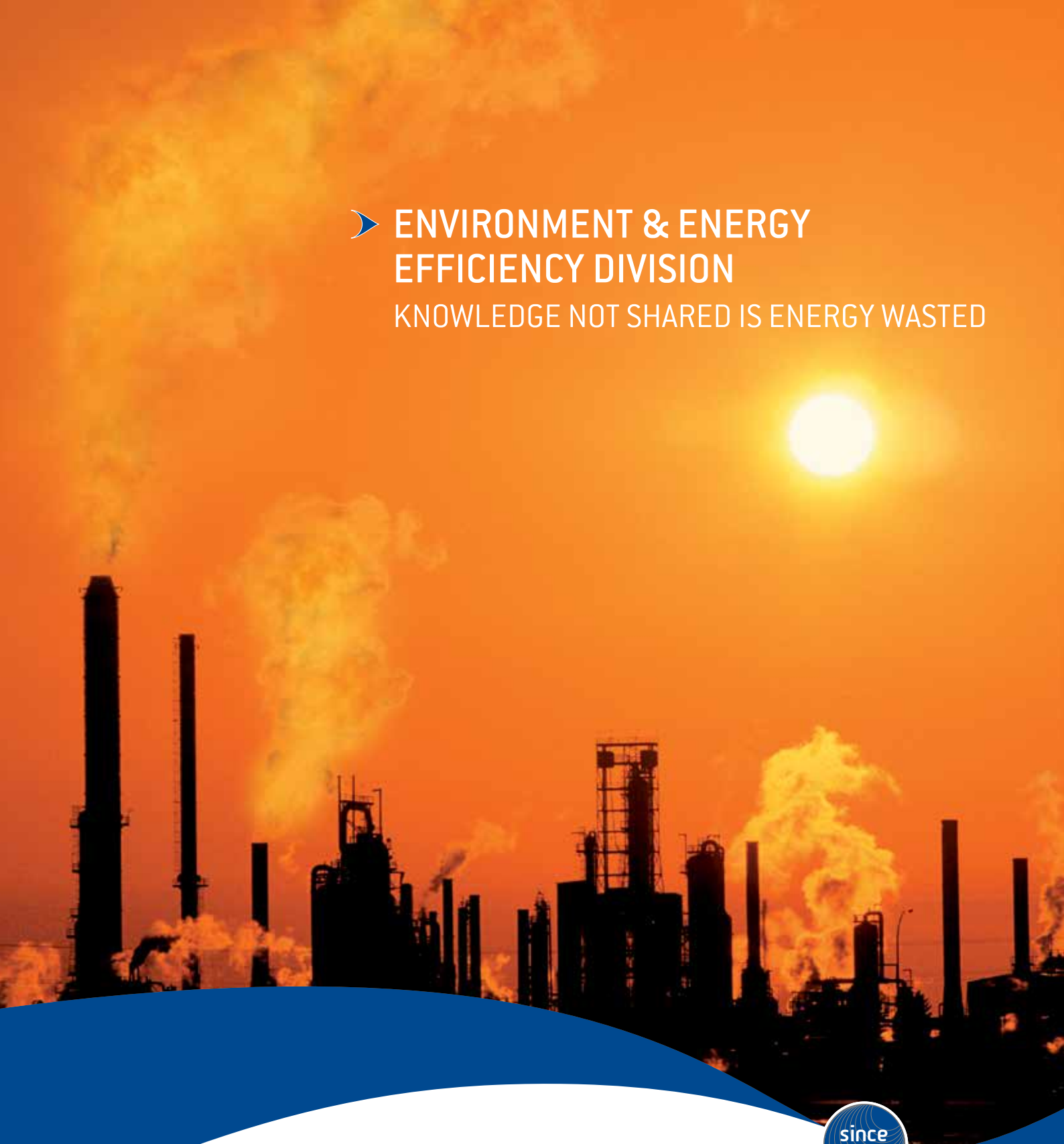


➤ ENVIRONMENT & ENERGY  
EFFICIENCY DIVISION  
KNOWLEDGE NOT SHARED IS ENERGY WASTED



since  
1881

**T&C** TROUVAY  
GROUP & CAUVIN

Channelling energy



ISO 9001  
ISO 14001  
OHSAS 18001

# PUT AN END TO WASTE

By providing specialized solutions to customers, Trouvay & Cauvin has established partnerships with a number of leading companies in specific sectors of the energy industry. One of these partners is Armstrong International, a world leader in steam, air and hot water products and energy management. Trouvay & Cauvin is the sole distributor of Armstrong steam products and services for OPC markets in Qatar, U.A.E, Saudi Arabia, Oman, Kuwait and Africa.



## SERVICE CENTER

We propose a full range of services that puts our exhaustive knowledge to work for your network.

### STEAM SURVEY

A trained Trouvay & Cauvin reports on all the steam traps on site.

- Testing of all trap stations
- All results analyzed using software
- Complete report with more than 30 data points per trap
- Detailed drawing of each trap station with all traps
- Smart replacement proposal

### STEAM ENERGY PRE-AUDIT & AUDIT

Complete study of the condensate loop:

- Steam generation, distribution and consumption analysis
- Condensate recovery analysis
- Steam traps surveys
- Flash steam recovery

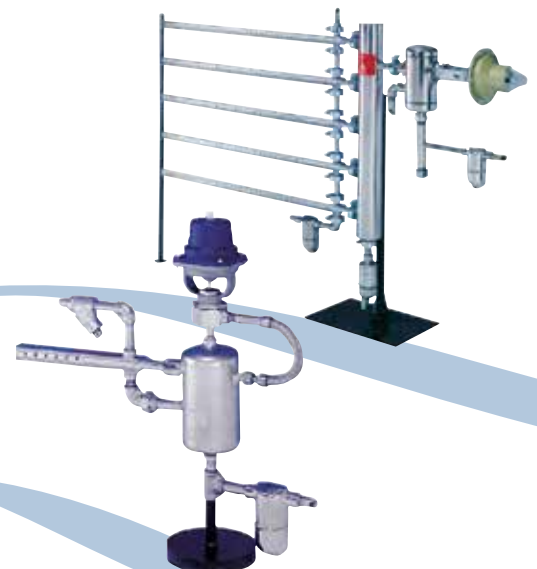
Return on investment calculation and savings estimation.

### OPTIMIZATION STUDIES

Engineering studies dedicated to a specific area of your steam network or for a specific problem. Detection, analysis and elimination of water hammering, improved drainage of flooded heat exchangers and improved steam quality is only a part of the service that we can offer.

## STRENGTH OF A LEADER

Armstrong is a family owned company founded in the United States in 1901. Today it is a world leader in steam, air and hot water, with more than 1,000 employees in the U.S, Europe and Asia. The European division, founded in 1969, covers Europe, the Middle East and Africa.





## PRODUCT RANGE

### STEAM TRAPS

Armstrong manufactures a full line of steam traps for various industrial applications.

- **Inverted bucket steam traps**
- **Float & thermostatic steam traps**
- **Controlled disc (thermodynamic) steam traps**
- **Bimetallic & bellows steam traps**
- **Superheated steam applications**
- **Clean steam applications**

### LIQUID DRAINERS

Armstrong float-type liquid drainers are designed for draining heavy liquids from gases or draining water from light liquids (dual gravity drainers). These liquid drainers can operate to 255 barg or specific gravity down to 0.40.

### AIR VENTS

Armstrong float and thermostatic air relief traps are designed to remove gases from liquids down to 0.40 specific gravity and for the removal of non-condensable gases from steam systems.

### STEAM TRACING EQUIPMENT

Tailor-made and completely pre-assembled packages that include steam distribution and condensate collection manifolds, trap valve stations, steam traps, thermostatic start-up and freeze protection valves. Packages enable shorter installation time, easier maintenance, improved safety and higher energy saving.

### PRESSURE AND TEMPERATURE CONTROL

Armstrong pressure reducing valves and temperature regulators help you manage steam, air and liquid systems safely and efficiently to ensure uninterrupted productivity by maintaining constant pressure or temperature for process control.

- **Direct-Acting**
- **Internally Piloted Piston-Operated**
- **Externally Piloted**

### STRAINER

Y-type pipe strainers in a wide choice of sizes and materials, to meet the bulk of pipeline-straining requirements.

### CONDENSATE RECOVERY EQUIPMENT

Armstrong mechanical pumps offer all the benefits of returning condensate without the expensive maintenance commonly associated with condensate pumps.

- **Condensate pump trap packages**
- **Flash recovery vessels**

### HUMIDIFICATION

Armstrong humidifiers help achieve precisely controlled, trouble-free steam humidification

- **Direct steam injection**
- **Steam-to-steam**
- **Fogging**
- **Hot water system**

### INSTANTANEOUS WATER HEATERS

- **Water temperature mixing unit**
- **Instantaneous water heaters**
- **Electric water heaters**
- **Heat exchangers**



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**We have 11 offices in the Middle East,  
4 in Asia, 1 in Europe, 1 in USA and  
1 in Africa.**



# TRAINING

**Trouvay & Cauvin Gulf & Armstrong International presents:  
Trouvay & Cauvin Steam School technical seminars**

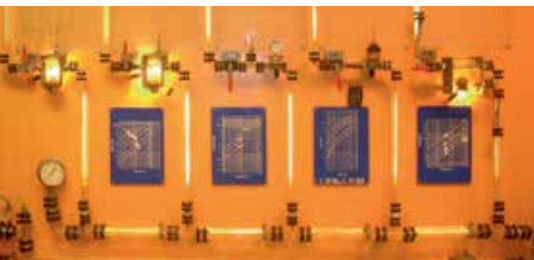
By sharing our knowledge through seminars we provide you with a better understanding of the properties of steam, its application in the industry and specific equipment.

### ENERGY SEMINARS

In our seminars you learn how to select the right product for the specific needs of your applications. A review of the basic theory of steam gives you an opportunity to refresh

your knowledge in this area. The technical aptitude and field experience of Armstrong trainers provides a practical overview of the different elements of traditional installations. Installation design, selection and maintenance aspects are addressed from the standpoint of optimization.

Our dynamic and interactive sessions are designed to encourage a real exchange of experiences and knowledge. You will have the opportunity to ask questions related to your particular needs. Trouvay & Cauvin Gulf energy seminars offer you technical, practical, objective and neutral training generally suited to the different equipment used in industrial processes.



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