

www.empotek.com

EMPOTEK ENGINEERING

Energy-Engineering and Pump
Technologies



Your Industrial Solution Partner

EMPOTEK ENGINEERING



Energy Efficiency and EMPOTEK

It provides variable services for industrial companies about energy efficiency without compromising of quality to reach minimum energy with maximum efficiency.

The primary objective of Empotek is presenting advanced technology to the Turkish industry by following the ultimate development and transforming Turkey one of the prominent countries in the field of energy efficiency. EMPOTEK ENGINEERING, which has experienced engineers who are expert in their field; prestigious partners, internationally; a hundred of projects that were successfully achieved and its references at home and abroad, provides the most appropriate solutions for your company.

Energy efficiency is the key for being provided of a sustainable energy system which is safety for future, reliable and reasonably priced. It is the only energy source that is the fastest and most cost affective way to handle energy security, environmental and economic challanges and each country has in abundance.

In today's world, saving energy has considerable importance fort he future of the companies.

2040 ENERGY DEMAND IN THE NEW POLICY SCRIPT

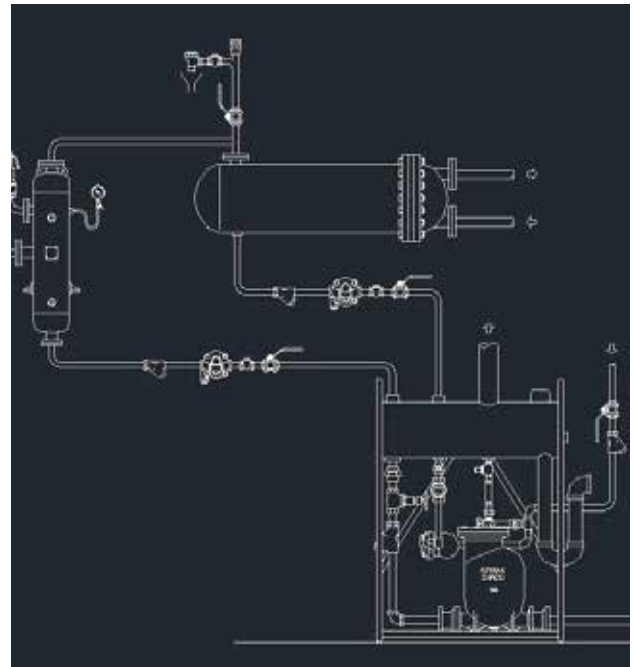


Empotek Flash Steam System

The flash steam is produced when high-pressure condensate bleeds off to the low pressure. The word "Flash" describes the formation type. Water boils in 100 C at atmospheric pressure. The steam is generally used in pressure more than atmosphere pressure in steam tubes or pressure pot.


Condensation occurs when the steam is transferred to the heated product or to the environment with the loss of radiation. Besides, this condensation has the same pressure and temperature with the steam.

This pressure condensate has more energy when it exposures atmosphere pressure than it could consist at atmosphere pressure. This additional energy is used to transform some part of condensation into steam. This occurrence is named as flashing and the steam being produced in this way is named as flash steam.




“You Provide High Saving with Flash Steam Recovery in Your Factory”





HENATEKS
DYEING AND FINISHING
ind.trade.co.ltd.




We, as HENATEKS, work with ownage and focusing hihly to use our sources and energy more productive and revalue our waste by being eco-friendly in the locality which we facilitate in.

We run our Works with EMPOTEK ENGINEERING and we develop and apply productive projects oriented to the needs to be used by auxiliary operations apart from developing industrial standard projects. We contribute to our productivity highly with one of these projects, called as EMPOTEK FLASH STEAM SYSTEM.

We save up 225.054.00 TL with the Empotek Flash Steam System in a year Carbon release is reduces 3068 ton with the Empotek Flash Steam System in a year 12.265 tree is gained with the Empotek Flash Steam System in a year in a year Thanks to Empotek Engineering and its dear stuff for the service.

Authorized: Emre Tokgöz
Signature



Merket: E-3 Çiftlik Bulvarı Yolu
Çiçek Plaza B. Katman: A3 Blok
Kat B. Çiçeği 13 Şişli/Beşiktaş/İST.
Tel: (0212) 412 76 00 16 1640
Fax: (0212) 412 76 33

Fahriye: Çarşıbaşı Sanayi Çi.D.P.
Sok. No: 10 Kat: 7. Çiçeği/Beşiktaş/İST.
Tel: (0212) 198 13 62 / 5 Kat
Fax: (0212) 198 13 68

EN ISO 9001

Steam Boiler Automation System

- Steam Boiler Proportional Supply Systems
- Steam Boiler Blowdown Boiling Water
- Steam Boiler Blowdown Sludge
- Steam Boiler Separator Executions (Dry Steam)
- Steam Boiler Boiler Make up Water Pumps
- Steam Boiler Degasifier Feed Water Pumps
- Steam Boiler Flash Steam Executions



Keep yourself and your flat under guarantee with full automation steam boiler systems...

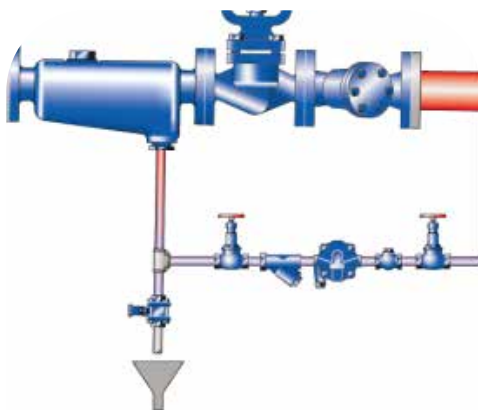
BOILER ROOMS EQUIPMENT

- Steam Boiler
- Burner
- Degasifier
- Make up water tank
- Ekonomiser
- Blowdown Sludge
- Blowdown Boiling Water
- Level Control Systems
- Boiler Room Armatures (steam valves, safety valves, thermostatic valves, pressure reducing valves, separator, vacuum breaker,

STEAM DRYING

Steam separators hold the water that slides into the operation and they are the armatures that condensate from installations by % 99. They were designed privately to protect separation outputs which is high duty, variant steam velocity and for line spectrum that Works up to maximum 40 bar

Steam separators increases productivity and production quality. It decreases the maintenance cost and stop time. It removes maintenance cost deriving from water-hammer and its detriment. It doesn't need to be maintained thanks to its simple and durable design. Extensive goods and connector selection provides measurement of steam, air and gas transparently. (When it is used to protect the steam counter) It provides fuel economy. It has high strength. It is produced from body welding construction and carbon steel. Resistance to pressure and seepage test is applied for the whole manufacturing items.



Using Separator in an Obligation in Steam Lines...

To steam boiler exit line: It prevents transfer of chemicals, aggressive liquid, and foreign materials, which are included in make up water, into the steam lines.

In front of the control device: It increases efficiency and extends bench life of the equipments such as; pressure reducer, control valve, and steam valve.



STEAM TRAP AND CONTROL VALVES



STEAM TRAP AND MONITOR SYSTEM

The Spirax Sarco steam traps are the products that has the most discharging capacity in the world. You can control leakage with the monitor system for 24 hours.



CONTROL VALVES

PID setting of Spirax Sarco control valves is done easily. Besides you can maintain of valves without taking down the installation.



GET UNDER CONTROL THE STEAM LEAKAGE

We can check your steam trap leakage control and system review with our experienced staff.??????

A MONITORABLE SYSTEM

Steam leakage in your steam traps causes loss of money. The monitorable systems take care of your steam traps for 24 hours and inform you about the leaking steam trap.





LOWARA PUMP DEALERSHIP

RIGHT PROJECT DESIGNING WITH RIGHT ENGINEERING



PUMPS WITH OPEN FAN

Opportunity of compressing water with chemical and particle with the fans that are high efficiency and open fan.



CLEAN WATER AND EFFLUENT WATER PUMPS

Different solution proposals with the highest efficiency in industry and building sectors.



FIRE HYDROPHORE

Fire hydrophore as part of the fire code.

HIGH EFFICIENCY IS A HABIT-FORMING

Using energy efficiently increases competitiveness by increasing sustainability. Selection of the right pump has to be done with right engineering. The selected pumps with system reviews do a service to your company for years, efficiently.



Empotek Hydrophore System

Empotek provides pump system and solution with industrial process and industrial engineering experinece.

Empotek provides the most appropriate solutions to specific industrial executions by gathering need-based service competency and engineering skills with system integration and integrated smart systems.

Adaption and engineering are our strengths and we can supply different pump patterns for water purification, high temperature and steam, hypothermia and heating, effluent water and the other usages properly.

You achieve high efficiency by choosing suitable pumps for demand and process and doing Project designing thataway.

When it is considered that pumps consume 10-15 % energy in the world, we make pump selection by doing life time ergy cost analyze in your company.It must not be forgotten that purchasing cost of pump is 2% in life time energy cost analyze.



“Don’t forget that you pay money for pump once, you save money for the energy that the pump consume continuously.”

Life time cost of a pump system includes the total amount of first purchase price, operation and maintenance cost for its estimated life span.

It is difficult to predict life time cost of the system, when we think that a pump has 15-20 years working life.For this reason, the ones who make a system selection based on initial investment and assembly cost.

But, the initial investment cost is quite a little that the other (maintenance and energy) costs.The selections which are done by being thought the initial investment cost are mostly wrong selections.



HEAT GAIN FROM WASTE HOT WATER

WASTE HOT WATER AND WASTE HEATED AIR MEANS MONEY



HEAT RECOVERY APPLICATIONS IN TEXTILE

Energy costs which is known as it is going to increase more with the increasing fossil fuels around the world will just be decreased with energy efficiency policies.

Decreasing the expenditure of energy can be achieved by providing system optimization through investment so as to make it possible for energy to be used more efficiently and analyzed for all sort of electric, lightning and heating systems with regards to its consumption.

Heat recovery applying which cannot be used directly in the company because of getting soil but being valuable in terms of thermal is one of the fastest self liquidation.

Hot waste water which is arisen from color machines in textile factories is a heat economy source considerably. To be sent to the purification facility of the polluted water directly without being mixed with hot polluted water which is derived from color machines; evaluation of hot polluted water in heat gain system is a profitable investment extremely with its low investment cost.



DETAILED ENERGY ETUDES



Right Projects with Right Evaluations

**MEASURING IS COGNIZING,
COGNIZING IS MANAGING...**

- Analyzing of System Efficiencies of Processes at the Companies
- Formation of Efficiency Projects and Evaluation of Missing or Waste Energy
- Boiler Room Analyzer
- Analyzing of Steam Installation and Evaluation of Missing and Leakage in Steam Practical Experience
- Analyzing of Compressors, Diameter Control of Aerial Lines and Evaluation of Seepage Loss
- Productivity Study of Pumps, Pressure Loss Control and Pump Output Control
- Energy Class Fixation of Electric Motors and Efficiency Controls

- Energy Measurements of System in Which Energy is Used Intensively in the Company, Current Situation Assessment and Improvement Recommendations
- Evaluation of leakage by doing Line Measurement and of Steam Valves with Thermal Camera Measurements
- Calculating Green House Gas Emission
- Lightning Measurement and To Be Compared with Current Efficiency Lighting System



REFERENCES



Energy Conservation is an Obligation for Better
Tomorrow and Sustainability

EMPOTEK ENGINEERING



EMPOTEK ENGINEERING CONSULTING INDUSTRY AND TRADE LIMITED COMPANY

Province of Tekirdag, district of Corlu, neighborhood of Kazimiye,
Dumlupinar Road Kilicoglu Prestij Business Centre , Apartment Building #11, 3rd floor

Tel : +90 282 673 16 66 Fax : +90 282 673 16 68

Mobile : +90 533 744 21 56 • info@empotek.com

www.empotek.com