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GEA Group has won the competition for “Best Innovators 2010/2011” in the sector of mechanical engineering.

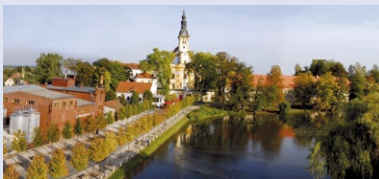


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Water is a valuable resource and responsible plant technology contributes to the conservation of this resource.



Innovative technologies and system solutions for outstanding beer compositions – this is GEA Brewery Systems.

Focus on green breweries

Go green – Reduce your environmental footprint with optimized equipment and processes from GEA Brewery Systems – for long-term sustainability and for your successful economic future.

GEA Brewery Systems has its focus on the conservation of natural resources, yield increases in the brewing process and significant savings in operation costs.

We develop innovative solutions considering your local conditions and your economic and ecological requirements. The benefits are good for our customers, their local image and their image on the market, for our environment and the ecological balance:

- Minimized consumption of natural resources like water, energy and raw materials
- Making the brewing process as efficient and predictable as possible
- Reduced odour emissions by up to 100 %
- Recycling of by-products or waste products
- Tailored energy management

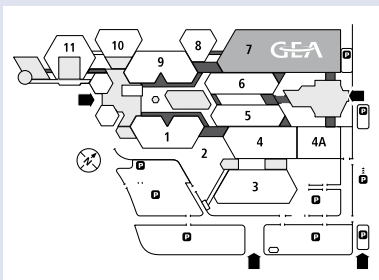
The competence and technology of GEA Brewery Systems have always been the basis for many great beers. Our range of services includes everything from engineering, delivery and installation up to the servicing of plants and components. Our core competence is in process optimization and modernization. Upon request, we also realize complete greenfield projects.

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*Brau Beviiale 2011,
Exhibition Centre Nuremberg,
9 – 11 November 2011,
daily 9:00 a.m. to 6:00 p.m.*



GEA Group, hall 7, stand 602.

Welcome to Brau Beviiale 2011

Meet us at the world's most important capital goods exhibition for the brewing and beverage industry.

Brau Beviiale takes place from 9 – 11 November at the Exhibition Centre Nuremberg and is geared completely to the latest developments and trends in the production and marketing of beer, water, juice & Co.

Learn more about our innovations at the GEA Group stand, hall 7, stand 602:

- Conservation of resources with our efficient energy storage concept
- COMPACT-STAR™ – Modular brewhouse concept for 40 hl – 100 hl
- ECO-FLASH™ – Risk-free quality due to flash pasteurization
- ECO-FERM™ – More capacity and higher reproducibility in the fermenting room
- GEA-Assist – Project support and comprehensive maintenance service

Attend our presentations in the Exhibitors Forum, hall 4A, stand 517

- Wednesday, 9 November, at 11:20 a.m.:
The energy storage system – Definition of system efficiency and optimization potential (Dr. Rudolf Michel)
- Thursday, 10 November, at 10:20 a.m.:
COMPACT-STAR™ – Innovative brewhouse concept for 40 – 100 hl (Oliver Jakob)

Welcome to our "GEA Night"

We look forward to welcoming you at the GEA Night on 10 November, starting at 6:00 p.m. at the GEA Group stand!

New Sales Director at GEA Brewery Systems

On 1 October 2011 Jens Neidhardt took over as international Sales Director of GEA Brewery Systems.

We are pleased to inform you that on 1 October 2011 Jens Neidhardt took over as international Sales Director for our activities in the brewing and beverage industry. With him we could win a competent and motivated new top executive for our team.



Jens Neidhardt

One sales management for Germany and abroad

Jens Neidhardt is 44 years old and has many years of international sales experience in different industries, especially the food and beverage industry. Before joining GEA Brewery Systems, he served as Managing Director of Hamba Filltec GmbH in Saarbrücken, a member of the OYSTAR Group, and before that, he held the same position at SIG Combibloc Ltd in Great Britain.

In almost twenty years of working in corporate groups and medium-sized companies, Neidhardt gained intercultural competence in customer and market support as well as comprehensive expertise in Key Account Management and the successful management and implementation of international projects.

Meet Jens Neidhardt personally at Brau Beviale 2011.

Jens Neidhardt is looking forward to the new challenge and the related tasks, particularly to a pleasant and successful cooperation with you.

“Innovation Pipeline” convinced the jurors

GEA Group has won the competition for “Best Innovators 2010/2011” in the sector of mechanical engineering.

The competition – sponsored by A.T. Kearney and the German magazine WirtschaftsWoche, and supported by the German Federal Ministry of Economics and Technology (BMWi) – honours every year those companies and management teams that practice effective and sustainable innovation management.

This prize was awarded after the “Best Innovator Executive Roundtable” held on 9 June of this year in the BMWi Conference Centre in Berlin.

Innovation is a key factor for success

The jurors awarded this prize to GEA Group for its meritorious innovation culture in the mechanical engineering sector. As Dr. Kai Engel, partner in the business consultancy A.T. Kearney and initiator of the competition, explained: “GEA Group has clearly and definitely defined its growth objectives within the context of innovation.” Dr. Blaum emphasized, “Population growth, urbanization, climate change, and many additional issues demand innovations. As a corporate group that is at home, for example, in the food and beverages sector, in chemical and power engineering, as well as in building services and in agriculture, GEA is willing and able to make a sustainable contribution to a livable future.”

To ensure that this takes place in a goal-directed manner, GEA Group has implemented its so-called “Innovation Pipeline”. This management instrument supports the innovation process beginning with the idea, including feasibility studies, and extending throughout development to the finished product and its systematic further development. Additional GEA management tools – including the idea management tool i²m, a knowledge-management process that includes all company locations, as well as in-house innovation competition – additionally promote fruitful innovative results.



Dr. Hugo Blaum, Member of the Executive Council of GEA Group and President of Refrigeration Technologies, accepted the prize on behalf of GEA Group from Ernst Burgbacher, State Parliamentary Secretary of BMWi, and from Roland Tichy, Editor-in-Chief of WirtschaftsWoche.

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Innovation Pipeline provides space for new ideas

The GEA Innovation Pipeline accordingly ensures that promising ideas from all GEA companies in the world – both from the management as well as staff levels – are recognized, selected, and successfully implemented in a goal-directed process. This is a process that often includes a number of companies in GEA Group. The Innovation Pipeline gives the participating teams space to develop their ideas, helps them in formulation of objectives, supports them in reaching their goal, and promotes cooperation. As Dr. Blaum stresses, “This shortens time-to-market results, raises work efficiency, and eventually enhances customer benefits.”

New solutions for a better future

Many and various revolutionary products evidence the creative spirit of the approx. 23,000 employees of GEA around the world. One example in the energy sector, maximal efficiency is the prime goal. In line with this objective, an innovation from GEA will organize the gas transport chain in a more climate-friendly manner, by re-using the energy originally expended during liquefaction of natural gas when it is once again gasified. The GEA solution realizes this objective to considerably greater extent than previous solutions. In refrigeration and HVAC engineering as well, conservation of resources is a key factor. With product innovations such as the GEA HeaMo for energy-efficient, bivalent heating and cooling – and with the Grasso BluAstrum ammonia chiller that received the German Refrigeration Prize – GEA systems reduce the energy consumed in buildings and factories.

GEA innovation instruments win a series of prizes

“Being named industry winner of the prestigious ‘Best Innovator’ award underscores our goal to be at the forefront in shaping technological advances and to offer our customers the latest solutions at all times. This is backed by the cross-segment integration of all aspects of our expertise. Diversity is one of our strengths,” said Jürg Oles, Chairman of GEA Group’s Executive Board.

The Best Innovator prize is already the second prize that GEA has won this year for its innovation culture. On 17 March the company was awarded a prize as Best Idea Management for Machine and Plant Engineering and Construction, by the German Idea Management Center. In the competition results here, which spanned several industrial sectors, GEA won third prize.



GEA Group won the prize for its exemplary innovation culture in the mechanical engineering sector.



Freyburg on the Unstrut, where the historic sparkling wine company is located.

Let's raise our glasses: Expansion at Rotkäppchen-Mumm Sektellereien GmbH

GEA Brewery Systems does not only provide technology for beer brewers, but also the new process piping for the sparkling wine producer in the heart of Germany's northernmost wine-growing region Saale-Unstrut.

Since the early 90s, continuous investments have been made in the historical sparkling wine company located in Freyburg on the Unstrut. In connection with the installation of the tartrate stabilization system of GEA Westfalia Separator Group, GEA Brewery Systems started the integration of process technology and piping systems.

In spring 2011, Rotkäppchen-Mumm Sektellereien decided to make the production equipment in Freyburg fit for the future. The filling capacity is to be raised from currently 20,000 bottles per hour to 28,000 bottles per hour. This capacity increase thus affects the overall production process.

In detail, this means:

- Set-up of three fermentation halls with 36 fermentation tanks each (each with a filling volume of 160,000 l)
- Process piping of the new fermentation halls
- Increase of the filling and emptying capacities in the existing fermentation halls 1–7
- Capacity increase of the filtration and tartrate stabilization equipment
- New bottling system for 28,000 bottles per hour

In the first construction phase in early May this year, GEA Brewery Systems started to realize the process piping in fermentation hall 8 with 36 fermentation tanks. This also included the process link-up with fermentation hall 7 for wine, sparkling wine, water and exhaust air.

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Piping system with fixed switching panels.



The bottling capacity is increased to 28,000 bottles/hour.

In total, 1250 meters of stainless steel pipes with a nominal diameter of DN 50 to DN 80 will be installed in this area on stainless steel brackets, as fixed piping as it was already done in the existing fermentation halls. Already at that time, this piping system with permanently installed switching panels (see picture) replaced the old hose system, because it is much easier to handle by the operating staff and ensures improved work safety.

The fermentation tanks were designed with manually operated shut-off valves, because they are filled and emptied only twice a year. The swivel bends have an expansion valve to make it easier for the operating staff to loosen the screw connection (6–8 bar g operating pressure). All installation and welding work is carried out by our qualified staff. Special attention is paid to the long pipes with the corresponding gradient as well as the projection of welding seams, which shall not exceed 10 % of the wall thickness. For all pipes, the TIG inert gas welding method is used; then the outside of the welding seams is passivated (pickled). The pipes are placed parallel to the rows of tanks and end before each tank with a manual disk valve for wine or sparkling wine. For economic reasons, there are group connections for exhaust air to the respective ring lines.

Home of excellent taste and delight.

In 2010, Rotkäppchen-Mumm Sektkellereien GmbH produced about 162.5 million bottles of finest sparkling wine in Germany at their facilities in Freyburg on the Unstrut, Eltville on the Rhine, Hochheim on the Main and Breisach on the Rhine. With a market share of about 47 % it is the market leader in the sparkling wine market in Germany.

Klosterbrauerei Neuzelle with safe and efficient CIP system

Family-owned brewery with a long history placed an order with GEA Brewery Systems to supply an automatic batch cleaning system to support the existing CIP equipment.

In the shadow of the monastery, between the monastery's pond and a small river, the Klosterbrauerei Neuzelle is situated – one of the oldest breweries and the only family-run brewery of this size in the federal state of Brandenburg. According to the monks' ancient art of brewing, more than 30 unique beer specialties are produced in the historic brick building and sold all over the world. All beers of the monastery brewery are also be available in the online beer shop www.klosterbrauerei.com.

The Klosterbrauerei Neuzelle ordered an automatic batch CIP system from GEA Brewery Systems. The CIP equipment in the unfiltrate and filtrate area will be supported by the new GEA CIP system.

Our innovative CIP plant is equipped with three pre-run traverses, two hot and one cold pre-run traverse for pipe cleaning (including filler, flash pasteurizer and keg), the bright beer tank cellar and a special circuit for premix, mixer and siphon. When planning the CIP tank volumes, it was put into consideration that a medium is used simultaneously by all three CIP circuits, this means it is used in parallel cleaning processes. This leads to significant time and cost savings in the production process.

The brewery's new CIP plant has four tanks. To heat up the CIP media, highly efficient vertical tubular heat exchangers, type VARITUBE® HS, from GEA TDS are used. Safe media separation is realized by GEA Tuchenhagen double seat valves and double seal valves. Further process components for pumps, measuring and control equipment, concentrate dosing and energy supply are provided by renowned subsuppliers.

When this CIP equipment from GEA Brewery Systems will be put into operation in autumn 2011, this means for the customer:

“Safe and efficient cleaning”



Traditional beer is brewed in Brandenburg... and it is available online!

Würzburger Hofbräu invests in the future

With LAUTERSTAR™ the traditional Franconian brewery takes another step towards technology for the brewing business of tomorrow.

In late June this year, a new modern lauter tun from GEA Brewery Systems was delivered to the site of Würzburger Hofbräu brewery in Würzburg and placed into the brewhouse with a crane.

According to Managing Director Michael Haupt, responsible for production and technology, Würzburger Hofbräu has invested in LAUTERSTAR™ technology in order to be able to maintain the high standard of its range of beers comprising 30 beer types. “A lauter tun separates the beer wort from the malt grains. Therefore it is very important for beer brewing and has to function very well” explains Michael Haupt. “Of course we will continue brewing our Würzburger Hofbräu beers according to the old recipes – the fans of our beers can count on that.”

Investment ensures future high quality

The brewery’s lauter tun from 1964 had always worked well, but it had become quite old. Now it is replaced by the GEA stainless steel lauter tun with LAUTERSTAR™ technology. With a diameter of 4.75 metres and a weight of 15 tons it is so heavy that it needs a crane to bring it into the brewhouse and to set it up there. “We integrate the new lauter tun in our existing brewhouse and with this important upgrade we ensure the constant high quality of our Würzburger Hofbräu beers also in the future” the Managing Director points out.

Regional partners successfully involved

This investment is not only a benefit for the brewery, its loyal customers and the beer fans, but also for the region. Würzburger Hofbräu had contracted the local architects Geisendörfer to undertake the planning and site management. GEA Brewery Systems, also a local company, was in charge of design, manufacture and putting in place. Finally, Michael Haupt emphasizes “We are very happy that with these two companies we had local partners and that the cooperation in this lauter tun project was so good”.



Michael Krasser, Michael Haupt (Würzburger Hofbräu) and Holger Donner (GEA Brewery Systems).



Our fitters at work.



*Falling-film evaporators –
Amazing interior ...*



... and impressive dimensions.

A giant for China

Special in many ways: The 5-stage, directly heated falling-film evaporator which is currently being manufactured at GEA Brewery Systems in Kitzingen for a customer in China.

This equipment is very special, starting with the product T acid (8-amino-naphthalene-1,3,6-trisulphonic acid), which is used as basic material for dye production, up to the process engineering and the mechanical design of the equipment.

The evaporation temperature of the evaporator, which is designed for a capacity of 10 t/h and a final concentration of 64 % TS, is far beyond 100 °C in the first evaporator stage. This is rather seldom, because evaporator systems often work in a vacuum and thus in a temperature range far below 100 °C.

In this case, however, the high temperature was chosen to avoid possible crystallization of the T acid. To complicate matters further, the high temperature has to be maintained during full-load operation as well as during partial-load operation of the system with 40 % capacity. This required a complicated process design and a complex control concept. As a consequence, a large part of the system is designed with double jackets for heating and because of the high pressures and temperatures an approval is required.

Furthermore, the system is made of 316L material and is completely explosion-proof. The mechanical design is in accordance with AD-2000 taking into account the procedure for the Chinese GB approval. As one of only few companies in Germany, GEA Brewery Systems has this approval and is therefore ideal for the production of the plant. Essential parts of the equipment such as the lower part of the heating device and the centrifugal separator are assembled in the manufacturer's factory to avoid welding work on the equipment on site.

Many years of know-how pay off

GEA Wiegand has 25 years of experience in the field of T acid concentration, which also made the consultants of the Chinese customer recommend GEA Wiegand as supplier. In view of the complex mechanical design, they also agreed to have the complete system manufactured in Germany.

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2011: A successful year for us –
thanks to you!

Take a look at some projects undertaken this year.



*COMPACT-STAR™ –
The concept for the future.*

COMPACT-STAR™ supplied to OOO Alpina in Abakhan

The first COMPACT-STAR™ for a medium-sized brewery will soon be put into operation at brewery OOO Alpina in Abakhan (Russian Federation). The 60 hl brewhouse consisting of mash vessel, lauter tun with LAUTERSTAR™ technology, Whirlpool/wort kettle and condensate collecting tank, meets all requirements of modern brewing plants.

Space-saving modular design, short installation and commissioning times as well as production equipment control and expansion options in the brewhouse to 12 brews per day and in the cold area are the best proof of future-oriented planning and excellent technology applied by GEA Brewery Systems for growth-oriented medium-sized breweries.



*MILLSTAR™ –
All advantages on its side.*

Bell's Brewery, Inc. expanded its facility in Galesburg, Michigan (USA)

The project includes a 250 hl brewhouse, polished to showpiece finish and designed for 12 brews per day. In addition to the 5 vessel brewhouse we supply a MILLSTAR™ 20 t/h, the energy storage system, a hot water tank, a chilled water tank and our CIP system. The brewhouse is currently being delivered from our manufacturing facilities in Hudson, Wisconsin (USA) and commissioning is scheduled for February 2012.

When finished, Bell's Brewery will have a peak capacity of approx. 17,000 hl per week in the new brewhouse. Additionally the old brewhouse will be used for the smaller brands. The control system is based on brewmaxx™, executed by GEA Process Engineering North America and includes the automation of the new sections for malt storage and handling.

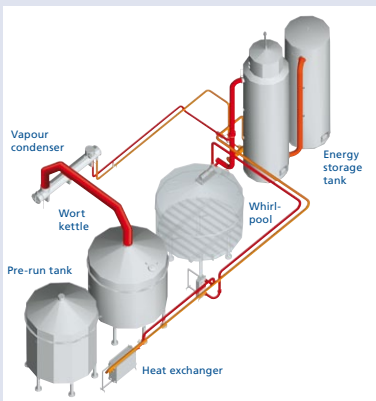
SAO PINO in Novorossijsk orders COMPACT-STAR™

Installation and commissioning of another COMPACT-STAR™ will soon start at SAO PINO brewery in Novorossijsk in a new and modern functional building on the brewery's premises.

The upgrade of the brewhouse with a cast-out quantity of 100 hl cold wort will improve production processes and a flexible production capacity will lead to considerable energy savings; an expansion of the fermentation, storage and yeast cellar will follow. brewmaxx™ will be used as automation software.

International Breweries improve their energy efficiency with GEA Brewery Systems at Cerveceria Hondurena

Cerveceria Hondurena has decided to install a new energy recovery system from GEA for the existing brewhouse in their brewery in San Pedro Sula, Honduras, a city with the tropical climate of Central America: Honduras borders the Caribbean Sea on the north coast and the Pacific Ocean on the south. Cerveceria Hondurena has a production of more than 1 million hectolitres per year and is a brewery of SAB Miller in their Latam Region.



Energy storage system with vapour condenser – improved efficiency.

The energy recovery system is part of a program of SAB Miller to reduce energy consumption in their global breweries to meet new standards. GEA Brewery Systems will supply a vapour condenser to be installed on the roof of the brewhouse, an energy storage tank and a wort heater for heating up the wort during transfer from the wort pre-run tank to the wort kettle. The wort will arrive in the wort kettle at almost boiling temperature with 95 °C. This saves the thermal energy input for heating-up, which is about 2800 kg of steam per each brew of 570 hl. This means savings of 40 % of primary energy used for wort boiling.

Energy storage system and refrigeration supply for Lipetzkpivo in Lipetzk (Russian Federation)

The extensive expertise of GEA Brewery Systems to plan and implement customized energy saving concepts for breweries was decisive to receive an order for an energy storage system consisting of wort heater, vapour condenser, vapour condensate tank and energy storage tank.

The project scope was successfully completed in April 2011 and all predetermined project data were confirmed; the requested significant reduction of the heating time in the wort kettle was achieved.

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*Refrigeration supply with
GEA Grasso.*

Parallel to the modifications in the brewhouse, the refrigeration supply was also upgraded by GEA Brewery Systems according to the brewery's higher refrigeration requirements. This was achieved with R507 chillers from GEA Grasso. Maximum flexibility and efficiency – which is a must in this energy-intensive process – was ensured by splitting the capacity between several chillers and by providing the consumer pumps with frequency converters.

COMPACT-STAR™, the showcase brewhouse of Firestone Brewing Company in Paso Robles, CA (USA)

Half way between Los Angeles and San Francisco, a COMPACT-STAR™ brewhouse will be a showpiece in plain sight from the highway US 101 as well as from the new brewery restaurant. The existing 70 hl brewhouse will be upgraded with a lauter tun (Ø 3,400 mm), a wort kettle, a Whirlpool and a MILLSTAR™ 10 t/h to increase the capacity of the brewhouse from 7 to 16 brews per day. The automation with brewmaxx™ will comprise the new brewhouse, the existing vessels and the new malt storage and handling area. The brewhouse will be manufactured and automated by GEA Process Engineering North America.



*Innovation in the brewing industry
– Nanofiltration system from
GEA Wiegand.*

First GEA nanofiltration system for the brewing industry to be supplied to RUDO AKVA brewery in Lakinsk (Russian Federation)

With the expansion of the existing brewhouse and the installation of new cellar equipment, the latest GEA technology for beer and beverage production will be applied at RUDO AKVA brewery, including a nanofiltration system of our sister company GEA Wiegand. The scope of supply and services of GEA Brewery Systems includes the upgrade and expansion of the complete beverage production plant, i.e. brewhouse, yeast equipment, CIP, refrigeration plant and nanofiltration system for beer decolouring, complete automation for the overall brewery and integration of new fermentation and storage tanks.



Lauter tun with LAUTERSTAR™ technology.



JETSTAR™ – Technology and energy management hand in hand.

ABInbev will build its new breweries in China with GEA

The ABInbev brewery group invests in the expansion of its breweries in China. The contractor in this project is our sister company GEA Process Engineering China in Shanghai. From brewhouse engineering up to technological commissioning these projects will be executed in close cooperation with GEA Brewery Systems. Various brewhouse components, for example parts of the LAUTERSTAR™ and other brewing vessels, will be manufactured in Kitzingen.

The cooperation between ABInbev and GEA started in late 2010 with a new brewing facility in Chengdu (Sichuan Province). Here, the famous ABInbev brands like BUDWEISER or HARBIN are produced in a brewing line with a capacity of 12 brews per day. The acceptance procedure for this new facility will be completed in the fourth quarter of this year. Parallel to this project, orders for two other breweries in Xinxiang (Henan Province) and Yingkou (Liaoning Province) have been placed.

Greenfield projects in Brazil – and GEA is part of it

In early February 2011, our sister company GEA Engenharia de Processos e Sistemas Industriais was awarded the contract for two tank farms in greenfield breweries of a large international brewery group in Brazil.

The breweries that are designed for a production capacity of 5.5 million hl each (one of them expandable to 11 million hl) rely on GEA engineering know-how. The GEA scope of supply comprises innovative systems like CIP cleaning and components such as valves, pumps etc. (except for filtration, water deaeration and outdoor tanks), automation, installation material as well as installation and commissioning.

Commissioning is scheduled for October 2011.

State-of-the-art brewhouse plant ordered by OOO Agrofirma FAT in Vladikavkaz (Russian Federation)

OOO Agrofirma FAT placed an order with GEA Brewery Systems for the planning, manufacture and commissioning of a modern brewhouse plant with a production capacity of 240 hl hot finished wort. The brewery's requirements on GEA Brewery Systems were high, the new equipment should be put into operation within 8 months.

The scope of supply and services for the new brewhouse included malt handling, malt milling with the MILLSTAR™, mash tun kettle, Whirlpool and wort filtration with the LAUTERSTAR™ as well as low-pressure boiling with the JETSTAR™. The production equipment is controlled with our GEARBOXX™ automation solution.



Efficient CO₂ recovery.

In June 2011, the new production plant reached the requested capacity of 12 brews per day with excellent beer quality and replaced the former brewing equipment completely.

The brewery's expectations with regard to the GEARBOXTM automation system were more than met; the integration of further sections is already planned. The requested savings of raw materials, water and energy could be successfully proved in the plant acceptance test.

Energy recovery from CO₂ evaporation at Carlsberg Sverige AB in Falkenberg (Sweden)

The objective was an optimal utilization of the refrigeration energy produced during the evaporation of liquid CO₂ in order to support the existing refrigeration plant. The existing CO₂ evaporating station was extended by an additional prefabricated module from GEA Brewery Systems. This module allowed the connection to the central cooling medium system. A maximum evaporator capacity of 3,000 kg/h means a thermal relief of up to 250 kWh for the refrigeration plant. The investment pays off within short due to the resulting savings of electricity of up to 60 kWh for refrigeration in the central refrigeration plant.

AO Russkaja Pivovarennaja in Rjasan (Russian Federation) focuses on energy savings

The objective of the brewery's modernization program was to increase the number of brews to 10 brews per day and to work out a concept for efficient total evaporation (energy saving).

The scope of supply and services of GEA Brewery Systems included the conversion of the existing lauter tun to LAUTERSTARTM technology, upgrade of the existing wort kettle with the JETSTARTM internal boiler system as well as the integration of an energy storage system, consisting of wort heater, a vapour condenser and an energy storage tank. The lauter tun occupation time and the total evaporation rate were much lower than the requested values.



Imprint

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