



We keep more than liquids in motion:
GEA Tuchenhagen components

Process Equipment
GEA Tuchenhagen

Success by design ▼

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 pro-

cessing 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 onto 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.



Global service

▼ – local knowledge

With more than 250 companies throughout the world, the GEA Group focuses on special-purpose machinery manufacturing with special emphasis on process technology and components as well as plant engineering. We offer our products and services to a wide range of industries such as breweries and shipbuilding.

GEA Tuchenhausen is part of the GEA Process Equipment Division. As a member of the GEA Group we can draw on the engineering expertise and country-specific market experience of the entire network. As a result of this intensive know-how transfer we are able to improve our products continuously and drive innovation. This is part of GEA Tuchenhausen's strategy: keeping up with the market and anticipating trends.

We have production facilities in Büchen (Germany), Koszalin (Poland) and Shanghai (China).



Groundbreaking – yesterday,

▼ today and tomorrow

It was back in 1931 that Otto Tuchenhausen founded an engineering consultancy for new dairies and dairy conversions in Kiel. As early as in 1967, we introduced the very first double-seat valve in the world: an innovative way to allow the mixproof separation of liquid media.

Today, we have become a strong, progressive partner for new trends and production challenges. Our thinking and action is dedicated to the continuous improvement of process safety, hygiene and efficiency.

Our main emphasis continues to be on further specialization and product development. Our headquarters in Büchen revolves around a "state-of-the-art" manufacturing facility, it includes an experienced and talented product management team and a powerful research and development center with leading-edge equipment. The effective interaction and fine-meshed coordination between all departments enables us to continuously satisfy our demand for high quality – and to stay fit for the future.



Quality management

▼ at GEA Tuchenhagen

GEA Tuchenhagen is certified according to DIN EN 9001:2000, DIN EN 14001:1996 and with reference to OHSAS 18001:1999, which is used throughout our entire organization.

We comply with EC directive 97/23/EC, category II, module E1, as well as the ATEX directive 94/9/EC – a guarantee of the high quality and safety level of all GEA Tuchenhagen products. Our management system is regularly checked by Germanischer Lloyd, TÜV, Gost authority, PTB (the German national metrology institute providing scientific and technical services) and continuously audited by customers.



Technology on the road to success ▼

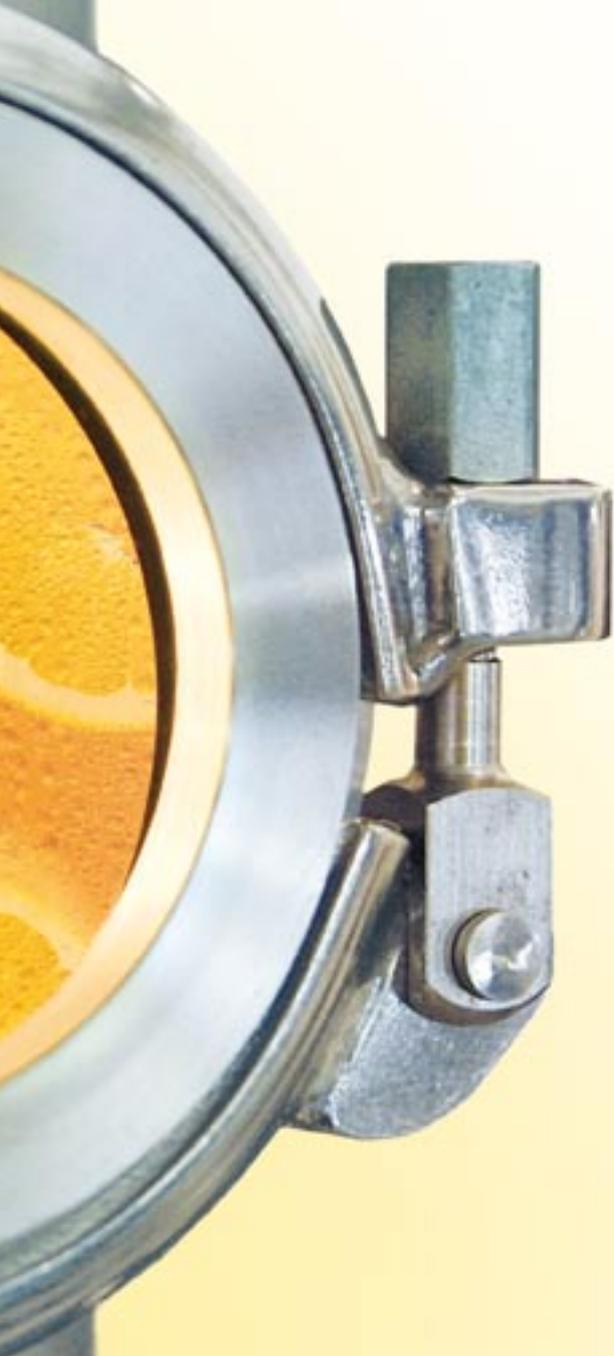
Spectacular market successes, such as in the USA, confirm that we are on the right path with our intensive research and development. With the PMO 24/7 Mixproof Valve™, GEA Tuchenhausen cleared the way for non-stop production for the milk processing industry in the USA in 2007. It was the first double-seat valve ever to receive approval by the US authorities allowing simultaneous processing and cleaning in US dairy plants. This has allowed our US customers to achieve an encouragingly fast ROI as a result of increased productivity.

Such success is great fun.





Refreshingly good – brewery industry ▼



Our components support automated processes for the production of specific recipes.

Sometimes a small design adjustment leads to dramatic progress; another time it could be a brilliant idea that leads to a new way of doing things. For example, positioning pipes and valves directly underneath the tank outlet, ECO-MATRIX®, for instance, enhances the quality of the final product. What was, at first, intended simply to improve the efficiency of the production process, also brought about improved taste stability and shelf life.



Setting the trend – beverage industry

Beverages are no longer just simple, basic foods. They build trends and are starting to claim cult status. Today, anything goes: exotic fruit juices, wellness products or fitness drinks, in numerous new variations and combinations, all mix into the market.

GEA Tuchenhagen is happy to play along and assist the beverage industry with key components that interact perfectly to blend ingredients into top-grade finished products.

This flexible, trend-setting approach has, for example, allowed the development of aseptic and sterile processes that comply with international standards: many of our components are 3A standard and EHEDG certified. By focusing on specific needs in this way we have been able to develop

products that are ready for series production and succeed in international markets, helping our customers make the best of every trend.



Absolutely healthy – the milk and food processing industry ▼

Awareness of a healthy, well-balanced diet is growing among the population. Apart from yogurts and spreads, more and more innovative milk products are filling shelves in supermarkets. This is possible only when the key production requirements of hygiene and product stability are achieved.

GEA Tuchenhausen has met this challenge. Our new developments are inspired by the ever-increasing demand for automation, safety and hygiene. One of the results of this dedication is the STERICOM® *LongLife* valve with particularly long-lasting metal bellows. This valve not only enables optimum hygiene and sterility but is gentle to the product too.

The VARICOVER® product recovery system is successful in a different way. It can be used to recover any type of liquid and highly viscous products from pipes.

All our components are highly flexible making them suitable for small and more complex applications in line with customers' needs.



Future-oriented – pharmaceuticals, biotechnology, fine chemicals, cosmetics and health care

The demands placed on the purity and the reproducible quality of raw materials and active ingredients, as well as on the finished products, have become increasingly stringent over the past few years. The manufacturing processes must be controllable, capable of validation, efficient and gentle on resources. Optimized plant concepts for increasing the productivity and safety of the plant are decisive in maintaining competitive advantage. This applies equally to medical therapeutics and the production of personal care or beauty products.

Excellent technical plant performance – contamination prevention, economic efficiency and cleanability – is crucial for competitive production. Modern process plants need highly developed components that interact reliably and efficiently. We supply a wide range of top-grade components specifically to allow plants to achieve these high levels of quality and productivity.

Product design and valve technology have been optimally adjusted to meet sterile requirements. At GEA Tuchenhausen we

make sure that all components contribute to boosting plant efficiency and to saving costs. We have, for instance, perfected bellows technology to heighten the reliability of production processes. The bellows in our VESTA® valve series give our customers the certainty that they are using a long-lasting and reliable product in an efficient system.

The Life Science sector improves the quality of our lives – we improve the technology that makes it possible.



GEA Tuchenhagen speaks many languages ▼

We have grown together with our customers: together in innovation, size and international presence. But to continue to satisfy our own performance expectations we keep close to our markets throughout the world by working with our plant engineers to develop individual process integration solutions. We know that the key to our success is to keep talking to our local engineering partners and customers and to fully understand the needs of each market, worldwide.



Culture of discussion

▼ – open-door philosophy

Close customer contact is critical for us, perhaps even more than our international market presence. No matter whether customers need technically sound consulting or a training course of several days' duration – we will be pleased to act as host. In our Tuchenhausen Innovation Center we regularly offer high-level, hands-on component workshops but also individual seminars tailored to customers' needs.

As well as our training courses, technical forums provide an opportunity for open professional communication and discussion with other experts about current market conditions and process requirements. Fruitful discussion takes top priority in all our events.



Clean solutions

▼ – our components in detail



Our components enable our customer's production processes to be carried out in a safe and high-quality manner. They form sound interfaces between plants and satisfy the highest hygiene and sterility requirements.

We supply our customers with easy-to-maintain and efficient process components for constant high quality under normal production conditions – that's our promise. Our products are designed and approved in accordance with international standards.

Valves

Our VARIVENT® valves are the core component in matrix-piped process plants. They are operationally reliable, easy to maintain and suitable for CIP/SIP operations. They contribute significantly to the highest product quality. The VARIVENT® system is a flexible, modular system that has many advantages: for instance standardized parts that go with various valve types. The result: cost-effectiveness for the plant owner, optimized stock-keeping, favorably-priced spare parts and low parts diversity.

Our valve program includes single-seat, divert, control and mixproof valves. Many of these valve types are EHEDG certified and meet the 3A standards.

For aseptic and sterile processes, our STERICOM® and VESTA® valve series offer perfect functionality. They are fitted with bellows that ensure hermetic sealing against the atmosphere.

Our T-smart valve series is designed for basic functions; it is favorably priced and designed for less complex tasks. This valve series includes butterfly, single-seat, divert and mixproof valves.

All of our valve series can be combined with T.VIS® control modules. They integrate our valves into automated process plants. In addition to the signals usually exchanged, a local LED display shows the status of the corresponding valve. Thanks to its modular design, the system can be adjusted to specific plant requirements – so that the customer only gets what is needed.

Pumps

Our non-self-priming and self-priming centrifugal pumps convey products efficiently and have excellent cleaning properties. They keep the media in motion and are gentle on the product.

Cleaning devices

VARIPURE cleaning devices – static, rotating and orbital – have proved their worth in various sectors of industry with optimum results. By working with our customers we are able to develop the most appropriate cleaning system for each application.



Product recovery

Our VARICOVER® product recovery systems are used in all sectors of industry. They are used to recover valuable products from pipes. Piggable components are used in the pig launching and receiving stations as well as in the entire system. Energy and detergent consumption and waste water costs are reduced considerably with corresponding savings in production costs.

Measurement and control equipment

VARINLINE® units monitor and safeguard our customers' processes. Their core element is the long-proven VARIVENT® access unit, into which we install the required sensors making full use of the space available. This makes it easy for customers to keep an eye on their product.

Expansion compensators

VARICOMP® is our answer to expansion compensation required in fully welded valve units and pipe systems. The design principle has impressive hygienic features, satisfies the requirements for optimum CIP/SIP processes, and is EHEDG approved.

Tank protection

VARITOP® is used for the protection and cleaning of pressurized process tanks. It satisfies the highest demands placed on cleaning, CIP/gas management, functionality and reliability with just one central connection.

Pre-assembly – completes the package

On request, we can pre-assemble components for process plants: valve clusters, flow panels, pipe fences and CIP systems. We meet the specified quality standards and employ specially trained and certified personnel. We keep the number of weld seams low, keep records and analyze each step of the manufacturing process.

Service – safety on top

Our efficient, individual maintenance service for process plants makes certain that the performance and reliability of our components are maintained throughout their service life. Our service packages, finely tuned to the customers' requirements, ensure fault-free operation and help to optimize operating costs.

GEA Tuchenhausen offers individual service packages comprising preventative maintenance, regular inspections, customer-specific maintenance cycles and much more to ensure fault-free and reliable operation and to keep plants up and running.

We take maintenance seriously and tune our services to meet the specific needs of each facility. In this way we ensure the long service life of our components and help our customers to comply with all appropriate legal requirements.



Leave nothing to chance. To make a successful product everything must be just right, from the recipe to the filling process. GEA Tuchenhagen customers know they have components that have been developed with them in mind.

Components they can trust. Quality without compromise.



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