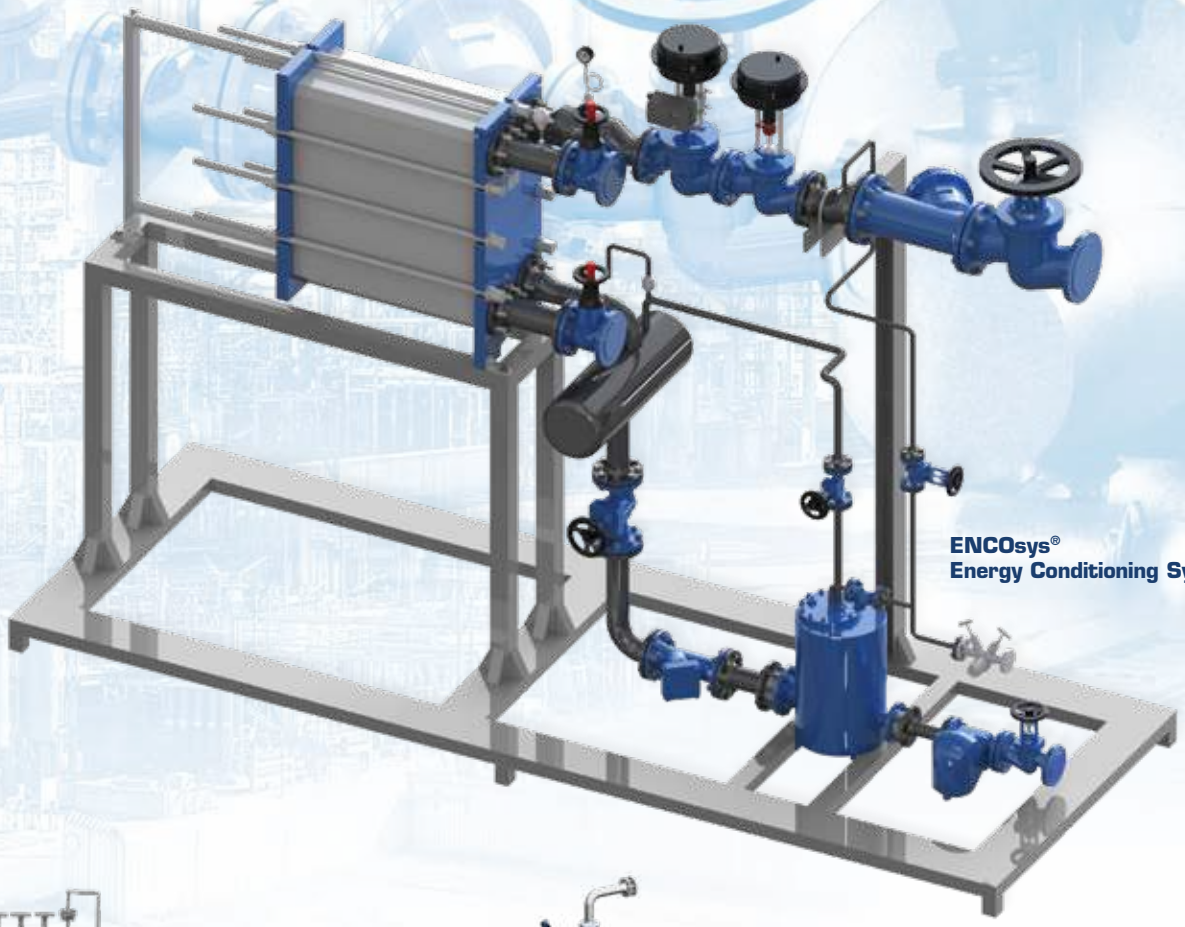
SYSTEMS

Engineered Packaged Solutions

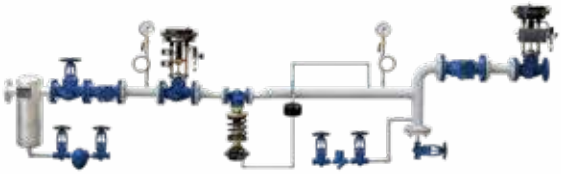


ENCOsys®
Energy Conditioning Systems

CORsys®
Condensate Return Systems

CONAsys
Steam Trap Systems

FLASHsys
Flash Steam Systems



PREsys®
Pressure Reducing Systems

ARI ARMATUREN

Design Reliability, Flexibility, and Efficiency

ARI-Armaturen began business over 65 years ago and has been in the North American market for nearly 20 years. We develop products & solutions to enhance the steam, water, oil, air, and gas distribution systems of companies in a variety of industries throughout the United States, Canada, & Mexico.

Our one-stop-shop philosophy allows our customers over 20,000 products available in more than 200,000 variations. This means we can offer almost unlimited possibilities depending on your application, with solutions specifically tailored to your system requirements.

Our highly qualified ARI engineers develop products for tomorrow's world using the very latest techniques. State-of-the-art production technologies leave no room for mistakes, and our continuous quality monitoring throughout all phases of the production process is documented in some twenty system approvals, including ISO 9001:2015.

Our products are manufactured promptly and according to rigorous quality criteria. We keep a large stock of valves at our 35,000 square foot manufacturing facility in Houston and we select our suppliers according to the strictest possible criteria to ensure that only premium quality materials are used.

Modern manufacturing technologies are the key to optimal safety and reliability. High performance machining centers, automated assembly cells, programmable assembly robots, and a highly qualified staff are vital prerequisites of top-quality product solutions specifically tailored to your individual requirements.

Thanks to our extensive sales network, expert advice is available from a sales partner close to you in more than 60 countries worldwide. Our professional staff includes highly qualified technicians and engineers that offer design solutions for better performance and use of your energy resources. Contact us today for your tailor-made solution!

Steam t

ENCOsys® S
with Gravity Drainage

Control panels are available with single or multi-loop controllers, and can include equipment such as HMI PLC instrumentation.

ENCOsys® S

ENergy COnditioning SYStem

ENCOsys® is a reliable, efficient, and heat exchanger system, designed to instantaneously whatever the load co for water storage.

- **Improved Process Control:** Low greater energy savings as the w system is at a lower tempera

Steam to Hot Water Heat Exchanger Systems

Our comprehensive and customizable heat transfer systems are compatible with a variety of plate and frame heat exchangers.

Plate Heat Exchangers

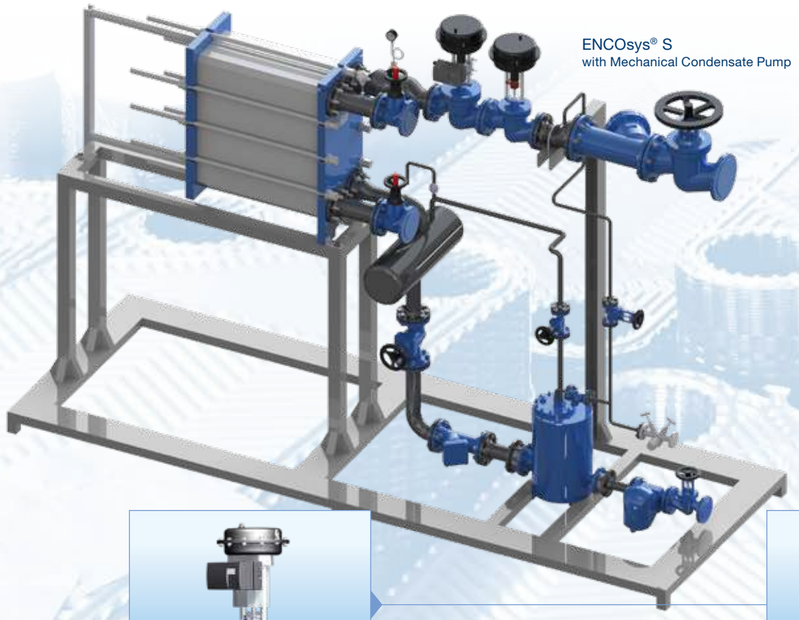
Brazed Heat Exchangers

Plate & Shell
Heat Exchangers

Shell & Tube
Heat Exchangers

ENCOsys® S
with Gravity Drainage

ENCOsys® S
with Mechanical Condensate Pump

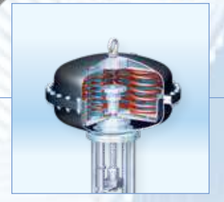


ENCOsys® C
using System Pressure Drainage

Control panels are available with single or multi-loop controllers, and can include equipment such as HMI PLC instrumentation.

Condensate return variations:
CONLIFT® Condensate Pumps,
CONA® P Pump Traps,
and/or CONA® Steam Traps.

The STEVI® control valve line offers a wide range of control options, including pneumatic & electric actuators for both temperature & pressure control.



Pneumatic Actuators:
DP Series

Electric Actuators:
PREMIO®
PREMIO® Plus 2G

Overheat Protection:
FR (Failsafe Return)

ENCOsys® S

ENergy COnditioning SYStems: Steam-Side Control

ENCOsys® is a reliable, efficient, and cost effective steam-to-water heat exchanger system, designed to provide hot water instantaneously whatever the load conditions—without the need for water storage.

- **Improved Process Control:** Lower set point resulting in greater energy savings as the water flowing through the system is at a lower temperature.
- **Reduced Heat Loss:** Extremely compact and efficient design ensures minimal heat loss.
- **Thermal Efficiency:** By heating the secondary water and sub-cooling the condensate in the same plate heat exchanger, substantial energy savings can be achieved over traditional systems.
- **Instantaneous Operation:** No storage tanks required, reducing the risk of Legionnaires.

ENCOsys® C

ENergy COnditioning SYStems: Condensate-Side Control

Systems controlled on the condensate-side are designed to provide accurate heating for process systems that can afford a slower response time to load changes. This design allows the control scheme to be less complex, have less components, and be more cost competitive when compared to traditional systems that are controlled on the steam-side.

- Maximization of latent heat energy for steam and condensate.
- Smaller footprint than traditional heat exchanger packages.
- Less required equipment, such as steam traps and pressure reducing valves, results in reduced maintenance.
- Utilizes full steam pressure without the need for mechanical or electric condensate pumps.
- Operates with lower secondary side pressure drops.
- Smaller control valve required, which reduces up front costs and the control scheme complexity.

Condensate Drainage Systems

CORsys® M

CORsys® E

CONAsys

Fabricated Steam Trap Station

CONA® Universal Steam Traps

CONLIFT® Condensate Pump

Used in “open-” & “closed-loop” systems for removal of condensate under all loads & pressure conditions.

CONA® P Pump Trap

For continuous drainage of condensate from heat exchangers in “closed-loop” systems to remove condensate from positive pressure to vacuum conditions.

CODI® Condensate COllection & DIstribution Manifolds

Manifold for the distribution and collection of steam, condensate, and other industrial fluids.

CONA® S / SC Float & Thermostatic

Provides condensate drainage at steam temperature and includes excellent air venting ability.

CONA® TD Thermodynamic Disc

Thermodynamic disc type steam traps ensure complete condensate drainage without energy wastage.

CONA® B Bimetallic

Operates below steam saturation temperatures, depending on the bimetal setting. Suitable for non-critical systems.

CONA® M Thermostatic

Balanced pressure thermostatic steam traps operate at varying temperatures below steam, depending on the capsule fitted.

CORsys® M

COndensate Return SYStems: Mechanical

- Pumps condensate at saturation steam temperature, resulting in no cavitation problems.
- Low running costs because electrical power is not required. Pumps operate on steam, compressed air, or other inert gas.
- Ductile iron, carbon steel, or stainless steel body design, with hardened stainless steel internals.
- Easy to install & maintain, extremely reliable, and there are no mechanical seals to replace.

CORsys® E

COndensate Return SYStems: Electric

- No cavitation even with high temperature condensate because of the low NPSH design of pumps.
- System can be customized in rectangular or cylindric configurations according to space conditions.
- STOBU® isolation valves are located downstream of the pump with a regulating plug for adjusting to the requested operating point on the pump capacity curve.

CONAsys

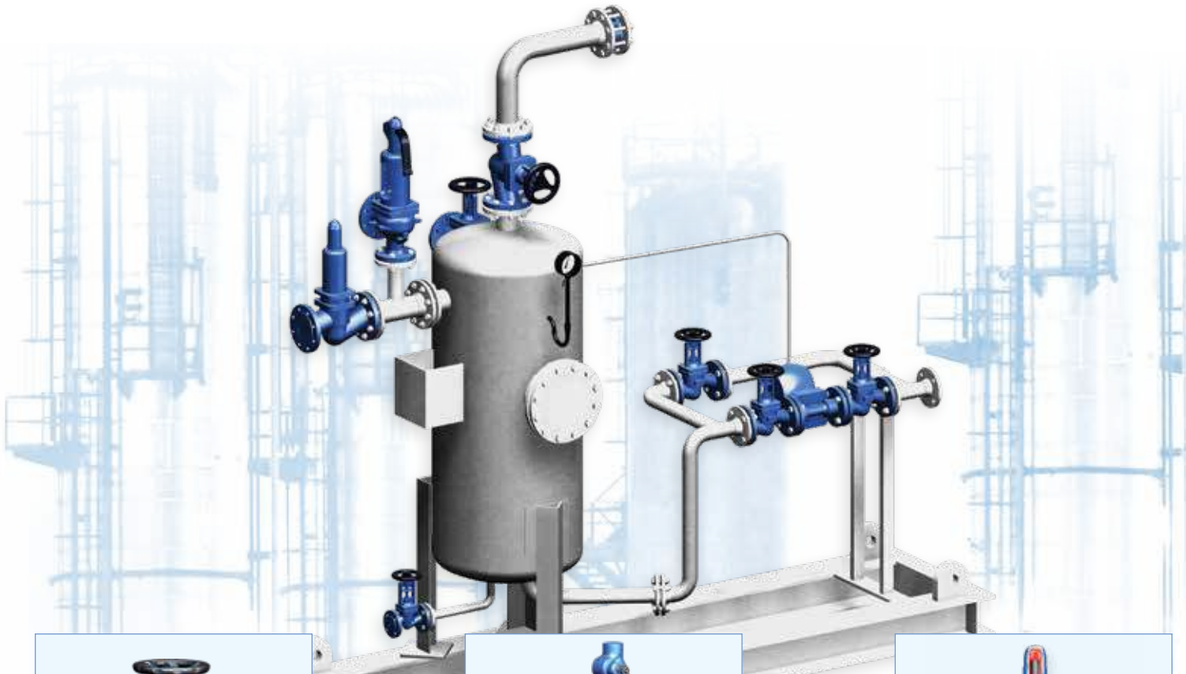
Steam Trap Systems

ARI-Armaturen can configure a wide range of fabricated steam trap stations, pre-engineered and assembled to industry best practices with precise trap technology for your application.

Our CONAsys pre-fabricated steam trap stations are designed for ease of installation and maintenance, using fully welded construction to either threaded or flanged in-connections.

- CONAsys steam trap stations can be combined with all types of CONA® Universal steam traps.
- Stations are available with flanged, NPS, or socket weld connections.
- Available in forged steel & stainless steel construction.
- All trap types are available, including the widely accepted CONA® Universal Connector steam trap technologies.

Systems for Energy Recovery



The FABA® isolation valve has proven and reliable sealing, ensuring zero leakage.

Our semi- and full-nozzle safety relief valves, SAFE & REYCO®, are ASME & NB certified.

PRESO® pressure regulators provide stable supply pressures to your flash steam system.

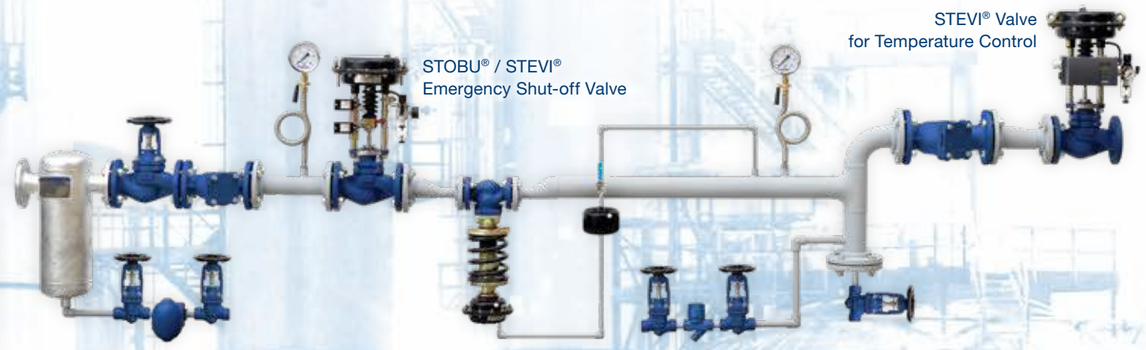
FLASHsys

FLASH Steam SYStems

Maximize your steam system's efficiency by implementing an ARI Flash Steam System. Flash steam is typically wasted to atmosphere, but the use of flash vessels allows the capture of hot condensate from high pressure sources before being routed to lower pressure systems.

- These flash systems provide high rates of return on investment through reduced steam generation, which in turn reduces the amount of required water & boiler chemical usage in your plant.
- Flash vessels can be either horizontal or vertical—usually depending on the degree of steam/water separation required.
- Our flexibility in design configuration and size will allow you an optimized heat recovery process for smooth condensate flows.

Pressure & Temperature Control



Steam Conditioning System

PREDU®
Pressure Reducing Valve

Steam separators provide moisture and particle free steam for improved process performance while eliminating premature valve failure and maintenance.

PREDU® direct-operating pressure reducing valves are simple and more robust than traditional pilot operated pressure reducing valves.

The STEVI® control valve line offers a wide range of control options, including pneumatic & electric actuators for both temperature & pressure control.

PREsys®

Pressure REducing SYStems

PREsys® is an ARI-Armaturen designed and technically correct pressure & temperature modular packaged station.

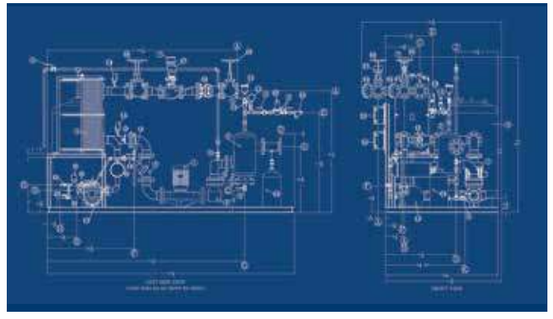
- Our control stations can be configured single, split range, redundancy parallel, or in series with unlimited options.
- All stations include the necessary valves, strainers, interconnected piping, and field point of connections to suit your requirements.
- Optional equipment can include a steam separator for steam conditioning, steam traps, pressure/temperature indicators, temperature control, emergency shut-off valves, safety relief valves, and bypass piping.

From Drawing to Commissioning & Start-up

ARI-Armaturen systems are carefully designed to match your specific system requirements, and our flexibility means we can provide a wide range of assembled and tested solutions to suit your needs.

We offer services that range from the design and assembly of ARI packages, to being on hand as your dependable steam system partner to provide commissioning, start-up services, and on-site training. We also offer pre-engineered skid-mounted packages that allow for shorter installation times, reduced installation labor, and reduced procurement costs—all while eliminating the expensive up-front costs associated with engineering & design time.

Our long industry experience means you will be satisfied with a safe and reliable system that is assembled to meet industry “best practices” standards. With ARI quality, you can depend on solutions that have a prolonged service-life with simplified and reduced maintenance.



Engineering and drafting

Commissioning and start-up

Steam trap testing and energy audits

Control valve automation

ARI PRODUCT DIVERSITY

Control

Control Valves
STEVI

Actuators
PREMIO Electric
DP Pneumatic

Mixing & Diverting Valves
STEVI 3-Series

Pressure Control
PREMIO Controller
PREMIO Transducer

Temperature Control
TEMPTROL

Isolation

Bellows Sealed Valves
PASV

Steel Valves
STEVI

Cast Iron Valves

Triple Offset Butterfly Valves
ETRA

Safety

Saint-Nazaire
Safety Relief Valves
Safe & Slim
(ANSI & DIN)

Safety Relief Valves
ASME

Pilot Operated Safety Relief Valves

Pilot Operated Safety Relief Valves
ASME & API Series

Steam Trapping

Steam Traps
Float & Thermostatic / Bimetallic
Thermodynamic / Mechanical

Steam Traps
With Multi-Volume Technology

Mechanical Pump Traps

Mechanical Condensate Pump
CONDEN

Systems

e.g. Pressure Reducing Stations
PRESys

e.g. Condensate Return Systems
CONDESys

e.g. Heat Exchanger Systems
EXCESys

e.g. Flash Steam Systems
FLASHSys