



Engineering Excellence.

To find out more about the companies of GEA Group, see www.geagroup.com.

Process Engineering
Process Equipment
Mechanical Separation
Refrigeration

We keep quality in line.

drinktec
Go with the flow.



Get what you want

Whether you are looking for a reliable aseptic valve, a sensible blending station or your own pilot plant, you will get a matching solution.

Convincing performance

We are leaders at all stages from the initial planning to the after-sale service. Our concepts, designs and constructions concentrate on cost efficiency – concerning ingredients, energy and manpower.

Profit

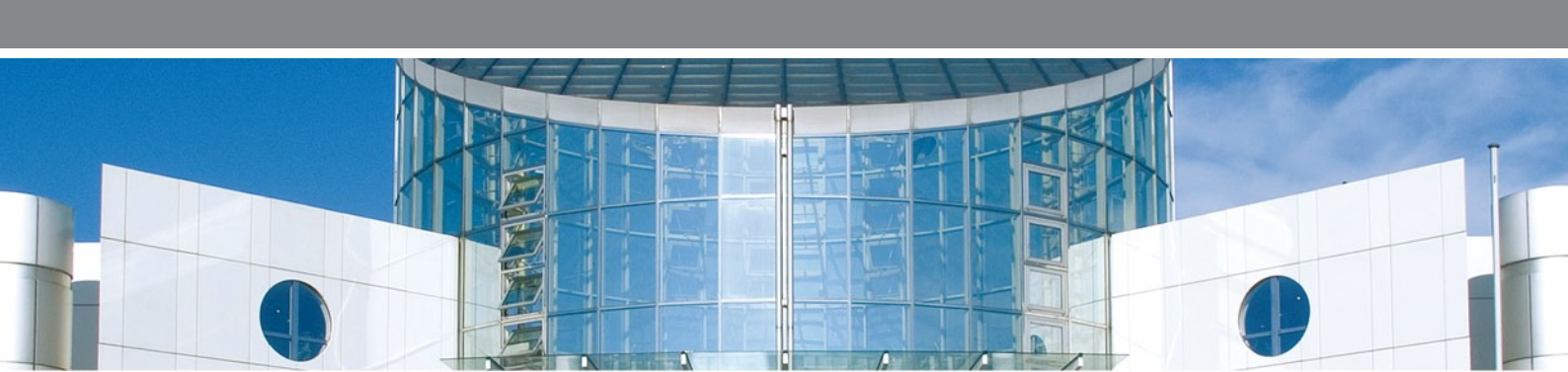
Expect everything from our customized engineering and process equipment competence, because we are consistently working consequently on optimal answers to your demands.

Make your choice

On the following pages we introduce all GEA brewery, beverage and liquid specialists to you. Make your choice and see for yourself. We look forward to meeting you.

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Welcome to GEA

The GEA Group, headquartered in Bochum, Germany, is a globally successful technology group with more than 250 companies in 50 countries. The company now focuses on specialty mechanical engineering – especially process engineering and equipment. GEA Group technologies are applied in the food, chemical and petrochemical industries, the energy sector, air treatment and shipbuilding as well as the pharmaceutical and cosmetic industries. The GEA Group is one of the world's market and technology leaders in 90 per cent of its businesses.

In 2008 the GEA Group employed more than 20,000 people who generated sales of EUR 5.0 billion.

Origin of great beers.™



Services:

- Engineering
- Complete plant projects
- Upgrades and expansions
- Plant maintenance and optimization
- Training and consulting
- Project management

Process Engineering

GEA Brewery Systems GmbH

Huppmann Tuchenhausen

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The competence centre for breweries all over the world

GEA Brewery Systems was formed by the merger of the two internationally renowned companies Huppmann and Tuchenhausen Brewery Systems. With the combination of hot and cold process area in one company, GEA Brewery Systems is a globally unique competence centre for brewery equipment.

We develop innovative solutions tailored to your specific economic and ecological requirements. Whether individual plant components or a complete greenfield project – our range of services includes everything from engineering, delivery and installation up to service and maintenance.

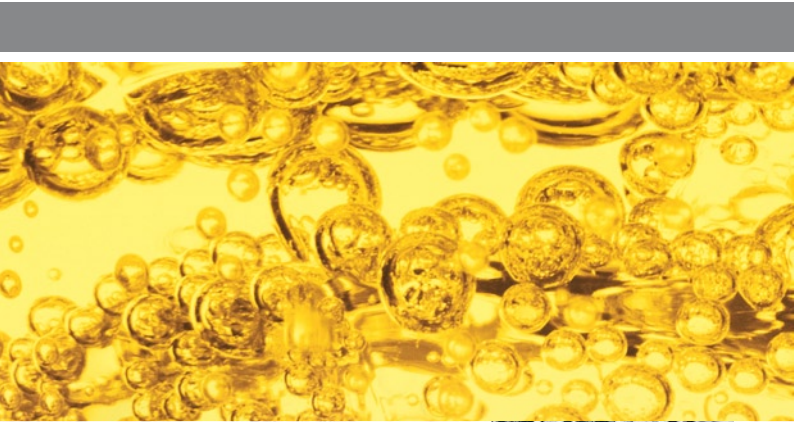
The competence and technology of GEA Brewery Systems have always been the basis for many great beers. In our projects, competent engineers and project managers ensure that your brewery will look and operate as you imagined it and that it will go on-line in due time.

Focus on sustainability

Every company has a great responsibility – for its customers, its employees and the environment. Therefore, GEA Brewery Systems puts the focus on future-oriented thinking and economic action. Sustainability plays a key role in our plants, our service and our customer relationships. This results in efficient solutions and long-term partnerships with our customers.

Delivery programme:

- Complete brewhouses
- Equipment for the cold process area
- Refrigeration plants and CO₂ recovery plants
- Process control and automation systems
- CIP systems



**Process plant
and modules**
for the production
of food and beverages



As one of the leading companies in the field of measurement and process technology we have specialized in metering liquids in flow.

Our core competence is metering, capturing, analyzing, mixing, controlling, monitoring, distributing, and cleaning. This specialized know-how can be found in the process systems which offer to the customer individual, tailor-made problem solutions.

We are your strong partner with our complete package of offered performances ranging from advisory service via planning, designing and manufacturing tasks up to the commissioning, documentation, and after sales service. Complete new processing lines for the manufacture of finished beverages and spirituous liquors are realized just from one supplier – from planning up to commissioning. For modernization purposes of sections only, preassembled and tested “process modules“ are offered which can be easily integrated into the existing production process.

Delivery programme:

- Softdrink Process Plant
- Spirits Process Plant
- Process Modules
- Batch Mixing
- Continuous Blending
- Mixing & Carbonation
- Carbonation of Beverages
- Water Deaeration
- Sugar Dissolving
- Intake or Upload of Product
- Cleaning
- Metering Systems DI-MOBIL
- In-line Analysing
- Flow Measurement
- Sampling

Process Engineering
GEA Diessel GmbH

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High Pressure Homogenizer Turning Technology into success



Leading Pressure

GEA Niro Soavi

Longer shelf life, better overall product performance, improved taste and nutritional properties: all the advantages in one piece of equipment.

Homogenization uses high pressure energy to break particles or droplets that are present in fluids to the smallest possible size (below 1 micron). This process creates a stable emulsion or dispersion by forcing the product through a specifically engineered homogenizing valve under high density fluid-dynamic energy conditions. Today, with thousands of machines operating all over the world, GEA Niro Soavi is the world leader for high pressure homogenizers and pumps, both in terms of technology and market. GEA Niro Soavi offers the highest number of customized solutions to the market, from small companies to leading international corporations, combined with the total reliability of all components. In order to guarantee excellent performance and duration over time, each machine is entirely designed, produced, assembled, and tested within GEA Niro Soavi premises in Parma by a full-cycle internal production process.

GEA Niro Soavi is presenting the most powerful and compact machine ever, able to achieve the largest flowrate with 5 pistons, thus optimizing the use of energy and saving cost.

Delivery programme:

- High pressure homogenizers: full range from laboratory to industrial models from 100 to 1500 bar working pressure
- High pressure pumps
- Spare parts delivered all over the world
- Machines updates and modifications

Process Equipment
GEA Niro Soavi S.p.A.

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Within the GEA Process Equipment Division of the international GEA Group, GEA PHE Systems is responsible for plate heat exchanger technology. Strong individual companies: GEA Ecoflex, GEA ViEX, GEA WTT, and GEA PHE Systems NA with production locations in Germany, the USA, Canada and India produce gasketed, fully welded and brazed plate heat exchangers for worldwide distribution, for use in almost all industrial applications.

GEA EcoServe – the GEA PHE Systems service organisation – operates customer service centres in many countries to provide a rapid and competent maintenance and spare parts service, all around the world.

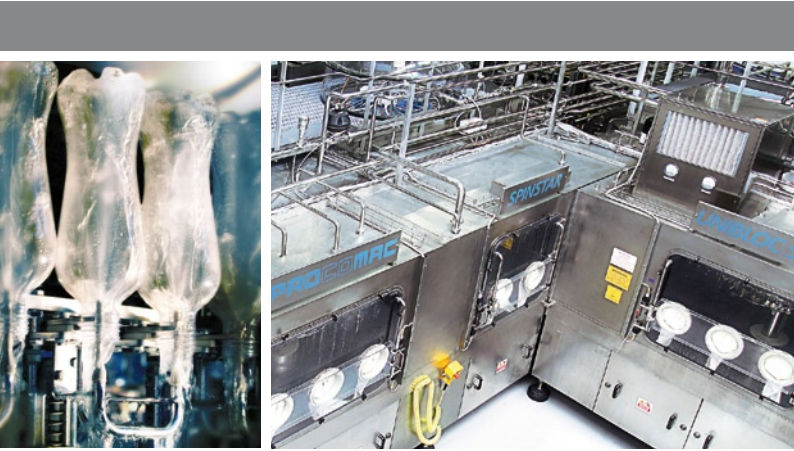
As one of the worldwide leading manufacturers of plate heat exchangers, we meet the need for the high quality required in the food industry together with innovative solutions for all applications.

Delivery programme:

- Gasketed plate heat exchangers
 - Varitherm
 - LWC
 - NT
 - Free Flow
 - Concitherm
- Brazed plate heat exchangers
- Fully welded plate heat exchangers
- After-Sales & Service for all brands of plate heat exchangers

Process Equipment GEA PHE Systems

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 Fax +49 2301 96297-29 · info@gea-ecoserve.de · www.gea-phe.com



Since 1979 GEA Procomac operates in the beverage, food and packaging sector and is a specialist for cutting-edge bottling and packaging technology.

GEA Procomac S.p.A. designs and manufactures complete aseptic filling lines for sensitive products such as juices, isotonic drinks, tea, milk-based beverages, and is leader for sensitive beverages filling, and generally can offer the best option for those markets that require a clean filling environment. It also designs and manufactures complete filling lines for water, carbonated soft drinks, milk, and hot fill lines for juices and tea.

At Drinktec the GEA Procomac stand is presenting a guided path through “INSIDE ASEPTIC”, which showcases the technologies for sterilizing containers and caps. A fifth generation of Unibloc Spin carousel with wet PAA (peracetic acid) sterilization system, which can reduce the total cost of ownership, will be on display, along with a carousel from the GEA Procomac VHP (vaporized hydrogen peroxide) sterilization technology. In addition, GEA Procomac presents the new “STERILBEAM” cap’s sterilizer unit going beyond the Chemical AGE, which uses energy-based technology. GEA Procomac Packaging, the packaging division of GEA Procomac, is showing POLARIS, its layer preparation system suitable for medium to high speed production.

Delivery programme:

- Complete aseptic filling lines
- Complete filling lines for water, soft drinks, milk
- Hot filling lines
- Rinsers, fillers, process units, conveyors
- Palletizer and depalletizer, robotized palletizers
- Line automation

Process Engineering
GEA Procomac S.p.A.

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Reliable solutions in industrial refrigeration



GEA Refrigeration

GEA Refrigeration, the refrigeration division of GEA Group, is the worldwide market leader in industrial refrigeration. The division offers its customers high-quality refrigeration systems and components to help facilitate their industrial operations.

GEA Refrigeration has a robust organization with a worldwide network of component manufacturers, installation and service companies and sales offices. The services offered by GEA Refrigeration cover the entire spectrum of refrigeration engineering: systems design, component manufacturing, installation, service & maintenance and commissioning. Customers of the refrigeration division operate in markets such as the food industry, chemical industries, storage and distribution as well as the maritime, public utilities and leisure sectors.

GEA Refrigeration has the proven expertise, technologies and personnel to develop solutions like installing refrigeration systems in breweries buildings mega cheese warehouses, freezing seafood, keeping gases in liquid form during ocean transport, controlling temperature in clean-rooms or building a skiing hall. All services are the result of a thorough understanding of the customer's needs and are based on continuous innovation in refrigeration engineering solutions.

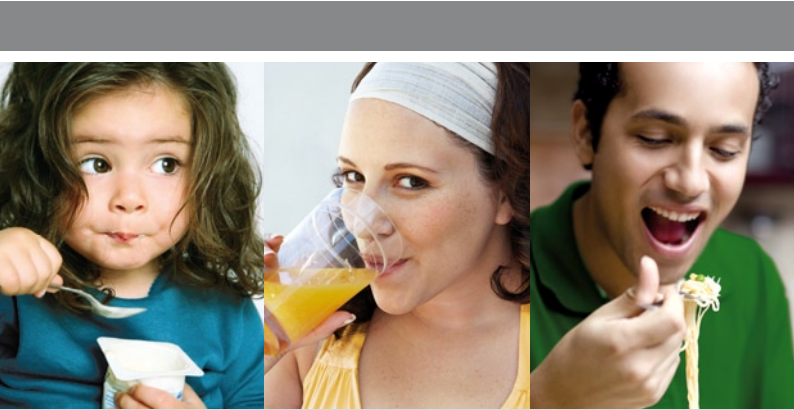
Delivery programme:

- Component manufacturing: compressors, coolers, condensers, (tunnel) freezers, valves and ice-machines
- Packaged systems: standard, semi-standard and custom-built packaged refrigeration systems
- Solutions and services for industrial refrigeration applications

www.gearefrigeration.com

Refrigeration
GEA Refrigeration

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www.gearefrigeration.com



Dialogue – the key to success

GEA TDS' success – as one of the world's leading suppliers of process technology for pumpable food – is a result of working closely with customers to develop efficient plants for every application.

Our company brings together wide ranging expertise in engineering, technology and automation. GEA TDS has 300 employees in total, among them about 160 process engineers – they are specialists in specific industries and are experienced consultants for individual plant concepts or detailed projects.

Whether in the dairy, fruit juice or food processing industry, their comprehensive know-how ensures that the customer's individual needs are met in the best possible way.

We encourage intensive communication with our partners from production and product development, as part of the professional consultation process, to achieve the optimum result. This is achieved through direct contact with the local site to obtain accurate information about the units, process lines or systems required.

Delivery programme for the dairy, food and fruit juice industries:

- Turnkey plants
- Process lines and process units
- Heat exchanger solutions
- Pasteurization units
- Aseptic processing
- Engineering, assembling and service
- Process automation and integration

 Innovative Engineering –
Quality in Line.

Process Engineering
GEA TDS GmbH

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We keep more than
liquids in motion!



Over the last 75 years our success has been no accident. We have worked hand-in-hand with our customers to maintain continuous product development that matches process needs and our customers' requirements. This investment has enabled us to produce technically advanced process components and services for smooth production. Whether you are processing milk, beer, beverages, pasty food or fine chemical products, what counts is the quality of the final product and the efficiency of the production line.

Our components are flexible so they can be adjusted to optimize process parameters and enable high productivity, efficient operation and a constantly high product quality. This is why we are one of the world's leading manufacturers of process components.

Throughout our history we have introduced well-engineered and technically mature product innovations to the market. Our research and development facility works in close cooperation with our product management people and our customers to create individual application solutions to meet specific needs.

Delivery programme:

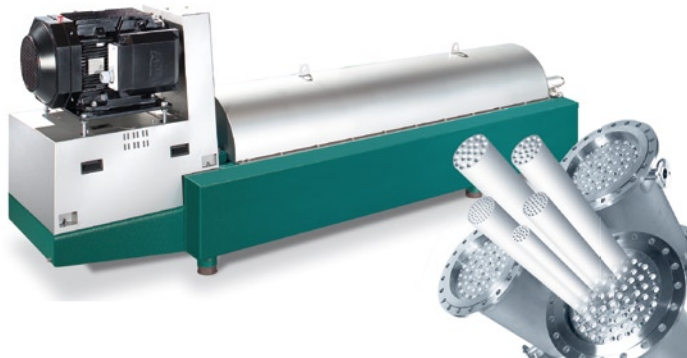
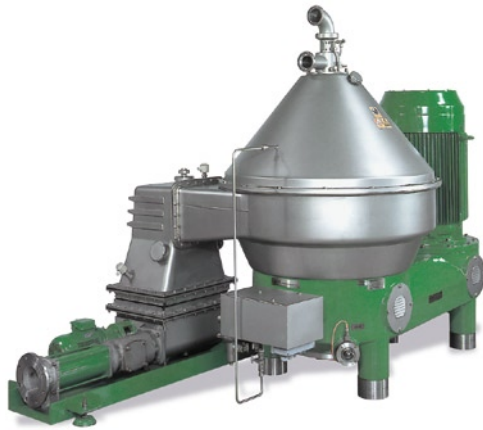
- VARIVENT® valves
- T-smart valves
- STERICOM® valves
- VESTA® sterile valves
- VARIFLOW® centrifugal pumps
- VARINLINE® in-line technology
- VARIPURE cleaning technology
- VARICOVER® product recovery systems

Process Equipment
GEA Tuchenhausen GmbH

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100 YEARS

Beer separation with GEA Westfalia Separator



Separation. Solution. Success.

Mechanical Separation

GEA Westfalia Separator GmbH

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ws.info@geagroup.com · www.westfalia-separator.com

GEA Westfalia Separator is the leading manufacturer for separating equipment in beverage, dairy, starch and fermentation technology and oils and fats recovery and processing. The centrifuges and filtration units and process lines from GEA Westfalia Separator cover the entire range of mechanical separation. Since the construction of the first milk centrifuge in 1893, the company has steadily evolved and developed new processes and products to boost the added value for customers. GEA Westfalia Separator stands for high economic benefit, innovative engineering and processing of small, medium and large volume streams. Our centrifuges and filtration installations also help to preserve resources and the environment by reducing energy and disposal costs while providing friendly service, reliability and durability.

Examples of delivery programme:

Separators, decanters, cross-flow filtration, process lines and equipment for:

- Beer filtration with **PROFI®**
- Beer recovery from tank bottoms
- Clarification of beer prior to kieselguhr filtration
- Cold wort clarification
- Green beer clarification
- Hot wort clarification
- Non-alcoholic beer
- Trub wort clarification
- Turbidity adjustment with centrifuges e.g. in wheat beer
- Production of Kwass and Sorghum beer
- Wine, sparkling wine and Champagne
- Premium juice from fruits, berries, vegetables and herbs
- Citrus processing
- Production of instant coffee, tea beverages and soy milk



Evaporation, distillation, membrane filtration

GEA Wiegand is a worldwide leading company for process technology. We are specialized in the concentration and separation of all types of liquid food, dealcoholization of beer and distillation of alcohol. Moreover, we deliver vacuum systems and gas cleaning plants based on jet pump technology.

Our scope of delivery starts with engineering and ends up with delivery and commissioning of complete plants just upon your request.

In our R&D Centre, laboratory facilities and pilot plants for fermentation, evaporation, distillation and membrane filtration are available for testing and analyses. Steam jet pumps are checked on a separate test bench.

You may contact us through our sales network with specialized engineers in more than 80 countries on every continent worldwide.

Delivery programme:

- Evaporation plants
- Distillation plants
- Membrane filtration units
- Complete processing plants for ethanol
- Jet pumps, heaters and mixers
- Steam jet vacuum pumps
- Steam jet cooling plants
- Gas scrubbing plants

Process Engineering
GEA Wiegand GmbH

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Position of companies

1. GEA Brewery Systems – Origin of great beers.™
2. GEA Diessel – Liquid processing
3. GEA Niro Soavi – Homogenization
4. GEA PHE Systems – Heat transfer
5. GEA Procomac – Complete aseptic and traditional filling lines
6. GEA Refrigeration – Reliable solutions
7. GEA TDS – Quality in line
8. GEA Tuchenhagen – Flow components
9. GEA Westfalia Separator – Mechanical separation
10. GEA Wiegand – Evaporation, distillation, membrane filtration

