#### STEAM QUALITY MONITORING

Armstrong's Steam QM® series provides automatic steam quality monitoring which allows you to improve steam system efficiency, increase safety, and ensure that steam quality meets global standards.



#### **OPERATIONS AND MAINTENANCE SERVICES**

Working with Armstrong you will quickly come to appreciate the difference between a true partner and simply a components supplier. We have the talent, experience and engineering expertise to see that your project is completed on time, on budget, and is an enjoyable experience. Armstrong supports the following:

- Thermal utility operation and maintenance
- Project management
- Constructability & installation guidelines
- Start-up, commissioning & training
- Oversight of subcontractors & vendors



#### ARMSTRONG UNIVERSITY®

At Armstrong International, one of our greatest strengths is the wealth of knowledge, experience and insight we have derived from more than a century of providing thermal utility solutions for customers all over the world. Through Armstrong University, we give you access to this unique legacy of in-depth knowledge by providing seminars, online training and education. Armstrong can even create a curriculum custom-tailored and delivered to your workstation. Learn more at www.armstronginternational.com/knowledge



Knowledge not shared is energy wasted®

# BRINGING NET ZERO WITHIN REACH

We all have a part to play in growing our sustainable future. Achieving net zero is an incredibly ambitious target that you cannot achieve alone, but together, we can. If decarbonization is on your roadmap towards zero, Armstrong can perform a comprehensive thermal utility analysis of your site allowing us to develop and implement a pragmatic plan of action that's specifically engineered to achieve your objectives and meet you at your point of need.

objectives and meet you at your point of need.

• Improve your production process and performance

- Reduce environmental emissions
- Help you reach your net-zero goal
- Increase safety and reliability

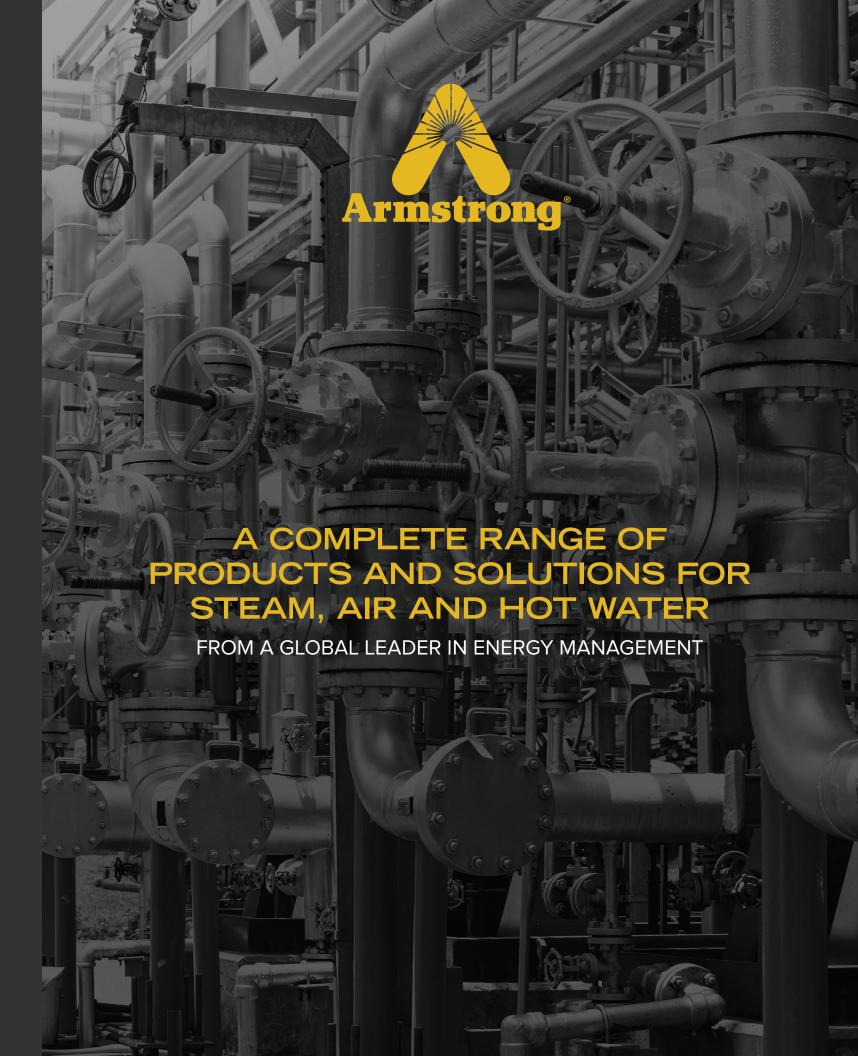


INTELLIGENT THERMAL UTILITIES SOLUTIONS FROM A GLOBAL LEADER IN ENERGY MANAGEMENT AND ENJOYABLE EXPERIENCES.

North America • Latin America • India • Europe / Middle East / Africa • China • Pacific Rim

armstronginternational.com

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# INTELLIGENT SOLUTIONS IN STEAM, AIR AND HOT WATER

From system design for a new plant to diagnosing a problem Armstrong International at a Glance and creating a custom-engineered solution at existing facility, Armstrong does it all.

Whatever your industry, wherever you are in the world, when you turn to Armstrong, you can consider it done. Our on-site-system solutions, turnkey installations, hardworking products, groundbreaking technological tools, and deep expertise in utility system engineering are all provided with responsive support and a collaborative spirit.

- Armstrong's intelligent, industry-leading products and system solutions consistently save time, money and energy for satisfied customers in more than 100 countries.
- Founded in 1900, Armstrong International is a private, fifthgeneration family-owned company. Our global enterprise has more than 3,000 employees and representatives serving the world.

#### STEAM TRAPS

The Inverted Bucket Steam Trap was invented by Armstrong in 1911, and it remains the top-performing steam trap available anywhere. We provide a full range of steam traps for all industrial applications, including:

- Inverted Bucket Steam Traps
- Float & Thermostatic Steam Traps
- Controlled Disc (Thermodynamic) Steam Traps
- Thermostatic Steam Traps
- > Bellows
- > Wafer
- > Bimetallic
- Syphon Drainage Flash Steam Applications
- Superheated Steam Applications
- Clean Steam Applications



# TRAP MANAGEMENT **SERVICES**

Armstrong offers leading-edge technology, software, equipment and services for best-in-class trap management:

- SAGE® software to efficiently manage your steam trap population from anywhere;
- SAGE UMT® semi-automatic handheld device to test a steam trap anytime;
- Everactive batteryless-wireless monitoring service for 24/7 real-time insights;
- Innovative piping solutions to safely replace a failing steam trap in less than 5 minutes.



# STEAM TRACING

Armstrong offers tailor-made and completely pre-assembled packages that include steam distribution and condensate collection manifolds, Trap Valve Stations (TVS), steam traps, thermostatic start-up and freeze protection valves. Our Steam Tracing Equipment gives you significant advantages, such as shorter installation time, easier maintenance, improved safety and higher energy savings.



#### STRAINERS AND FILTERS

Armstrong's Y-type, T-type and Fabricated Basket Pipe Strainers are available in a wide choice of sizes and materials to meet the majority of all pipeline straining requirements.



## **CONDENSATE RECOVERY EQUIPMENT**

Armstrong offers a complete line of pumps to handle all your condensate recovery needs.

- Pump Trap Packages
- Steam Trap / Pump Combination (Double Duty\*)
- Electric Pump Packages
- Boiler Feed Systems
- Flash Recovery Vessels



## PRESSURE AND TEMPERATURE CONTROLS

Armstrong pressure and temperature control and regulating valves enable you to manage steam, air and liquid systems safely and efficiently.

By maintaining constant pressure or temperature for process control, they also help to ensure uninterrupted productivity.

- PRV's
- > Direct-Acting
- > Piloted
- Control Valves
- > Pneumatic > Electric



## FLOW MEASUREMENT

Measuring the flow of fluids accurately is vitally important in many institutional and industrial environments and, for some operations, it can have a significant impact on the bottom line. Armstrong's VERIS Flow Measurement solutions provide outstanding flow measurement technology to meet the critical needs of your environment.



## **AIR VENTS**

Armstrong's Float-Operated Air Vent Relief Traps are designed to remove gases from liquids down to 0.40 specific gravity, and thermostatic devices are available to evacuate gases from steam systems.



## LIQUID DRAINERS

Armstrong's Float-Operated Drain Traps are designed for draining heavy liquids from gases or light liquids (dual gravity drainers).

These liquid drainers can operate to 1800 psig / 255 barg or specific gravity down to 0.40.



### **HUMIDIFICATION**

Whatever your industry or application, Armstrong provides a variety of humidification solutions to help you achieve precision controlled trouble-free humidification.

- Direct Steam Injection Steam-to-Steam
- Electronic
- > Electrode
- > Resistance • Gas





# HOT WATER - GENERATION, DISTRIBUTION AND CONTROL

Evaporative

> Hydro-Pneumatic

Fogging

Armstrong is a global provider of innovative hot water generation, distribution and control solutions for institutional hygiene and industrial process applications. We work closely with those tasked with hot water system design, operation and maintenance to optimize performance and user safety.

- Water Heaters
- > Steam
- > Boiler Water
- > Gas



- Water Temperature Controls > Digital
- > Thermostatic





Faucets

- Hose Stations > Steam
- > Hot/Cold Water > Single Temperature







## **HEAT TRANSFER COILS**

At Armstrong, we welcome the opportunity to offer advice early in the planning stages of your projects. Our specialists provide expert design services and manufacturing capabilities for extended heat transfer equipment, and we have the manufacturing flexibility necessary to design and build equipment according to your exact needs, for all forms of air and gas treatment. Armstrong offers a line of steam/liquid and cooling coils in heavy-duty finned tube and lightweight plate fin configurations.







