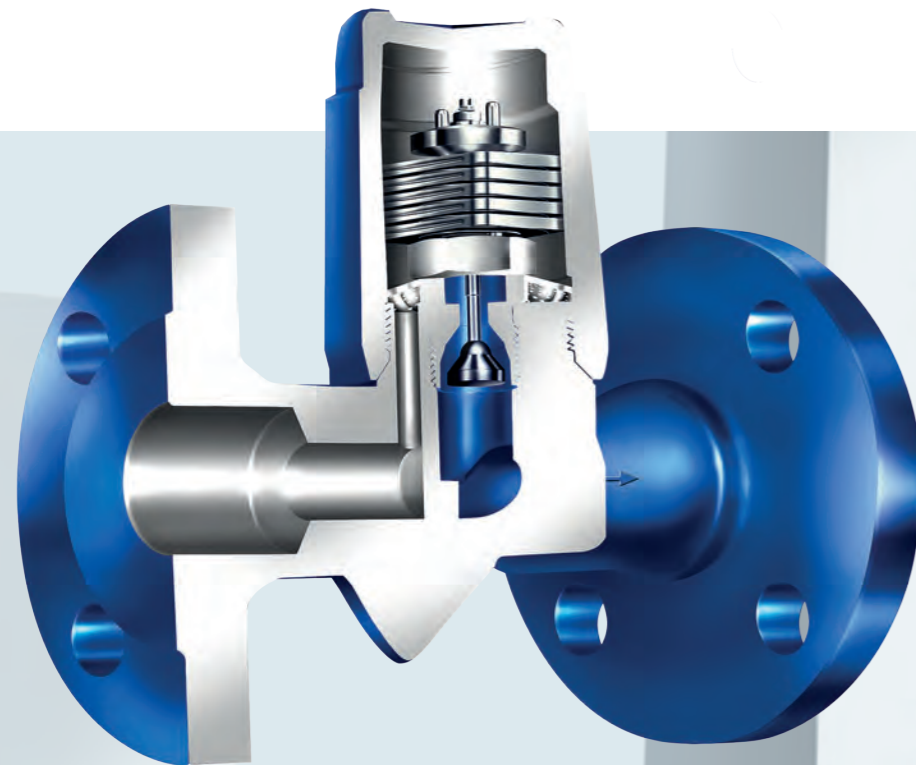
## COMPACT DISCHARGE

THERMOSTATIC. THERMODYNAMIC. MECHANICAL.

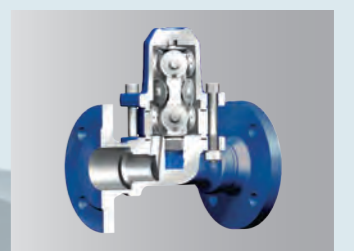
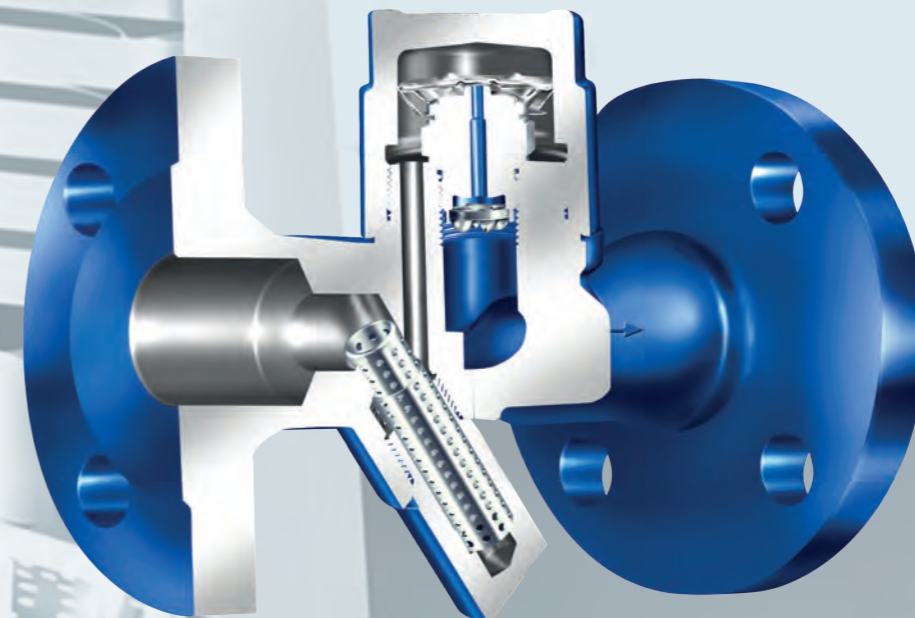


Your valve made by ARI<sup>®</sup>  
[ari-armaturen.com](http://ari-armaturen.com)

# THERMOSTATIC



**For high pressure and high temperature applications**  
CONA® B PN 630 in 1.4901 with R320 controller for temperatures > 600 °C



**For higher flow rate**  
CONA® M 616 diaphragm multi-capsule thermostatic steam trap (4, 6 or 10 capsules)

## CONA® B

### Bimetallic steam trap

For condensate drainage in steam systems. Extra-high performance with precise control characteristic!

- Ideal control characteristics and high-performance precision by combining multiple profiled bimetallic plates, self-aligning bearing and integral check valve.
- High performance and long life: profiled bimetallic plates are dirt resistant and permit optimum reaction time to temperature changes.
- Metal seal for long life and economy.
- Quick-assembly housing for optimum handling (DN 15-25 and PN 40/PN 63)! Gasketless.

- Long life by combining self-aligning, low-friction bearing with bimetallic plates.
- Erosion deflector for long life (PN 63 to PN 630).
- Frost and water hammer resistant for long life.

#### Design:

DN 15 – 50 // PN 16 – 630  
Size 1/2" – 2" // ANSI Class 150 – 2500

#### Materials:

Cast iron, forged steel, low temperature carbon steel, high temperature resistant alloy, stainless steel, ASTM materials

#### Connection types:

Flanges, screwed sockets, socket weld ends, butt weld ends, union with butt weld ends, universal connector

## CONA® M

### Diaphragm capsule thermostatic steam trap

For condensate drainage in steam systems. Targeted condensate sub-cooling for high energy utilisation and minimalisation of flash steam (due to banking up of condensate).

- High response sensitivity for efficient performance (using ultra sensitive, rapid-reaction control fluid).
- Precise control characteristics for high performance (using sensitive control diaphragm).
- Flexibility for high performance (sub-cooling options by selecting different diaphragm capsules).
- Flexibility for high performance through diaphragm multi-capsule controller – for discharge of extremely high condensate volumes.

- User friendly thanks to quick-assembly housing – gasketless.

#### Design:

DN 15 – 50 // PN 16 – 40  
Size 1/2" – 2" // ANSI Class 150 – 300

#### Materials:

Cast iron, forged steel, low temperature carbon steel, high temperature resistant alloy, stainless steel, ASTM materials

#### Connection types:

Flanges, screwed sockets, socket weld ends, butt weld ends, union with butt weld ends, screwed male / socket, universal connector



Precise control characteristic and long life due to profiled bimetallic plates.



Self-aligning bearing and combination check valve for high performance and robustness!



Contamination protection for long life (integral strainer)! Optional outside strainer also available.



Highly responsive for efficient performance (using ultra-sensitive, rapid-reaction control fluid)!



Water hammer protection for long life (integral check valve function)!



Contamination protection for long life (integral strainer or optional outside strainer – easy to clean)!

# THERMODYNAMIC

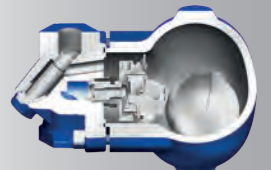
# MECHANICAL



NEW from ARI®!



Extra-high performance version for flow rates > 10,000 kg/h and differential pressures up to 32 bar. Robust lever and ball design.



CONA® SC PN 40 with outside strainer (Y). Compact and lightweight due to the slim design.

## CONA® TD

### Thermodynamic steam trap

Small, practical, insensitive to ambient conditions for discharge of condensate close to saturation temperature.

- Cap with heat chamber is insensitive to ambient conditions and ensures high performance. Water hammer resistant.
- Integral check valve function for high performance.
- User friendly: separate control cartridge (replaceable in situ) and heat chamber.
- Small size and weight for optimum handling. Quick assembly.
- Contamination protection for long life (integral strainer or optional outside strainer – easy to clean)!

#### Design:

DN 15 – 25 // PN 40 – 63  
Size 3/8" – 1" // ANSI Class 150 – 600

#### Materials:

Cast iron, forged steel, low temperature carbon steel, high temperature resistant alloy, stainless steel, ASTM materials

#### Connection types:

Flanges, screwed sockets, socket weld ends, butt weld ends, universal connector

## CONA® S/SC

### Ball float steam trap

For major fluctuations in pressure and condensate load – instant discharge with no temperature loss! For discharge of condensate at boiling temperature.

- High performance: Instant discharge of condensate without subcooling and backwater, even with extreme fluctuations of pressure and volume.
- Integral check valve function as standard for high performance and economy. Benefit for you: Extremely economical because there is no need for a separate check valve in line.
- Float and thermostatic controller with automatic air venting / and level control for high performance and economy.

- Exceptionally robust ball float for long life.
- Rapid system start-up due to thermostatic control element.
- Optimum handling: converts easily from vertical to horizontal installation and vice versa.

#### Design:

DN 15 – 100 // PN 16 – 160  
Size 1/2" – 4" // ANSI Class 150 – 900

#### Materials:

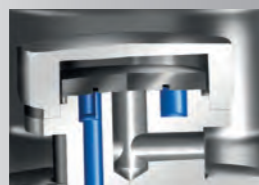
Cast iron, SG iron, cast steel, forged steel, low temperature carbon steel, high temperature resistant alloy, stainless steel, ASTM materials

#### Connection types:

Flanges, screwed sockets, socket weld ends, butt weld ends, universal connector



Cap with heat chamber (water hammer resistant) is robust and insensitive to ambient conditions!



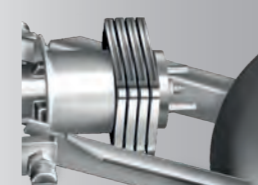
Integral check valve function for double the performance!



Metal seal for long life and economy! Gasketless, quick-assembly housing for optimum handling!



Double-seat version for high performance and optimised lever forces as well as integrated air venting via the thermostatic element.



Rapid system start-up due to thermostatic control element (air venting)!



Integral check valve function as standard for high performance and economy. Benefit for you: no need for a separate check valve in line!

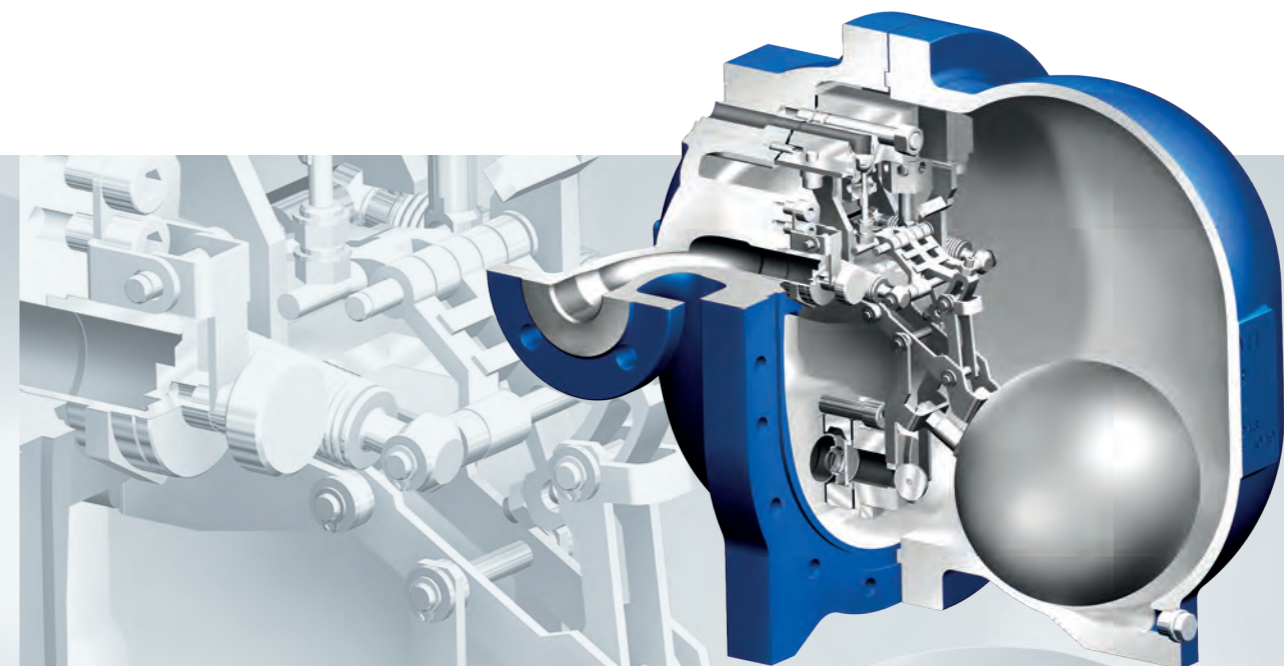
# MECHANICAL PUMP SYSTEMS



NEW from ARI®!



Now also with a casted body and lightweight design for higher differential pressure up to 14 bar and lower motive steam consumption!



## CONLIFT®

### Mechanical condensate pump

Versatile and energy efficient – for optimal condensate collection and return.

**New from ARI –now also in stainless steel or with a casted body!**

- Economical and energy efficient because the pump is operated purely mechanically under steam or gas pressure (ideal for use in potentially explosive atmosphere).
- Condensate can be removed under any conditions (from vacuum to high temperatures), ensuring safety and flexibility.
- Economical through maximum energy recovery (condensates can be pumped up to boiling temperature).
- Powerful pump with a high flow rate.
- Low filling head means greater planning flexibility.
- Cost-effective due to minimal maintenance required.
- Only one control unit is used for all nominal diameters, resulting in easy handling.

- Reliable and durable because all internals are made of corrosion-resistant stainless steel.
- More reliable than electric pumps as the flow is free from cavitation even at temperatures exceeding 95°C.

#### Fluids pumped:

Group 2 fluids with a density of 0.85 – 1.15 kg/dm³

#### Nominal diameter:

DN 25/25, DN 40/40, DN 50/50, DN 80/50

#### Materials:

Body: Jacket P235GH, sockets and flanges P250GH, plates P265GH, cover P265GH  
Stainless steel: Body / bonnet: 1.4571  
SG iron: Body / bonnet: EN-JS1049

#### Connection types:

Flange connections to DIN EN 1092-1, PN 16,  
Optional: Flanges drilled to ANSI Class 150

#### Mounting position:

Horizontal flow

**Temperature:** -10 °C to +200 °C

## CONA® P

### Pump trap

For continuous control of steam users without problems under negative pressure conditions (backpressure downstream of the trap  $\geq$  inlet pressure upstream of the trap).

Operates as a conventional ball float steam trap if the pressure difference is positive.

- Economical and flexible: “Two-in-One” principle unites all the functionality of a traditional float trap and a condensate pump in ONE item – ideal when space is restricted (compact design).
- Versatile: applicable for all loads.
- High performance: large displacement.
- Economical: water hammer in the system reduced to a minimum.
- Easy handling: low filling head required.
- Economical: condensate recovery from steam systems under varying operating conditions, also at partial load.

- Energy efficient: self-acting without electricity.
- Easy to service: maintenance is possible without disturbing the pipework.
- Optimum handling: simple replacement of functional units as one complete unit.
- Durable: all internals made of stainless steel and wearing parts made of hardened stainless steel.

#### Fluid pumped:

Group 2 fluids with a density of 0.85 – 1.15 kg/dm³

**Nominal diameter:** DN 25/25, 40/40, 50/50

**Materials:** Body EN JS-1049

**Connection types:** Standard flanges acc. to DIN EN 1092-1 PN 16, optional 1 ½” thread, union with butt weld ends or flange drilled to ANSI Class 150



Extended life due to double-guided motive steam valve with marginal seat – for reliable closure of the motive steam pipe.



Extended life due to spring-operated air vent valve with marginal seat – for reliable closure of the vented pipe.



Low inlet into the feed pipe – to prevent steam from entering.



Steam trap mechanism has a shut-off element with a rolling ball for reliable closure of the feed pipe.

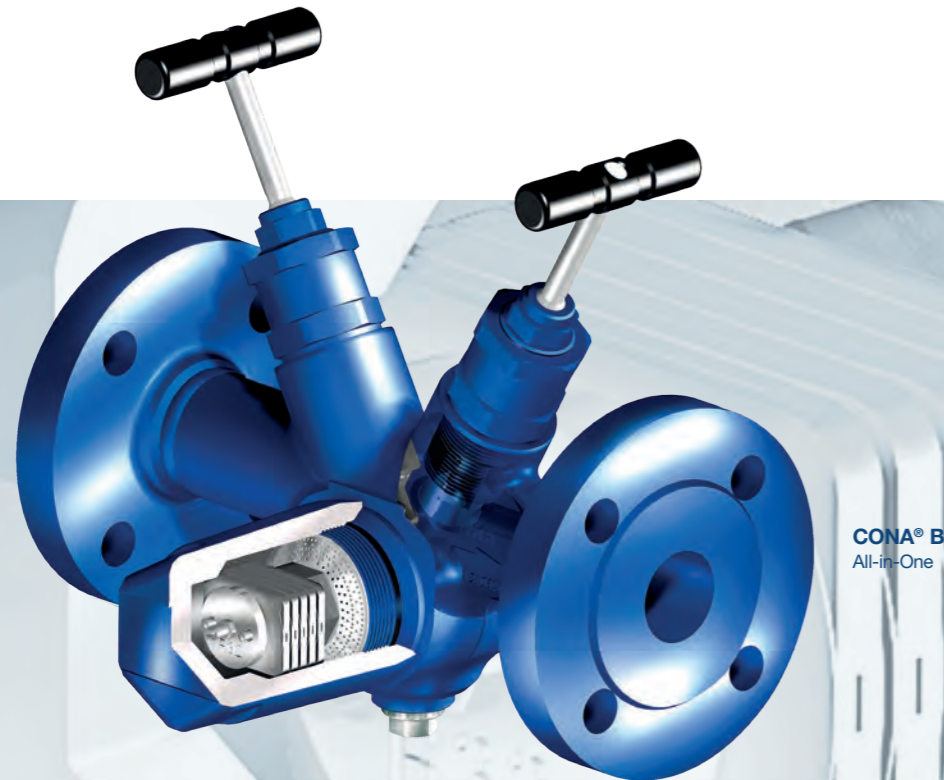


Steam trap / pump switching mechanism, valves have a marginal seat to ensure reliable closure of the vented and motive steam pipes.



Fatigue resistant springs made of Inconel prevent malfunctions.

# MORE STEAM TRAP OPTIONS AND COMPONENTS



CONA® B  
All-in-One

## CONA® All-in-One

Compact condensate discharge in a multi-valving system!

Patented – Integrated system comprises a steam trap, stop valve, strainer, check valve and drain valve! Up to 80% reduction in pipe connections.

Now also with DIN and ANSI face-to-face dimensions!

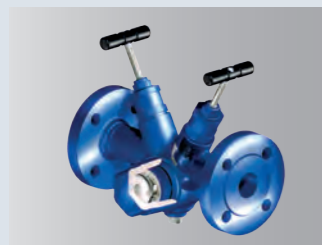
- Economical through integrated stop valves (eliminates two stop valves) – patented design (DE 10 2006 041 132).
- Variable, modular design guarantees easy servicing: Replacement of the controller or conversion to other steam trap types without completely disturbing the pipework; replacement of integrated valves by changing the valve bonnet.
- Economical through time and cost savings because piping is reduced to a minimum (the number of pipe connections can be reduced from as many as twelve to just one or two).
- Integrated drain valve provides optimised safety.

- Manufactured from strong materials for maximum durability, robustness and resistance to water hammer.
- Multifunctional because the system features integrated non-return protection.
- Flexible in use through variable mounting position (horizontal or vertical).
- Gasketless design guarantees an extended lifetime (metal sealing – CONA® B/M/TD).
- Connection types: New from ARI! Now also available in DIN EN 26554 (face-to-face dimensions).
- Choice of butt weld ends / socket weld ends / screwed sockets (length acc. to company standard or as specified by customer).

**Nominal diameter:** DN 15, DN 20, DN 25; ½" – 1"

**Nominal pressure:** PN 40, ANSI Class 300

**Materials:** Forged steel, stainless steel



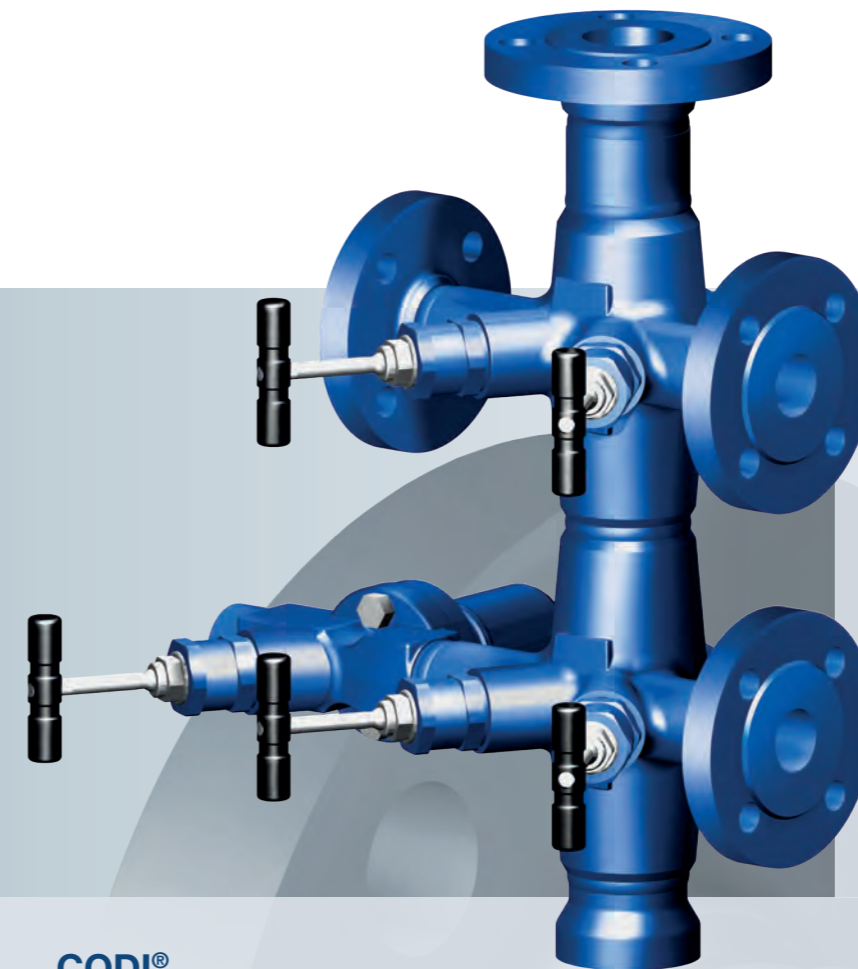
CONA® M All-in-One



CONA® TD All-in-One



CONA® SC All-in-One



## CODI®

Collector / Distributor

Collects and distributes condensate, steam and fluids (minimal welding, reduced assembly time, rapid start-up)!

- Flexibility through design: compact, variable modular components (choose from 2, 4, 6, 8, 10, 12, 14, 16 or 18 ready-integrated stop valves! All functional parts replaceable in situ – without removing the manifold)!
- Double safe due to integral stop valves with safety back seal when the valve is fully open!
- Economical: optimum on-site handling and durability (forged steel and metal seal).
- Dual function: collector or distributor.

- Optional: manifold complete with steam traps.
- Vertical or horizontal mounting.
- Variable module distance for side connections.
- Optional insulating jacket provides added plant safety and saves energy.

### Design:

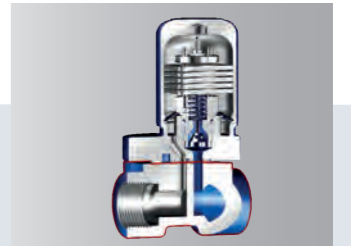
DN 40 – 50 / size 1 ½" – 2" (main connection),  
DN 15 – 25 / size ½" – 1" (secondary connections)  
PN 40 – 63 / ANSI Class 300

### Materials:

Forged steel, stainless steel, ASTM materials

### Connection types:

Flanges, socket weld ends, butt weld ends



### CONA® Universal Connector

for thermostatic, thermodynamic and mechanical trap functions. Optionally with integral stop valves.

Ventaja para usted: sustitución o mantenimiento rápidos y sencillos de las trampas de vapor, conservación de la plena funcionalidad.

### Componentes adicionales que aseguran su flexibilidad:



Bellows seal  
type on request



Rompedor de vacío



Limitadores de temperatura de  
descarga de condensado



Drenajes de línea

# MONITORING SYSTEMS



## Multifunction Tester

Functional testing of steam traps and valves. Detection of compressed air leaks. Machine diagnostics / ball bearing.

Use the ultrasonic test device with integral temperature measurement.

- Reduces the failure rate in your system for increased availability and energy efficiency.
- Monitors ultrasound levels in steam traps and valves (leakage).
- Measures the surface temperature of steam traps and valves (leakage) or pipelines in order to detect temperature shifts in the system.

- Performs characteristic tests – then stores the results and transfers them to a PC.
- Allows precise operational checks through a combination of ultrasonic and surface temperature measurements (leakage).
- Steam trap survey with report and evaluation as an additional service.
- Test reports can be created intuitively with just a few clicks, advanced touch screen technology (5" multi-touch screens), broadband ultrasonic sensors.



## CONA® Control

Patented test system for remote monitoring

Steam traps are required to operate continuously. Early detection of malfunctions is therefore vital. Unlike conventional systems, CONA® Control does not measure the conductivity of the condensate but the temperature (patented).

If a predefined variable temperature range is exceeded, the system reports continuous steam leakage; a low temperature is interpreted as blockage of the steam trap. Fast, efficient, reliable – and an important energy saver.

### How CONA® Control benefits you:

- Precision: individual error messages for every single steam trap in a matter of seconds thanks to the ASI bus wiring (as well as optional networking with a higher-level bus system).

- Speed: dynamic error reporting because the steam traps are monitored individually and continuously (unnecessary energy losses are eliminated).
- Efficiency: your system works more efficiently because error messages indicate leakage or blockage of the steam trap.
- Reliability: the temperature gauge is exceptionally reliable (insensitive to deposits on the sensor, e.g. magnetite).
- Economy: prompt error reporting extends the lifetime of your system and guarantees trouble-free production processes (preventing water hammer and saving energy).
- Convenience: Optimum handling because there is no need for a separate handheld unit (a local indication is always provided) and you can define variable temperature ranges.

# ARI® PRODUCT DIVERSITY

## Control



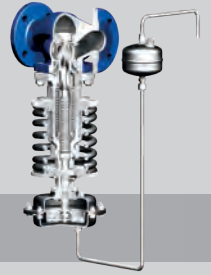
**Control valves**  
STEVI® Pro  
(BR 422/462, 470/471)



STEVI® Vario  
(BR 448/449)



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



**Control without auxiliary power**  
PREDU®/PREDEX®/  
PRESO®/TEMPROL®

## Isolation



**Process Valves**  
ZETRIX®  
**High Performance-Valves**  
ZEDOX®



**Butterfly valves**  
ZESA®/GESA®/ZIVA®



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



**Stop valves with gland seal**  
STOBU®

## Safety



**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 multi-  
valving technology CONA®**  
"All-in-One" (incl. stop valve,  
inside strainer, back-flow  
protection, drain valve)

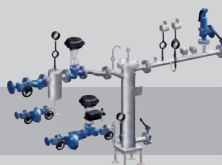


**Mechanical pump systems**  
CONLIFT®, CONA® P

## Application technology



**Pressure reducing station**  
PREsys®



**Heat exchanger**  
ENCOsys®



**Condensate return system**  
CORsys®



**Feedwater tank  
with deaerator dome**